

**“An investigation of Malta’s evolution
in global value chains and the
implications for sustainable
development”**

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**“An investigation of Malta’s evolution in global value chains and
the implications for sustainable development”**

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ABSTRACT

This research presents an investigation into the development of FDI manufacturing companies and the business of their logistics partners within a host economy state and the evolvement of the host economy state itself. The gathered data provided information to satisfy the aim of this study to understand what makes a host state attractive to multinational enterprises in their global value chains, the state's development policy and the implications for sustainable development, the so-called 'triple bottom line' of economy, society and environment. To accomplish this task, a range of literature is evaluated to acquire a foundation of knowledge and to explore possible extant scholarship on the investigated elements within this study. This exploratory research is underpinned by an interpretive epistemology and a qualitative case study approach with a plan to collect and analyse evidence (Flick, 2009).

The research was conducted in Malta. Open-ended interviews were held with high ranking representatives of FDI case study companies and logistics service providers; and with key informants within government and non-government institutions and agencies and academia at the national level. All participants' responses provide experiences and perceptions representing their everyday context and the real-life situations of their practices, policies and interactions, with implications for sustainability. The provided primary data were collected between 2017 and 2018. Emerging topics from the data at every stage have been discussed with the participants.

This research is a longitudinal study, including a historical background for the underlying and developmental aspects and highlights implications for global value chain policies, regional development policies, sustainable economic growth, institutionalism and co-evolution, providing a contribution to theory and practice.

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GLOSSARY

- 3Ps - People, Planet and Profit
- 3PL - Third-party Logistics
- AI - Artificial Intelligence
- BOV - Bank of Valletta
- CBA - cost-benefit-analysis
- CEO - Chief Executive Officer
- DC - Distribution Centre
- e-ID - Electronic Identity
- ERDF - European Regional Development Fund
- EU - European Union
- FDI - Foreign Direct Investment
- FSA - Firm-specific Advantage
- GCC - Global Commodity Chain
- GDP - Gross Domestic Product
- GVC - Global Value Chain
- HRM - Human Resources Management
- HQ - Head Quarters
- ICCSD - Institute of Climate Change and Sustainable Development
- IMF - International Monetary Fund
- IT - Information Technology
- ITS - Institute of Tourism Studies
- JIT - Just in Time
- MCCEI - The Malta Chamber of Commerce, Enterprise and Industry
- MIA - Malta International Airport
- MNE - Multi-national Enterprise
- MLSP - Malta Life Sciences Park
- MTA - Malta Tourism Authority
- NSO - National Statistics Office
- OECD - Organisation for Economic Co-operation and Development
- OLI - Ownership, Location and Internalisation
- OPM - Office of the Prime Minister
- PCB - Printed Circuit Board

RBV - Resource Based View
R&D - Research and Development
SC - Supply Chain
TBL - Triple Bottom Line
TEU - Twenty Foot Equivalent Unit
UK - United Kingdom
UNEP - United Nations Environment Programme
US - United States
VAT - Value-added Tax
VSR - Variation, Selection and Retention
WCED - World Commission on Environment and Development
WEF - World Economic Forum

CHAPTER 1: INTRODUCTION

This chapter explains why the research was carried out. It clarifies the focus of the study and outlines the structure of the thesis.

1.1 Background to the Research

The globalisation of political, economic, cultural and social ideas and actions has been the key trend of the last few decades (Brooks et al., 2010). Many commentators postulate that we live in an age of what Dicken (2011) terms ‘hyper-globalisation’, where multinational firms, with no allegiance to place, locate their operations in a world without borders (Friedman, 2005). This political and economic process has resulted in a ‘deep integration’ of national economies facilitated by global flows of capital and organised primarily within and between geographically extensive and complex global supply chains (Dicken, 2011), accompanied by a mass immigration of people. It is within the above context that Dicken (2011) makes the assertion that globalisation is not the result of a single transformative process, but is a “syndrome of processes and activities” (Mittelman, 2000, p. 4). Indeed, Jessop (2002) defines globalisation as a “.... supercomplex series of multicentric, multiscalar, multitemporal, multiform and muticausal processes” (pp. 113-14). Dicken (2011) urges that a study of globalisation (and by implication global supply chains) should focus on “.... the qualitative transformation of economic relationships across geographical space” (p. 7), with ‘qualitative transformation’ indicating an element of value. This thought brings the studied optimisation of supply chains and their increasingly international dispersion towards the more recent concept of global value chain activities.

At this point a clarification is deemed necessary about the interchangeability between ‘supply chains’ and ‘global value chains’ applied within this research. Whereas a supply chain is based upon manufacturing and distribution-related processes, involving planning and physical aspects, basically operations, a value chain covers the full range of activities involved in the conception to the end use and beyond of a product, good or service, including design, production, marketing, distribution and support to the final consumer, all adding value to a product. It is being considered that both concepts are made up of networking of organisations involved in ‘different processes and activities’ to bring a product, good or service ‘from its conception to end

use and beyond' and which nowadays happens on an international level within a global scale.

Christopher (2011) provides the following definition of a supply chain:

"The supply chain is the network of organisations that are involved, through upstream and downstream linkages, in the different processes and activities that produce value in the form of products and services in the hands of the ultimate consumer" (p. 13).

Gereffi and Fernandez-Stark (2011) provide a simple definition of a global value chain as being "the full range of activities that firms and workers perform to bring a product from its conception to end use and beyond" (p. 4), and which are carried out on a global scale by one or more firms, on an intra and inter firm collaboration. A value chain would include activities like design, production, marketing, distribution and support to the final consumer.

Additionally, Sturgeon (2013) gives a working definition of economic globalisation as follows, while explaining that it includes the flow of products, goods and services (intermediate and final) and investment, the equity and ownership ties and channels of control and information exchange that enable and structure these flows:

"The inward and outward flow of goods, services, and investment across national borders, along with the functions — including functions related to innovation — that enterprises and organizations use to set up, support, and manage these flows" (p. 9).

These thoughts take us to the field of economic geography which deals with locational choices of firms for their foreign investment and division and placement of their supply chain operations in global value chains optimisation strategies (Rugman and Verbeke, 2004; Ascani et al., 2016; Johns and Wellhausen, 2016; Verbeke and Kano, 2016). In the field of economic geography, the said networking of organisations is considered to be made up of multiple firms and workers connected by several activities across geographic spaces, regional and global (Amin and Thrift, 1992; Castells, 1996; Malecki and Tootle, 1997; Dicken and Malmerg, 2001; Staber, 2001; Bebbington, 2003), to deliver 'a product, good or service up to end use and beyond'. These global value chains have indeed evolved from traditional home base-export market-offshoring models to globally-networked socio-economic structures.

Supply chain optimisation and global value chain activities also affect regional economies and smaller economy states, as is the case with the island of Malta. Historically, Malta has occupied a strategically important location at the heart of the Mediterranean Sea and continues to do so today. Malta is attracting significant levels of FDI, has invested in new physical infrastructure (mainly due to considerable levels of EU funding), and continues to develop its pool of skilled labour, IT infrastructure and financial services provision. Malta is engaged in the development of what may be termed a 'strategy of smart specialisation', involving electronics, pharmaceuticals and logistics, aviation services, financial services, and information technology services amongst others, representing the type of high value industries likely to benefit a small island economy (Chand, 2004; Read, 2004; Georghiou et al., 2014).

For small economy states like Malta, the benefits of participating in the global value chain are considerable in terms of opportunities for job diversification, upgraded and specialised skill sets, social welfare growth, greater institutionalised sovereignty and enhanced international profile (Armstrong and Read, 2000, 2002; Waters, 2001; Ocampo, 2002; Chand, 2004; Georghiou et al., 2014). Regional economies not only compete with other regional economies to attract foreign direct investment (FDI); they compete to develop intellectual capital, attract entrepreneurs, skilled workers and political interest; they compete to develop as 'growth centres' (Hirschman, 1988).

Within the deep international integration that has emerged during the last half century or so, in which firms and regional economies are integrated into the global flow of capital and may be perceived as local networks existing within a 'network of networks' (as Castells, 1996, defines the global economy), they do compete to claim a share of the economic benefits. Both the multinational firms (and their FDIs) and the host economy state have a certain degree of self-establishment, depending upon their size, power and circumstantial collaboration which allow their degree of institutionalisation (Pipkin and Fuentes, 2017; Khan et al., 2018). At the same time, they are both evolving, in their separate ways or in their respective time pattern, yet still co-evolving in a gradual trajectory, since they both depend upon or possibly influence each other. In the process, the notion of 'sceptical internationalism' could be possibly involved, indicating an underlying tension between multinational firms, intent on unfettered

global trade, and regional economies competing with other regional economies to safeguard jobs and increase local economic output (Hirst et al., 2009).

Within the context of competitive regional development, the resulting impact on the locality is a critical consideration. Authors advocate the necessity to safeguard against depletion of natural resources and damage to the planet and its atmosphere to avoid extinction (Elkington, 1999), while keeping track on the ways that the lives of people are improved (Savitz and Weber, 2006) through elements like education and jobs, adequate working conditions, a clean and safe atmosphere and economic success which also contributes to organisations' own reputational benefit (Tschopp, 2003; Kearney, 2009; Sierra and Gimenez, 2012; Sridhar, 2012; Wirttenberg, 2012). There is increasing pressure for all economic actors (e.g. multinational firms, governments, non-government organisations (infrastructure providers) to take "goals from all three dimensions of sustainable development...into account" (Seuring and Mueller, 2008, p. 1700) - the so-called 'triple bottom line' (TBL) of economy, society and environment. Thus, all the benefits and costs of regional development should be actively measured to determine the success of a development strategy, in terms of sustainability.

Therefore, this research was carried out to explore and understand the role of location within a global value chain, and how this role may evolve over time, especially for a small regional economy, such as Malta (as compared to bigger regional economies). Yet, as Christopher Leidl, President of the European Chambers of Commerce and Industry (EUROCHAMBRES) states: "What matters is not the size of the country but the ideas coming out of it" (maltachamber.org.mt, 2019b). Furthermore, there is limited research conducted in development strategy with the impact on 'triple bottom line' within state and regional economies. This research seeks to fill that gap.

1.2 Research Focus

What has triggered this research is the supply chain and logistics activity within the island of Malta and with which the author is familiar (being a practitioner). It is out of curiosity and interest about 'what goes on' and 'its effects on sustainability' that this research was undertaken. Therefore, the main motivation behind this research is to look at FDI companies that have been located in Malta for a significant period of time, at the institutional arrangements of that place, what changes could have taken place

during both parties' evolvement, and to see the implications of how sustainable these changes could be for the future.

The aim of this research is to understand what makes an economy state or region attractive to multinational enterprises in their global value chain optimisation and investment strategies and decisions, the host country's evolvement within this context and how its sustainability aspects are impacted. This aim will be satisfied through achieving the following three research objectives:

- To identify and assess the factors that impact on the attractiveness of Malta to foreign direct investors in the manufacturing sector, seeking to optimise their global value chains.
- To understand the drivers of Malta's regional development policy.
- To consider the implications for the triple bottom line of economic, environmental and societal sustainability, in particular, environment and society.

In deciding on a research design to achieve the above aim and objectives, it was decided by the researcher and his doctoral supervisory team that an exploratory case study would be the best approach to delve into the complexities of the practices and policies of both the FDI companies within the context of their MNEs and also those of the institutions in Malta, and their interactions. The unit of analysis had to be of a sufficient scale to provide the depth and richness of information to adequately understand the perceptions and responses of the involved parties in a 'real-world' situation. Basically, it was necessary to study 'both sides of the coin'.

Malta as a location, with its small size and highly interconnected society contributed to the feasibility of this research. Accessibility to all respondents was thus available in a small network of people and assets, with which the author is familiar through work-experience and subsequently gained knowledge, regarding both the FDI case studies (in manufacturing, being the author's work sector) and also about the evolvement of Malta in the global value chain.

This provided an opportunity to carry out this research, for better understanding, within a cross-section of corporate global value chains that had operated in Malta for a considerable period of time, namely case study FDI manufacturing companies, who have been in Malta for two decades or more, and logistics service providers on the Island, considered as legitimate partners to the Companies, in the first instance being very close to the FDI companies, due to the operational proximity, within their networks of practice (Tagliaventi and Mattarelli, 2006). This even allowed the mapping of trajectories of the FDI companies' evolution. Accessibility also gave an opportunity to approach and engage in this research, key informants from governmental and non-government institutions and agencies of a national level in Malta, and academia, such as the Central Bank of Malta, Malta Enterprise and the University of Malta, all representing the host economy state and contribute towards policy making and education at a national level. The responses fed the various stages of data collection, in a context of participative qualitative research, with a focus and a resulting involvement that made a longitudinal study possible.

Prior to the aforementioned interviews and meetings, themes from extant literature were derived. These themes helped to justify further study and forming its portfolio and the research questions. With the purpose to build a holistic research, the collection of data happened in a progression manner, within a project and from different sources, and also contributed towards triangulation (Easterby-Smith et al., 2002). Further literature was reviewed along the process, which made the study even more interesting, since other fields were reviewed, enhancing the researcher's knowledge.

This observational study employs the analysis of data collected from representative groups within a wider population over a period of time, while connecting the outcomes between the participating groups, and providing an opportunity for deeper reflection and interpretive analysis. This is done within an environment where the FDI companies', the logistics service providers' and the host country's activities, policies and strategies (coming from the national institutions and academia) could all be affected through their activities and interactions, while the findings from the respondents also reflected on the effects on social well-being and the environment.

1.3 Structure of the Thesis

The thesis is divided into eight chapters. The structure for the remaining seven chapters is as follows:

Chapter 2: Literature Review: Treats several literature themes that are relevant to the nature of the study, namely Global Value Chains, Foreign Direct Investment, Regional Economic Development, Institutionalism, Co-Evolution and Regional Sustainability.

Chapter 3: Research Methodology: Describes the employed research methodology, states its philosophical underpinning and explains the data collection and analysis.

Chapter 4: Findings 1: Presents case study findings from meetings with participating focal FDI manufacturing companies located in Malta.

Chapter 5: Findings 2: Presents findings from meetings with logistics service providers in Malta, who are also partners to the participating FDI companies mentioned in Chapter 4 and who operate on an even wider scale within the Island and beyond.

Chapter 6: Findings 3: Presents findings from meetings with key informants, including government and non-government agencies, institutions and academia.

Chapter 7: Discussion: This chapter synthesises and discusses the findings in terms of the evolution of the case study companies, the evolution of Malta within the same time frame, the sustainability of the current development trajectory, and the resulting policy implications.

Chapter 8: Conclusions: The final chapter of the thesis presents an overview of the study and demonstrates how the aims and objectives were fulfilled. It summarises the respective contributions to theory and practice, while suggesting ideas for further study.

Conclusion

This chapter discussed the background of this study by providing an introduction to the nature of the study and its context. It then highlights the research aim and objectives pursued in the study, followed by an overview of how the research was developed in a case study context. The overall approach followed in the thesis is outlined, followed by a summary of the structure of the thesis. The next chapter discusses the literature review undertaken to develop this thesis.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter provides an extensive review of existing literature around topics considered as fundamental to this study. The literature review used a search-term and citation searching approach through extant theory as outlined in the introduction chapter. Theoretical foundations and their foundational premises are gathered and discussed, attempting to capture 'older' and 'more recent' literature as much as it is possible, giving a historical background to the reviewed literature topics. Literature that varies across different fields and yet closely related was explored to lay the foundation for ensuring that the thesis is not only relevant but also academically valid. Literature on supply chain optimisation, global value chains and their activities in host economy states and regions is quoted from across various academic journals and other publications. These fields of study provided a pre-study literature background as well as the initial literature scoping.

A better understanding of the literature themes emerged during the initial stages of data collection in the study, and indicated the need to delve into further related areas of study in an attempt to satisfy the multi-dimensional nature of this research. The subsequent literature domains reviewed are Foreign Direct Investment, Regional Development, Institutionalism, Co-evolution and Sustainability which have been revised and updated up to the late stages of finishing the writing of this PhD thesis.

2.2 Location Choices in Global Value Chains

2.2.1 Global Value Chains

Global trade and production have in recent decades become structured around what are known as 'Global Value Chains' (Sturgeon, 2013; Hernandez et al., 2014). The term 'value chain' describes the full range of activities required to bring a product or service from conception through the different stages of production, to delivery to final customers (Kaplinsky and Morris, 2001; Gereffi and Fernandez-Stark, 2011). The global value chain (GVC) literature tends to focus on business functions (Hernandez et al., 2014). In the economic development literature, the term 'value chain' is preferred to the term 'supply chain', implying an element of innovation to increase value added

(Porter, 1990; Gereffi and Korzeniewicz, 1994; Kaplinsky, 2000; Humphrey and Schmitz, 2002a). This is because the term supply chain emphasises the manufacturing and distribution-related steps, whereas a value chain also highlights the importance of other activities, such as design and branding that add value to a product, but not necessarily reflect its physical transformation (Elms and Low, 2013; UNCTAD, 2015). At a fundamental level a GVC may be envisaged as four sequential stages or sets of activities; (i) research design and product development, inputs (i.e. sourcing), (ii) production, (iii) marketing, sales, distribution and (iv) after-sales service (Gereffi and Fernandez-Stark, 2011). Most trade (between activity actors) in intermediate inputs and production of final goods takes place in the supply chain stages (ii) and (iii), whilst (typically), the most value is created in stages (i) and (iv) (globalvaluechains.org, 2011; Sturgeon, 2013). These activities can be performed within the same firm or divided between different firms (Hernandez et al., 2014). In the GVC literature the trade in intermediate inputs is influenced by units of specialisation based on specific worker group activities or tasks. Tasks can be outsourced, and their offshoring becomes a 'trade in tasks' (Grossman and Rossi-Hansberg, 2006).

The global value chain (GVC) concept emerged in the early 2000s to explain how supply chains are governed in transnational networks linking, which chains connect manufacturers and consumers to producers in advanced industrial economies (and in developing economies) (Gereffi, 1994; Pipkin and Fuentes, 2017; Turkina and Van Assche, 2018). This concept in turn emerged from studies of global commodity chains (GCC) (Gereffi, 1994). The generally accepted definition of a GCC is "a network of labour and production processes whose end result is a finished commodity" (Hopkins and Wallerstein, 1986, p.159) and "... they are constituted as a linear series of nodes linking raw material supply locations to the final markets" (Gereffi et al., 1994, p. 2). However, there is more than one type of GCC. There are 'producer-driven commodity chains' and 'buyer-driven commodity chains' (Gereffi, 1994). Producer-driven commodity chains are associated with those industries with high entry barriers, such as automotive, where, for example, Toyota has complete control over the manufacturing and distribution processes and tightly controls component suppliers. Buyer-driven commodity chains are associated with industries that have low entry barriers, maturity stage production technology and low requirement for fixed capital, such as clothing, where it is increasingly more common for manufacturers to respond to retailers. This

distinction relates primarily to the governance of (and power within) commodity chains (Gereffi and Korzeniewicz, 1994; Gereffi, 1999, 2018).

However, the emphasis of the GCC concept was on commodities with little emphasis on innovation. Furthermore, the distinction between producer-driven commodity chains and buyer-driven commodity chains is often blurred as lead firms may use a mix of governance strategies (Gereffi and Korzeniewicz, 1994; Gereffi, 1999, 2018; Raikes et al., 2000; Bair, 2009). According to Sturgeon et al. (2008), such governance strategies are not exclusive to any particular firms or industries. Recognition of this complexity led to the development of the global value chain concept to provide a more nuanced distinction between different types of producer and buyer driven chains (Humphrey and Schmitz, 2000, 2002a). Gereffi et al. (1994) argue that the mode of governance within a GVC is not determined by the 'commodity' (or product) per se, but instead by the nature of supplier-buyer relationships within the context of 'the geography of transactions', and by the technological (and innovatory) capabilities of suppliers. Thus, the GVC concept, with its emphasis on inter-firm relationships, technological innovation and the spatial configuration of networks in international markets, is a key theoretical framework underpinning the general conceptualisation of global supply chains (Kano et al., 2020).

According to Sturgeon (2013) value chains "...are filled with iterative work, consisting of feedback loops where 'drafts' of products and projects are created, reviewed and altered over time" (p. 11). In other words, global value chains may be perceived as networks of social constructs made up of multiple elements, such as focal companies, product designers, test facilities, suppliers, customers, terminals, hubs, consolidation centres, warehouses, retailers, transporters and logistics service providers (Abbasi, 2012; Sheffi, 2012a). It is no surprise that the focus on value chain optimisation has shifted from a preoccupation with 'focal firms' (Weber, 1929) to an interest in the dynamics of global networks (Malik et al., 2011; Hammami and Frein, 2013; Stank et al., 2014; McGee et al., 2015). The GVC concept may, therefore, provide a useful basis for thinking about supply chain optimisation, which fundamentally may focus on the increasing returns of nodes (locations) within a spatially distributed network, and lead to increasing returns of the network (GVC) as a whole.

In the field of economic geography, networks are conceptualised as socio-economic structures whereby people, firms and places are connected, while facilitating the flow of knowledge, capital and commodities within and between regions. Geographers have studied the form, function and influence of networks at two scales: regional (Amin and Thrift, 1992; Malecki and Tootle, 1997; Staber, 2001) and global (Castells, 1996; Dicken and Malmerg, 2001; Bebbington, 2003). In the regional context, research focuses on the contribution of networks to agglomeration economics and cluster formation (Humphrey and Schmitz, 2000, 2002b; Coe et al., 2004; Sturgeon et al., 2008; Turkina and Van Assche, 2018), which may well contribute towards eventual regional development (beyond the local and national). Some commentators (Amin and Thrift, 1992; Markusen, 1996) have criticised scholars' concern with the 'local' in the debate about industrial clusters, and instead emphasise on how global networks could sustain clusters. Markusen (1996) proposed hub-and-spoke industrial clusters, which gather local strengths and external linkages. Amin and Thrift (1992) called them 'Neo-Marshallian nodes', which serve as centres of social interactions in a global network, and is arguably a good metaphor for transnational logistics hubs. These said nodes continue to exist because of their multiple roles; and possess a capacity to leverage a local knowledge base to increase returns and their ability to be open to firms outside the cluster. For Castells (1996), the global economy is a 'network of networks' where the most productive and competitive places and regions are identified through the creation of information, access and application. This recalls the element of regional disparity (Ricardo, 1817; Combes et al., 2008; OECD, 2018; Iammarino et al., 2017), which in the ever increasing global shift of economy (Dicken, 2011), still persists (Iammarino et al., 2017).

2.2.2 Industrial Location Theory

The roots of value chain optimisation can be found in industrial location theory. Industrial location theory developed from a desire by economic theorists to "...develop a generalisable framework that would explain why certain activities are located where they are," (Aoyama et al., 2011, p. 75). Weber (1929) began the tradition of what is known as low-cost location theory, which aims to identify the cheapest location for production. Some of the principles of his theory still remain valid today and help explain why firms locate their operations where they do (Holland, 1976). Weber (1929) also acknowledged the presence of agglomeration economies (i.e. cost savings achieved

from close proximity with other Plants) that may come from sharing common resources, such as a specialised labour pool. However, Weber's theory had several weaknesses (not least an assumption of stable demand and fixed labour pools) and a focus on single establishment organisations. Another weakness lies in the fundamental assumption that managerial agents (of, for example, GVCs) are rational actors who seek to maximise economic gain, and whose actions are not affected by social and cultural factors (Storper, 1997; Beer et al., 2003; Scott and Storper, 2003; Hague et al., 2011). Whilst this assumption allowed economists to isolate and model the effects of transport, labour and other intermediate factor costs, the outcomes of their models are unrealistic – other factors (as discussed in Sections 2.4 and 2.5) have a significant impact (Morgan, 2004a; Pike et al., 2007; Jackson, 2009; Mulligan and Carruthers, 2011; Perrons, 2011; Burchi and Gnesi, 2013;).

Weber's ideas were extended by Losch (1954), who synthesised the basic principles to define the concept of optimum locations. Losch defined optimum locations as points where total revenue exceeds total cost at the largest value, while each producer also maximises its market area (which may be local, regional or transnational). Location theory in its most quantitative application (and which forms the basis of modern facility location algorithms used today in supply chain modelling software packages) emerged in the 1950s and 1960s. Industrial location theory (initially an output of economic geography) was noticed by the upcoming operational research domain, and several scholars came up with single-facility and multi-facility models (Kuhn and Kuenne, 1962; Hoover, 1967).

There are at least two extensions of location theory:

Firstly, international trade theorists, such as Paul Krugman (awarded a Nobel Prize for reintroducing the 'space' concept into mainstream economics, have combined trade and location theory. Krugman's (1991) main contribution was about increasing returns as a spatial result. In short, some locations are more attractive to investors than others because they have greater increasing returns than other comparable locations. Increasing returns in this context is where a proportional increase in output is proportionally higher than relative increase in inputs. Krugman viewed increasing returns as a cause of specialisation, subsequently affecting patterns of trade and locations of industries (e.g. pharmaceuticals and watch making in Switzerland,

electronics manufacturing in China, etc.). Krugman (1991) argued that to understand international trade it is necessary to understand the processes leading to a local or regional concentration of production. In doing so, he drew on a range of geographical ideas from Marshallian agglomeration (Marshall, 1925), through classical location theory to the notions 'cumulative causation' and 'regional specialisation' (Amin and Thrift, 1992; Harrison et al., 1996; Venables, 2004; Bathelt, 2005; Storper, 2009). Another way of thinking about this is quite simplistic: the longer you do something, then with the right inputs, the more efficient you become. Increasing returns is a generalised measure of such efficiency gains. Furthermore, the more efficient a location is, the more likely it is to attract new entrants into its particular specialism (e.g. pharmaceuticals), with a resulting improvement in the quality of inputs – which is an agglomeration effect. Here the prime focus is on the efficiency of a location. Krugman's work had significant implications for regional economic development theory (Martin and Sunley, 2016).

The second, related, extension of location theory relates to studies of patterns of foreign direct investment (FDI) and locational choices of multi-national enterprises (MNEs) (Kelly, 1999; Bridge, 2002; Bhagwati, 2004; Dicken, 2004). Labour is considered as significant, not only in relation to wages and quantity, but also to skills and quality (Asheim and Coenen, 2005; Storper, 2009). Arguably, today, MNEs increasingly follow workers, particularly high-skilled workers. Moreover, such workers are attracted to locations that offer 'amenity', that is those locations with favourable factors like climate, culture, leisure opportunities, in addition to employment (Moretti, 2004; Berry and Glaeser, 2005; Falck et al., 2011; Brown and Scott, 2012). Here the key focus is on the attractiveness of a location, particularly in its capacity to create jobs and grow a skilled labour pool. Furthermore, urban amenities are considered as important drivers of regional growth (Glaeser et al., 2001; Duranton and Puga, 2004; Rosenthal and Strange, 2008). FDI is discussed in more detail in Section 2.3 below.

2.2.3 Locational Agglomerations and Externalities

Locational agglomerations could be considered as the result of industrial clusters which are geographic concentrations of economic activities (Humphrey and Schmitz, 2002b; Rugman and Verbeke, 2004; Turkina and Van Assche, 2018), and which Venables (2004) calls 'agglomeration economies'. Understanding cluster organisation

and dynamics first requires a discussion of the microeconomic factors that lead to the co-location of actors and the resulting uneven spatial distribution of economic activities (Aoyama et al., 2011). The denominator of these approaches lies in the existence of different location externalities (i.e. untraded interdependencies). The key idea is that co-location benefits do not depend only on pure market interactions but also on the interplay of different location choice interdependencies (Vicente, 2018).

Such agglomerations have been traditionally understood as outcomes of the economic savings made possible in reductions in the average cost of production or service provision due to spatial proximity (the closeness of various actors active in a cluster) (Amin and Thrift, 1992; Harrison et al., 1996; Bathelt, 2005; Storper, 2009) . These savings have traditionally been known as 'external economies of scale', which may be considered analogous to Krugman's concept of increasing returns (1991). External economies of scale happen outside a firm, but they benefit or otherwise affect a common industrial sector or location. In other words, external economies of scale involve similar factors for an agglomeration of economic activities (Weber, 1929; Venables, 2004). As an industry becomes clustered in one location, then the average costs of doing business within that industry decrease, due to increasing external economies of scale (Krugman, 1991; Henderson, 2003; Rosenthal and Strange, 2003). External economies of scale are partly generated by positive externalities. Externalities are costs (negative) or benefits (positive) accrued by an entity above and beyond its accounting (David and Rosenbloom, 1990). An example of negative externalities (which would lead to agglomeration diseconomies) is the air pollution produced by a factor. A positive externalities example (which may lead to agglomeration economies) is the sharing of factor inputs, like a pool of labour pool (driving down recruitment costs). External economies of agglomeration (positive) could then reflect any increasing returns generated by market forces driven by competition (Fujita, 1988; Krugman, 1991; Venables, 1996). When positive externalities exceed negative externalities, growth of industrial agglomerations follows, through advantage of agglomeration economies, until diseconomies start to impede further growth (Young, 1928; Scott, 1988).

Several authors (Marshall, 1925; Lucas, 1988; Fujita and Thisse, 2002; Henderson and Thisse, 2004; Venables, 2004) suggest that there are two types of agglomeration

economies: one that benefits from urbanisation economies and another that benefits from localisation economies. Urbanisation economies refer to the advantage coming from locating in a large urban area, with heterogeneous markets. Localisation economies result in agglomerations that specialise in one industrial sector. The latter appears to be more relevant to this research for two reasons: (i) small regional economies, such as Malta, benefit from ‘smart specialisation’ (Georghiou et al., 2014; McCann and Ortega-Argiles, 2015; Morgan, 2015); and (ii) logistics may be considered to be an industrial sector (Sheffi, 2012a). Furthermore, Parr (2002) postulates a third type of agglomeration economies, which he terms ‘activity-complex economies’. This author explains that activity-complex economies “are based on the concentration of unlike firms which are related to each other in terms of backward and/or forward linkages” (ibid, p.720), and may be providing goods and services to other firms within the complex, for example financial services (Clark, 2002). The notion of activity-complex agglomeration economies seems particularly relevant to the evolution of regional value chain hubs, which are arguably a combination of service and manufacturing agglomerations. How agglomerations and the host regions interact, react and progress is subject to the level of institutionalisation present within both the industrial community and the state and the environments they operate within, whether political, social or economic (North,1990). Institutionalism is discussed in Section 2.5 below.

Learning is an important feature in successful clusters, where new knowledge is created and spread through inter-firm networks (Camagni, 1991; Inkpen and Tsang, 2005; Ivarsson and Alvstam, 2011; Golini et al., 2016; Golini and Gualandris, 2018). The postulation here is that learning is an effect of agglomeration, and may be even an attraction towards or a driver for agglomeration. Networks’ contribution in the creation and diffusion of learning is through two mechanisms: (i) the creation of ‘buzz’ or information flows within a cluster, and (ii) acting as channels of information and knowledge exchange between local and non-local firms. Clusters may be conceptualised as networked socio-economic structures in which local proximity generates a “buzz” of information and learning facilitates effective knowledge spillovers (Storper and Venables, 2004). According to Bathelt et al. (2004), buzz is the spontaneous and fluid “information and communications ecology created by face-to-face contacts, co-presence and co-location of people within the same industry and

place or region” (p.38). Co-locating firms can understand the meaning and usefulness of local buzz, through common language, technology and attitudes, and developing institutions reflecting a particular community of practice (Brown and Duguid, 1991; Wenger, 1999; Amin and Cohender, 2004).

The concept of regional innovation systems, stemming from knowledge spillovers facilitated by local proximity is another manifestation of industrial clusters (Cook and Morgan, 1994; Asheim and Coenen, 2005), and potentially an agglomeration development effect in relation to knowledge-based theories (Maskell, 2001). Asheim and Coenen (2005) define regional innovation systems as “institutional infrastructure supporting innovation within the production structure of a region” (p.1177). These regional institutions are embedded in specific circumstances, growing over time, providing support (also moral) and incentives, to players within the region. A regional innovation system may also be seen through the lens of knowledge / technology spillovers (knowledge-based theory). Economists have focussed on the role of knowledge or technology spillovers in the clustering of innovation (Glaeser et al., 1992; Feldman, 1994; Audretsch and Feldman, 1996). Technological or knowledge spillover is a particular form of externality (known as Marshall-Arrow-Romer (MAR) externalities). It refers to generated knowledge in an agglomeration, beyond that of an individual firm, and is supposedly best captured by local firms. Amin (1994b) aptly describes this as “...the collective aspect of knowledge creation and diffusion, which is the hallmark of the Marshallian industrial district” with an area developing into “a centre of knowledge creation, inventiveness, entrepreneurial capability and information dissemination within a given global industrial filière” (p. 65). However, knowledge spillover within a location does not necessarily have to be between firms in the same industrial sector. ‘Jacobs-spillover’ allows for the proximity effects of firms from differing sectors in the facilitation of knowledge transfer, and thus innovation and economic growth, within a common spatial structure (Jacobs, 1969; Brown and Duguid, 1991; Wenger, 1999; Amin and Cohender, 2004). Capello (2011) adds a word of caution by saying that “...the diffusion of knowledge means adoption, and adoption means more innovation and better performance. Thus ignored, however, is the most crucial aspect of the innovation process: how people actually learn” (p. 22).

2.3 Foreign direct investment - FDI

The International Monetary Fund (IMF, 1993, p. 86) and the Organisation for Economic Co-operation and Development (OECD, 1996) provide a common definition of Foreign Direct Investment (FDI) as “an investment involving a long term relationship and reflecting a lasting interest and control by a resident entity in one economy (foreign direct investor or parent enterprise) in an enterprise resident in an economy other than that of the foreign direct investor (FDI enterprise or affiliate enterprise or foreign affiliate)” (p. 7). More recently Makhavikova (2018) describes FDI as “...the main form of export of private entrepreneurial capital that allows for the establishment of efficient controls and permits direct control for the investor... FDI occurs when a firm invests directly in production or other facilities in a foreign country” (p. 9). FDI is a subset of international factor movements, involving labour, capital and other factors of production (Mundell, 1957; Dunning, 1981; Cantwell, 1994; Lloyd, 1998). Therefore, for the purposes of this study, FDI is considered within the context of the growth of the Multinational Enterprise (MNE).

2.3.1 Determinants of Foreign Direct Investment

MNEs manage production or deliver service in more than one country. According to Hussain et al. (2019)

“MNE groups stand at the centre of economic globalisation. They play a dominant role in global production, which is then reflected statistically in their contribution to total external trade, foreign direct investments or international transfers of knowledge and technology” (p. 44).

Firstly, different countries have different resources that firms may need for production (Dunning, 2002; Dunning and Lundan, 2008). Secondly, firms internalise dispersed economic activities because it is more profitable for them to do so (Vahlne and Johansson, 2013). However, the exact reasons that firms internalise their international economic activities may vary since “lead firms can pursue different FDI motives in various locations” (Pananond, 2015, p. 82). One possible reason for internalisation is to insulate themselves from opportunistic business partners through vertical integration (Williamson, 1985, 1991). Another reason is to facilitate efficient technology transfer – which is defined as any kind of useful economic knowledge (Krugman, 1979).

Two issues are crucial to the growth of the MNE: the composition of its resource endowment, and the nature of managerial and behavioural constraints on its growth processes (Penrose, 1959). Edith Penrose's (1959) book, 'The Theory of the Growth of the Firm', is seminal work that provided the foundations for the modern, endogenous and resource-based oriented theory of the firm, as agreed by several scholars in the strategy field (Teece, 1982; Mahoney and Pandian, 1992; Peteraf, 1993; Barney, 1995; Rugman and Verbeke, 2002, 2004). Indeed, Teece (1982) cites Penrose (1959) as a key founder of an economic theory of the multi-product firm. In this respect, Teece (1982) emphasises Penrose's observation that human capital is not completely specialised and can therefore be positioned to serve a firm's adoption of new products and services; denoting a firm's possession of excess resources, which can be used for diversification purposes. According to Penrose (1959), resource endowment of the firm may be viewed as a collection of fungible resources (which simplify resource exchange processes, as fungibility implies equal value between assets). This may facilitate an optimal pattern of firm expansion, which could require a balance between internal and external resources. In addition, she observed, what later became to be known as the 'Penrose Effect' (Uzawa, 1969; Rubin, 1973; Slater, 1980; Tan and Mahoney, 2005), saying that the limits of a firm's growth rate is a result of managerial constraints, and thus behavioural and learning dynamics are of significant importance in its growth processes. Moreover, the Penrose Effect allowed for the external environment in referring to the "... (advantages) relating to culture, language and similar considerations (which may not apply nationally within ethnically diverse countries)" (Penrose, 1996, p. 1720). She alludes to but does not explicitly state the concept of institutionalism, and the realisation of productive opportunities through a dynamic learning process directed by path dependencies. According to Rugman and Verbeke (2002), Penrose's insights remain relevant today, which they refer to as "Her insights on the growth process, especially the enactment of the environment and the discovery of productive opportunities" (p. 771).

As noted above, Penrose's pioneering work formed the basis for the resource-based theory of the firm and by extension (Penrose, 1959; Demsetz, 1973; Prahalad and Hamel, 1990; Mahoney and Pandian, 1992; Barney, 2000) to the growth strategies of the multinational firm. Rugman and Verbeke (2002) note that: "The two best known applications of resource-based thinking to the activities of multinational enterprises are

perhaps Prahalad and Hamel's (1990) work on the core competence of the corporation and Rugman's (1996) extension of internalization theory to incorporate modern multinational strategic management thinking...." (p. 775). The second application, which relates to internalisation theory, is probably more relevant within the context of this study. Rugman (1996) developed a resource-based interpretation of the local 'integration-responsiveness framework', in which Prahalad and Doz (1987) postulate that industry characteristics define how (extent and combination) MNEs capture advantages through cross-border integration and local responsiveness. Additionally, Rugman (1996) distinguishes between location-bound firm-specific advantages (FSAs) and non-location-bound FSAs. The former refer to company-related abilities enable benefits of national responsiveness, whereas the latter represents acquiring benefits of integration, including scale, scope economies, and gains from national differences.

A corresponding pivotal understanding of the dynamics of FDI and the internalisation processes of MNEs emerges from the insights of Hymer (1960, 1976) in his development of a theory of direct investment. Prior to Hymer's contribution, the determinants of FDI were explained by neoclassical economics (Rugman et al., 1995; Letto-Gillies, 2012), which held that FDI decisions were based on production cost differences between countries (i.e. comparative advantage). Hymer (1960, 1976) proposed a more firm-specific perspective. Hymer proposed a difference between capital (portfolio) investment and direct investment. Hymer stated that firms are able to obtain a greater degree of control through direct investment. He stressed that FDI is not simply a transfer of capital from home country to host country; the economic growth prospects of the host country are also important, as well as an assumption of market and competition imperfections. According to Hymer, other determinants of FDI include firm-specific advantages, removal of conflicts through collusion, and formulation of internationalisation strategies to mitigate risk. Hymer's insights influenced the emergence of the eclectic paradigm and the 'OLI' advantage framework of direct multinational and multi-product investment strategies (Dunning, 2001) that underpin internalisation theory.

Internalisation theory provides a theory of the international firm by demonstrating the interaction between the external environmental and the internal knowledge flows

between MNE parent firm and subsidiaries (Johansson and Vahlne, 1977, 1990; Barkema et al., 1996; Ruigrok and Wagner, 2003). Internalisation theory focuses on the links between research and development and production, and provides a theory of the international firm (Buckley and Casson, 1976; Dunning, 1981; Rugman, 1981). UNCTAD was strongly influenced by internationalisation theory and the eclectic paradigm (UNCTAD, 1999, p. 12), starting its publication with a special feature 'Foreign Portfolio and Direct Investment'. Highlighting the internationalisation theory focuses on imperfections in intermediate product markets (Rugman, 1981). The main kinds of intermediate product are: knowledge flows linking research and development to product, and "flows of components and raw materials from an upstream production facility to a downstream one" (Casson, 2018, Ch. 8, p. 209). Most applications of the theory focus on knowledge flow (Markusen, 1995; Dunning and Lundan, 2008). Internalisation occurs when firms perceive the benefits to exceed the costs (Casson, 2018). When internalisation leads to foreign direct investment, political and commercial risk may face the firm, because of lack of familiarity with the foreign environment. These are known as the 'costs of doing business abroad' (Hymer, 1976), arising from the 'liability of foreignness' (Zaheer, 1995). A firm may license or outsource production to another firm, if such costs are seen as high, or it may produce itself and export (Buckley and Casson, 1976; Dunning, 1979; Rugman and Verbeke, 2004). "Firms without special knowledge may become multinational if they need to internalize supplies of components or raw materials in order to guarantee quality or continuity of supply, or if there are tax advantages from transfer pricing" (Casson, 2018, Ch. 8, p. 210).

A development of internalisation theory is the eclectic paradigm (Dunning, 1979), which provides a model (known as the 'OLI model' or 'OLI framework') for multinational firm expansion through FDI. 'OLI' is an acronym for Ownership, Location and Internalisation - advantage. The OLI model posits that for a firm to be able to successfully engage in FDI, all three advantages must be present. If one or more of these advantages are not present, the focal company may seek to use a different internationalisation strategy, such as exporting, licensing or outsourcing (Buckley and Casson, 1976; Dunning, 1979; Rugman and Verbeke, 2004). The three advantages may be defined as follows:

- *Ownership* advantages: are the firm-specific competitive advantages of an enterprise. These advantages may come from the firm's ownership, or availability, of income-generating assets, or from the firm's ability to co-ordinate these assets with other assets across national borders to give them benefits relative to their actual or potential competitors (Dunning, 2001).
- *Location* advantages: are the country or region-specific resources that when combined with firm-specific resources create higher competitive advantages compared to those extant in another location, and thus make the location attractive to the MNE (Dunning, 2001).
- *Internalisation* advantages: indicate whether it is advantageous to a firm to produce in-house at a foreign location rather than licensing or outsourcing production to another firm in a foreign location. When the net benefits of internalising cross-border intermediate product markets prove to be favourable, a firm will very likely engage in foreign production itself, rather than licensing such a right (Dunning, 2001).

Pitelis and Verbeke (2007) use the OLI model to identify three potential research areas that may further explain FDI patterns and MNE growth: "technology-related firm-specific advantages (FSAs), dynamic capabilities, and the melding of location-bound and non-location bound knowledge, especially through international human resources management" (p. 143).

1. Technology-related firm-specific advantages (FSAs) and their rejuvenation over time critically determine the firm's growth rate, also their transfer to foreign locations, ensuring success for the enterprise. Buckley and Casson (2007), argue for more than just the said capabilities of an enterprise to exploit investment opportunities, by putting importance on R&D product innovation as additional factors to indicate the growth of a firm. This implies the return on cost of R&D as from the initial (expensive) investment to the point of decreasing return hence scale of economies and monitoring of costs. According to Pitelis and Verbeke (2007), R&D could facilitate diversification and technological innovation in a connected flow of knowledge spillover along product development (including improved versions of a product). These two authors highlight the importance of the flow by stating that "Ultimately, the firm's rate of growth is

determined by the trade-off between product quality improvements and R&D cost increases” (ibid, p. 144).

2. **Dynamic capabilities** relate to a firm’s ability to adapt in order to generate and exploit firm-specific competencies and to address the firm’s changing environment. (Augier and Teece, 2007; Pitelis and Verbeke, 2007; Steen and Liesch, 2007). A MNE’s international expansion trajectory is not simply determined by a given set of ownership advantages (O = FSAs), location advantages (L) and internationalisation advantages (I). Rather the MNE to a large extent shapes the OLI parameters itself and engages in a sophisticated adaptation process to link its internal strengths with external opportunities. (a) The productive opportunity set identified by managers and linked to O, determines any strategic decision to expand abroad rather than domestically. Here, managerial search process is as important as the substance of the MNE’s ownership advantage. (b) The choice of a foreign location to establish value added activities is determined by the perceived match between production opportunities and the assumed attractiveness of that location (L). (c) The potential internal growth (internalisation) that could be facilitated by foreign expansion through the availability of additional resources and their managerial services.

3. The differentiated network MNE increasingly imposes new requirements on **melding location-bound and internationally transferrable FSAs** especially through **international HRM** (human resources management) as a pre-condition for growth. Human resources play an important role in Penrosian theory of the growth of the firm, expressed by the entrepreneurial capabilities critical to diversification and growth the size of the management team setting limits to the firm’s growth. Tan and Mahoney (2007) demonstrate that expatriate managers can influence learning by host country managers through the expatriates’ ability to transfer tacit knowledge. Goerzen and Beamish (2007) call higher than industry average use (for exploitation of productive opportunities) of expatriate managers ‘expatriate slack’ – ‘excess resources’ (Penrose, 1959) - experiencing inferior performance when the host country experience is comparatively low; yet could probably yield superior performance when the host country experience is high.

The inclusion of location in the OLI model reflects the shift in emphasis in the FDI theory from treating location as an exogenous factor to being an endogenous factor in MNE investment policy decision-making (Stimson and Stough, 2008; McCall, 2010). A similar change of emphasis may be observed in the regional development literature, as noted in section 2.4.2 below. Penrose (1956) suggested a symbiosis between MNE and host country whereby both parties could benefit from the FDI. On the one side, “the receiving country in addition to foreign capital, foreign technicians and management also obtains an unlimited drawing account as it were, on the intangible resources of the investing company” (Penrose, 1956, p. 225). And in parallel, the MNE may enjoy indefinable advantages “....relating to culture, language and similar considerations....” which influence and enhance the returns from the investment (Penrose, 1996, p. 1720). This is an observation also by Dunning (2003): “The benefits provided by MNEs to host countries are only as good as the institutions and policies of national governments – both host and home - and the international community, allow” (p. 10). The same author comments that

“...to maximise their contribution to national economic goals, host governments must pursue efficient and market friendly macro-economic and micro-management strategies, and maintain an open door policy towards trade and foreign direct investment” (ibid, p. 10).

2.3.2 Foreign Direct Investment in Malta

FDI has played a significant role in the development of the Maltese economy since the late 1950s, when foreign-owned manufacturing industry had started to take interest, following the Maltese government’s efforts to diversify from the then still dependent economy on the British colonial rule, and shortly before Malta taking its independence in 1964. This initial interest of the 1950s must have resulted from “the first clear formulations of a strategy designed to establish favourable conditions for export-led industrial development” but this was “... a policy-maker’s orthodoxy, not the Maltese entrepreneur’s orthodoxy. Orthodox business sense continued to be the sense of merchant capital, the sense of importation and distribution...” (Vella, 1994, p. 62).

This reluctance from the side of the Maltese business community to shift to industrial activity had been carried down from the 1920s when the merchants and capitalists showed “little inclination to change their way of business thinking that focussed on investing in commerce and merchant activities” (Fenech, 2005, p. 163), while capital

was being invested mainly in the building industry in the 1930s with some attempt to create new industries and revive ones which had vanished (Camilleri, 2015). With no intention of justification, several factors (even if historical) could have contributed to the lack of industrial disposition and development within the Maltese economy. According to Vella (1994) and Camilleri (2015) these included the lack of natural resources (raw materials), the British Empire's control and the implied lack of encouragement to invest in industrial activity, dependency on the business generated by the British services (prominently the Dockyard), the exploitation by the commercial class of the social, political, cultural and geographical conditions of the Island for their own purposes, the interference of the Catholic Church and its exertion of influence on all levels of society (promoting charity over taxation or social welfare), culture and mentality favouring the 'artisan' concept, and the thought of machines taking the jobs of craftsmen.

With the attraction of foreign firms to Malta (during the drive for its independence from the British Empire and the economic reliance on the British Forces) Balogh and Seers (1955) had written in their interim report to the then Prime Minister of Malta that

“Any such programme is dependent for success on the attraction to Malta of a number of overseas firms, especially British ones... The main attraction to Malta must be to firms with relatively large labour costs... There is a large body of intelligent and adaptable labour at wage levels which must (in the best of circumstances) remain below those of the United Kingdom for some time to come. This is the greatest attraction of Malta to overseas firms, and therefore it must play a big part in stimulating the birth of industrialization” (pp. 25-26).

As described by Spiteri (1969, p. 14), this was still a time when clearly, industry still had to be built up, and due to the “smallness of the home market [Malta], any significant industrial development must look largely to the highly competitive export markets in the United Kingdom and elsewhere, particularly in the Mediterranean and African markets.” This was also a time when “... many other countries, in all stages of development and in many cases with more natural assets, competing in the endeavour to build up local industries” (ibid, p. 16).

The Maltese authorities' long-going efforts to attract FDI, finally materialised by the official setting up of the Malta Development Corporation (now Malta Enterprise) in 1964, being as Vella (1994) describes it, “... a confirmation of the choice of a

development path based on foreign owned export led industry” who continues to say that “... it changed the economy’s structure from one almost totally dependent on British defence spending to one dependent on exports manufactured by foreign owned firms” (p. 66).

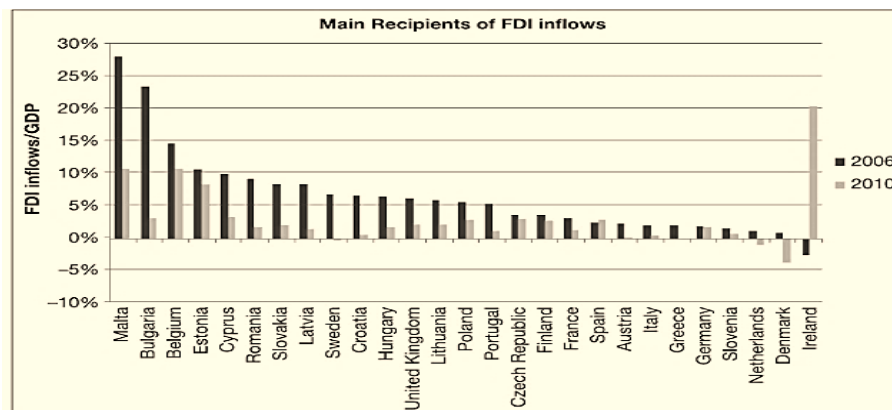
Blouet (1965) provides an indicative and historical background showing what had started the ‘movement’ for FDI attraction (by way of incentives, fiscal and in other forms) by the Maltese government and subsequently also attracted the featured case study companies in this study to invest in Malta between 1961 and 1988. About Malta’s first five-year development plan for 1959 to 1964, Blouet (1965) explains that

“A large part of the development capital was earmarked for the introduction of new industries...What Malta does have is a plentiful, well-educated and cheap labour force. Cheap labour costs together with the grants, loans, factories, tariff protection and tax “holidays” offered by the Malta Government have induced a number of firms to set up factories; some local concerns, too, have been eligible for aid and have expanded...A large number of the new units export their products and this reflects the very favourable production costs that some industries can achieve in Malta” (p. 74).

The first main FDI manufacturing sectors to come to Malta were in the toy, packaging and rubber industries, followed by textiles, leather, plastic and tobacco to mention the main ones. In the 1960s electronics and precision engineering FDIs started locating in Malta, followed by security systems and pharmaceuticals; and in the most recent years going into aviation services, financial services, information technology, life sciences. German toy manufacturer Playmobil, UK packaging specialist Toly Products, the originally UK rubber company Malta Rubber (now Trelleborg), the originally Italian semi-conductor manufacturer SGS Thomson (now ST Microelectronics), the relay-switches manufacturer Carlo Gavazzi Malta, the US switchgear manufacturer Methode Electronics are a few to be mentioned as being long-standing investments in Malta – in some cases for the last fifty years. Several indigenous manufacturing enterprises have also to be given credit, amongst which we find Magro Brothers, Farsons and Foster Clark, all in the food and beverage industry, producing both for the local and export markets. The transition from the initial low-cost manufacturing base for large-scale production for mass markets (export-oriented) to the recent adoption of automation, added value and focus on niche markets is also to be noticed within the FDI sector (including manufacturing) in Malta (maltaprofile, 2017).

Sorensen and Villegas-Sanchez (2016, pp. 74, 75) report that “All countries with the exception of Ireland, received positive inflows in 2006 and Malta, Bulgaria, Belgium and Estonia were the largest recipients.” They also comment that “Malta is likely not the final destination of the incoming FDI” when “indicating that Malta is an EU gateway for out-of-EU countries”, after presenting a comparison showing the scope to intra-EU flows. This reflects the observation made by Bevan and Estrin (2004) that “The trade and FDI literature emphasizes the impact of host country involvement or potential involvement in free trade agreements, customs unions, and supra-national economic structures because these affect transactions costs between foreign production and exports” (p. 779). These authors continue to mention as an example third-party countries who may “invest in host economies within customs unions to avoid tariffs on exports” (ibid, p. 779) and opine that the stability of the underlying business environment is a significant influence upon potential foreign direct investors.

Figure 0.1: 2.1 - Main recipients of intra-EU FDI inflows



(source: Sorensen and Villegas-Sanchez, 2016, p. 75)

At the time of writing, FDI in Malta is dominated by different industries to manufacturing, where the Maltese economy is being driven by financial and services industry sectors such as offshore banking, e-gaming, i-betting, Blockchain and AI.

2.4 Regional Economic Development

Taking first the aspect of regional development, it would be interesting to look at a brief historical outline of regional development as provided by McCall (2010). According to this author the concept started emerging in the 1950s, highly based on economics and focusing on what firms did in regions, their performance influencing economic

indicators such as employment, profit, GDP and growth. It then became more multi-disciplinary towards the end of the twentieth century, with political science, public policy and sociology as significant disciplines alongside economics, all intent on definition of a region and what factors could formulate the idea of a region. In addition, economic geography then joined in the twenty-first century, with another perspective of regional development making the spatial dynamics of regions as places to live, work and invest, with people as drivers of regional development in the manufacturing industry (with an implication of pollution), regional development agencies and firms. People's knowledge and its spill-over were also considered as a relevant factor. Thus the elements of human and social capital, innovation and demographics may in recent times help to understand how (perhaps small) sub-regional economies may respond to the pressures of global competition and plan and implement advantageous strategies in regional economies, with a forward looking attitude. The economic factor is still implied within the whole contextual development, and therefore the author proceeds about regional economic development within this literature section.

2.4.1 Regions and Economic Development Contexts

What is a region? North (1955, 1956) and Tiebout (1956) declared that 'there is no ideal region', being still the perception in the early twenty-first century, according to Aoyama et al (2011). Jacobs (1969) conceptualised a region as 'a self-sustaining entity comprising cities and the hinterland' – indicating the former as markets and business exchanges and the latter as provider of commodities. Today, the conceptualisation of regions has moved from a resource-based context to one that encompasses other indicators and explained by export base, transport accessibility, intra and inter-firm relations, and terms of regional and international trade. The prevailing conceptualisation of the 'region' pictures the metropolitan area, with places linked together by daily commuting and B2B relationships.

Capello (2011) describes regions as: "small geographical entities where it is rarely the case that all necessary goods are produced locally; and, conversely, where those goods that are produced frequently exceed local demand for them and are sold on domestic or even international markets" (p. 7). This statement could firstly refer directly to an endogenous factor related to the area (as in the 'space' concept) which may be part of a nation that produces or specialises in a particular good, for example oil or

gold. This could identify with the Ricardian concept of relative advantage, or comparative advantage, emanating from a region's specialisation within international (perhaps also inter-regional) trade. On the other hand, Capello's statement could secondly be applied to places, possibly state economies within a bigger region (such as the island of Malta in the Mediterranean; or the Northwest region in England) where the particularity comes in some other form such as geographical position (possibly influencing its geo-political power), or the potential of its labour force amongst others.

The Organisation for Economic Co-operation and Development (OECD, 2018) defines regional development in broad terms as "...a general effort to reduce regional disparities by supporting (employment and wealth-generating) economic activities in regions" (oecd.org, 2018). The same Organisation goes on to mention that the past regional development policy had favoured large-scale infrastructure development and the attraction of inward-investment to achieve the above mentioned objectives.

Regional development may be driven or influenced not only by market forces, but also by political, institutional, geographical and cultural factors which could affect decisions taken for economic development, with regulatory pressures such as governance (perhaps more prominently present in recent years) and the underlining implication of policy and practice. Scott and Storper (2003) affirm that:

"...regional economic development involves a mixture of exogenous constraints, the reorganization and build-up of local asset systems, and political mobilization focused on institutions, socialization and social capital. More generally, the extent to which any region succeeds in creating localized increasing returns effects – which depend importantly on these cultural and institutional foundations – is critical to the entire development process" (p. 586).

While some authors place importance on the economic aspect as being the priority for development, regional or local, (Beer et al., 2003; Hague et al., 2011), explained in economic factors such as growth in output, increasing returns, employment, income, wealth creation and prosperity (Storper, 1997; Scott and Storper, 2003), other authors have recently progressed to extend the term 'development', adding other meaningful elements. These include individual and social aspects like health, quality of life and the frequently mentioned term 'social well-being' (Mulligan and Carruthers, 2011; Perrons, 2011; Burchi and Gnesi, 2013). Progressing further, the environmental, social, cultural and political aspects are being recognised as elements or drivers of

sustainable development (Morgan, 2004a; Pike et al., 2007; Jackson 2009), with climate change and resources, including the effect of demographics (people moving between regions and countries), becoming current concerns.

2.4.2 The Evolution of Regional Development Policy

Several writers (Stimson and Stough, 2008; McCall, 2010) note that over the last three decades or so the emphasis in regional economic development theory has shifted from a focus on exogenous factors to increased focus on endogenous factors. Within the context of regional economic development theory, 'exogenous' factors are external influences on the identity of a place (such as flows of inward investment, migration, the changing nature of technology), and 'endogenous' factors are internal place-related developmental influences (such as demographics, infrastructure, land use and the built environment, societal culture and topography). Exogenous and endogenous factors both shape the characteristics and identity of a place (Lowe et al. 1995; Coe et al., 2004; Smętkowski, 2018).

Stimson and Stough (2008) note that traditional regional economic development policies were rooted in neo-classical growth theory, involving the addition of incremental inputs of capital, labour and new technology to stimulate growth based on the Solow growth model. The Solow growth model (Solow, 1956, 2000) postulates that a sustained rise in capital investment increases the growth only temporarily because the ratio of capital to labour increases and reaches a point where the marginal product of addition units of capital declines (i.e. diminishing returns occur). A steady state growth path is reached when output, capital and labour all increase at the same rate, so that returns per worker and capital per worker are constant (Solow, 1956). Neo-classical economists believe that a sustained rate of growth depends on an increase in the labour supply plus a higher level of productivity and capital, and that differences in the pace of technological change explain much of the variation in regional growth rates (Solow, 1956). The Solow model explains regional disparities in regional growth in two ways: (i) differences in the rate of technological change (as mentioned above); and (ii) differences in the marginal rate of return on invested capital (i.e. the so-called *catch-up growth* concept where poorer regions face a significant catch-up challenge with richer, faster growing regions which enjoy higher marginal rates of return and thus greater capital efficiencies). In the neo-classical paradigm, productivity improvements

are treated as an exogenous variable; improvements are considered to be independent of the amount of capital investment. By contrast, in the new regional growth that has emerged (Johansson et al., 2001) there is a more significant emphasis on endogenous factors (including entrepreneurship, innovation, leadership, learning, and institutional capacity and capability) to explain disparities in regional growth (Stimson and Stough, 2008).

It is interesting to note that the OECD (2018) is still concerned with the phenomenon of regional catch-up: “Past policies have failed to reduce regional disparities significantly and have not been able to help individual lagging regions to catch up, despite the allocation of significant public funding. The result is under-used economic potential and weakened social cohesion” (oecd.org, 2018).

This is possibly a result of a fundamental challenge faced by regional policy makers. Stimson et al. (2006) point out the frequently encountered difficulty in regional economic development policy formulation and implementation, when attempting to align the desired outcomes with the processes that formulate them. This poses a dilemma for policy makers, when trying to understand the relationship between the apparent causes and effects of such a gap. Instability and the changing nature of economic developments increases this dilemma, considering that exogenous factors continue to impact on the decision making processes that influence regional economic development strategies – a significant challenge for neo-classical economy theory with its underlying assumptions of production factor homogeneity, prices to adjust the economy, a single end product of financial capital accumulation, and convergence (i.e. the elimination of inter-regional differences). In fact, the emphasis on comparative advantage based on relatively static factors limited the usefulness of neo-classical economic theory as a framework for understanding the causes of disparity in regional economic development. Counter arguments (including polarisation theory and industrial location theory) highlighted non-homogeneous production factors, imperfect markets, price mechanisms disturbed by economies of scale and location-related externalities. Spatial structure was argued to be an important element in the process of regional economic growth - geography mattered (Dicken, 1994; McCall, 2010; Hudson, 2016; Perrons, 2017), and so did competition between regions.

In the 1980s, the focus of mainstream regional economic development policy shifted from comparative advantage guided by 'master' planning to value-adding strategies and the application of technologies to enhance production processes in order to gain advantage within a wider global context. This was accompanied by two significant policy trends. Firstly, the emergence of economic rationalism with its emphasis on the transfer of institutional functions from the state to private or agency ownership; and secondly, globalisation, enabling MNEs to exploit regional differences created by both comparative and competitive advantages, as governments withdrew from protectionist policies. By the early 1990s, the impact of globalisation had changed the nature and location of production, resulting in greater specialisation or clustering (Dicken, 1992), and in turn enhanced the influence of economic geography on regional economic development policy theory (McCall, 2010). A new growth theory began to emerge that incorporated effects (both in terms of economies of scale and externalities), market imperfections, entrepreneurship, institutional embeddedness and sustainability (Granovetter, M., 1985; Storper, M., 1997; Keeble and Wilkinson, 2000; Morgan, K., 2004b; Rocha, H.O., 2004; Frey and Yaneske, 2007; Harris, 2007; Pike et al. 2007; Jackson, 2009; Dinh, 2010; Gimenez and Tachizawa, 2012; Lee, J. and Gereffi, G., 2015). Thus a new sustainable economic growth theory that allowed for both concentration and divergence began to emerge (Stimson and Stough, 2008).

The new sustainable growth theory combined ideas from economic geography and evolutionary economics that led to a new emphasis on the importance of endogenous factors, and thus spatial dynamics, in regional development policy-making. Two significant paradigm shifts from neo-classical economics lie at the heart of the new theory: firstly, the shift in the perception of technology from an exogenous to an endogenous factor of growth, and, secondly, the elevation of local actors and institutional arrangements as dynamic and interrelated agents of sustained development.

In the late 1970s, Rees (1979) had already suggested that technology was a prime driver in regional economic development. Then, in the two to three decades that followed, the direct relation between technology and traditional concepts of agglomeration economies in regional economic development has been shown in regional science literature. Technical progress was presented as an endogenous

effect in its role as a generator of economic development by several authors (Romer, 1986, 1990; Barro, 1990; Grossman and Helpman, 1991; Rebelo, 1991; Arthur, 1994), rather than accepting that long term growth was due only to exogenous factors, as was viewed in neo-classical theory.

Some authors, like Thomas (1975) and later Erickson (1994), had written about how technological change is related to the competitiveness of regions. Norton and Rees (1979) and Erickson and Leinbach (1979) showed how the product cycle could affect regions in different ways when incorporated into a spatial setting, through the three stages of innovation, growth and standardisation. Along such transition, production moves from the original high-cost home region to a lower-cost location, many times off-shore, through an evolving internationalisation of the production process. This makes some regions the innovators, while other regions become branch Plants or recipients of innovation, with the latter potentially becoming innovators themselves through endogenous growth. Markusen (1985) took the product cycle theory of regional development further by showing how profit cycles and oligopoly can augment regional development differentials in various types of industrial organisation and corporate development. The concept of 'innovative milieu' was thus created to explain the 'how, when and why' of new technology generation. It then connected back to the importance of agglomeration and localisation economies which had been believed as drivers in the development of new industrial spaces (Scott, 1988; Porter, 1990; Krugman, 1991).

According to some theorists, such as Fukuyama (1995), apart from the economic aspect, value and cultural factors (including social capital and trust) are also important to boost technology agglomerations. An example is Silicon Valley where collaboration between small and medium size enterprises establishes a strong R&D and entrepreneurial business climate, through networks and alliances and connections with universities. Yet, when discussing innovative industrial milieus, Castells and Hall (1994) note that "... despite all this activity ... most of the world's actual high-technology production and innovation still comes from areas that are not usually heralded as innovative milieus ... the great metropolitan areas of the industrial world" (p. 11). However, Rees (2001) points out, technology-based theories for economic regional development must include the elements of entrepreneurship and leadership

in the endogenous growth of regions, since it is the "... link between the role of technology change and leadership that can lead to the growth of new industrial regions and to the regeneration of older ones" (p. 107).

2.4.3 Economic Development in Malta

Malta's geographic position immediately comes to mind when thinking about the Island's economic development, considering its long history of trading activities coming from either foreign or local generated business. It is worth mentioning at this point that the Maltese economy is an open economy. This introductory section gives some historical background to Malta's economic development, before it focuses on the last fifty or sixty years, when Malta moved on from being a fortress economy to having to find ways how to sustain itself.

According to a report to the United States Congress by its Consul, it was noted in 1892 about Malta that

"facilities exist here for receiving, storing and distributing cargoes...that no other port in this part of the world possesses...the markets of the countries that press so closely around this busy and advantageous port offer now, more than they ever have done before attractions for the exporters of western goods and productions" (Worthington, 1892).

Although industrialisation (as related to the 'FDI movement') is said to have started in the late 1950s in Malta, one must consider a paper by Camilleri (2015) about Maltese Industrial Development during the inter-war years, 1933 and 1939. It is to be observed that a certain extent of industrialisation had already been present in Malta (in spite of the dependent nature of the Maltese economy) in the inter-war years, when the Island was still very much a British colony. Again, this is attributed to Malta's geographical location as an island in the centre of the Mediterranean. Such industrial activity was state driven (the British and the Maltese authorities of the time in their respective extent of power) and lacked private (Maltese) business investment, which was still very much merchant and capital oriented. Such industries were either a joint enterprise with subsidiaries of British mother companies or individuals where the capital invested was entirely British (Spiteri, 1969; Vella, 1994; Fenech, 2005; Camilleri, 2015; Brincat, 2017).

Globalisation (within the context of supply chain optimisation) has been in Malta since the last fifty years when the first FDI's located in Malta. According to Brincat (2009) "The development model adopted by the Maltese in the late 1950s – let's call it the 'Maltese model' for convenience – was not the product of a gradual, linear evolution but of rupture with traditional modes of thinking, driven by the brute force of political-economic facts" (p. 36). A brief and general outline of the incentives, fiscal and in other forms, is being provided to serve as an indicative background to the paradigm shift into Malta's economic development at this period, demonstrated by the fiscal benefits being offered to FDI manufacturing companies in this case study (and others), being claimed to be an attraction to them at the time when they invested in Malta (1961 to 1988).

Brincat (2017) comments about Malta's first five-year development plan for 1959 to 1964 that "the model proposed in the First Plan was clearly export-led and dependent on foreign direct investment...and relying on wage restraint" (p. 105), and continues to give a general outline of the Plan which provided for thirty two and a quarter of a million pounds sterling worth of capital investment over the five years, to be distributed for inherited schemes and projects, the conversion of the Dockyard, promotion for tourism and a reserve fund, leaving just three million pounds sterling being allocated for industrial development. Two and a half million pounds sterling were to be distributed in grants and loans for industrial and hotel development, while half of the reserve fund was planned for industrial development between 1962 and 1964 (mainly for an industrial estate and factory space driven by demand). One has to be reminded here that this was all drafted while Malta was still under colonial rule, just before Malta got its independence in 1964.

Malta's second five-year development plan for 1964 to 1969 was also intended to drive for economic development with a focus on export market, still based on grants and loans, and a "low import-duty regime favoured by the Plan's drafters" (Brincat, 2017, p. 108), which together with the wage levels of the time would help to partially compensate for the involved freight costs. Some extent of protectionism was still in effect for long-established industries. The same author reports that eight million pounds sterling were envisaged to be spent on grants, loans and factory building; and

duties on machinery, raw and semi-finished materials for industrial use were to be reduced.

In the third development plan covering from 1969 to 1974 economic development was again emphasised, while differentiation between the public and private sector was introduced, with the plan for a strategy for private industry and the government's investments in infrastructure and the provision of various fiscal and financial incentives to attract private enterprise. The main objectives of the third plan were to (a) provide jobs, (b) efficient development of activity areas to contribute to Malta's economic development and (c) the raising of standard of living aligned with the increasing labour productivity. According to Brincat (2017) "Industrial policy would continue to seek diversification and growth within the context of a competitive industrial structure... [with] emphasis on export-led development" (p. 110). Within the third plan grants to FDI would continue so to attract foreign companies who had know-how and market presence already, although interest-free loans replacing grants were being envisaged in the long-term. Re-investment of profits and commercially sourced capital were to be encouraged. The fiscal and financial incentives were still to be accompanied by factory building by the state.

Grech (2015) prophetically and in a scientific way points out challenges and presents recommendations with regards to the present situation resulting from the economic development of Malta and its increased internationalisation, which he considers as being 'a great boon'. He insists that "the operators in this country [Malta] need to focus greatly on retaining their competitiveness" (ibid, p. 32), while suggesting that it

"will potentially necessitate significant changes in labour market practices, particularly in view of the ageing transition which will be affecting substantially the supply of labour. Employers will need to provide ever more flexible arrangements to retain and attract staff, while attitudes towards training and employing older workers will have to change radically" (ibid, p. 32).

This author also states that migration is to be given consideration since a service economy needs workers (referring to Malta's perceived changing economy). He continues to anticipate that "the policymakers of coming years will need to look into adopting a holistic approach towards migration if the pace of growth of the high value added activities is to continue unabated" while strongly recommending "investment in

education and training, together with providing necessary infrastructure – especially in new areas such as digital networks, [which] will remain of key importance” (ibid, p. 32).

Drawing from Malta’s case, one is led to conclude that the way economy states develop, together with their particularities and other characteristics, could result in the attraction of foreign direct investment coming from multi-national enterprises which may be drawn by factors like low costs of production, climate conditions, and the political stability of a place. Such factors could create areas of manufacturing or other industry ‘clusters’, and the export of their products and services, adding the implication that such activities might be a significant contribution towards the host economy and a means of income to its labour force. This argument points towards the locational choice of interested organisations, and the potential subsequence of agglomeration economies contributing positively (or maybe negatively) to the sustainable development of a place (economic, social or environmental).

2.5 Institutionalism

2.5.1 The New Institutional Theory

Institutionalism appears to be a critical theoretical construct in facilitating an understanding of policy interactions between regions and the global value chains of MNEs. Institutional theory provides a useful lens (Cloutier and Langley, 2013; Lawrence et al., 2013) through which to observe the contextual setting for foreign direct investment and regional development from the perspective of both investor and host. It may allow an observer to identify the institutional factors that enable and constrain the development of a mutually beneficial ecosystem for the benefits of both parties. Moore (1996) defines a business ecosystem as “An economic community supported by a foundation of interacting organizations and individuals—the organisms of the business world. The economic community produces goods and services of value to customers, who are themselves members of the ecosystem” (p. 26). In essence, an understanding of a beneficial ecosystem is enhanced via the observation of how it is governed by both parties and how the respective governance frameworks combine within the ecosystem – or what may be termed the ‘geographies of governance’ (Peck, 1998). According to Cleaver and de Koning (2015), the “local institutional arrangements [need to be placed] within the wider frames of governance (the political

ecology and political economy)” (p. 2). One of the reasons that policy makers find the planning of value added clusters so difficult is a lack of an understanding of the geographies of governance (Monios and Bergqvist, 2016). According to Peck (1998), “Geographies of governance are made at the point of interaction between the unfolding layer of regulatory processes / apparatuses and the inherited institutional landscape” (p. 29). A fundamental, if traditional, definition of an institution is “a way of thought or action of some prevalence and permanence, which is embedded in the habits of a group or the customs of a people” (Hamilton, 1932, p. 84). Institutions can take multiple forms: they may be formal codifications, informal social norms or conventions, which provide society with a shared meaning, to support cognition, communication and judgement (Scott, 2008; Thornton et al., 2012). Institutions form part of a system of interrelated ‘institutional arrangements’, and whose own formation is guided by ‘governance arrangements’ (Van der Heijden, 2011; Peters et al., 2012). Institutions provide a shared rationality within a society. Therefore, it seems appropriate to consider the effectiveness of extant ideologies and dominant logics for mutual value creation (by MNEs and host) within a regional economy.

According to Jacoby (1990), institutionalism emerged from an increased focus on the social, cultural and historical aspects of economic events, rather from the framework of universal laws which was viewed as overly theoretical and non-conceptual. DiMaggio and Powell (1991) distinguish between ‘old’ and ‘new’ institutionalism. In old institutionalism the focus is on political structures, power, influence, coalitions and the reconciliation of competing values (Selznick, 1949, 1957; Clark, 1960, 1972). New (neo) institutionalism emerged in the early 1990s with an emphasis on legitimacy, embeddedness, isomorphism and stability of organisational arrangements within given institutional context (Greenwood and Hinings, 1996), although also considered by some as becoming more vague and fragmented (DiMaggio and Powell, 1991; Alvesson and Spicer, 2019).

North (1994) distinguishes between institutions and organisations. Institutions are the ‘rules of the game’ and organisations are the players. This distinction is important when attempts are made to analyse the role of the state or region in an economic ecosystem through its institutions and organisations. Jessop (1990) defines the state as a “specific institutional ensemble within multiple boundaries, no institutional fixity

and no pre-given formal or substantive unity” (p. 267). The fluidity and impermanence of the state (i.e. evolution) is echoed by “Government influence or capacity to innovate is embedded in both formal and informal institutions” (Monios, 2016, p. 44). According to Gonzalez and Healey (2005) these said institutions are “located in the practices through which governance relations are played out, and not only in the formal rules and allocation of competencies for collective action as defined by government laws and procedures” (p. 2059). In other words, institutionalism is broader than the simple application of a legalistic, endogenous framework, where “institutionalists deal with complexity, uncertainty and institutional dynamics in relation to a multiplicity of factors” (Cleaver and de Koning, 2015, p. 2). Aoki (2007) identifies exogenous and endogenous institutions. The former represents the rules of the game (North, 1990), while the latter characterise the equilibrium outcome of the game. Aoki (2007) combined both elements into the following definition: “An institution is a self-sustaining, salient pattern of social interactions, as represented by meaningful rules that every agent knows and are incorporated as agents’ shared beliefs about how the game is played and to be played” (p. 6).

2.5.2 Legitimacy and Institutional Roles

Shared beliefs about how the game is played is the basis of what society considers to be legitimate, therefore, legitimacy underpins institutional efficacy, according to Suchman (1995). The same author defines legitimacy as “a globalised perception or assumption that the actions of an entity are desirable, proper or appropriate within some socially constructed system of norms, values, beliefs and definitions” (ibid, p. 574). Legitimacy is also a key concept for business organisations and it is derived from its relation to institutions. Legitimacy for organisations and institutions may differ. Legitimacy for a business organisation may, for example, be linked to the expectations of its owners and of the state acting as host to the organisation. Legitimacy for a state organisation (e.g. a regional development agency) may be linked to, for example, political interests and intent, as well as societal expectations and cultural heritage. Moe (1990) states that “in politics it is rational for social actors to fear one another [or jockey for advantage]... and to use structure [institutional arrangements] to protect themselves [their own vested interests] - even though it may hobble the [efficiency of] agencies that are supposed to be serving them” (p. 234). Moe (1990) observes that political organisations are compelled to make trade-offs that economic organisations

do not. The structures of political organisations arise from the interaction between voters, politicians and the civil service. The way governments allocate funds towards infrastructure investment to the benefit of private firms can be viewed in this light. Therefore, the rationale for such decisions lies in political expediency rather than economic efficiency, which leads to 'confused sovereignty'. An underlying cause of this phenomenon is the dual institutional nature of the 'economy state' as both political entity and facilitator of economic growth. As Reis (2012) states, "[National] economies are actually institutional production systems" (p. 86). This institutional duality leads to an "institution-of-institutions" (government) that is "...a highly material and relational entity, with an active role in processes whose boundaries are far from clear-cut" (ibid, p.104), which, in turn, potentially undermines the stability of government organisation within a confused institutional context. Veblen (1925) contended that institutions provide the basis for 'mental habits'. However, entrenched mental habits may lead to a process of "performing without thinking.....without re-evaluating the appropriateness of the institutions for the context at hand" (Vargo and Lusch, 2019, p. 54), which is a key consideration for national governments in pursuit of economic growth.

The tension between political or social legitimacy and economic efficiency has its roots in the institutional roles of nation states and firms in economic management and wealth creation. According to Hillmann (2013) who draws his study from current scholarship about institutions, the state has historically provided institutions (e.g. state agencies) that contribute towards promoting market transactions, industrialisation, trade, and economic growth in a formal manner. This however does not ignore the consideration that informally (through social networks), private institutions (of reputational standing) could assume this contributory role (Cleaver and de Koning, 2015) where and if the public sector fails, further implying that "public intervention is legitimate and needed if the complex interactions that take place among the different organizations and institutions involved in innovation do not function effectively" (Asheim et al., 2013, p. 7). According to Putnam, (1993), the legitimate contributions by the state, within the context of its role as an economic actor include the provision of institutional arrangement such as:

- dissemination of information, e.g. about opportunities for trade and trading partners;

- negotiation and decision, e.g. investment and location strategies of MNEs;
- providing policing and justice systems, for observation of established common laws and regulations;
- common legal frameworks, for contracts and commercial norms and rules;
- protection of property rights and return on investment, where terms or regulations for land lease or ownership provide a level of security to potential investors;
- co-operation and social capital, whereby sharing of information and resources facilitates the formation of 'clubs', (e.g. industry clusters and trade sectors) for greater economic interaction.

Such formal state institutions operate in a democratic setting with private institutions (informal) by making information available and promoting trust between the players (Putnam, 1993) for economic interaction and activity with a managed risk (Bardhan, 2006), which is intended for mutual benefit to both the state and firms.

As discussed in Section 2.2.1, firms (certainly with the context of MNEs) are embedded in social constructs such as global supply chains (Abbasi, 2012; Sheffi, 2012a), and "are made up of groups of individuals bound together by some common purpose" (North, 1994, p. 361). According to Hodgson (2006) "Organizations involve structures or networks, and these cannot function without rules of communication, membership, or sovereignty... and hence by implication organizations are a special type of institution" (p. 10). Organisational dynamics come into play, with firms having to respond to the ecological aspect where they strive to keep operating in resource niches with high organisational presence (organisational ecology), hence high competition (Hannan and Freeman, 1977); or having to adapt in an environment of other organisations, regulatory bodies and practices, and various cultural ideologies (New Institutionalism) (DiMaggio and Powell, 1983), hence "Those organizations that, in the aggregate, constitute a recognized area of institutional life" (Hodgson, 2006, p. 10).

2.5.3 Isomorphism

Isomorphism relates to the similarity of institutional and organisational structures and processes, whether this comes from imitative or independent development within similar constraints (Hawley, 1968; Meyer and Rowan, 1977). Central to institutional isomorphism is the notion of social behaviour dominated by goal-oriented rationalisation in society, especially in capitalistic societies, driven by actions based on efficiency rather than autonomous traditional norms and values. Weber (1952) conceptualised this notion as an 'iron cage' trapping individuals in social systems (i.e. institutions) based purely on the pursuit of efficiency and rational control. For Weber (1952), the inevitable outcome would be teleology: a final state) of uniform rationality (everywhere) – a concern shared by critics of globalisation decades later. However, in their seminal paper: 'The Iron Cage Revisited', DiMaggio and Powell (1983) noted the existence of two types of isomorphism – competitive and institutional – envisaging organisational structure previously induced by rules of efficiency in the marketplace, and recently by institutional constraints imposed by the state and the professions. Quoting Hawley (1968), DiMaggio and Powell (1983) concluded that institutional isomorphism is a "constraining process that forces one unit in a population to resemble other units that face the same set of environmental conditions" (p. 149). The criticality of legitimacy is defined by (Scott, 1995) as "a condition reflecting cultural alignment, normative support, or consonance with relevant rules or laws" (p. 45). The same author asserts that organisations must observe rules and belief systems prevailing in the environment in order to survive, since it is institutional isomorphism, both structural and procedural, that will secure legitimacy for the organisation (Deephouse, 1996; Dacin, 1997; Deephouse and Suchman, 2008).

According to DiMaggio and Powell (1983), there are three main types of isomorphism:

- *Normative* – arising from the availability of professional networks to define and establish common praxis or standards.
- *Coercive* – arising from conditions of power imbalance present in the existence of institutional constraints and rules both at state level and among organisations.

- *Mimetic* – is a response to uncertainty in the environment and leads to the adoption of successful business models (through imitation) in order to achieve coherence.

The development of these three types of isomorphism may lead to isomorphic paradoxes related to the mission, resource allocation and professionalism of an organisation (Caemmerer and Marck, 2009).

A study of eighteen industry sectors covering the period 1980-2000 by Hambrick et al. (2005) refutes DiMaggio and Powell's (1983) influential assertion that "...organisations are becoming more homogenous" (p. 157). Hambrick et al. (2005) found that in direct contrast to the 'iron cage' hypothesis, many industries became more heterogeneous not more homogeneous, stating that "The answer, preponderantly ... is on the side of increased heterogeneity" (p. 336). These same authors identified six 'macro-social' forces (in comparison to DiMaggio and Powell's identified six field-level predictors' of isomorphism – 1983) that reduced isomorphic pressure on firms and increased managerial *discretion* (i.e. agency): (i) goal ambiguity diminished; (ii) industries became less structured; (iii) the role of the state diminished; (iv) organisations broadened resource dependence; (v) alternative legitimate models proliferated; and (vi) managerial backgrounds became more diverse. According to Hambrick et al (2005), the reason that "inexorable homogenisation [did not] occur in these and many other industries" (p. 312) is that ironically DiMaggio and Powell's (1983) hypothesis was correct:

"D&P developed a set of hypotheses regarding how contextual forces influence the degree of homogeneity within an organizational field. In keeping with their theme, the authors emphasized how increases in these contextual forces would bring about increased homogeneity. What they did not consider, even though it was compatible with their logic, is that *decreases* in these contextual forces would promote *decreased* homogeneity, or heterogeneity, among actors in a field" (ibid, p. 312).

Under these isomorphic pressures, organisations seek to establish their reputation and legitimacy to survive within their environments. This implies a variety of diffusion processes of isomorphism among networks (in the context of organisational institutionalism) and of adoption methods and practices across locations (on local, regional and national levels) and types of organisations which could include MNEs,

government or state entities (the economy state), regulatory bodies, legislators, workers' unions and non-profit organisations (e.g. pressure groups). Cleaver and de Koning (2015) postulate that "Institutions are dynamic in that they are operationalised by human actions, and there is no simple relationship between institutional form and outcomes" (p. 4).

2.5.4 Embeddedness and Regional Development

Embeddedness follows the notion that economic activities are directly attached to social, cultural and economic systems (Krippner and Alvarez, 2007). Evans (1995) calls this 'embedded autonomy', while Aoyama et al. (2011) explain it by saying that "States try to remain autonomous from, yet able to guide economic activities" (p. 174). Politicised economic systems can follow different degrees of economic freedom (Crouch and Streeck, 1997). Aoyama et al. (2011) state that "Regional development is also shaped by the embeddedness of economic actors in localized social, cultural and political institutions" (p. 176). Grabher (1993) had written about how embeddedness caused different types of lock-in in the German Ruhr region: functional, cognitive and political, with such situations occurring also later elsewhere (Eich-Born and Hassink, 2005; Hassink, 2007). "Embeddedness influences how firms produce, use and diffuse tacit forms of knowledge" (Aoyama et al., 2011, p. 176). Tacit knowledge that is geographically embedded in places, cultures and industrial communities is generated through actions and experiences, and distributed across proximate relationships, enabling regions to develop location economies and global competitive advantage (Polanyi, 1967; Gertler, 2003; Morgan, 2004b). Bellandi (2001) observes that when organisations connect with foreign places they can either retain the local economy's embeddedness, or develop an 'embedded unit' so to sustain the deep local socio-economic interactions that may augment knowledge and resource flows within the location. 'Industrial promotion systems', like government or state agencies, and other institutions, like growth coalitions and labour groups are instrumental in driving towards innovation and industrial restructuring (Amin, 1999). Recently, scholars have focus also on 'informal institutions' that relate to particular cultures and activities. Henry and Pinch (2001) found that similar informal institutions helped to sustain the UK's 'Motor Sports Valley' as an international innovation centre for the motor sport industry and the creation of 'public spaces' and 'shared arenas' (Healey et al., 1999). These studies show why the importance of developing 'relational

assets' by regions for potential support of institutions' evolution that can effectively and flexibly facilitate innovation. Relational assets are embedded in the inter-linking networks of economic actors based upon trust, co-operation and reciprocity, and may lead to the creation of untraded interdependencies in a place (Storper, 1995, 1997) described by the same Storper (1997) as being "conventions, informal rules and habits that coordinate economic actors under conditions of uncertainty. These relations constitute region-specific assets in production" (p. 5). Sokol (2011) describes untraded interdependencies as "...the less tangible benefits of being located in the same place...[that] may include various informal links and interactions between firms... [and that] relate to various social and cultural bases of agglomerations that go beyond...'economic'" (p. 74). The 'human infrastructure' can change a regional economy into a learning region comprising knowledge-intensive industrial organisations, when connected through appropriate communications, with the industrial infrastructure, effective capital distribution and industrial governance driven by innovation (Florida, 1995). "However, the learning region concept remains contested and is difficult to operationalize in research" (Aoyama et al., 2011, p.181).

The concept of 'institutional thickness' was proposed by Amin and Thrift (1993, 1995), describing the term as a measure of the quality of institutional setting. The authors defined four elements: (i) a strong institutional presence; (ii) high level of interaction among such institutions; (iii) a well-defined structure of domination and coalition; and (iv) the awareness of a common purpose among institutions. Amin and Thrift (1993) state that regions need to create 'institutional thickness' in order to maximise their innovativeness and growth potential. Thickness is achieved when a region's institutions:

- Effectively serve diverse roles (worker training organisations, investment promotion agencies)
- Are collectively legitimised by politicians, business people and workers
- Discourage behaviours (e.g. corruption) that might impede growth
- Help create dense networks of social relations among economic actors.

MacLeod (1997, 2001) noted how 'institutional thickness' shared similar ground with Storper's (1997) 'institutions of the learning economy'. However, institutional thickness

can be too thick, as posited by MacLeod (1997) in his study of the institutional density of Lowland Scotland. He notes that the region had achieved 'institutional overkill' by having too many institutions, which had not helped Scotland retain transnational capital. Amin (1994a) notes that attempts to achieve collaboration between corporate investors and institutions through policy dictate and "oversight institution building" can be problematic.

2.6 Co-Evolution

2.6.1 Co-Evolution Theory

If geography matters to global value chains and regions, then so does history. According to Boschma and Martin (2010), the importance of the historical aspect within the economic context, that is, the temporal evolution of spatial landscapes, is under-emphasised in the recent key theoretical developments in economic analysis (Amin and Thrift, 2000; Bathelt and Gluckler, 2003; McCann, 2007; Martin and Sunley, 2007; Simmie, 2005; Henning, 2019). Boschma and Martin (2010) contend that an evolutionary perspective is necessary to gain a deeper insight into the "... geographies of technological progress, dynamic competitive advantage, economic restructuring and economic growth" (p. 3). The author agrees and believes that an evolutionary perspective should be applied to the institutional dynamics of both regions and GVCs in tandem, in other words, from a perspective of 'co-evolution'.

In biology, 'co-evolution' occurs when two or more species reciprocally affect each other in a natural process of evolution. "The activity of each species that participates in the interaction applies selection pressure on the others. Co-evolution is one of the primary methods by which biological communities are organized. It can lead to very specialized relationships between species" (Rafferty, britannica.com, n.d.). This might be considered to be an endogenous phenomenon. When applied to evolutionary economics, for example, the focus is on the processes via which the economy self-transforms from within (Witt, 2003b). Such transformation must satisfy three fundamental requirements: (i) involve dynamical change, (ii) be irreversible and (iii) generate novelty. This dynamic, irreversible novelty is the product of the creative capacity of both economic agents (firms and individuals) and markets (which are institutional arrangements regulating exchange) that drives economic evolution and

adaptation (Witt, 2003b; Metcalf et al., 2006). It is 'Schumpeterian' transformation in that it is endogenous and stems from within the socio-economic system and is based on firm-driven innovation (Ramlogan and Metcalf, 2006). Knowledge is not a pre-given factor of production; economic evolution depends on the internal innovation and adaptation of knowledge by economic actors (Fine, 2000). Therefore, an emerging 'evolutionary economics' seeks to understand real-time economic evolution (Nelson and Winter, 1982; Hodgson, 1993; Arthur et al., 1997; Foster, 1997; Dopfer, 2004) making "the effectiveness and efficiency of policy measures is time-specific" (Schmidt, 2018, p. 797). Economic geography has recently started to incorporate concepts of evolutionary economics to develop a theory of evolutionary economic geography (Amin and Thrift, 2000; Boschma and Frenken, 2006; Frenken et al., 2007; Essletzbichler and Rigby, 2007; MacKinnon et al., 2009) in order to better understand how "geography matters in determining the nature and trajectory of evolution of the economic system" (Boschma and Martin 2010, p. 6). In order to achieve this goal, Boschma and Martin (2010) suggest three conceptual foundations on which to develop a theory of evolutionary economic geography: (i) generalised Darwinism, (ii) complexity theory and (iii) path dependency theory. A significant portion of the notions of evolutionary economics mentioned above are borrowed from generalised Darwinism (Witt, 2003b; Metcalf, 2005). Less has been written about complexity theory in this context; however, ideas regarding complex adaptive systems, self-organisation and hysteresis may provide useful insights with regard to co-evolution and renewal within socio-economic network structures. The main focus of path dependency theory is on the irreversible, historical momentum of firms and institutions that stems from the historical stream of consequential decisions by economic actors that lead to continued relevance or irrelevance in markets (David, 1985; Arthur et al., 1997). For the purposes of this review, the author will focus on aspects of 'generalised Darwinism' and 'path dependency theory'.

2.6.1.1 Generalised Darwinism

Generalised Darwinism is a theoretical approach to the application of the core mechanisms of Darwinian biological evolution (i.e. variation, selection and retention - VSR) to other theoretical domains, such as culture, economics and international business (Hodgson, 2005). The fundamental principle of Darwinism is that organisms

evolve, while adapting to their surroundings in iteration, which involves mutation or recombination of a given form or template (*variation*); *selection* of the fittest variants (i.e. those most likely to thrive in their given environment); and *retention* of the fit variants (which are passed to offspring). Fit variants are retained and undergo variation in a new iteration of evolution. Early approaches to the application of Darwinian theory of natural selection to the economic and sociological domains (Wilson, 1975; Becker, 1976) have been criticised on the grounds that it ignores human intentionality and can only be applied to genetically determined forms of behaviour (Lewin and Volberda, 1999; Vromen, 2001; Hodgson, 2004; Witt, 2004). Whereas, more recent applications of Darwinian theory to other domains, in which human agency is significant, have adopted a more nuanced approach of using its underlying principles as a heuristic framework to explore and analyse the movement of the economy, institutions, or business enterprises over time (Hodgson, 2002; Knudson, 2004; Vromen, 2004; Hodgson and Knudson, 2006; Essletzbichler and Rigby, 2007). Of particular interest for this thesis, heuristics frameworks of generalised Darwinism have been applied to studies of the evolution of MNEs (Volberda and Lewin, 2003; Madhok and Liu, 2006) and regions (Essletzbichler and Rigby, 2005; Gertler, 2005). Regions may be considered as selection environments within which and across which evolutionary processes operate (Boschma and Frenken, 2006). There is evidence of institutional variation between regions (Saxenian, 1994a; Gertler, 2005) and populations of economic actors (e.g. firms) within regions that adapt to and evolve from such variation (Essletzbichler and Rigby, 2007). The implications for MNEs of generalised Darwinism are discussed below.

In recent decades organisational theorists have debated whether the prime driver of organisational evolution is environmental selection (Hannan and Freeman, 1977), managerial adaptation (Child, 1972) or a combination of both (Bourgeois, 1984). Increasingly theorists are coming to the conclusion that organisational evolution is in fact a combination of both selection and adaptation (Bourgeois, 1984; Meeus and Oerlemans, 2000; Stoelhorst and Huizing, 2008; Geels, 2014). There is no single theory of how selection and/or adaptation explain how and why firms co-evolve over time (Dooley and Van de Ven, 1999). However, a common underlying theoretical principle is that the existence of a population of heterogeneous firms, with adaptive (learning) capabilities and the opportunity to interact and mutually influence each

other, is a precondition for co-evolution (McKelvey, 2002). The population of heterogeneous firms may comprise either single-unit enterprises or multi-unit enterprises (such the subsidiaries of a MNE); competition and survival are prime drivers in both instances (Volberda et al., 2001) yet “in a constantly changing evolutionary world” (Schmidt, 2018, p. 792). Whilst the emergent outcomes of co-evolution are highly idiosyncratic, it is possible to conceptualise different idealised co-evolution journeys (Volberda and Baden-Fuller, 2003). Volberda and Lewin (2003) present four generative mechanisms (VSR engines): (i) naive selection, (ii) managed selection, (iii) hierarchical renewal and (iv) holistic renewal -

- *Naive Selection*: Journeys of naive selection are driven by three basic processes: (i) blind Variation, (ii) competitive Selection and (iii) Retention (Aldrich, 1979; McKelvey, 1982, 1997; McKelvey and Baum, 1999). Co-evolution is a continuous cycle of variation, selection and retention in which variations emerge from blind or random initiatives. In this approach, senior managers do not try to actively manage the process of the evolution of individual units. Selection takes place via the amplification of market pressures to create desired outcomes and is considered to represent a competitive form of selection (Campbell, 1994; Baum, 1999).
- *Managed Selection*: However, in multi-unit firms, managers may develop preferences for certain responses or variations. Thus, top management may adopt anticipatory control systems (instead of competitive selection) based on prior knowledge that acts as a selector during anticipation (Campbell, 1994; Baum, 1999). Therefore, blind and random variations are replaced by adaptations that simulate variations of time and resource constraints. The role of top management is to continually align or re-align capabilities of various units with selected co-evolving internal environments. The co-evolutionary journey comes from strategic promotion and development of bottom-up initiatives aimed at front-line managers.
- *Hierarchical Renewal*: This a mainly technological journey where adaptation results from a top-down administrative engine (based on a top-down co-evolving managerial process) to set objectives, interpret scenarios, identify and consider alternatives, select and implement new directives while monitoring progress. This

is a highly rational process that involves scanning both macro and micro environments. If corporate management is the main initiator of entrepreneurial action (with front-line managers being implementers of top-down decisions), then it could imply a deliberate top-down managerial process that leads to co-evolution. Strategic renewal depends on strategic intent and superior foresight. The emergent co-evolutionary outcomes of administrative mechanisms are less deterministic or path-dependent when compared with naive or managed selection engines. In reality, co-evolution of large complex firms would be less centralised and rational, and more multi-faceted.

- *Holistic Renewal*: Renewal is organisation-wide involving dedicated activity at each level. Holistic renewal calls for the involvement of the entire organisation in radical change, and the inclusion and accomplishment of new technologies and processes. Multi-national enterprises use collective sense-making mechanisms of renewal to derive from the mostly tacit knowledge. Blind variation, competitive selection, deliberate variation and vicarious mechanisms do not generate the extent of variation reflecting actual environmental rates of change. This co-evolutionary journey appears to be more reflective of the increasingly networked structure of the MNE (Madhok and Liu 2006; Cantwell et al., 2010).

2.6.1.2 Path Dependency

Since its emergence in the 1980s and 1990s from the influential work of David (1985, 1988, 1994) and Arthur (1989, 1994), path dependency has impacted on a range of theoretical domains, including economic geography and organisational science (Martin and Sunley, 2010). Path dependency emphasises the primacy of early events (including financial investments, learning and co-ordination effects, and adaptive expectations) in shaping the evolutionary trajectories of organisations and institutions, and may result in a static equilibrium (Schmidt, 2018) state of structural inertia and entrepreneurial inflexibility. Whilst choices made in the past influence subsequent choices of method and practices, path dependency does not imply a rigidly deterministic journey from past to future states, but may be perceived as a “....roadmap in which an established direction leads more easily one way than another – and wholesale reversals are difficult” (Walker 2000, p. 126). Some theorists (Hall, 1994;

David, 2005) consider path dependency to be the underlying principle of evolutionary economics. However, several criticisms of path dependency have emerged within the last two decades, which relate mainly to the lack of managerial agency, the emergence of new technologies, organisational structures and product substitutes (Garud and Karnoe, 2001; Sydow et al., 2005; Martin and Sunley, 2006). They argue that the assumption that path dependency is an 'accident of history' ignores the purposeful behaviour of economic actors, and that the hypothesis is incomplete because it incorporates simplistic assumptions regarding path de-lock or dissolution. David (2005) appears to assume that path break-up stems from an external shock that destabilises the system and creates an opportunity for a new path to emerge. The Davidian base model of path dependency follows four stages of development of an industrial, institutional or technological trajectory: (i) pre-formation, (ii) path creation, (iii) path lock-in, and (iv) path dissolution (Sydow et al., 2005). Much of the focus of path dependency theory has been on organisations, markets and technologies (Antonelli, 1997; Araujo and Harrison, 2002; Schmidt, 2018), but the theory is increasingly applied to regions and institutions (Hassink, 2005; Isaksen, 2015).

The application of path dependency theory to regional development studies is potentially challenging for economic geography theorists. Whilst the notion that "...the economic landscape does not tend towards some (predefined) unique equilibrium state... but is an open system that evolves in ways shaped by past development paths" (Boschma and Martin, 2010, p. 8), identification and conceptualisation of which factors in a regional economy follow an evolutionary development (supported by empirical research) is less than straightforward (Martin and Sunley, 2006). Questions remain regarding the possible existence of multiple paths, their interaction with each other and how obsolete paths may end, not to mention the precise nature of the forces and processes that create and shape these trajectories. Martin and Sunley (2010) argue that the case of a regional economy (or for that matter an organisation or institution) becoming locked into a path-determined equilibrium state is likely to be an exception rather than the norm. Path adaptation may occur gradually over time, as new paths emerge endogenously from old paths, and not as a result of external shocks (Martin, 2010). In this respect, Martin and Sunley (2010) suggest that viewing economic landscapes as 'far from equilibrium' complex adaptive systems, building on the emerging notions of 'complexity economics' (Beinhocker, 2006; Berger, 2009;

Rosser, 2009) may offer promise for analysing regional economies. The emerging field of network evolution may also provide useful insights into the development paths of regional economies (Powell et al., 2005; Giuliani, 2007), drawing on studies of how proximity may induce path dependencies in the spatial evolution of innovation networks (Sternberg, 2000; Gluckler, 2007; Ter Wal, 2009).

The concept of path dependency is often resorted to in economic geography, when explaining economic specialisation, established success, crises and unfavourable economic development of regions. Economic geography theorists contend that regional institutions are not pre-given and fixed but follow their own evolutionary trajectories over time (Martin, 2000; Boschma and Frenken, 2006; Gertler, 2009). This is supported by the literature on the evolution of regional innovation and the role of state institutions (Lambooy and Boschma, 2001; Pelikan and Wegner, 2003; Hassink, 2005; Schamp, 2005; Shapira and Fuchs, 2005; Asheim et al., 2006; Nooteboom and Stam, 2008). Strambach (2008, 2010) introduces the concept of 'path plasticity' to describe flexible evolutionary institutional trajectories. 'Path plasticity' is a term that "describes a broad range of possibilities for the creation of innovation within a dominant path of innovation systems. Plasticity results among others from the elastic stretch of institutions and institutional arrangements and their interpretive flexibility through actors" (Strambach, 2008, p. 3). Notteboom et al. (2013) have since coined the term 'institutional plasticity' to describe similar phenomena. Strambach (2010) contends that new evolutionary paths may be created with existing frameworks of institutional arrangements through the purposeful interventions of institutional and other economic actors – a notion that builds on Nelson's (1995) perception that institutions co-evolve with firms and technologies.

2.6.2 Co-Evolution Dynamics of MNEs

MNEs are subject to a complex set of co-evolutionary dynamics, and these may be conceptualised as: the co-evolution of MNE activities with institutions both external and internal to the firm (Cantwell et al., 2010) taking place at multiple levels (Madhok and Liu, 2006). Evolution may occur at multiple levels with the units of evolution nested within one another (Baum and Singh, 1994; March, 1994). In viewing a MNE through the lens of co-evolution theory, it becomes apparent that there may be more than one co-evolutionary relationship and a nested hierarchy. In evolutionary terms, a MNE is

both a distinct organisation and a population of organisations, each embedded in a distinct local environment. The dynamics of co-evolution incorporate both 'macro co-evolution' with the external (local) environment (i.e. environmental selection) and 'micro co-evolution' within the internal environment of a MNE (i.e. between its parts or subsidiaries and the whole – a form of managerial adaptation), and the relationship between the two (Madhok and Liu, 2006). Madhok and Liu contend that both external macro and internal micro level co-evolutionary processes transform the MNE, driving the developmental path of a firm's knowledge and capabilities, and is potentially a source of competitive advantage – or 'co-evolutionary advantage'. Madhok and Liu (2006) further contend that co-evolution at the different levels will occur at different speeds, and that this speed differential leads to a 'dis-synchronisation' effect in the co-evolution of the MNE. As knowledge is a key competitive resource that flows across the subsidiaries of a MNE (or stages of a GVC), an understanding of the mechanisms that cause the flow to accelerate or decelerate are critical in overcoming dis-synchronisation effects. Madhok and Liu (2006) identify 'causal ambiguity' and 'absorptive capacity' as two such mechanisms. Causal ambiguity refers to ambiguity regarding the causal connections between actions and outcomes, and which impedes knowledge transfer (Lippmann and Rumelt, 1982). For example, knowledge-creation through interaction with a subsidiary's external environment may often hold location-specific factors that are not always easily identified. This may cause stickiness in knowledge transfer due to local embeddedness, thus preventing the exploitation of its global potential (Szulanski, 1996; Bartholomew, 1997; Madhok, 1997). Absorptive capacity is the capacity of a firm to adjust its co-ordination and control systems to new opportunities as they become available (Sternberg, 2000; Mudambi, 2002; Zahra and George, 2002). Absorptive capacity enables a subsidiary to identify knowledge that is valuable and incorporate it into its operations. According to Madhok and Liu (2006): "Whereas at the external macro level absorptive capacity enables a subsidiary to compete more effectively in its local environment, causal ambiguity impedes internal micro level absorptive capacity, which in turn limits transfer across network members" (p. 5). This is important because the ability of a MNE to disseminate knowledge globally through the firm is a significant contributor to competitive advantage internationally (Dunning, 1988).

The dynamical tensions within the nested hierarchy of co-evolution prevalent within MNEs challenges the orthodox theory of institutionalism that isomorphic pressures will result in homogeneity across a population of institutions and organisations. The choice between environmental selection and managerial adaptation is not clear-cut as both processes occur concurrently and influence each other (Cantwell et al., 2010). As noted above, each MNE comprises a population of subsidiary entities, each of which occupies a particular niche in terms of a geographic location and/or product specialisation (both in the host environment and within the MNE). These subsidiaries acquire knowledge from their local environments (Birkinshaw and Hood, 2000), either by creating their own variations or by absorbing successful variations from their host environments, potentially enriching their own specialised knowledge and that of the global network. Local environmental changes not only impact on the subsidiary itself but also on changes to its niche within the MNE as a whole. In other words, HQ's perception of the outcomes of local co-evolution may lead to an increase or decrease in the importance of a subsidiary to the global network, thus resulting in a distinctive subsidiary and a differentiated network. Internal micro co-evolution reflects the co-evolution of intra-firm resources, capabilities and competencies (Lewin and Volberda, 1999). The subsidiary population of the MNE co-evolves with the whole (Baum, 1999), transforming one another, potentially leading to changes in the location of centres of competency in the global value network as a result of shifts in internal competition stemming from the evolution of knowledge stocks and flows (Cerrato, 2006; Tallman and Chacar, 2011). This (co)evolution dynamically changes the role of subsidiaries but provides a basis on which a differentiated network maintains a cohesive identity and structure, and highlights the nature of the speed differential between macro and micro co-evolution. According to Baum and McKelvey (1999), evolution is faster at sub-unit levels, where lower complexity of sub-system level activity exists (than at higher organisation levels), while processes of variation, selection and retention probably unfold also quicker than at the overall system level. If macro co-evolution occurred faster than micro co-evolution then the pressures involved would tend to pull apart the network (Madhok and Liu, 2006). Therefore, alignment of the macro and micro co-evolutionary dynamics (i.e. the dynamics inherent in external and internal institutions) are critical for co-evolutionary success in changing fitness landscapes.

As noted above, the isomorphic concepts of institutional theory are indeed challenged by co-evolution theory; heterogeneity in the fitness landscape of international business appears to be the norm rather than the 'iron cage' of isomorphism. One of the reasons for this is the complexity and uncertainty of global economic interconnectedness, in which firms and institutions operate in a 'non-ergodic' world of continuous change, where forecasting the future from the past is not possible (North, 2005). Institutions of state (political and social) are becoming less centralised in a way that mirrors the increased autonomy of MNE sub-units (Cantwell et al., 2010) as GVCs take the form of de-centralised networks. Moreover, relationships matter. Internal institutionalism (within MNEs) is becoming more important as MNEs evolve in networked forms with an emphasis on exploiting relational capital (i.e. the co-ordination of networks of value-creating activities) than the exploitation of ownership-specific advantages *per se* (Cantwell et al., 2010). In addition, MNEs are engaging more in institutional entrepreneurship with external institutions for mutual benefit, thus shaping the trajectories of both parties (Regner and Edman, 2014). Therefore, establishment and maintenance of legitimacy is still a crucial element in the co-evolution of organisations and external and internal institutions. Overall, it is possible to draw parallels between Madhok and Liu's (2006) MNE macro/micro co-evolution model, Volberda and Lewin's (2003) holistic renewal engine of co-evolution and Strambach and Storz's (2008) notion of path plasticity. All describe a flexible, intentional, multi-level, holistic and endogenous paradigm of co-evolution.

2.7 Regional sustainability

OECD's Regional Development Policy Committee encourages policies which are relevant to the respective territories and geographies, primarily aimed to "sustain competitive advantages; generate stronger, fairer and liveable regional economies; and promote effective and innovative governance at all levels of government" (oecd.org, n.d.).

The iconic Michael Porter (1990) states that "Sustained productivity growth requires that an economy continually upgrade itself" (p. 76). He continues to say that "Government should aim to encourage sustained investment in human skills, in innovation, and in physical assets" (ibid, p. 89) – an argument that is aimed at the economic aspect of TBL. Yet, supply chain optimisation strategies and regional

agglomeration economies need to go beyond increased economic benefits. They impact on the environment and social well-being of regions. Global awareness of sustainability values and public pressure for socially and environmentally sustainable supply chains is increasing (Lee and Gereffi, 2015).

'Sustainable development' was defined by the WCED in its report of 1987, alias the 'Brundtland Report', as: "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987). Furthermore, the Commission set the following 'Strategic Imperatives':

1. Reviving Growth
2. Changing the quality of Growth
3. Meeting Essential Human Needs
4. Ensuring a Sustainable Level of Population
5. Conserving and Enhancing the Resource Base
6. Reorienting Technology and Managing Risk
7. Merging Environment and Economics in Decision Making (ibid).

'Sustainable development' was again proclaimed at the 1992 Earth Summit in Rio (United Nations, 1992), where a General Assembly pledged their 'responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction'. The three main issues of sustainable development are economic growth, environmental protection and social equality, extending to sustainable development based upon economic, social and environmental sustainability (Taylor, 2016). Additionally, the term 'green economy' was defined as "An economy that results in improved human well-being and reduced inequalities over the long term, while not exposing future generations to significant environmental risks and ecological scarcities", within the United Nations Environment Programme (UNEP, 2010).

Extant literature gives examples and reasons to prioritise addressing sustainability, such as environmental challenges like depletion of the earth's ozone layer, acid rain, loss of biodiversity, toxic pollution, and depletion of non-renewable energy resources; climate change and socio-political issues including the fast global population growth and unequal wealth distribution (Costanza, 1989; Munda, 1997). And induced by

consumption, the two invasive processes of extraction and waste disposal, with the subsequent environmental degradation, triggered the concept of 'sustainable development' (Munda, 1997).

2.7.1 The Triple Bottom Line

Elkington (1999) coined the phrase triple bottom line to emphasise the equal importance of economic, social and environmental benefits of industrial activity. His original concept was based upon the 3Ps, that is, People, Planet and Profit, eventually becoming to be most popularly known as Triple Bottom Line (TBL), further adopting the Social, Environmental and Economic aspects. The underlying factor is then the performance of each aspect. Figure 2.2 represents the combination.

Figure 0.2: 2.2 - 3Ps, TBL and Sustainability



(source: researchgate.net)

The social element refers to beneficial, fair trade practices regarding human capital, communities and labour, whilst moral aspects are often the main driver for social responsibility, implying downside risk if this is ignored (Alhaddi, 2015). The economic element refers to the impact of a business on the economy, with investments made by a company (explained in financial terms) could make an economic contribution to society through creation of jobs, for example (Jennings, 2004) and where the growth of an organisation can be directly linked to that of the overall economy (Goel, 2010),

indicating that sustainable organisations represent an economic value, which may even support future generations. The environmental element refers to how company practices do not compromise future environmental resources, such as the use of energy and water, the reduction of environmental hazards, emissions and waste disposal (Goel, 2010).

There is a growing consensus for extending governance mechanisms to incorporate the economic, social and environmental elements (Gimenez and Tachizawa, 2012), so that “accountability for the TBL becomes embedded in the practice of human, corporate and governmental activity” (Reddy and Thomson, 2015, p.21). The message is that societies (civil, commercial and industrial) must balance the desire to maximise the benefits of economic and industrial growth with a need to maximise the quality of natural resources and ecosystems and upholding human standard as priorities. This goes beyond corporate social responsibility; it impacts on business enterprises for creating economic value for their stakeholders (Tsoutsoura, 2004), through focus on environmental protection, social responsibility and the well-being of stakeholders, resulting in better financial performance than competitors (Kearney, 2009). Concurrently, consumers exert pressure through buying behaviour to emphasise environmental practices of businesses and the need for the latter to merge ‘business and environment’ into their strategies (Ledgerwood, 1997).

Several authors have continued to address the subject of regional sustainability in recent times, seeking to identify issues that are affecting sustainability, which are often attributed to industrial, economic and other activities happening in cities and regions, by business organisations and governments; and intensified by the global shift of economy (Dicken, 2004; 2011). Some have a pessimistic note in their writings, fearing that sustainability may be hard to achieve (requiring drastic actions) especially at the ecological and environmental levels (Frey and Yaneske, 2007; Harris, 2007). Professor Tim Jackson (2009) had stated that “The global economy is almost five times the size it was half a century ago. If it [the global economy] continues to grow at the same rate the economy will be 80 times that size by the year 2100” while continuing “And it has already been accompanied by the degradation of an estimated 60% of the world’s ecosystems” (p. 102). Jordan and Adger (2009) insist that governance as an obligation of governments and changes to the lifestyles of individuals need to happen

on a drastic level to enable movement towards sustainability. Extending to the global context, issues include climate change, air pollution, CO₂ emissions, recycling, innovation, travel, tourism, deforestation, habitat fragmentation, loss of biodiversity, urban and regional planning and development, higher quality of life, social inequalities and cultural diversity (Shaw et al., 2000; Wilderer et al., 2005; Harris, 2007; Ng, 2009; Hall, 2011; Wagner, 2012; Reddy and Wilkes, 2013; Wheeler, 2013; Chi-ang Lin and Zheng, 2017).

Other authors consider ways and measures to assess regional sustainability and avoid its gradual deterioration, such as spatial planning and environmental management (Shaw et al., 2000). Papageorgiou (2009) states that quantification of sustainability or environmental impact of a supply chain is necessary so to “measure outputs and enumerate intangible outcomes...” (Haugh, 2005, p. 9). Sauer et al. (2016) identify four key areas, namely, local energy systems, local green spaces, local water systems and local labour markets, where social innovation and reformed civil society behaviour can contribute towards upholding ‘urban’ sustainability. Mayer and Knox (2009) affirm the crucial role of small towns within regional economies and favour simple measures that can effectively promote local cultures, traditions, identities, and sustainability in the face of a globalised world and the challenges it presents. Sustainability assessment methods could include ecological footprint, well-being, ecosystem health, quality of life, natural resource availability; and more specific measures like Sustaining Human Carrying Capacity (SHCC) to evaluate the pressures that human activity could have on regional ecosystems (Graymore et al., 2009). Data Envelopment Analysis (DEA) measures ‘particular matter’, by size of solid particles and liquid droplets in the air (Sueyoshi and Yuan, 2015). Smetana et al. (2016) use ‘regional sustainability assessment methodology’ (RSAM) in their study to assess regional sustainability through the indicators of resource quantity, quality, and interchangeability. This implies a combination of social demand and the capacity of resources that could be provided by ecological systems (Boschma and Iammarino, 2009; Neffke et al., 2011; Boschma et al., 2013) within the interactions between the diverse and complex socio-economic systems (Graymore et al., 2009). Smetana et al. (2015) argue that “the state of sustainability at the regional level is a representation of resource use efficiency (maximum outcome with the lowest impact)” (p. 392). Waste and pollution resulting from industrial and social activities are acute factors in urban and regional

development, and demand measurement of the resources required through land area, that is, the ecological footprint (Wackernagel and Rees, 1996).

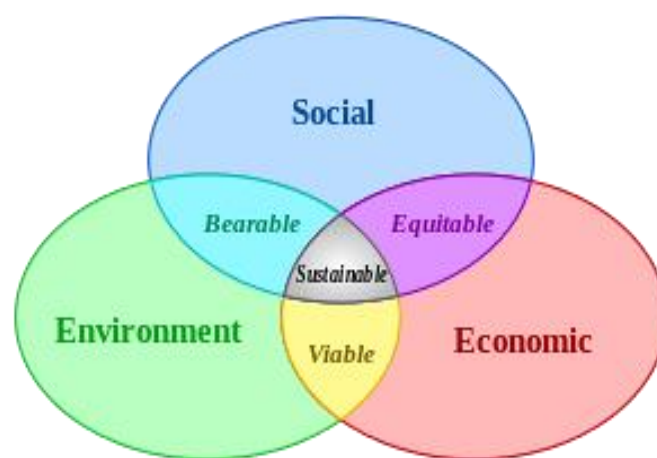
Furthermore, an increasing population volume also increases demand for affordable housing, which is an important theme in regional development (Rohe et al., 2002; Counsell and Haughton, 2006). This implies social and environmental justice (Agyeman and Evans, 2004; Pacione, 2007), and potentially unsustainable resource consumption (Leichenko and Solecki, 2005). It becomes an important issue for highly dense areas and regions (not only by population but also by buildings), to assess and follow upon the sustainability of their economic activities and the closely related urban development, which are inseparable from the concept of TBL, i.e. resources, society and the infrastructure. The concept of sustainability trajectories (sustainability is an evolutionary journey, not a destination) is gaining pace in sustainability literature (Silvestre, 2015; Fu and Zhang, 2017), making effective governance and policy formulation highly important elements of sustainable development (Angel and Rock, 2003).

Pike et al. (2007), maintain that “regional ‘development’ should be part of more balanced, cohesive and sustainable approaches...broader than just the economy and encourages wider and more rounded conceptions of wellbeing and quality of life” (p. 1263). Understanding human behaviour in the face of resource scarcity is imperative, in a situation of depleting resources and an expanding world population. For example, higher demand and lower land area, makes more significant the ecological footprint of economic development, including changes in household consumption and waste management policies (Barr and Gilg, 2006), all affecting urban sustainability. Market based mechanisms to modify economic activity become ever more important in the search for ways in which business interests and environmental interests align in the face of social, economic and environmental problems. Very clearly, ecological footprints and consumption landscapes are two relevant themes within this context.

Two schools of economists, namely ‘environmental economics’ and ‘ecological economics’, commonly try to see where economic activity conflicts with the environment, to identify practices that lead to environmental and social problems, while looking for solutions to these problems, and emphasise the importance of

incentives when providing solutions to environmental problems. Within this conflation of interests an attempt is made to achieve sustainability (in the TBL context) by integrating the dimensions of viability (economic + environment = meeting economic growth and development), bearability (society + environment = society adjusts life style aware of its impact and hence contributing towards a healthier environment and well-being) and equitability (society + economic = to attain an equal and fair share of a country's resources for its society) (Barile et al, 2018).

Figure 0.3: 2.3 - The three dimensions of sustainability



(source: "Sustainable development" (available at http://commons.wikimedia.org/wiki/File:Sustainable_development.svg).

Within this context, this becomes a whole 'ecosystem' (Earth) and could be defined as the entirety of "population dynamics, food webs, energy flows, interactive behaviors, biogeochemical cycles, spatial organization across landscapes, and co-evolutionary processes" (Norgaard, 2010, p. 1220).

2.7.2 Environmental - Economic Factors (viability)

'Environmental economics' and 'ecological economics' are two concepts not to be confused, coming from different schools of thought within the domain of economics. 'Environmental economists' believe that technology is a solution to resource scarcity and loss of ecosystem services, driven by price signals (Ropke, 2005; Costanza et al., 2007) through the substitution of natural capital by human-made capital. 'Ecological economists' argue that there are physical limits to the material growth of economies

and that the carrying capacity of the planet must not be exceeded, while emphasising the preservation of natural capital. Within this section 'environmental economics' are discussed, although 'ecological economics' are also inevitably considered for the sake of comparison.

'Environmental economics' come from the neoclassical thought of economics. In this view, the premise that natural resources can be substituted by technological progress and reproducible man-made capital (Hamstead and Quinn, 2005; Gowdy and Walton, 2010; Romeiro, 2012; Hermann-Pillath, 2015) allows for the belief that natural resources do not constrain economic activity. This assumes that a monetary quantification and a value could be assigned to a natural resource (Hamstead and Quinn, 2005), allowing for organisations to pursue their own interests within free markets, unhindered by government regulations (Romeiro, 2012; Hermann-Pillath, 2015). In this concept, 'value' relates only to commodity exchanges according to supply and demand curves, and does not include wider political, moral, ethical, aesthetic, or spiritual dimensions (Romeiro, 2012). Sustainability is considered just as an economic concept explained by technological progress and consumer behaviour (Gowdy and Walton, 2010). This involves a comparison of costs and benefits (cost-benefit-analysis - CBA) and adjusting prices (in monetary terms) of goods or services to reflect the external costs or externalities (internalising), making those costs part of the buying or using decision (Beder, 2011). 'CBA' approaches led to 'the standard economic view of sustainability' (Gowdy and Walton, 2010), commonly called 'weak sustainability'. This interpreted "sustainable development as development that maintains capital for future generations where capital is the total of human capital (skills, knowledge and technology) and human-made capital (such as buildings and machinery), as well as natural capital (environmental goods)" (Beder, 2011, p. 143). The idea is originally based on the work of Solow (1974) and Hartwick (1977), eventually known as the Solow-Hartwick model of intergenerational equity with non-renewable resources and gradually extended to include renewable resources, endogenous technological progress, and stock pollution. The concept of sustainability here moves on to imply a constant or increasing economic output over time, or the maintenance of economic value measured by market prices (Hamstead and Quinn, 2005; Gowdy and Walton, 2010), provided that there is (i) complete substitutability between the different forms of capital (for example, between natural and man-made

or recycled products), and (ii) a complete commensurability of all types of resources through a monetary measure (Munda, 1997; Gowdy and Walton, 2010).

Several authors criticise this concept of environmental-economics. Their criticism includes that: natural capital is essential to produce man-made goods, even presupposing technological progress; natural resources would be indispensable to uphold progress in the face of monetary depreciation and inflation (Munda, 1997); there would be no need to transform natural into man-made capital if natural capital were completely substitutable by human-made capital (Beder, 2011); natural capital is multifunctional in its support of all life functions, but not man-made capital (Munda, 1997); according to the physical laws of thermodynamics and entropy, energy cannot be fully conserved, converted or substituted (Hermann-Pillath, 2015). For the 'weak sustainability' (commensurability and monetisation) criticisms include that: natural and man-made resources not being alike, they should not be measured by the same standards, or expressed in traditional and common values and units such as money (Müller, 2001); exclusive focus on the gross domestic product (GDP) ignores environmental destruction or degradation, does not value natural resources, and counts repairs and remedies as positive GDP contributions, thus hiding the social, environmental and distributive costs of economic expansion (Munda, 1997); focus on allocation efficiency for environmental policy decisions tends to ignore wider socio-economic and socio-political issues such as equity (Common and Stagl, 2005; Beder, 2011); the full value of natural resources could become clear only after they have disappeared, which is known as the 'compositional' or 'transparency problem' (Gowdy and Walton, 2010), e.g. the Amazon rainforest; cost-benefit analyses are unsuitable to account for cumulative losses over time, since degradation may pass unnoticed leading to a sudden and complete ecosystem breakdown (Beder, 2011).

For the sake of comparison, "the macroeconomic goal of environmental economics is the growth of the national economy, that of ecological economics is the sustainability of the global economic and ecological system" (Gunesh, 2018, p. 38). Environmental economics focuses mainly on the human species and its activities, while ecological economics envisages the whole ecosystem, including non-human elements, including flora, fauna, and climate (Costanza et al., 2007; Beder, 2011). Ecological-economics was defined by Costanza (1989) as "a new approach to both ecology and

economics...to make economics more cognizant of ecological impacts and dependencies... [and] ecology more sensitive to economic forces, incentives, and constraints” (p. 1). The local and national economy are perceived as a sub-system of the larger global and local ecosystem (Romeiro, 2012) where the economic system comprises the economic activities of humans (e.g. production, exchange, and consumption); the human system includes all the activities of human beings (e.g. biological life processes, culture, aesthetics, and morality); the natural system encompasses both the economic and human systems (Munda, 1997). It follows that any damage caused by the economic system affect the bigger human system and limit the economic system itself (Munda, 1997). Gunesch (2018) suggests that ecological economics should be considered as an evolutionary negotiation of cultural, social, political, economic and ecological debates, rather than choosing between economics or ecology - both are indispensable factors of human development (Munda, 1997). The concern with growth is part of the larger concept of sustainability (in holistic development), meaning a preservation of the resources that enable that very growth (Müller, 2001; Ghosh, 2017). Additionally, there could be limitations imposed by technology and social activity on the environment meeting present and future needs (Kates et al., 2001). Both technology and social activity could be influenced by economic pressures. Turning the argument around, is it time to let the environment impose limitations on technology and social activity, and economic for that matter? Thinking further, ecology could sustain itself in a natural way without depending upon economy, but economy depends on ecology to sustain itself.

In the 1960s there had been an attempt inspired by the law of conservation of mass (Boulding, 1966), later manifested by Meadow's 'Limits to Growth' (Meadows et al., 1972), implying that economic growth would have to be controlled not to overwhelm the earth's carrying capacity. In the same era of modern economy and society, Ayres and Kneese (1968) recommended the increase in material efficiency of economies by using less material per monetary unit, with emphasis to be put on the increase in human societies' material throughput rather than on economic growth (ibid, 1969). In the following two decades, holistic or systemic perspectives on the interrelation between society and the environment were overshadowed by an analytic and multi-dimensional focus mainly on pollution (Fischer-Kowalski, 1998). In their '30-Year Update' Meadows et al. (2004) still maintain that “The global economy is already so

far above sustainable levels...We appreciate that the difficulty of finding solutions to problems such as poverty and employment, for which growth has been, so far, the world's only widely accepted hope." (p. 12). Talking about the twenty-first century, which Meadows et al. (2004) call 'World 33', they mention three ways of how humanity could respond to the unsustainable levels of resource use and pollution emissions: (i) to "deny, disguise or confuse" (ibid, p. 235); (ii) "to alleviate the pressures from limits by technical or economic fixes" (iii) "to work on the underlying causes...and acknowledge that the human socioeconomic system as currently structured is unmanageable... and therefore, seek to change the structure of the system" (ibid, p. 236).

The question arises about "the scale of the economy (being) compatible with its ecological base", within the concept of carrying capacity, defined by "thresholds of ecosystem resilience" (Romeiro, 2012, p. 78). Schmidt (2018) strongly states that "Economic policy can no longer be seen as an intervention into the system and its markets, which has to correct market and system failures" [in the light of] "market, government and system failures [in] modern market economies" (p. 800) that are embedded in constant change. Concerns arise about the maintenance and enhancement of the natural capital stock, minimising material production and consumption, and the measure of success not only in growth or criteria such as GDP, but also in the quality, resilience, coherence and complexity of human, natural, man-made, social and financial capital products and stocks, which even include quality of life, well-being and longevity, community stability and cultural diversity (Hamstead and Quinn, 2005; Romeiro, 2012), rather than pursuing and implementing 'zero growth', before growth would stop by itself (Romeiro, 2012).

2.7.3 Socio-Environmental Factors (bearability)

In this section, the concept is about how the environment could deal with human activities and the effects upon it by society's actions, implying damage, reduction and potential replacement (substitutability) of resources, i.e. impacts of society on the environment – (bearability is "the quality of being able to be borne", collinsdictionary.com, no date).

Barile et al. (2018) suggest a mechanistic approach based on Figure 2.3, 'The three dimensions of sustainability', for "human beings to develop by remaining within the carrying capacity of the ecosystems" through the following constraints:

- "the weight of human impact on natural systems does not exceed the carrying capacity of nature;
- the utilization rate of the renewable critical resources does not exceed their regeneration rate;
- the emission of pollutants and waste does not surpass the absorption capacity of the environment;
- the reduction of the non-renewable resources can be compensated by the production of an equal amount of renewable resources that are able to replace them" (p. 3).

Human-environmental interactions have strong societal implications. In the last twenty years several authors have researched and investigated the area of social-environmental studies, seeking knowledge and theoretical development, producing a number of frameworks (Binder et al., 2013), all addressed at "resolving the complex socio-environmental problems that they aim to explain, compare, and assess" (Pulver et al., 2018, p. 11). Socio-environmental (SE) research looks at connections between social and ecological systems, and could involve processes of decoupling. For example, technological innovation may reduce community dependence on a local ecosystem partially disengaging the relationship between human well-being and immediate ecosystems (Raudsepp-Hearne et al., 2010). This echoes the environmental-economic notion of substitutability.

Some SE research frameworks are briefly named here. The **Human Ecosystem Framework** (HEF, Machlis et al., 1997) conducts comparative analyses of socio-environmental interactions across spatial patches in urban ecosystems, while considering cycles of individuals, institutions, and the environment in a background of historical conditions. The **Vulnerability Framework** (TVUL, Turner et al., 2003) applies the concept of vulnerability within a specific location, then placing it in a broader region and a global environment, considering the vulnerability of complex human-environment systems, including hazards in an action-oriented approach, acknowledging any past risk exposure. The **Coupled Human and Natural Systems** framework (CHNS, Liu et al., 2007) treats dynamics and linkages between human and natural systems while adding spatial and temporal scale, such as the cumulative effect

of local greenhouse gas emissions on global climate change. The **Social-Ecological Systems Framework** (SESF, Ostrom, 2007, 2009) is placed in a social, economic, political, and ecological setting, taking a diagnostic approach to provide detailed findings regarding common-pool resource problems, for example, overuse, when “multiple individuals concurrently use common-pool resources such as fisheries, grazing areas, airsheds, oil pools, and irrigation systems” (Gardner et al., 1989, p. 1), informing resource governance.

In SE frameworks ‘scale’ refers to spatial or temporal dimensions considering events that go even beyond the local and present, becoming even more important in view of an increasing global interconnectedness (Rulli et al., 2013; Dell’Angelo et al., 2018). The ultimate purpose is to identify any constraints in future trajectories, within a dynamic global change and evolutionary context with trajectories that could be controlled by path dependence (Carpenter and Rissman, 2012), implying geological, evolutionary, political, social, and economic factors. Indeed, the anthropogenic impact on the environment is emanated by persistent economic progress which influences the behaviour of industrial, commercial and civil societies in a time where human activity (e.g. population growth; overconsumption; overharvesting; pollution) dominates the environment, leaving a negative effect on the availability and quality of natural resources upon which all types of society depend.

According to OECD (2019) “Cities are home to over half of the global population and account for over 80% of global GDP. They also account for between 60 and 80% of global energy consumption and 70% of global greenhouse gas emissions” (p. 6). The expected continued growth of urban populations calls for increasing management of urban infrastructure, “particularly in clean energy, sustainable transport, green buildings, water and sanitation” (ibid, 2019). Population growth might undermine the world’s available resources ability to meet the increased demand for food, clothing and housing (Taylor, 2016). There follows an increasing impact on the environment as a result of society’s movements and activities, such as waste and disposal resulting from consumption; pollution created by emissions from the means of commuting and travel; increasing use of available land from construction to satisfy increasing housing needs; reduced available green and public space through increased limitation of land; dwindling biodiversity in an eroded habitat through scarcity of land. These effects

surely call for a necessary increased population control and management (Taylor, 2016). People would need to be educated, while they should take personal responsibility for changing their lifestyle (Susa, 2019). Imminent becomes “the need to integrate good management practices with sustainable behaviors” (Barile et al., 2018, p. 6) to instigate change in attitudes and lifestyles in households, offices, businesses and industry across the economy; optimisation of inputs of materials to production processes is to be applied, reducing the level of pollution and waste; together with better transport management and improved building design. In addition to all this, the risk of damage from natural disasters becomes a significant concern. Infrastructure investments that strengthen resilience become ever more necessary (OECD, 2019); effective demand management and efficient use of energy and other resources will have to be encouraged and implemented by institutions (governments). Country-specific priorities and resource availability (Meurs and Quid, 2018) would guide such choices, and incorporate “relevant socio-cultural issues [such as] the size of the human population stabilized and reduced, and the materialistic consumer lifestyle” (Huesemann and Huesemann, 2011, p. 83).

2.7.4 Socio-Economic Factors (equitability)

Socioeconomics as a term does not represent any specific theoretical underpinning (Abbott, 2001; Boyer, 2008; Hollingsworth and Müller, 2008), and has no established definition attached to it. According to Hellmich (2015), “Social economics examines the interaction of economic valuations with economic activity and economic institutions and measures their outcome against basic ethical values” while conceptualising a “socioeconomic system as a collection of heterogeneous individuals that interact directly and/or through prices generated by markets” (p. 6). The same author continues that “some argue that the categorization and understanding of governance structures (such as markets, hierarchies, and political economies) might potentially become the original domain of socioeconomics” (ibid, p. 12), involving the behaviour of individuals, society and institutions. Resting on this premise, socio-economics would comprise economic activity (as influenced by markets and institutions) which affects social processes (including individuals and society). Conversely, economic activity could be influenced by a social change (through behaviour) which may occur in the absence of formal policy, for example, the initiation of social movement groups (Schofer and Hironaka, 2005). How the economic activity of a place affects society is

the main perspective adopted within this section. The word 'equitability' is favoured in this thesis, although in the same sense that 'equity' is used in extant sustainability literature, denoting fair and impartial treatment for everyone within an economy state. 'Equitability' is preferred to 'equity', since the latter also has other connotations relating to finance.

By equity, The World Bank (2006) means that "individuals should have equal opportunities to pursue a life of their choosing and be spared from extreme deprivation in outcomes" while implying "Institutions and policies that promote a level playing field - where all members of society have similar chances to become socially active, politically influential, and economically productive - contribute to sustainable growth and development" (p. 2). Therefore 'equitability' provides for the 'well-being' of individuals and society, which is affected by economic policies and political decisions of a place, and by the priority given to the growth of the economy or to the people's welfare (physical and mental), including elements like disparities in wages, wealth and status which could be related to issues of different sectors of industry and employment, affordable housing, urban space planning and population density.

Disparity in wages has been increasing in the last four decades with globalisation, restructuring of labour markets, the liberalisation of the economy (Sachs, 2012; Piketty, 2013; WID.world, 2018) and de-industrialisation, all affecting today's social relations and spatial structures (Marcuse and van Kempen, 2000; Tammaru et al., 2016). The mentioned economy shift and increased education contributing towards social mobility resulted in a higher qualified native workforce in major and global cities (Sassen, 1991; Marcuse and van Kempen, 2002; Costa and de Valk, 2018). The ethnic component of income and economic inequality which had existed in Western Europe since the 1950s (Sassen, 1991), grew again in the 1990s with another influx of foreign immigrants in some countries, responding to employers' demand in North and South Europe for low-skilled workers in the low-paid employment sector (Castles et al., 2013). Of course, one must not be led to think that the total native workforce becomes more highly educated and qualified and could take higher-paid jobs, and that all the lower-paid jobs are filled by foreign workers.

Income inequality could put certain sectors of society at a disadvantage, one classic example being affordable housing. Considering that the incomes of immigrants are normally lower than those of the locals, according to EUROSTAT (2018), their residential choice is limited by their lower purchasing power and the possible limited availability of affordable housing in the host urban region (Arbaci and Malheiros, 2010; Hulchansky, 2010), with a possibly resulting residential segregation. The difference of wealth between socio-economic groups would favour the high-income earners when it comes to residential mobility and choice due to their stronger financial affordability (Hulchansky, 2010). This in turn, leads to significant land and housing price increases in desirable areas (Préteceille, 2016), and which even affects low-income neighbourhoods, pushing up house prices there (Leal and Sorando, 2016). High-income society groups might even move into low-income neighbourhoods, being attracted by profit-seeking investors and speculators, where the latter undertake renovation and new housing construction in such areas to pursue their business interest ('the rent-gap theory', Smith, 1987). Concerningly, new housing construction requires available land space, and unless controlled (area size, land availability, any already-existent density, access to green spaces and possible environmental and infrastructural impacts) it becomes an exploitation of land resources. One could apply Susa's (2019) chastising statement here when saying that

"The financial investment system does not contribute to the wider development of socioeconomic reproduction, infrastructures, jobs, education, social and health care, or environmental protection – but flows into private enterprises and firms and their capacity for exploitation and extraction, which operate with relative impunity" (p.327).

According to Eurostat (2019), "the EU-28's overall population decline or growth is likely to depend largely on the contribution made by migration" (pp.1-2). This seems to confirm Fischer-Kowalski and Amann's (2001) statement that if populations grow (in the twenty-eight EU countries – twenty-seven as of 2020) it would typically come from an influx of foreign nationals. Maybe countries would try to control this immigration to maintain a balanced material comfort for the population, in situations of few available jobs or lack of adequate housing. According to Ritchie and Roser (2018), over half of the global population already resides in urban areas, 'increasingly in highly-dense cities', and this is expected to increase further to two-thirds by 2050, contributing towards increasing populations in cities.

It becomes necessary that society revises its definitions of status, wealth, happiness and material sufficiency (implying socio-cultural issues), and work towards “appropriate stable population size; from exploitation to just treatment of labor, future generations, and the environment; and from gross inequality to a more fair distribution of both income and wealth [to induce] various policies which redirect science and technology towards meeting these new goals” (Huesemann and Huesemann, 2011, p. 141). The World Bank (2006) speculates that “the development process itself may become more successful and resilient as greater equity leads to better institutions, more effective conflict management, and a better use of all potential resources in society” (p. 9). “A re-definition of progress is needed”, to reduce “the technological control and exploitation of nature and people” (Huesemann and Huesemann, 2011, p. 172) in “a society based in class, inequality, and acquisition without end” (Foster et al., 2010, p. 47).

In this section sustainability issues affecting a region and its society have been discussed. It seems that a paradigm shift in the interpretation of growth, progress, population, infrastructure, environment and sustainability is highly desirable. According to Foster et al. (2010) “A primarily quantitative society must give way to an emphasis on qualitative human relations and a more sustainable relation to the environment” (ibid, p. 119). Huesemann and Huesemann (2011) state that “Indeed, all three pre-conditions for environmental and societal collapse are present in current technological societies: (i) rapid growth in resource use and pollution, (ii) limited resource availability and waste absorption capacity, and (iii) delayed responses by decision-makers when limits have already been exceeded or soon will be” (p. 139).

2.8 Overview of the literature findings

The findings of the literature review are drawn from six areas of theory (i.e. industrial location theory as applied to global value chains, foreign direct investment, regional economic development, institutionalism, co-evolution and regional sustainability). Two of the six areas of theory (i.e. institutionalism and co-evolution) were not originally part of the review, but included in the study after the first wave of primary data activity, when it became clear that the dynamics of place setting were as much societal as economic, and the development trajectories of both business enterprise and place

were intermingled in an evolutionary ecosystem framed within institutional arrangements.

1. Industrial location theory and GVCs

Three key findings emerged from the literature on GVCs and global location theory (i) the role of MNE managed activity networks (i.e. GVCs) has evolved to the point where intra-network innovation is the strategic imperative; (ii) the resource endowment requirements of GVC nodes has consequently changed from cost-based efficiencies (which are still important) to innovation capabilities (which are now vital); and (iii) the nature of locational agglomeration dynamics is increasingly nuanced, providing opportunities for flexible locational ecosystems as well as established clusters of economic scale.

The GVC concept with its emphasis on a combination of inter-firm and inter-nodal relationships, technological innovation and spatial configuration of networks in international markets orchestrated to increase returns is a key theoretical construct in the economic geography literature. Whilst most trade within GVCs is related to the transfer of intermediate inputs, the strategic emphasis is increasingly on higher added value, which typically is innovation in product design, technological development, process innovation and customer service, rather than production. This has significant implications for the resource endowment requirements of MNEs from the geographic locations in which they have invested. Those GVC nodes that create innovation (whether product, service or process) are likely to be more competitive in attracting and sustaining inward MNE investment flows than those competing for investment on the basis of cost and process efficiencies. Traditional industrial location theory proposes that not only do location externalities impact on the ability of nodal actors (i.e. local enterprises, whether MNE-subsidiary or independent), but that such externalities are best created in clusters of economic scale through MAR-type knowledge spillovers, which create sector homogeneities and sector specialisation. However, there is evidence that the existence of deep-rooted place-related societal effects of entrepreneurship and flexibility, reinforced by Jacobian knowledge spillover effects of firms from different sectors located in close proximity (i.e. on a small island) that lead to economic growth and innovation without the need for sector scale. Thus suggesting that an inward investment policy based on a flexibility-based resource

endowment is just as much a competitive strategy for a GVC node as one based on economic scale.

2. Foreign direct investment

The key findings from the literature on FDI relate to the nature of place-related resource endowments. According to Penrosian theory, variation in resource endowments may be explained by the facts that resources are not necessarily fungible, human capital is not necessarily specialised, nor is firm expansion optimal. Penrosian effects of firm growth therefore allow for location-based behavioural and learning dynamics. More recent developments in FDI and international business theory link resource endowments to location-bound and non-location-bound firm-specific advantages (FSAs), and propose that both are critically important in global activity networks. Viewed through the lens of the eclectic paradigm of international business theory, three sets of FSAs may be used to describe patterns of FDI behaviour and MNE growth: (i) technology-related FSAs, which represent both the intensity of capital investment by MNEs and the return on this investment in terms of new knowledge created within a spatial-structure (i.e. location) and its spillover within the GVC; (ii) the dynamic capabilities of both parent and subsidiary to generate and exploit firm-specific competencies within a changing environment; and (iii) internationally transferable FSAs (particularly in terms of human capital and knowledge) that is as likely be from subsidiary to parent as it is from parent to subsidiary.

The literature on the history of FDI in Malta indicates a sophisticated and mature engagement with the needs of inward investment stemming from both the Island's location as a historical Mediterranean crossroads and a largely beneficial long-term association with the United Kingdom. The investment focus of the Maltese business community had traditionally been maritime trade and services relating to British Crown activities (and, in effect, a focus on a single source of inward investment). Independence in 1964 encouraged the island's government and business community to actively engage in attracting in FDI. The profile of inward investment began with low-cost manufacturing, and over time matured into higher value precision manufacturing and then financial and knowledge services. An important finding from the literature is that Malta is one of the EU's highest recipients per capita of positive

cash inflows, with associated high cash outflows indicating a significant trade in intermediate goods and services; with high levels of added value.

3. Regional economic development

A key finding from the review of regional development literature is the emphasis on endogenous location related factors, as the explanatory theory has evolved from a focus on the foundations of neo-classical macro-economic growth to the micro-centred concepts of economic geography. This is in line with the realisation that access to production factors does not fully explain variations in regional growth, and that the growth phenomenon is more fully explained by understanding innovation, growth and standardisation of product profit cycles within specific locations. These are factors that are embedded in a strong entrepreneurial business, educational and research and development climate – in other words, geography matters. An additional key finding relates to the nature of regional development. Economic theorists have traditionally described regional development in terms of increasing returns, employment growth and economic prosperity. Increasingly, theorists are taking a wider, more nuanced view of beneficial growth beyond economic gain, extending the concept of development to include individual and social well-being, framing a more sustainable conceptualisation of regional development.

4. Institutional theory

Institutionalism was found to be a critical theoretical construct in facilitating an understanding of policy interactions between regions and the global value chains of MNEs – the so-called ‘geographies of governance’. Two key findings emerged from the literature review of institutional theory: (i) how the concept of legitimacy may explain institutional efficiency within a region; and (ii) the relationship between institutional embeddedness and regional development.

Legitimacy in this context is the shared societal belief of what is considered to be legitimate within a spatial structure (i.e. a region). However, institutional legitimacy may be linked to, for example, political interests and intent, as well as societal expectations and cultural heritage. It is inevitable that institutional actors will make trade-offs that economic actors (e.g. MNEs), with their prime focus on economic returns, tend to avoid. Therefore, it is necessary to understand the nature of

institutional dynamics within the geographies of governance within an economic or sovereign region. It is also necessary to understand how institutional arrangements of legitimacy prevalent within a location (i.e. GVC node) align with the notions of legitimacy prevalent within a MNE and its stakeholders and which underpin its international business strategy - the so-called 'geography of transactions'. Some theorists now contend that the interplay of these two respective sets of legitimacy-based assumptions (in addition to local externalities) may account for the general absence of isomorphism in most studies of regional development. The constraining effects of institutional and enterprise isomorphism should in theory constrain significant variations in regional economic performance, but in reality they appear not to do so.

A related key finding is linked to the notion of institutional embeddedness (of economic actors in localised social, cultural and political institutions) and how this phenomenon may cause degrees of lock-in (of investors) within a region, building long-term relational capital as a basis for regional comparative advantage. Such relational capital is a function of cultural and social capital in addition to economic capital from which a knowledge-intensive local economy may evolve over time. This evolutionary phenomenon requires a degree of institutional thickness, in terms of a strong institutional presence, positive inter-institutional interaction, competent governance and clear common purpose. However, the degree of institutional thickness present must be appropriate to the needs of a region in order to avoid bureaucratic 'over kill'.

5. Co-evolution theory

This study revealed that over the longer term (i.e. approximately three decades) not only had the form and function of a number of MNE subsidiaries located in Malta evolved, but also the institutional and physical environment of the location (i.e. Malta) had evolved in an apparently mutually-beneficial way that indicated some form of co-evolution. The notion of a recurring evolutionary cycle of search for, selection and retention of appropriate evolutionary strategies from a variety of options available within an evolutionary landscape and the consequential impact on that landscape (making it fitter or less fit for evolutionary purpose – the 'fitness landscape') is at the core of Generalised Darwinism theory. This form of co-evolution theory has been adopted in recent years within the domains of economic geography and international business to explain variations in MNE performance and regional development. Two

key findings emerge from the review of co-evolution theory: (i) the evolutionary path described in General Darwinism is not rigid and significant degrees of freedom may exist, thus introducing the notion of path plasticity; and (ii) co-evolutionary dynamics of MNE and place may be observed at both macro and micro levels of interaction.

Path dependency emphasises the primacy of early events in shaping the evolutionary trajectories of organisations and institutions, and may result in a state of structural inertia and entrepreneurial inflexibility. Theorists have increasingly noted that the autopoietic nature of evolutionary paths is diminished when applied to economic and societal domains, whilst the effects of managerial agency become more powerful; thus introducing significant degrees of freedom in terms of path renewal choice (i.e. path plasticity) to the extent that the chance of actors becoming locked into a path-determined equilibrium state is likely to be an exception rather than the norm. Such path plasticity allows for not only for the elastic stretch (i.e. flexibility) of economic actors, institutions and institutional arrangements, but also for the possibility that that new evolutionary paths may be created within existing frameworks of institutional arrangements through the purposeful interventions of institutional and other economic actors.

Co-evolution occurs at multiple levels within economic and societal domains, requiring appropriate levels of absorptive capacity (of enhanced search, select and retention strategies) on the part of both sets of evolutionary actors (i.e. economic and institutional actors), which may be constrained by varying degrees of causal ambiguity regarding evolutionary paths and renewal possibilities. Furthermore, co-evolutionary dynamics may be observed at both macro and micro levels of interaction. At the macro level, co-evolution takes place at GVC network nodal level between economic and institutional actors (MNE subsidiary and geographical location). At micro-level, co-evolution occurs within a GVC between focal subsidiary, parent company and other network subsidiaries. In either case, local institutional actors have a co-evolutionary influence on a GVC either directly, at a macro level, or indirectly at a micro level. This study focuses on the macro dynamics of co-evolution.

6. Regional sustainability

There is a growing consensus that, as noted above, in order to be sustainable, regional development must encompass more than just economic growth and extend to include the environmental and societal domains that impact on place and are affected by local institutional arrangements. The Triple Bottom Line concept of economic, environmental and social benefits has, in addition to the core sustainability related theme of place as an ecosystem, drawn considerable attention in recent years. However, the TBL has also drawn criticism as a somewhat empty slogan. The final key finding of this literature review is the realisation that a regional development policy management tool may have its foundations at the intersections of the three elements of the TBL model: social-economic dynamics (equitability), economic-environmental dynamics (viability) and socio-environmental dynamics (bearability); all three represent trade-offs in terms of shaping the evolutionary paths of a region.

A summary of the key findings of the literature is being shown in Table 2.1:

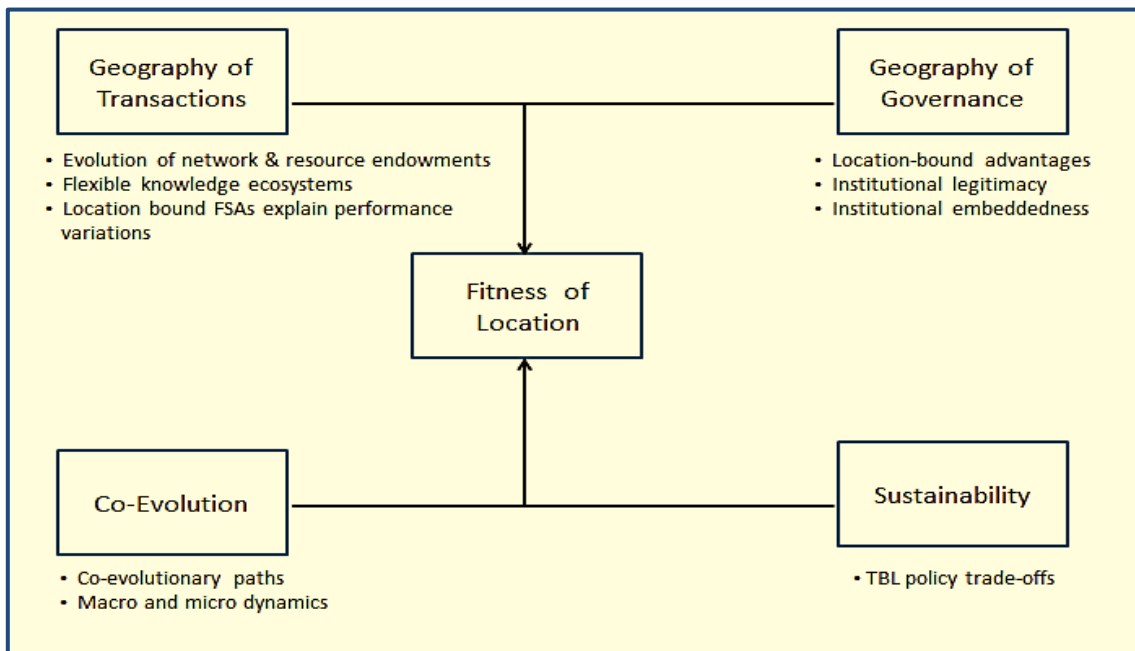
Table 2.1 - Key findings of the literature review

Literature Themes	Key Findings	References
<i>Industrial location theory and GVCs</i>	The resource endowment requirements of GVCs centres on innovation capabilities	Kaplinsky and Morris, 2001; Gereffi and Fernandez-Stark, 2011; Sturgeon, 2013; Hernandez et al., 2014; Kano et al 2018
	Effective regional knowledge agglomerations increasingly feature flexible ecosystems	Jacobs 1969; Amin 1994a; Amin 1994b
<i>Foreign direct investment</i>	Penrosian effects of FDI allow for location-based behaviour and knowledge to explain performance variations	Penrose 1959; Uzawa, 1969; Rubin, 1973; Slater, 1980; Rugman and Verbeke 2002; Tan and Mahoney, 2005
	Many of the firm specific advantages of FDI are location-bound	Hymer 1976; Dunning 1979; Rugman 1996
<i>Regional economic development</i>	Much of the variation in regional economic growth may be attributed to location-related factors	Markusen 1985; Romer 1990; Erickson 1994; Rees 2001; Stimson and Stough, 2008; McCall, 2010; Smętkowski, 2018
<i>Institutional theory</i>	Perceptions of legitimacy may explain institutional efficiency within a region	Moe, 1990; Suchman, 1995; Reis, 2012; Asheim et al., 2013; Hillmann 2013; Cleaver and de Koning, 2015

	The notion of institutional embeddedness may explain long-term inward investment relationships in a region	Polanyi, 1967; Amin and Thrift 1993, 1995; Bellandi 2001; Gertler, 2003; Morgan, 2004b; Monios, 2016
<i>Co-evolution theory</i>	The evolutionary path described in General Darwinism is not rigid and significant degrees of freedom may exist	Garud and Karnoe, 2001; Sydow et al., 2005; Martin and Sunley, 2006; Nooteboom and Stam, 2008; Strambach, 2010; Notteboom et al, 2013
	The co-evolutionary dynamics of MNE and place may be observed at both macro and micro levels of interaction.	Baum and Singh, 1994; March, 1994; Madhok and Liu, 2006; Gertler, 2009; Boschma and Martin, 2010; Cantwell et al., 2010; Martin, 2010
<i>Regional sustainability</i>	The TBL model enables an understanding of trade-offs within a sustainable regional development policy	Mulligan and Carruthers, 2011; Perrons, 2011; Gimenez and Tachizawa, 2012; Burchi and Gnesi, 2013; Lee and Gereffi 2015; Reddy and Thomson, 2015; Barile et al, 2018

Furthermore, conceptual linkages (theoretical connections) identified from the key findings of the literature review are being gathered in Figure 2.4 hereunder. They are all connected by the concept of ‘fitness of a location’ (as discussed further in section 7.... and depicted in Figure 7.5 within Chapter 7 of this thesis) under the umbrella of ‘economic geography’. In summary, the fitness of a location to become and remain a favoured node in a MNE enterprise activity network depends on two factors: (i) the presence of locational advantages, including spatially-derived economic externalities, perceived by a MNE to be relevant to its geography of transactions; and (ii) the presence of an advantageous local geography of governance based on a coherent development policy enabled by appropriate institutional arrangements. Furthermore, the dynamics of co-evolution and (balanced) sustainable development could both reinforce and constrain the evolutionary trajectory of both parties: enterprise and host.

Figure 0.4: 2.4 - Conceptual linkages of key findings



2.9 Conclusion

This chapter provided an extended review of literature across topics that relate to decisions taken by MNEs when coming to locate as FDI, the evolution of the resulting investment enterprises and the evolution of the host economy state itself, to begin to understand the complex implications of a regional development policy and strategy (a node in the global value chain). A historical background of the mentioned practices and topics has been included in the literature review, giving also underlying foundational and developmental aspects of some of the reviewed literature themes.

This multi-disciplinary body of literature is bound by highly relational concepts between the study domains. It has helped to establish a more holistic, albeit complex view, providing justification for the wide and varied literature review that has been undertaken. In the final stage of the research several motivations have been identified by the full review of the literature that set coherent linkages across theory and practice in a relational manner. This chapter provides an informed contribution that supports the Discussion chapter of this thesis. Ultimately, the reviewed literature laid the ground for a qualitative contribution to theory and practice implications alike (involving outcomes, drivers and enablers). These could then can be undertaken in further future study around the relational aspects in both local and wider spatial scales. The next chapter discusses the research methodology adopted in the study.

CHAPTER 3: RESEARCH METHODOLOGY

Introduction

This chapter describes the research methodology of the study and comprises the following sections: the nature of the study, the research agenda, the research philosophy, the case studies context, unit of analysis, data collection and data analysis.

3.1 Nature of study

This study considers the evolution of FDI companies over a period of time, reflecting their trajectories and the change of their host economy state, making it a longitudinal study which according to Witt (2003a), contributes towards “enhancing realism by adding the dimension of historical time to the picture, a dimension that allows the consequences of changing knowledge constraints to be accounted for” (p.79). It looks at different perspectives from different levels and sectors that include FDI manufacturing companies in Malta, logistics service providers, key informants from national entities and agencies, institutions and academics, to attempt capturing maximum information. This observational study employs the analysis of data collected from representative groups within a wider population over a period of time. The experiences and perceptions of commonly discussed themes are provided by players from the above mentioned different sectors within a contemporary setting. The varied range of sources provided a rich mix of information and data to achieve sufficiency, quality, breadth and trustworthiness of the evidence provided. It has also connected such outcomes between relevant groups and the interaction between them within this research. The collection of data happened in a progression manner, within a project and from different sources, and also contributed towards triangulation (Easterby-Smith et al., 2002).

3.2 Research agenda

3.2.1 Purpose

The purpose of the study is to acquire knowledge about FDI manufacturing companies in Malta, their evolution, and interaction with other organisations and institutions

together with the evolvement of Malta itself as the host economy state. The study also looks into how this acquired knowledge informs supply chain strategy on the one hand and regional development policy on the other, in terms of economic, social and environmental sustainability, importantly the latter two elements. Considering the inter- and trans-disciplinary elements that go between supply chain strategy, regional development policy and TBL, Pulver et al. (2018) opine that empirical research is “suited to an assessment of the current state of knowledge about interactions between social and environmental systems” (p. 10). The conducted study seeks to give a faithful account and representation (the researcher’s duty) of how the research participants actually see and relate events, happenings and experiences.

3.2.2 Aims and objectives

The aim of this research is to understand what makes an economy state within a region attractive to multinational enterprises in their supply chain optimisation and investment strategies and decisions, the host country’s evolvement within this context and how its sustainability aspects are impacted. This aim will be satisfied through achieving the following three research objectives:

1. To identify and assess the factors that impact on the attractiveness of Malta to foreign direct investors in the manufacturing sector, seeking to optimise their global value chains.
2. To understand the drivers of Malta’s regional development policy.
3. To consider the implications for the triple bottom line of economic, environmental and societal sustainability, in particular, environment and society.

The theoretical constructs that underpin the three research objectives are derived from the findings of the literature review as outlined in Section 2.8 (and summarised in Table 2.1 and Figure 2.4) above. The key theoretical underpinnings for each of the objectives are as follows:

Objective 1

The theoretical underpinnings may be found in two domains of theory: industrial location theory with respect to GVCs and FDI theory. Four key findings from the literature informed this objective:

- The resource endowment requirements of GVCs centre on innovation capabilities.
- Effective regional knowledge agglomerations increasingly feature flexible ecosystems.
- The Penrosian effects of FDI allow for location-based behaviour and knowledge to explain performance variations.
- Many of the firm specific advantages of FDI are location-bound.

Objective 2

The theoretical underpinning originally derived from regional economic development theory and may be summarised as follows: Much of the variation in regional economic growth may be attributed to location-related factors. This was subsequently augmented with a further two findings derived from the literature on institutional theory:

- Perceptions of legitimacy may explain institutional efficiency within a region.
- The notion of institutional embeddedness may explain long-term inward investment relationships in a region.

Objective 3

The theoretical underpinning derived from the application of the Triple Bottom Line concept found in general sustainability theory in response to an emerging notion in regional development theory concerned with the measurement of regional development benefits beyond a one dimensional preoccupation with economic growth. The key finding that informed this objective is that:

- The TBL model enables an understanding of trade-offs within a sustainable regional development policy (and thus may be used to analyse regional development policy options).

3.2.3 Research questions

The research questions were formed in an eventual process, during progression from the initial idea to the literature review. This helped to justify further study and forming its portfolio. Thus, the actual research questions emerged, proceeding to further case studies:

- What makes a location attractive as a value creation node in a global network?
- How does this attractiveness of a value creation node evolve over time?

- What are the implications for sustainability?
- What are the lessons for global value chain managers and regional institutions?

3.3 Research design

The research design was based upon “a plan for collecting and analysing evidence [to] make it possible ... to answer whatever questions [were] posed” Flick (2009, p. 128). In agreement with the same author’s thoughts, as many aspects of the research as possible were covered (within the scope of the study), spanning from detailed data collection to selecting methods of data analysis, all participants being represented in their everyday context and the real situations of their practices and interactions. With the intention to yield a cohesive study, the research design followed upon what Creswell (2007) favours as the ‘methodological congruence’ where “...the purposes, questions, and methods of research are all interconnected and interrelated...” (p. 42). Yin (2003) commented, “The design is the logical sequence that connect the empirical data to a study’s initial research questions, and, ultimately, to its conclusions” (p. 20).

3.4 Research Philosophy

This study is based upon FDI organisations and a host economy state, with a reference to sustainability. Both the organisations and the state are made up of individuals or groups in a social or human environment, making them social constructs engaged in internal and external actions, interactions and effects. This is where this research is set – a wider environment which includes the business organisations in themselves and the host economy state (as an institution), stretched as far as its society and the environment.

This research followed upon a path from focal FDI companies and business partners, on to government and non-government institutions and academia, who represent the host economy state and contribute towards policy making and education. Such sectors have been considered as legitimate groups for the purpose of this research, while the findings from the respondents also reflected on the effects on social well-being and the environment. Between the two philosophical ways of positivism and interpretivism (Holden and Lynch, 2004), i.e. deductive and inductive respectively, this research

adopts interpretivism, being an empirical study. Table 3.1 shows the envisaged groups within this study.

Table 2: 3.1 - Groups within this study

Stakeholder Groups					
Business organisations (FDI - Manufacturing)	Logistics Service providers		Government Agencies	Non-government agencies	Academia (University of Malta)
Company A - PCB assembly, glass sensors, diaphragms, suction valves, cables and injection moulding	Malta Freeport	Company G - Packaging	Central Bank of Malta	Malta Chamber of Commerce, Enterprise and Industry	Prof. M. Attard
Company B - Electromechanical and electronic controls, sensors, and switch devices	Malta International Airport	Company H - Freight forwarders - Air	Malta Enterprise		Dr. Ing. P. Vella
Company C - Electronic and electromechanical control components		Company I - Freight forwarders - Road and Sea	Malta Life Sciences Park		Prof. G. Baldacchino
Company D - Packaging for beauty industry		Company J - Couriers	Trade Malta	General Retailers and Traders Union	
Company E - Medical devices		Company K - Bulk chemicals	Transport Malta		
Company F - O-rings - sealing solutions			Business 1st		
Effects on social well-being and the environment					

3.4.1 Study approach

This is an empirical (gaining knowledge by direct and indirect observation or experience) and inductive (gathering evidence for the truth of the conclusion) study based on the observation of participants' personal responses, companies' experiences and a country's state of affairs, hence deriving knowledge from actual experience and observation, rather than from theory or belief (rationalism). Along with its exploratory nature, this is a pragmatic research (dealing with things sensibly and realistically, based on practical rather than theoretical considerations) of a qualitative nature, beginning with a worldview about a context (the initial idea) and proceeds to inquire into individuals or groups in a social or human environment (organisations and state – social constructs). In Creswell's words,

“The final written report or presentation includes the voices of participants, the reflexivity of the researcher, and a complex description and interpretation of the problem, and it extends the literature or signals a call for action” (2007, p. 37).

The simplistic classification applied here, follows upon the general tendency to divide research methods into two types, namely quantitative and qualitative (mixed methods, a combination of the mentioned two research approaches, is not relevant at this point of the argument). This also implies the generally assumed associations of 'quantitative'

with statistical, and 'qualitative' with inductive. Although quantitative methods can provide a large amount of data, they may not show deeper meaning (contextual details) which could provide personally based explanations. Qualitative methods like case study are more 'fluid' and 'versatile', in that they could provide further or deeper background to the context (Goulding, 2002).

3.4.2 Philosophical position

The perceived dynamism of supply chains, their social construct and the environment they operate in, within a real world context are the backdrop for this research project. These factors lead to "...particular understandings of these phenomena [the undertaken study] [that] can be gained and explanations attempted" (Saunders et al., 2009, p. 118), through the established research paradigms. The philosophical position underlying this research is an inductive one, whereby a development from specific (focal - case studies) to general (wider - key informants) gathering of facts and information forms the research approach, being the author's stance. These values perhaps could come from the researcher's formation through "world views, cultural experiences and upbringings" and the "value laden" research itself, conducted in this study in "small samples, in-depth investigations, qualitative" (ibid, p.119). This becomes interpretive methodology, which could contain both subjective and objective meanings (Gubrium and Holstein, 2000). Its purpose is to unravel, describe, and critically interpret people's thoughts and perceptions in real settings. However, during this research, a balance between objectivity and any subjectivity was observed and constantly checked against any biased thoughts, interpretations and conclusions that may stifle or deviate the actual meaning that was intended by the respondents in this study.

3.4.3 Justification of case study approach

A case study approach was applied to develop this study, since it focuses on a specific setting, having the intention to explore closely the individual and inter-related perceptions and actions of the various respondents, while allowing for ease of conversation and direct collection of data. Basically, the study explored, sought to illuminate understanding, and to establish the meaning of experiences from the perspectives of those involved, i.e. the participants (Stake, 2006; Merriam, 2009; Simons, 2009; Yin, 2014). Furthermore, it helped to gain understanding about the

relations between the various participants, and how these relations exist and interact within a specified setting. The study actually visited various case studies (participants) for data collection and analysis at multiple levels. Data collection methods combined interviews as a primary source and official trade and sector related publications as a secondary means.

According to Yin (2003) and Saunders et al. (2009), various research strategies exist, with possible overlaps among them. This makes it important to select the most advantageous strategy for a particular research study. Considering both the author's ontological (social constructivism) and epistemological (interpretivism) stances, together with the nature of the study, it seemed appropriate that a case study approach could be engaged to this research due to the following considerations:

- no pre-hypothesis was established and the participants' experiences were to guide the study;
- in-depth knowledge could be obtained directly from the participants (right from the horse's mouth);
- could lead to the observation of new insights through personal contact (personal meetings as compared to surveys);
- it allowed for multiple sources of data, i.e. primary and secondary.

3.5 Case studies context

The accepting companies were engaged in open-ended interviews to gather information and various perspectives. The meetings provided an opportunity to discuss initial research ideas with the participating groups and also to learn about issues that were relevant to them. Basically, the discussions helped to acquire

- first-hand information and perceptions;
- an overview of the companies' ecosystem and development;
- an indication of whether further meetings would be justified for progress in the conducted research study.

The identification of the participating focal companies as case studies was a convenience sample,

- where the subjects are readily accessible,

- with an element of judgement approach,
- with participants coming from a varied range of positions and nature of business though within the sector,
- known to both participants and researcher (Marshall, 1996).

The identification of potential participant companies was based on purposive case selection being considered suitable for qualitative research with the criterion being the identification and selection of information-rich cases related to the area of this study. Case studies were conducted with foreign companies investing in Malta, with the choice criteria being:

- FDI companies in Malta
- companies having been in Malta two decades or more
- companies which have started as a low cost operation and evolved into a significant hub within their organisation
- companies within the manufacturing sector (to set a scope).

Before deciding upon a convenience and purposive sample, the author had first sought to obtain a list of the local manufacturing companies and local logistics service providers through the Malta Registrar of Companies, the Malta Industrial Parks and the Manufacturing Section within the Malta Chamber of Commerce, Enterprise and Industry, having had 'random sampling' originally in mind. However, the attempts resulted unsuccessful because the above mentioned parties declined to provide the requested information quoting GDPR regulations or saying that they did not have such lists readily available. The author then had to revert to the chosen types of sample, based upon own experience and through contacts with third parties.

The findings emerging from the review of the literature on GVCs and industrial location theory strongly emphasise how the dynamics of global value chains and their resource endowment requirements have evolved significantly over the last two or three decades. The literature on FDI and regional development also strongly indicate a shift in focus to endogenous location-related factors that may contribute to the competitive advantage of foreign owned GVCs, leading to an inescapable conclusion that not only does geography matter in terms of explaining variations in regional performance but

the perceptions of MNEs of the causes of variation significantly impact on FDI, and that both the causes and perceptions of local variation may change over time. This realisation led the author to understand that in order to investigate such phenomena, case studies were required of foreign-owned companies that had operated in Malta for at least two decades and thus would provide the necessary longitudinal empirical data for profiling the kind of change suggested by the literature. In addition, the sample of case study companies required some form of commonality and that this would best be obtained by focussing on foreign-owned engineering companies that were similar in size, operation and technology to the author's own employer (Company A).

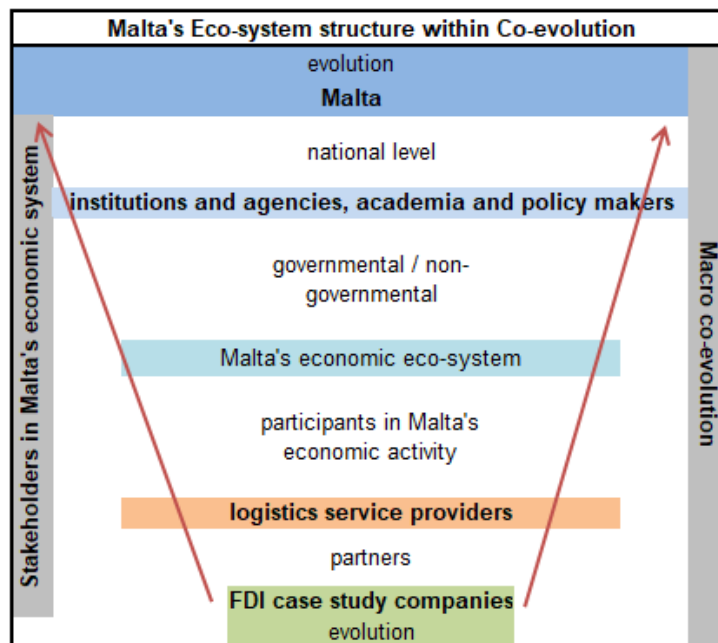
3.5.1 Unit of Analysis

Well-established FDI companies in Malta and Malta as a location (being represented by logistics service providers, governmental and non-governmental agencies and institutions and academia) have been examined. Any influence of institutions or institutional arrangements may have upon business organisations and their extended networks or vice-versa for that matter, further provides a situation which involves organisations and a state economy, hence making a holistic final analysis possible.

Considering that global value chains may be perceived as networks of social constructs made up of multiple elements including focal companies, transporters and logistics service providers (Abbasi, 2012; Sheffi, 2012a) and that their activity happens within a region or economy state, then one can consider them as part of the economic eco-system of a place. The economy state also includes institutions and agencies, education providers (academia) and policy makers, all involved in a social and economic interaction with their respective positions and roles. Basically, the above are all stakeholders in Malta's economic eco-system – all involved in a temporal process of evolution both in an individual context and also in a combined context, in a concurrent manner, not necessarily in alignment, but in a path that is dependent on the roles of all stakeholders and their interactions (David, 1985; Arthur et al., 1997). This amounts to a macro-level of co-evolution, where the evolution of the case study companies has initiated the investigation undertaken in this research in a 'bottom-up' flow to explore the bigger picture of a location's activity and evolvement. Figure 3.1 depicts how the uses and positions of manufacturers, logistics service providers, and

institutions in this research are subsequently positioned in the analysis and the focus on the macro-level of co-evolution.

Figure 3.1 - Malta's Eco-system structure within Co-evolution



(Source: Author)

3.6 Data Collection

The process of data collection has been both formal and informal. The formal aspect involved collection of primary data from participants, and secondary data from trade and sector related publications, while the informal aspect followed a continuous search for latest information (tertiary data) and development regarding MNEs in Malta and Malta itself. Primary data collection has been spread over a two year period that is 2017 and 2018.

The first stage of the data collection process was to acquire information from FDI companies (including the author's own company of employment, referred to as Company A in this study) and the logistics service providers, forming two sets of data collection. Both are being considered as players within the closely related industrial and logistics sectors, and the probability of highly inter-related perceptions through their closeness of operations, was deemed to be quite possible. These participants were interviewed in 2017. Sample transcripts taken during data collection, including

interview design, can be seen in Appendices I to IX. Table 3.2 shows the interviewed focal companies, who gave complete feedback up to the point of providing a development flow (trajectory) of their business in Malta:

Table 3.2 - Case Studies

CASE STUDIES				
Company	Started in Malta	Manufacturing Sector	Origin	Interviewee -Position
A	1988	PCB assembly, glass sensors, diaphragms, suction valves, cables and injection moulding	Germany	General Manager
				Financial Controller
				Purchasing Manager
B	1966	Electromechanical and electronic controls, sensors, and switch devices	US	General Manager
C	1976	Electronic and electromechanical control components	Italy	General Manager
D	1969	Packaging for beauty industry	UK	Head of Operations
E	1995	Medical devices	US	Director of Manufacturing
F	1961	O-rings - sealing solutions	Sweden	Operations Director; Managing Director

High-ranking representatives within the Companies were engaged in open-ended interviews and discussed topics originally raised by five guiding questions, which were:

1. What attracted you to Malta?
2. How has the company developed?
3. How does Malta fit into your supply chain strategy?
4. What is the company's perception of how Malta has developed as a place to do business in?
5. Is Malta still a place to do business in?

The second set of interviews was held with service logistics providers who are being considered as legitimate partners, in the first instance being very close to the FDI companies and then forming part of Malta's ecosystems, all operating together within the host country, thus affecting or being affected by each other's activities. These logistics service providers are 3PL, dealing with movement and transportation of the case study companies' cargo, that is, export and import of shipments, whether by air and courier or land and sea. Companies H, I, and J are closely related to the case study companies, since they handle movement and transportation of the case study

companies' cargo, directly from or to the case studies' sites. They are third parties involved in the case study companies' logistics operations, in addition to shippers, receivers and carriers, while facilitating the movement of parts and materials and finished products to and from both ends of the supply chain. The case study companies (as an enterprise) oversee the management of their shipments, while outsourcing operations of transportation and logistics to their logistics partners who participate in this research (as 3PL service providers). Malta Freeport Corporation, Malta International Airport and Companies G and K can also be considered as 3PL. They handle materials and cargo by way of transport and storage or value-adding operations, and serving a wider role being also connected to the national level. The logistics service providers within this research cannot be considered as 4PL (aka lead logistics providers), since in a 4PL model, an enterprise outsources management of its logistics activities as well as the execution across the supply chain, including the organisation and oversight of their supply chain, to a 4PL provider - the end-to-end supply chain, implying strategic insight and management. This is not applicable to the case study companies in this research. Table 3.3 lists the interviewed logistics service providers.

Table 4: 3.3 - Logistics Service Providers

Logistics Service Providers			
Provider	Activity	Name	Position
Malta Freeport Corporation	Container Transshipment hub	Mr Mark Vella	Senior Manager - Business Development
Malta International Airport	Air terminal	Ing. Martin Dalmas	Head of Airport Operations
Company G	Supplier of packaging material		General Manager
Company H	Freight Agent - Air		Managing Director
Company I	Freight forwarders - Road and Sea		Managing Director
Company J	Courier service		Managing Director
			Business Development Manager
Company K	Storage for oils, chemicals and gases		CEO

The logistics providers' key representatives were also engaged in open-ended interviews and discussed topics originally raised by three guiding questions, which were:

- How has the company developed?
- What is the company's perception of how Malta has developed as a place to do business in?
- Is Malta still a place to do business in - any implications?

The final stage of interviews was held in 2018 with key informants within government and non-government agencies and institutions and academia. They represent the national level within an environment where the FDI companies', the logistics service providers' and the host country's activities, policies and strategies could all be affected through their activities and interactions. Table 3.4 shows the conceded meetings with the agencies, institutions and academia.

Table 3.4 - Key Informants - agencies, institutions and academia

MEETINGS – Key informants - agencies, institutions and academia			
Institution	Sector	Name	Position
Central Bank of Malta	Finance	Dr Mario Vella	Governor
Malta Enterprise	Government	Mario Galea	CEO
		Dr Mario Brincat	Advisor on economic development issues
		Ms Audrey Genovese	Strategy Office - Consultant Policy Analysis
		Mr Brian Camilleri	Head of Research
Malta Life Sciences Park	Government	Eng. J. P. Sammut	Chairman
Trade Malta	Government	Mr Anton Buttigieg	CEO
Transport Malta	Government	Mr Joe Bugeja	Chairman
Business 1st	Government - Private	Ms Marika Tonna	CEO
Malta Chamber of Commerce, Enterprise and Industry	Private Institution	Mr Kevin J. Borg	Director General
General Retailers and Traders Union	Private Institution	Mr Paul Abela	President
University of Malta	Academia - Institute of Climate Change and Sustainable Development	Prof Maria Attard	Head of Department - Associate Professor - Geography - Faculty of Arts; Director – Institute for Climate Change and Sustainable Development
	Academia - Faculty of Engineering	Dr Ing Pierre Vella	Head of Department – Lecturer – Industrial and Manufacturing Engineering – Faculty of Engineering
	Academia - Pro-Rectorate - International Development and Quality Assurance	Prof. Godfrey Baldacchino	Professor of Sociology - Faculty of Arts; Pro-Rector

During the meetings, topics (originally raised by indicative questions) were discussed with the key informants according to their sector, but still related to the responses from the case study companies and the logistics service providers. The sets of topics are shown in CHAPTER 6: FINDINGS 3: Key Informants - Agencies, Institutions and Academia, with the respective responses from the key informants.

The themes in the literature review guided the development of the interview (indicative) questions, through linkage of theory concepts, as further depicted in Figure 2.4 within this study, where all participants of this study operate within the same place, implying the 'fitness of location' (the place), on a mutual context. (The full set of indicative questions for all participant categories can be seen in Appendix I to this thesis). The connections between the literature review themes and the interview (indicative) questions is as follows are shown in Table 3.5 hereunder.

Table 3.5 - Links between the reviewed literature and the development of the interview questions

Links between the reviewed literature and the development of the interview questions			
Case studies (groups)	Literature themes	Conceptual linkages	Interview (indicative) questions
FDI companies and Logistics service providers	<i>Industrial location theory and GVCs; Foreign direct investment; Regional sustainability</i>	Geography of transactions; Co-evolution; Sustainability	Original FDI rationale; Company development; Malta and corporate supply chain strategy; Malta's development - Company's perspective; Malta's continuing attractiveness and implications
Government and non-government institutions, agencies and academia	<i>Foreign direct investment; Regional economic development; Co-evolution theory; Institutional theory; Regional sustainability.</i>	Geography of governance; Co-evolution; Sustainability	Agency's contact with FDIs; Malta's economic development strategy; Institution's / Agency's role in Malta's economic development strategy; sustainability of FDI strategy; implications for social and environmental challenges

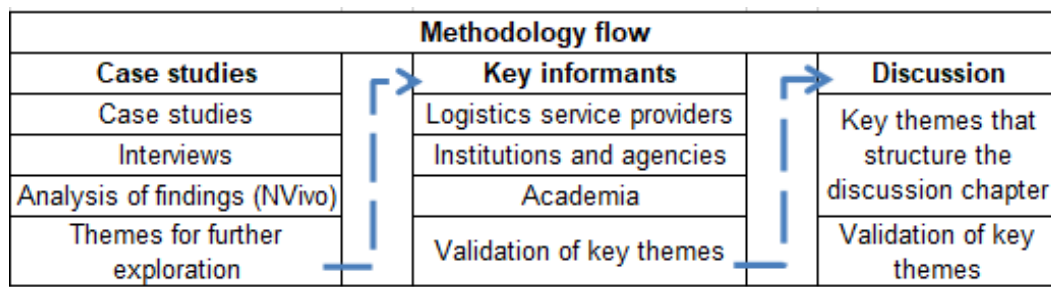
The various stages of data collection conforms with the aspect of participative qualitative research, with a focus and also a resulting evolvement (from the multilevel perspectives of the case studies and discussions) in a natural context, being open to unanticipated events, during progression of the research, (Denzin and Lincoln, 2000). Table 3.6 outlines how the data was collected during this research.

Table 3.6 - Applied types and methods of data collection

Applied types and methods of data collection		
Type	Methods	Description
Primary	open-ended interviews and discussions, triggered by a few pointing questions	Interviews and reflective conversations are a source of information and insight obtained through discussion of relevant issues. The participants provide meaningful accounts of their perspectives (Gilham, 2005; Silverman, 2006).
Secondary	official sources related publications giving information about supply chain and logistics, manufacturing and the economy in general within Malta	a continual process happening before and after the primary data collection itself, so the author could provide additional value to the research
Tertiary	trade and sector related publications giving information about supply chain and logistics, manufacturing and the economy in general within Malta	to include any actual current development within the scope of study

All meetings at all levels lasted an average of an hour, and the responses and included discussions were transcribed, from the notes taken during these meetings, as in the practice of qualitative exploratory data collection (Yin, 2003; Silverman, 2006; Creswell, 2007). Some approached companies did not respond while a few others which are not recorded in this study were also interviewed and have provided information, although not to the full purpose of this study, still however being of certain relevance. A methodology flow is being presented in Figure 3.2.

Figure 3.2 - Methodology flow



The progression of the study followed a 'bottom-up' approach (if one could use the analogy), starting with focal FDI companies (subsidiaries of MNEs), then logistics service providers (business partners), and concluding with key informants from government and non-government agencies and institutions and academia (the highest institutions at national level). Overall, open-ended interviews were held with high

ranking representatives of six FDI companies, seven logistics service providers and key informants from eight agencies and institutions at national level and three university academics.

The process provided a wide range of case studies at different levels for maximum capture of data coming from multiple sources and levels. Case studies are widely used and are adequate methods of inquiry in qualitative research, mainly because of their flexibility and potentially rich descriptive power (Wilson and Vlosky, 1997). Case studies primarily focus on a specified setting, in this case being the interactivity between all levels of case studies which included individuals, and organisations (Gill, 1995) in a real-world context, as studied in this research. Ultimately, the above outlined flow yielded topics at all stages and their validation, providing an opportunity for deeper reflection and interpretive analysis. Key themes emerged from across the whole research and provided a basis for the 'Discussion' chapter within this study.

The findings of the research study were validated in two ways. First of all, a final draft of each case study was sent to the lead informant of each featured company. Each recipient was asked to read the draft and confirm if they agreed that the contents of the draft sent to them, and to advise the author of any inaccuracies. All six informants expressed their satisfaction with the contents of the case study, including two who identified minor inaccuracies that were subsequently rectified by the author. Secondly, the overall findings of the study (as presented in Chapters 4, 5 and 6, and discussed in Chapter 7) were presented to and discussed with the following key informants: the Managing Director of Company A, the Governor of the Central Bank of Malta, the Chief Executive of Malta Enterprise and the Pro-Rector of the University of Malta. The rationale for the selection of these four individuals was as follows: the Managing Director of Company A was chosen to represent the foreign-owned business perspective, and the remaining three were senior institutional policy makers; together they represented both sides of the macro-level unit of analysis. In addition, all four individuals had been generous with their time in participating in the data collection interviews and had expressed an interest in learning more about the findings of the study. This final stage of validation consisted of four individual meetings with the key informants, which in two instances also included several of their advisors. These meetings took place via Zoom due to the COVID-19 pandemic. The validation process

involved a formal presentation (a copy of the PowerPoint presentation is presented in Appendix X) and a discussion of findings. The discussion of findings occurred both during and after the author's presentation. In conclusion, all four key informants stated that they found the findings, and the author's interpretation of them, to be interesting, useful and valid.

3.6.1 Data Analysis

Prior to the initial two sets of open-ended interviews, the very first stage included analysing, observing and extracting the themes derived from literature, and which have been discussed in the literature review chapter within this study. These themes were used to develop the topics discussed with the case study FDI companies and the service logistics providers. Themes included locational choice, attraction factors, development, strategy, externalities, logistics, supply chain optimisation, workforce, education, society, environment, sustainability. These terms helped to form a portfolio of topics for the said initial two sets of open-ended interviews.

The findings of the literature review are drawn from six areas of theory (i.e. industrial location theory as applied to global value chains, foreign direct investment, regional economic development, institutionalism, co-evolution and regional sustainability). Two of the six areas of theory (i.e. institutionalism and co-evolution) were not originally part of the review, but included in the study after the first wave of primary data activity, when it became clear that the dynamics of place setting were as much societal as economic, and the development trajectories of both business enterprise and place were intermingled in an evolutionary ecosystem framed within institutional arrangements.

As already explained, the data has been collected primarily through open ended interviews, as an accepted means within the qualitative nature of this research, with different individuals. These participants provided the collected information which comprises words, sentences and phrases reflecting the respondents' perceptions.

While several issues were directly expressed by the participants, analytic induction to draw meaning (Bulmer, 1979) from certain reasoning or evidence provided by the participants, was also used. This yielded a number of topics, issues and themes which

were then grouped into categories made up of phrases and terms from within the transcripts of the discussions held with the participants. Due to the operational proximity, within their networks of practice (Tagliaventi and Mattarelli, 2006), it was decided to combine these two sets into the first stage of analysis.

The analysis of the transcribed data collected from the open-ended interviews with the FDI companies and the logistics service providers followed NVivo (qualitative data analysis computer software) coding stages of the transcripts from the meetings. The words emerging most prominently from a cluster analysis with stemmed words from transcripts of interviews included: labour, cost, change, flexible, culture, strategy, delivery, competition, Europe, international, hub, manufacturing, base, business, logistics, Customs, infrastructure, Malta, volume, operator, cargo, space, service, clients, people, investment, shipping, government, change and FDI needs. In another NVivo exercise, a word cloud with synonyms yielded further emerging words including land, activity, regional, communication, culture, mentality, quality, skillset, knowledge, transport and development.

The analysis of the transcribed data was done by reviewing the interview phrases, sentences and paragraphs to compile a related set of elements to be discussed in the next stage of open-ended interviews with the key informants from government and non-government agencies and institutions and academia, to build a holistic research. So for example, the term 'change' prompted Malta's economic development strategy, as further shown in Table 3.7 hereunder.

Table 3.7 - Related set of elements - 1st and 2nd set of interviews

Related set of elements	
1st set of interviews	2nd set of interviews
change	Malta's economic development strategy
labour, cost, FDI needs, Europe	FDI in Malta
manufacturing, base	manufacturing sector
development, strategy	sustainability of FDI strategy
skillset, people	social well-being
infrastructure, space	environment,
strategy	effect of Malta's current economic development
business, Customs, manufacturing FDI needs	institutions' influence, role or involvement in the Maltese Government's development policy and strategy
transport	transport infrastructure
logistics, regional	Malta as a regional logistics hub
cost, volume, people, activity	economic growth sustainability
communication, culture, mentality	education in Malta
knowledge	research and development

The responses in the transcripts from the second stage of interviews provided developed ideas from the respondents' statements, which content yielded additional topics of national significance. These included competitive fiscal policy (and financial assistance); workforce availability and flexibility; EU membership and political stability; education; sustainability innovation; and development and strategy.

Finally, the relationship between all identified topics and developed themes was explored to establish emerging themes covering various aspects, which were used to build a narrative within the 'Discussion' chapter of this thesis about the generated ideas, to provide a final illustration and evaluation of all the findings from the research.

Content analysis was used to understand the views and expressions that were demonstrated by the participants' responses in this research, with the intention to see, read, interpret, and follow upon their meanings, through impartial and objective observation. Responses were considered as context units, amongst which overlaps could be found, through commonality and connectivity (Krippendorff, 2004). Objectivity was the priority, even though some extent of subjectivity might be accepted in the case of interpretivism (possibly giving way to flexibility of interpretation), especially when the author is familiar to the study domain (Naslund, 2002).

3.7 Conclusion

This chapter discussed the research methodology employed for this qualitative study, which could also be considered to be of a vertical nature since it progressed through various levels of participants when according to Vavrus and Bartlett (2006) "...in a vertical case study, understanding of the microlevel is viewed as part and parcel of larger structures, forces, and policies about which the researcher must also develop a full and thorough knowledge" (p. 96). The case study approach for this research was justified and the philosophical position behind it explained. The case studies context was presented, together with the mix of different participant levels, while data collection and analysis were also outlined. The next chapter presents the first part of the findings, which came from the participating FDI companies.

CHAPTER 4: FINDINGS 1- CASE STUDY FINDINGS

Introduction

This section contains the findings from the open-ended interviews held with a sample of six well-established FDI ventures in Malta (within the manufacturing sector, to set a scope). These companies have been in Malta two decades or more and had basically started as a low-cost operation and evolved into a significant hub within their organisation.

The participating companies are being referred to as Company A to F, for the sake of confidentiality. A report for each case study is being submitted, showing the respective company in context, giving information about its history, main products and markets and ownership (i.e. parent company). This is followed by a narrative of how the companies' representatives responded to the five discussed topics, as listed in section '3.4 Data Collection', within this study.

Each report provides an overview of the company's evolution in Malta, showing a development-timeline based upon the following principal elements: products and technology, physical footprint, workforce, organisational structure and turnover (total revenue). These are common elements to be found in every manufacturing company. The choice of the said elements is also based on a timeline that tells a story in chronological order. They demonstrate events, turning points, highlights and achievements in a company's life, backed up by facts and figures, while denoting company operations, strategy and organisational structure.

Stverkova and Pohludka (2014) state that

“The goal of every global company is to grow steadily and gain maximum market share. These companies are characterised by a complicated set of operations, emphasis on quality, brand awareness, and high quality staffing. This can be effective if the setup of the organisational structure is fully in line with the nature of the market and the product portfolio” (p. 98).

It is being considered that the focal companies in this study fit well into the situation depicted by these authors. These companies are in direct contact with their corporates or even represent them at a significant level, all depending upon the strategic and organisational decisions taken by Corporate. This might be influenced by

competencies pertaining to the company and its location (Losch, 1954; Krugman, 1991) tied to the organisational structure of which it is a member (Hodgson, 2006). Of course, organisational structures could change (Kovacs and Kot, 2016), effectively undergoing internal isomorphism, affecting the elements which make a company operate, for example needing a larger footprint and a bigger or more skilled workforce to support expansion, or the change or development of product and technology for achieving higher competitiveness and quality, which in turn could reflect on the turnover of a company. “The history of the enterprise can instill a sense of identity and purpose and suggest the goals that will resonate” (Seaman Jr. and Smith, 2012). Such measures could even result from a supply chain optimisation initiative by Corporate, possibly for achieving higher efficiency and stronger presence in the market (Kasik and Snapka, 2015; Darmanto et al., 2017), within their global value chain operations. Reorganisation could become necessary in today’s changing world, making trust, good communication and good performance between focal company and corporate very important, which through their own organisational network turns them into a particular type of institution (Hodgson, 2006).

4.1 Company A

4.1.1 Company Context

Company A is a subsidiary production plant of a German MNE and produces printed circuit boards (PCBs), glass sensors, cables, diaphragms and valves and lances, all for the final products and solutions for a range of fluid metering products. The mother company is based in Germany and was founded in 1960. The Organisation has established itself as a manufacturer of components and systems in the field of fluid metering as well as a reliable solution partner for water treatment. Its market presence includes segments like water treatment companies, suppliers of chemicals, pool and wellness, municipal potable water, food and beverage, oil and gas industry, energy generation and chemical industry. The corporate enterprise, which is represented in over a hundred countries, owns fifty five subsidiaries worldwide, including twelve manufacturing plants. It employs approximately two thousand and hundred people globally, and currently about a hundred and fifty in Malta.

4.1.2 The rationale for the original FDI in Malta

Company A's parent company's decision to invest in Malta was primarily for financial reasons. Firstly, the company sought to lower the costs of production, especially labour costs, which in the 1980s were a significant element of total product costs. The company was interested in finding a low-cost reliable source of labour, and at the time labour costs in Malta were significantly lower than in Germany. It had been reported that Maltese wages averaged only thirty percent of those in the Federal Republic of Germany (Times of Malta, 1973). Secondly, the company recognised the attractiveness of the fiscal inducement on offer in Malta, i.e. the 'tax holiday' offered to MNEs (as an incentive) coming to invest in Malta by setting up operations on the Island. The 'tax holiday' meant exemption from income tax on the gains or profits made during ten consecutive business assessment years for companies that were "...constituted on or after 1st June, 1987 and... exports in monetary value not less than ninety five per cent of its production (calculated "free on board"), or of the services it renders, as the case may be..." (Department of Information, 1988, p. 182). One could also say that there was a third reason: the establishment of a close personal relationship between the founder of the Company and Malta's ambassador to Germany at the time. Prior to the company setting up a production plant in Malta the Company's founder had become acquainted with the then Maltese ambassador and had developed respect for and trust in the ambassador's judgement. In fact, the ambassador thus became the first Managing Director in the company's subsidiary in Malta. This Managing Director quoted (to the author) the concluding words of the Company's founder in a definitive meeting with him: "I will invest in Malta, if you look after my business there." Thus, the original decision to invest in Malta turned to be a combination of low labour costs and fiscal incentives underpinned by personal trust. In this respect it might be said the parent company not only invested in the country but also in an individual they believed would safeguard the investment.

4.1.3 How the company developed in Malta

An overview of the development of Company A in Malta is presented in Figure 4.1 below. The salient trends of development are described in terms of the following elements: products and technology, physical footprint, workforce, organisational structure and turnover.

Figure 0.1: 4.1 - Company A – Development timeline

Company A - development timeline											
Milestones	1988	1989	1991	1993	1995	2004	2008	2011	2016	2017	
Turnover											
Employees	10									150	
Floor space sq. m	380									4800	
Single product development	prototyping - sample production - feedback										
Portfolio product development	glass sensors + electronics production	injection moulding	diaphragms production	sieves and filters production	domestic reverse osmosis units			complete production of electronics for Corporate products		expansion of production facilities in Electronics, Probes and Diaphragms + non-rubber based diaphragms production	
Technology development	mother company - ProMinent GmbH										
Market share / growth	not applicable - ProMinent Group										
Company A											
Sister subsidiary - diaphragms											
Sister subsidiary - sieves and filters											
Sister subsidiary - reverse osmosis											
	Official opening of Electronics and Probes new production facility							2011			
	Official opening of Diaphragms, Injection Moulding, Mechanical Assembly and Administration new facility								2016		

Products and Technology – The company started as a ‘low cost’ production site for the assembly of PCBs and glass sensors. Plastic injection moulding was brought in house to complement its production processes by making plastic parts for its own products. It added diaphragms as its third product, closely followed by the production of sieves and filters, all happening within the company’s first eight years of existence. A completely finished domestic reverse osmosis unit was also within its product range for some years. In recent years, electronics production was intensified in the company’s Malta plant by adding also the PCB production that was being made by the mother company itself and also other production that was being sub-contracted both in Germany and also in Malta. In 2018, yet another production process for the assembly of back-pressure valves, multi-function valves, suction lances, injection lances and flow controls has been located within the Malta plant, following a decision of choice between other production plants within the organisation. This progression of the company’s product portfolio has been constantly supported by the introduction of machinery, equipment, process development and employee training.

Physical Footprint – The Company’s first premises incorporated production sections as well as administration – made up of a floor area of three hundred and eighty square metres. Another detached site was leased a few years after to accommodate the production of diaphragms. During its twentieth year of operation in Malta, the company

acquired its second main premises to house its expanding electronics and glass sensors production lines together with administration offices. In 2017, the third premises were yet added to house the expanded production of diaphragms and the then existing line for domestic reverse osmosis. During this time, the company gave up seventy five percent of its very first premises and also the original site for the production of diaphragms, keeping part of the 'original' premises to house its services sections, such as maintenance. By this time the company's footprint has become four thousand and eight hundred square metres, made up of three sites, all located on the same road within the same industrial estate. At the time of writing, a further expansion of about seven hundred square metres has been approved to be connected with the latest acquired premises, to provide better placement of the stores areas.

Workforce – From the initial count of ten employees, the company now adds up to around a hundred and fifty people, comprising all levels. During the years, the increase has been rather consistent, and the turnover of people not significant, though with a more noticeable rate in the recent few years, as seems to be the current general trend in many European countries. Technical, educational and role-related training has always been encouraged and provided to all employees either within the company or in training institutions, ensuring a high level operation for the company and personal gains for the individuals. At that time of its initial operations in Malta in 1988, Company A had engaged its first ten employees trained in Germany, and who started the production of glass sensors and an electronic unit for metering pumps. "Today, the employees pass several training programmes mainly on-site, but also in some local education institutions. Furthermore, there are several projects carried out in collaboration with various renowned entities, such as the University of Malta and the Malta College of Arts Science and Technology." (prominent.com, 2016).

Organisational Structure – The Company has progressed from being a 'low-cost' production site to a centre of excellence for the production of electronic assemblies, while being also a main site within corporate for the production of its glass sensors and valves and lances – all exclusive production in Malta. It is also in close contact to the mother company's R&D, by providing support and feedback for process development together with prototyping, sample production and testing of products. The local Plant has also been entrusted with the strategic purchasing of electronic

components, which according to the Purchasing Manager, makes up “sixty five percent of the materials base”. The company has also undergone a culture change induced by corporate, moving from the old culture of independently operating subsidiaries who in the managing director’s words were like “independent companies – even sell, in competition, products to maximise profits as an individual versus others within the group”, to the new culture of ‘information management’ based on coherence between subsidiaries (e.g. information sharing, inventory consolidation and transfer-pricing). Structurally, the present company is a result of a merger happening in 2008 of four sister subsidiaries in Malta, keeping the name of the first company on the Island.

Turnover - An overview of the turnover (in Euros – million) at given intervals to reflect a trend for Company A in Malta is presented in Table 4.1 below.

Table 4.1 - Turnover – Company A

Turnover – Company A						
Year	1994	1995	2010	2011	2016	2017
Euro - M	5.8	8.1	7.6	9.1	10.7	12.8

4.1.4 How Malta fits into the corporate supply chain strategy

The Malta Plant continues to maintain its excellent quality output, while also being the only manufacturing subsidiary among the ones in Europe that produces electronic assemblies and glass sensors, which are two of the most important components of the finished products carrying the Organisation’s brand name. According to the Company’s managing director, “expertise lies in the production process” for which the R&D which lies at headquarters, receive constant feedback from the Malta plant, thus giving a highly significant contribution towards making a ‘cost competitive’ product. The Financial Controller describes this as “in view of the fact that the subsequent product will be produced by the people who will work on it [same Plant] – thus producing from day one”. The Managing Director continues to say that the Malta production site is in an “integrated process with R&D and is instrumental in finding ways how to reduce defects, maintain process stability, ensure high quality production, carries out strategic purchasing, tests product reliability, contributes to advantage product cost and even the design, make samples, and going on to component rationalisation”. This is about “building upon where there is knowledge already”, as the

managing director explains it. He mentions also “intangible values, such as – efficiency, cost control, productivity, and innovation”, all innate in the Maltese production site complemented with its important geographical position. All the aforesaid provides a “justification of the increased investment in Malta”, while further expansion for the site is in the pipeline.

Over the years, Company A in Malta has gained the trust of its mother company, who considers its worldwide subsidiary network (denoting presence in major markets) as “an important competitive advantage”. This MNE acknowledges the local market knowledge and the ability to serve regional customers individually of its subsidiaries which it considers as “the nucleus” of its success (Dulger, A., 2013). Company A’s position has now become more significant and important within the Group, with the production of electronic assemblies, and sensors remaining exclusive to the Plant, together with the strategic purchasing for electronic components. Its current contribution in the supply chain includes

- Process feedback to product design - with R&D still being carried out by the mother company. Malta plant keeps developing and improving upon an effective process feedback to facilitate product design for manufacture.
- Manufacturing process optimisation – including organisation, adaptation and shortening of lead times; sustaining process expertise, process technology improvement and process cost-effectiveness.
- Personnel development – technical and data management and analysis.
- Market assistance – sustaining high delivery reliability levels to international customers, which consist of sister subsidiaries, sales offices and also direct end clients.

4.1.5 The company’s perception of how Malta has developed as a business location

Malta has kept its ‘island culture’ which is one of survival and is “reflected in our attitude by being flexible, adaptive, accommodating; having a complementing culture, facilitating the mixing of Maltese and foreign attitudes and mentalities”, according to the Company’s managing director. However, he regrets that there is “no clear view of manufacturing base” when looking at the profile of FDI in Malta, including the “mix of human capital in manufacturing”, denoting old and more recent skillset, which might

reflect upon the availability of labour in the sector. This becomes quite relevant when one considers the drive towards ‘smart specialisation’ with a “shift from manual to technical and digital technologies”; and when one sees how other sectors have grown. He opines that the “presence of a logistics hub in Malta would increase the attractiveness to FDI”, with a potential contribution towards a stronger manufacturing base on the Island – “one facilitates the other”. The argument evolves around agglomeration effects, where “not only a hub contributing to an economy creates attractiveness, but one sector would influence other sectors” according to the Managing Director. The maintenance of infrastructure and support services would make Malta attractive even more.

4.1.6 Malta’s continuing attractiveness as a business location

From the Company’s perspective, elements such as the use of English language, the successful practice of knowledge transfer, the bespoke Maltese culture and the complementing Maltese and German mentalities make Malta still a place to do business in. Other factors that go to confirm continuation of business in Malta include the high-quality level of its output; its labour cost is still competitive (even if it cannot be described as ‘low-cost’ anymore, as the Purchasing Manager states); the still existing flexibility of the workforce; and the upcoming young educated labour force – all contributing towards “more overall added value being provided”. One might make a small reservation when considering a potentially emerging ‘language barrier’ from the recent imported foreign labour and the less significantly present factors of employee sickness and union intervention.

4.1.7 Key Findings – Company A

What started as a low-cost production site has now become an important site of the corporate organisation, moving towards a centre of excellence for PCB production and glass sensors. The late founder of the Company states that the Malta plant “is one of our most successful international production sites. We can really rely on the well-trained Maltese workers who also have an outstanding knowledge of English. This ensures consistently high product quality, which is crucial for the success of the ... Group of Companies.” He continues to declare: “When I look back now on the economic development of the...Group of Companies, I note with great satisfaction that the investment in Malta was one of my best business decisions.” (Dulger, V., 2015).

4.2 Company B

4.2.1 Company context

Company B is a subsidiary of an MNE who have their global headquarters in Chicago, North America. The corporate company has a global footprint with engineering, manufacturing and sales divisions to reach customers on an international level. Locations in Europe are Malta, England, Germany, Switzerland, Italy, Poland, Austria, Sweden and the Netherlands, with the Malta offices being the headquarters for the European region. Locations out of Europe are present in North and South America, Africa, Middle East, Asia, and Australia. This MNE is committed to deliver holistic custom-engineered solutions to clients, while aiming at customer satisfaction through product innovation, quality and timely delivery, all incorporated within the culture of professional support.

Company B is a manufacturing company specialising in the design of highly technological electronic devices and components. It designs and produces electromechanical and electronic controls, sensors, and switch devices for original equipment manufacturers. The company's added value includes research and development, product and tool design, prototyping, and laboratory services, which are supported and complemented by processes like plastic injection moulding, stamping and plating, ultra-sonic welding, tool making, and automated assembling services. This company's products proceed to end customers in various industry sectors like the automotive, communications, military and aerospace, rail and the heavy industry markets, which include big companies as General Motors, Ford, Jaguar, Mazda Volvo, BMW, Rover, Alfa Volkswagen, Audi, Aston Martin, MG Rover, and Saab.

4.2.2 The rationale for the original FDI in Malta

It started in 1996 when the mother company conceived a long-term vision for growth in Europe. Company B came to Malta following corporate's strategic decision to actually set up a base in Europe. Originally, the plant had started as another company in 1966 and was bought by Company B's mother company in 1996/7. The company's policy at the time was also to look for an already existing Plant in the place identified

for investment. For this company, Malta proved to be attractive due to its position in Europe, more specifically in the centre of the Mediterranean. The company also found an already existing production plant on the Island which they could take over. The sealing factor for attractiveness was the tax benefits offered by the Island's government to FDIs. The company have since stayed in Malta, with taxation having been the key factor, offering tax benefits to Corporate. This had also fitted in with the MNE's policy of buying already existing Plants.

4.2.3 How the company developed in Malta

An overview of the development of Company B in Malta is presented in Figure 4.2 below. The salient trends of development are described in terms of the following elements: products and technology, physical footprint, workforce, organisational structure and turnover.

Figure 4.2 - Company B – Development timeline

Company B - Development timeline																				
Electromechanical and electronic controls, sensors, and switch devices																				
Milestones	1998	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Turnover (Eur-M)		16.5	27	30	35.5	38	38	43	82	109	77	85	99	101	115	144	150	157	163	183
Employees		400	420	420	450	500	570	560	680	680	650	780	860	1020	1190	1270	1470	1677	1658	1613
Floor Space Sqr Mtrs		9000	9000	9000	11000	11000	13000	13000	13000	16000	16000	16000	23000	23000	23000	25000	25000	25000	25000	25000
Single Product Development		Automotive Hidden Electromechanical Switches		Product diversification - User interface Ergo Modules						RF Modules		Power Busbars		Sensor Technology applications for different Industries [White Goods / Automotive]						
Portfolio Product Development as Vertical Integrated Processes		Conventional Injection Moulding								Paintline	Stamping	Touch Sensor Technology	Tin Rack Plating		SMT Technology		IMD Injection Moulding	LSR Moulding	Thermofforming	
Technology development																				
Market share / growth																				
Closed operations in UK and transferred business to Malta										Closed Ops in Scotland and transferred Business to Malta										
Acquisition of New Business & incorporated in Group										Other Company (global) - New Business & transferred business to Company B										
Opened low cost production facilities in northeast Africa												Egypt New Facility - subsidiary								

Products and Technology – The company has over the years introduced new technologies into its manufacturing operations. It has also changed the process to lean manufacturing. One main contributor has been automation. The company adopted a policy of keeping high level automation processes in the Malta plant, and assigning low level automation processes to its sister plant in North East Africa. Company B has also followed product diversification, and from the original electromechanical switches it progressed to interface Ergo modules, RF modules and power busbars - expanding its sensor technology applications to different industries, such as white goods and automotive. Along the way, Company B has also added other processes in its

operations, such as injection moulding, printing, stamping, tin plating, surface-mount technology (SMT), IMD injection moulding, LSR moulding and thermoforming. Basically, Company B has followed upon a change of policy and adopted new technologies, while also deciding for vertical integration, with the purpose of controlling their costs, mainly through dropping prime costs. Currently, Company B has an established vertical integration practising the principle of 'do your own processes', having a high-level automation.

Physical Footprint – Company B had started with the already existing and acquired plants which had a footprint of nine thousand square metres. It expanded its footprint by two thousand metres after five years of operation, and yet by another two thousand metres two years after that making it a total of thirteen thousand square metres in 2005. In 2008 it acquired another three thousand square metres of ground space and in 2011 it grew to twenty three thousand square metres in footprint, growing by another two thousand square metres in 2014 making it its current twenty five thousand square metres. The company's footprint grew by sixteen thousand square metres in twenty years. The company continues to develop by building twenty percent more space for a new manufacturing area.

Workforce – The Company had started with four hundred employees and steadily and significantly increased its headcount along the years. In 2010 its workforce was slightly less than double the initial count. Within eight years, i.e. in 2018, Company B had one thousand, six hundred and thirteen employees, which is more than four times its original workforce. This latest figure reflects a decrease of sixty four employees which the General Manager attributes to "cost reduction (from lean manufacturing) and to reduce the labour shortage challenge (through automation)."

The Vice-President of the European region of the organisation has been reported as saying that "When the Maltese like their work, they work well. The attitude is very positive...I have worked in the international scene for so long and have dealt with a variety of backgrounds...– the beauty of having a Maltese crew is that they work hard and achieve results" (maltabusinessbook.com, no date). The current General Manager maintains that its workforce is still a 'positive' in Corporate's eyes; also confirming that one factor that has encouraged Company B to build twenty percent

more space for a new manufacturing area (happening currently) is “the ability of its workforce”. As the General Manager continues, “Company B is demanding of its employees – Maltese workers respond well. Company B is investing in labour to upgrade their workforce.”

Organisational Structure – Corporate has developed and expanded by following its policy of acquiring already existing production plants. In 2007 the UK operation was closed and business was transferred to the Malta plant, i.e. Company B. An already fully operational global company was acquired and incorporated within the Group in 2009, with its business also being transferred into Company B. Following this expansion of business, a change of strategy and structure happened, and vertical integration was adopted. Company B moved on to vertical integrated processes. The purpose was, according to the General Manager, “to be able to control costs, moving on to lean manufacturing, ‘doing your own processes’ and automation.” Structurally, Company B has developed and achieved an important status, becoming a lead subsidiary within the Group through the following factors:

- its successful R&D and innovation that are fuelling rapid sales growth
- its contribution (in combination with another plant in European region) towards twenty percent of the Group’s global sales
- Company B - not Corporate - formed a sister subsidiary to carry out labour intensive work (low level automation) while keeping high level automation in Malta.

Turnover - An overview of the turnover (in Euros – million) at given intervals to reflect a trend for Company B in Malta is presented in Table 4.2 below.

Table 10: 4.2 - Turnover – Company B

Turnover – Company B						
Year	2000	2001	2010	2011	2016	2017
Euro - M	16.5	27	85	99	163	183

4.2.4 How Malta fits into the corporate supply chain strategy

The Malta plant and the Belgium plant, as the European region sites, contribute together twenty percent of the organisation’s global turnover. However, while the Malta

plant is important for tax and labour, but not important as logistics hub, the Belgian plant good for logistics, but not attractive for tax and labour – “so Malta is important in the Corporate’s global strategy”, Company B’s general manager concludes. Company B – invested and expanded facilities in Malta and is key in a wider supply chain with reasons being that Maltese workers respond well; tax benefits; R&D and innovation which is an encouragement for “the mentality of the corporate management – keeping the operation in Malta” according to the company’s general manager. That is why they stay here, not because of logistics, and notwithstanding the fact that Malta is no longer a low-cost country. At the same time, Company B are building twenty percent more space for a new manufacturing area, due to ability of workforce and taxation. Company B (in Malta) is not seen as a low-cost centre, but as a lead subsidiary due to the aforesaid reasons and also because of R&D. The product of the Malta Plant goes to Europe (e.g. vs Asia) – one reason for Corporate being in Malta and still holding the same vision for Company B. As much as the Belgian plant would otherwise be advantageous for overland and mainland transportation, where logistics would make sense, and similar to the ‘regional’ concept, however it is expensive when it comes to labour and tax – as compared to Company B. Malta has been kept and maintained as an operational plant, while the plant in Belgium (anti-lean in its practice) was kept for distribution, and a plant in Egypt was set up for low cost manufacturing with the Malta plant conducting the operation. This secures the local company’s place and Malta’s in the Corporate’s wider supply chain strategy.

4.2.5 The company’s perception of how Malta has developed as a business location

In the current situation, where Malta is experiencing rapid growth, ‘workforce’ and IT infrastructure are considered as positives by Company B, who also affirms that “Taxation would remain as an advantage on the Island.” The infrastructure, due to its centrality (denoting accessibility) can be considered as an advantage, but could also be a disadvantage when it comes to the limited size of the place; together with the fact that Malta is no longer a low cost country. Logistics is not an advantage – “Not logistic attractiveness – it is not why they come here”, as the General Manager puts it; but “People and tax, R&D, innovation – is why they stay here”, referring to the Corporate.

It would not be advantageous to build a Distribution Centre in Malta, but rather “build a JIT operation elsewhere and use airfreight – which is a major cost”. The idea of the logistics centre on the Island is not attractive – “no economies of scale or enough volumes to justify - yet Malta still continues to attract.”

4.2.6 Malta’s continuing attractiveness as a business location

“Malta will continue to attract” according to Company B’s general manager, also still considering taxation as an advantage on the Island. However, he thinks that the place is “not right for the smaller manufacturing companies” due to the trending raise in wages and increasing operational costs – “wages and costs are spiralling”. This he attributes to the fact that training at every level is happening in Malta, producing more qualified people within the Maltese workforce, who then choose ‘better paid’ jobs, “working in more specialised positions, hence asking for higher wages.” He fears that “If a downturn comes, the first people to leave would be the lower labour section” implying dire consequences to the manufacturing sector. Malta is not too strong in manufacturing but is strong in other sectors such as e-betting, i-gaming, financial and offshore banking, which are currently driving the local economy. It has changed from the previous years of ‘low level cost’ plus ‘tax benefits’. With regards to labour, the Company’s general manager describes the situation as a “‘bidding war’ for imported labour and even from the existing pool”.

4.2.7 Key Findings – Company B

Company B came to Malta following corporate’s strategic decision and policy to identify a location and an already existing plant to actually set up a base in Europe. The sealing factor for attractiveness was the tax benefits offered by the Island’s government to FDIs.

The Malta plant has been entrusted with keeping high level automation processes in comparison to other subsidiary Plants. Along the way, Company B has added processes and upgraded technology in its operations. It has developed and achieved an important status, becoming a lead subsidiary within the Group through its successful R&D and innovation. It had even set up a sister subsidiary to carry out labour intensive work (low level automation).

The Vice-President of the European region of the organisation had declared that:

“We realised that acquiring the company based in Malta, with its people, products and technologies, would lead the way to further expand our market. We have not looked back since, and have delivered excellent year on year performance...The attitude is very positive. I believe this is something you cannot always push for, nor educate people to change” (maltabusinessbook.com, no date).

4.3 Company C

4.3.1 Company context

Company C forms part of a Group of Companies, which designs, manufactures and markets electronic equipment on an international scale. The Group produces sensors, monitoring relays, timers, energy management systems, solid state-relays, safety devices, fieldbus systems for automation solutions for the industrial and building sectors, in its specific production factories in Italy, Denmark, Lithuania, Malta and China. Its customers include original equipment manufacturers of packaging machines, plastic-injection moulding machines, food and beverage production, conveying and material handling equipment, door and entrance control systems, lifts and escalators as well as heating, ventilation and air conditioning devices. The Group's products are marketed across Europe, the Americas and Asia-Pacific through a network of twenty-two own sales companies and through more than sixty independent national distributors (linkedin.com, 2018).

Company C in Malta is the competence centre for the production of switches as a subsidiary within its Corporate Group. It is a production facility for solid state relays, soft starters and sensors, with a contribution of about thirty-four percent share to the production of the corporate group. Its products provide automation solutions for industrial machinery, heating, ventilation, and air conditioning (HVAC) equipment, for plants and buildings. The products are integrated in solutions offered to the corporate company's customers internationally. The company gives an added value with integrated diagnostics and its communication capability.

4.3.2 The rationale for the original FDI in Malta

The original company had started operating in Malta in 1976 under different owners, who at that time just manufactured industrial bases for automation components. In

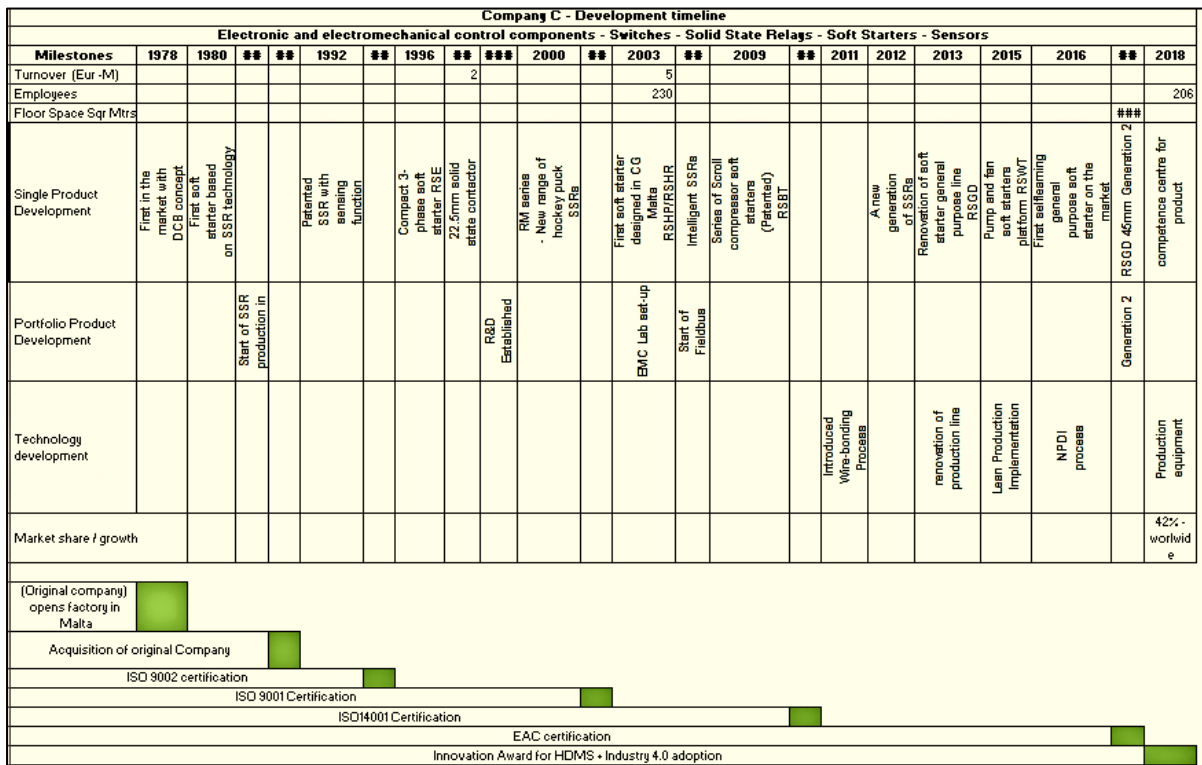
1985 the same company also started manufacturing solid state relays. In 1988, the Group of Companies that Company C belongs to, a Swiss company of Italian origin, got interested in having a production plant in Malta. Consequently, in 1988, it bought out the original Group of Companies, including the Malta plant, to pursue its intention of establishing a presence in Malta. Company C was eventually set up in Malta under its current Corporate Group.

The already existing production plant in Malta, which went along with the Corporate's strategy, and the offered beneficial taxation schemes, that proved attractive for investment, were the main attractions at the time. Additionally, the adaptability of the labour force and the island culture were factors which the Group had been considering as attractive about Malta. It all fitted their plans so well, that all factors put together "have caused the company to end up anchored on the Island", as the current general manager puts it.

4.3.3 How the company developed in Malta

An overview of the development of Company C in Malta is presented in Figure 4.3 below. The salient trends of development are described in terms of the following elements: products and technology, physical footprint, workforce, organisational structure and turnover.

Figure 0.3: 4.3 - Company C – Development timeline



Products and Technology - Since taking over the site in Malta in 1988, Company C has developed the original product and introduced new technology, becoming ‘a competence centre for product’ within the group of companies it belongs to. Today, Company C has become a production plant with the most expertise in manufacturing among the Group’s production sites, achieving high skill and technology development along the years; while also conducting research, design and development for its own products; and even promoting its own products itself.

In 1995 the company proceeded to acquire ISO9002 certification, having continued to develop modern technologies in its processes, so to provide customers with innovative and competitive solutions. Company C was entrusted with the product management and research and development of solid state relays and motor controllers in 1998 (ten years after starting its operations in Malta), having satisfied its Corporate with the R&D results that had been reached in the Malta plant, thanks to the know-how which evolved during the years of experience and the availability of highly-qualified personnel.

Company C eventually became fully autonomous, with innovation and a skilled workforce ensuring that it keeps its status. According to the general manager, Company C has “lost some manufacturing to other Plants but gained from the total production of one product family and also R&D and distribution to warehouses”. The Company ensures that its technology, processes and practices are up to date. This can be seen by activities in recent years, including its introduction of Wire-bonding process in 2011, the renovation of its production line in 2013, lean production implementation in 2015, the implementation of New Product Development and Introduction process (NPDI - core business process) in 2016 and installing new state-of-the-art production equipment in 2018. From its initial operation as an assembly unit, Company C eventually changed to a fully-fledged company.

In 1998, the company received the "Achievement in Industry Award". In 2001, the company was one of the first companies worldwide to be certified to the ISO9001:2000 quality management systems standard, moving on to ISO14001 Certification in 2010. In 2017 the Company acquired Eurasian Conformity certification (EAC - to indicate products that conform to all technical regulations of the Eurasian Customs Union). In 2018 it received the Innovation Award for HDMS + Industry 4.0 adoption.

Physical Footprint – Not much information has been given about Company C’s footprint. However, it was recorded that it occupied two premises, one which houses manufacturing and administration over five thousand and four hundred square metres, and another premises being used as Stores.

Workforce – Company C has a rigid recruitment process, which even includes aptitude and IQ tests. The Company ensures that it has a pool of highly-qualified personnel with high technical skills. All personnel have well-defined designated responsibilities and objectives. In 2003, the managing director of the day, was reported to have stated that when it comes to productivity and efficiency “the Maltese worker compared much better than his/her counterpart overseas...also willing to learn and co-operate” (timesofmalta.com, 2003). In 2003 the employee count has been given as being two hundred and thirty, while in 2018 it was given as two hundred and six, the decreasing factor being attributed to automation.

Organisational Structure – Company C has progressed from being an assembly unit to an autonomous fully-fledged company, which carries out product management and R&D for its product family, while also designing, manufacturing and promoting the product making it ‘a competence centre for its product’. It also supports distribution to four Group warehouses. It aims for full customer satisfaction through practising customisation for new products, allowing itself to be ‘customer-influenced’. When the product becomes cheaper (low-cost) or mature, Company C transfers it to Asia, while keeping the more expensive (high-end) manufacturing Malta. It even has a policy of holding twenty-five years of spares for old products. Company C goes along with the Corporate policy of transfer pricing – turnover – taxation; and providing added value with integrated diagnostics and its communication capability.

Turnover - An overview of the turnover (in Euros – million) at given intervals to reflect a trend for Company C in Malta is presented in Table 4.3 below.

Table 4.3 - Turnover – Company C

Turnover – Company C						
Year	1994	1995	2010	2011	2016	2017
Euro - M	7.4	10	14.5	18.3	15.6	17.7

4.3.4 How Malta fits into the corporate supply chain strategy

Company C is the “competence centre for the product”, i.e., switches, which are designed, manufactured and promoted only in this Malta plant, basically from R&D to distribution of its product. It distributes to four warehouses namely in Italy, USA, Canada and Singapore, together with sister companies and sales offices. The local Plant is agile enough to build to order, which supports the Company’s supply chain global strategy receiving orders from twenty three regional offices. With such an operation, and a growth target of seven percent per annum, it still compares well to the Danish sister plant with regards to labour cost. The general manager sums up the corporate view of its investment and its satisfaction with the Malta plant when he uses the term “ended up anchored on the Island”.

4.3.5 The company's perception of how Malta has developed as a business location

Company C sees advancement in the training of the Maltese skillforce, which is rendering the latter a knowledge society, and making it more flexible and innovative. The fact that Malta's economy is booming is having some adverse effects. The current large-scale construction, a significant part of which is catering for the amount of imported labour to satisfy the growing economy, is a by-product of the growing economy itself, creating a land-limiting factor, implying less available space for industry. The low level of unemployment is making it easy for workers to change places of work, even for a slight increase in wages, making it difficult for businesses to retain labour. The implications here are potential higher level of pay and difficulty to find workers. The factors that are at stake here are employee loyalty and attachment, the availability of an appropriate knowledgeable workforce, and in the general manager's words "a higher inertia to leave the company", denoting acceptance, (perhaps attributed to the lack of control companies have over the situation).

"Malta is shifting to a service economy", says Company C's general manager, and he continues that it is "worth considering the potential impact of a decrease of investment, for example in the gaming industry", while he mentions the already happening and necessary change to smart manufacturing business, hinting towards a more deserved attention and investment for the sector. Company C's general manager concludes his argument by asking whether the whole situation is approaching the limit. He tends to think it is not the case, yet he warningly adds: "But be careful! Advantages might become negatives, because Malta would not be able to keep up with the growth, and the things that made Malta attractive would not be there anymore." In view of the whole situation, Company C's general manager strongly thinks that the issue of sustainability needs to be seriously considered.

4.3.6 Malta's continuing attractiveness as a business location

Facts like the Maltese skillforce is English-speaking, adaptable labour, the ongoing advancement in the training of the general Maltese skillforce, hence producing a "knowledge society who is flexible and innovative" contribute towards Malta still being a place to do business in. The size of the Island itself allows accessibility. However, with the increasing knowledge society (implying that the local workers are becoming

more choosy), it is becoming a problem to find workers for the low-end sector. This in turn is creating certain consequences such as the manufacturing sector having to invest more and more in automation to compensate for the lower skilled labour shortage and to resort to the importation of labour, which affects the size of the local population, making it denser. The other consequence is the increasing construction activity to house foreign workers, eating away from the already limited available space on the relatively small island, thus creating an infrastructural issue.

The I.T. and communication infrastructure is considered to be strong and adequate (therefore an advantage) for the demand of automated industry, higher knowledge and the high demand created by the other sectors investing in the island in recent years such as I-gaming, e-betting, finance, banking, Blockchain and AI.

According to the General Manager, the available limited shipping routes and frequency could be considered as a disadvantage by the manufacturing sector in Malta. Concurrently, Company C still considers some Customs regulations and the cost of transportation as being restrictive externalities, which make Malta more adequate to ship within the region, rather than beyond. Malta's geographical position is considered as advantageous for movement of goods in the Malta – Europe – Africa region. Company C also considers Malta as the right place for a regional head office.

The booming economy is creating pressures, such as an increasing level of pay, difficulty to find workers, diminishing physical space, all calling for due consideration of possible adverse impact on potential future investment. Externalities make Malta more adequate for high value-added manufacturing, although the beneficial tax regime and profits transfer process strategy still remain to be an advantage that facilitates doing business in Malta. The General Manager explains that “Malta is good to ship within region”, it is the place “to develop the product, then shift to low cost countries”, while adding that “it is considered by Corporate as a good place for a regional Plant and has favourable local legislation”.

4.3.7 Key Findings – Company C

Company C was set up in Malta as a result of corporate strategy to establish a presence in Malta and its acquisition of an already existing production plant on the

Island. A beneficial taxation scheme, the adaptability of the labour force and the island culture were the main attraction factors for the Group at the time. It all fitted into their plans so well, and have eventually “caused the company to end up anchored on the Island”, as the current general manager puts it.

Company C has developed the original product and introduced new technology, becoming ‘a competence centre for product’ within the group of companies it belongs to. Today, Company C has become a production plant with the most expertise in manufacturing among the Group’s production sites, being entrusted with the product management while also conducting research, design and development for its own products and promoting its own products itself. It also supports distribution to four Group warehouses.

The know-how which evolved during the years and the experience of available highly-qualified personnel, who even undergo a rigid recruitment process at all levels, are driving factors. In 2003, the managing director of the day, was reported to have highlighted the Company’s product development by saying that:

"This was a major breakthrough. (Company C in Malta) changed from an assembly unit to a fully-fledged company. Because the product we manufacture is so important to the group, had we failed, this would have affected the whole group," the then managing director of Company C, was reported to have stated (timesofmalta.com, 2003).

4.4 Company D

4.4.1 Company context

Company D in Malta consists of both a production plant, to which an integrated innovation centre and a logistics hub are attached, together with corporate offices from where business is led. Company D design and innovate packaging for the cosmetic sector, driven by innovation and a partnership practice with their customers. The first products included compacts and perfume caps, with the Company recently venturing also to include lipgloss and skincare packaging. This makes the company a solutions provider and manufacturer within the beauty industry for all types of make-up, skincare, fragrance and promotional packaging, ranging from luxury products to affordable pharmacy standards.

Company D was born as an English factory, but in the late 1960s the firm was considering relocation. Later on, in the 1990s the still existing UK factory grew smaller and stopped operating there, with the running Malta plant becoming the corporate base. In 2006 the firm closed down its in-house toolmaking facilities in the UK and together with their development unit relocated them to Malta alongside their already existing local manufacturing plant.

Company D in Malta forms part of a Group which is spread across the globe, its headquarters being in Malta, having manufacturing plants in Malta, China and South Korea, a trading business in Hong Kong, and sales companies in Paris, London, New York, Belgium, Malta and Hong Kong. The original business was founded by a Hungarian toolmaker, a refugee who settled in the UK. By the mid-1960s, he had established his own company, building tools and injection moulding for the toy industry, but later on had to consider an alternative manufacturing location due to strong overseas competition and worsening labour relations in the UK. He and his partners chose Malta and set up a factory on the Island in 1971. Today, this MNE as a Group, is the twenty first out of the top thirty beauty brands in the world, in its multinational client base. It has offices all across the US, Asia and Europe, and factories in China and South Korea, apart from Malta. This Organisation's packaging product is designed in Malta to supply online and real retail demand. Its end customers include brands like Chanel, Estee Lauder, Flormar, Prestige, Kiss and packaging manufacturers like, Coradin.

In 2017, in the first-ever Malta International Business Awards organised by TradeMalta, the Group won the prestigious award as the Exporter Of The Year in the Large Business Category and also as the Overall Winner across all categories including innovation and the potential for continued growth.

4.4.2 The rationale for the original FDI in Malta

In the late 1960s, the original firm was seeing that England was not the best location to carry business anymore, due to strong overseas competition and worsening labour relations in the UK. Consequently, the Company was looking for alternatives to relocate, including far flung areas in the UK, and also Malta. The Company's Accountant

had then paid a visit to Malta and recommended it as a place for the re-location of the business. In those days (late 1960s and early 1970s) Malta was re-inventing the economy (following the British colony era), pushing for tourism and manufacturing. The tax incentives being offered to FDI were the immediately convincing factor for the firm to come to Malta, proving to be attractive and suitable for the business; “and the Island must have pleased the Accountant – that’s how [the Firm] came to Malta”, concludes Company D’s Head of Operations. Consequently, Company D was initially set up as a factory in Malta in 1971.

4.4.3 How the company developed in Malta

An overview of the development of Company D in Malta is presented in Figure 4.4 below. The salient trends of development are described in terms of the following elements: products and technology, physical footprint, workforce, organisational structure and turnover.

Figure 4.4 - Company D – Development timeline

Company D- Development timeline																					
Packaging for beauty industry																					
Milestones	1969	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Turnover Eur M		14.5	18.9	20.3	15.9	16.3	15.9	17.9	20.2	17.4	11.7	15.6	17.3	18.2	13.8	10.5	12.3	14.7	17.9	20.0	
No. of employees	40	451	482	475	327	342	367	361	350	261	274	286	265	259	235	247	264	257	280		
Floor Space '000 sq. m		10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	20
Single Product Development																					
Portfolio Product Development																		Lipgloss		Skin care	
Technology development			1st gen. assembly automation		2nd gen. assembly automation	Lacquering line				3rd gen. assembly automation								Metalisation	assembly automation for added product	Automated polishing	4th gen flexible assembly automation
Infrastructure development																					New factory

2003 drop in turnover was an aftermath of 9/11 - product sold mostly in duty free shops in airports
2009 drop in turnover was an aftermath of the global crisis

Products and Technology – Looking back, the company’s roots grew from the building tools and injection moulding for the toy industry by the original founder in the mid-1960s. The factory in Malta, was set up in 1971, doing general trade moulding. By 1975 the firm had developed a number of custom compacts for the European cosmetics industry, with the company then deciding to focus fully on this sector.

Company D follows a vertically integrated formulation process which includes major stages like injection moulding, decoration and assembly. Its process progression has been made up of several stages, from having its 'first generation' assembly automation in 2001 and changing to 'second generation' assembly automation in 2003. A lacquering line was added to its processes in 2004 and in 2008 it changed yet to 'third generation' assembly automation. Another process – 'metallisation' - was introduced in 2015, followed by the addition of product for the lipgloss market in 2016, with assembly automation for the same product in the same year. In 2017, Company D added automated polishing of its products to its processes. In 2018 another product aimed at the skin care market was added; and in the same year the Company upgraded its manufacturing flow to 'fourth generation' flexible assembly automation. The Company's Head of Operations sums it up by stating that the "operation in Malta is very much automated." He continues to say that automation depends on high volumes, and may be interrupted by fragmented batches, which really add pressure on automation, by slowing the process through factors like change-overs, e.g. of moulds, printing, and temperature adjustments. Due to eventual limited economies of scale in manufacturing resulting from the above, the Head of Operations insists that "quality and adaptability of labour is important – and the quality of output."

Company D will further their strong investment in new equipment in terms of moulding, metallising, printing and assembly equipment, as they move into their new premises (currently happening at the time of writing). The new environmentally friendly facility will provide the Company with a fifty percent increase in manufacturing capacity.

Physical Footprint - Already in the 1990s, the Group's UK factory had grown smaller and was transferred to Malta, necessitating an expansion of Company D's site then. Between the years 2000 and 2018, Company D has conducted its operations on a consistent footprint of ten thousand square metres. In 2018 the Company has built a new factory in the same industrial zone where they are currently placed and at the time of writing, it is moving to the new twenty thousand square metre plant, built on a footprint of five thousand and four hundred square metres, to house its operations in 2019 while keeping the 'old' site (or a significant part of it) for warehousing purposes.

Workforce - Between 2000 and 2002 Company D's employee count was at an average of four hundred and fifty. In 2003 (when the Company experienced a drop in turnover, as an aftermath of the '9/11' disaster) there was a drop in employee count which gradually increased to three hundred and fifty in 2008. In 2009 again, the number of employees went down to two hundred and sixty (due to another drop in turnover, as an aftermath of the financial crisis of 2008), while keeping at approximately the same level to 2017. It just slightly increased to two hundred and eighty in 2018. The recorded significant fluctuations in employee count could be attributed to events that affected the market; while the overall gradual decrease has been driven by automation.

Organisational Structure – Company D in Malta have been widening their customer base, adding new customers who however order in smaller batches. This still reflects no new volumes of production. Historically, in 2007 and 2008, ten main customers made up eighty five percent of the Company's business, while currently fifteen main customers account for fifty five percent of the business, as the Company's Head of Operations states. Also, the Company's turnover followed closely on the employee count trajectory, being influenced by the same reported events of '9/11' 2001 and the financial crisis of 2008. The Company had even been in decline in Malta for about seven years, before starting to recover in 2014.

Company D in Malta had eventually become the corporate base in 1990 when the UK operation was transferred and added to the Malta site, including product development.

Turnover - An overview of the turnover (in Euros – million) at given intervals to reflect a trend for Company D in Malta is presented in Table 4.4 below.

Table 12: 4.4 - Turnover – Company D

Turnover – Company D						
Year	2000	2001	2010	2011	2016	2017
Euro - M	14.5	18.9	15.6	17.3	14.7	17.9

4.4.4 How Malta fits into the corporate supply chain strategy

Company D has already established itself as the headquarters of Corporate, with its contribution – for all global products and back office operations, considering that R&D

is in Malta covering creative, design, technology and packaging aspects. Packaging product is designed in Malta even to supply online and real retail demand.

The Malta Plant also houses the financial team for other offices within the Group and is also the logistics hub and distribution centre for all customers in Europe. Company D also co-ordinates activities with manufacturers, fillers (e.g. sub-contracting) and customers. It is a regional trans-shipment centre. Items manufactured outside Europe are channelled through the Suez Canal; while once coming out of Malta, Crete is quite close.

The Head of Operations confirms that Company D is increasing its capacity by fifty percent here in Malta and that regionalisation of its manufacturing is to continue. He considers East Europe being possibly cheaper now, but speculates that it could go higher, taking Poland as an example. He repeats that “Costs in Malta remain stable” in comparison. The Company would be hesitant to relocate its Malta operation due to high ‘switching costs’ (unlike, for example, the gaming industry whose costs are next to zero, rendering it a volatile industry). The ‘switching costs’ make relocation “difficult for manufacturing due to the long-time investment in Malta, such as increasing capital investment in knowledge, R&D and technology, making the Malta Plant a significant supply chain centre”. One last factor is the personal aspect, where historically (since about forty-seven years ago) the Company Directors have grown roots in Malta, such as having their family here, including their children’s schooling.

4.4.5 The company’s perception of how Malta has developed as a business location

The Head of Operations for Company D perception is as follows: “It depends upon the type of business”. He postulates that “a manufacturing base is actually needed in Malta”. He adds that even when in the 1990s Malta prepared to join the EU (which eventually happened in 2004) Company D experienced no major shocks (as also said by several other companies). In spite of this, the Head of Operations opines that in the late 1990s and the early 2000s, Malta was becoming expensive – “Still, [Company D] decided to stay”, he says.

He then continues on the thought that service industries have been added to the economy and consequentially “it is difficult to find people; people are moving (changing jobs) and manufacturing being in competition with other sectors” within this context, he continues. It is actually a bad situation for manufacturing in Malta’s booming economy. The service sectors added to the economy in recent years “draw a whole lot of industry around them, such as construction and I.T. The notion is that ‘if the bubble bursts’, it would be better for manufacturing – the sector will find people (workers) and costs will plateau...the two pillars are tourism and manufacturing” according to the representative of Company D. The argument is that production (manufacturing) remains consistent, as compared to other (service) sectors which could be considered as rather volatile, such as i-gaming, e-betting and offshore banking.

General business in Malta, the financial situation and the environment (infrastructure) are perceived as acceptable, although logistics are not seen as a strength for Malta. He also thinks that Malta today is being considered as expensive as second-tier economy countries in Europe.

4.4.6 Malta’s continuing attractiveness as a business location

The currency factor remains strong, explains Company D’s Head of Operations, bringing the example that the value of one Euro remains as one Euro in Malta, in comparison of one Euro realistically costing two Euros in Spain and Portugal, for example. The Company also sees Malta as easier to do business in and from, and where good relationships exist, for example with banks. Malta has also maintained its beneficial tax regime for companies operating onshore, such as Company D, resulting from the tax reduction of sixty six percent on capital expenditure, as had been established by one of the previous labour acts. This remains a big advantage for capital intensive companies like Company D, when it comes to its investment in moulds, tooling and production equipment, and has made it advantageous and attractive also to the FDI corporates who have holdings in Malta, and who are increasingly adopting automation.

Although Malta today is being considered as expensive as second-tier in Europe, such as Spain, Portugal, Greece and Italy, the Company still perceives the following factors as making Malta still attractive for FDI companies to do business in:

- A good education system.
- People with higher education, for example engineers get half of average EU salary for the same profession.
- Gaps in pay between basic skills and higher levels (wages / salaries) are lower than the rest of Europe.
- Selling from Malta is still advantageous – including the currency factor.
- Social costs also remain strong due to the currency factor where € 1 remains as € 1 (as compared to € 1 costing € 2 in Spain and Portugal).
- Employment costs in Malta factor at € 1 becoming € 1.10 (as compared to being € 2 in Italy).

The Head of Operations concludes that “As a logistical hub, Malta is a good location – for Europe; as a logistics hub for Global it is not – not even as a manufacturing hub”. This is when considering that the Corporate of Company D is working in a global environment, with its biggest market in USA and being brand name dependent, making it necessary “to have a presence everywhere”.

4.4.7 Key Findings – Company D

Company D was initially set up as a factory in Malta in 1971, with Malta having been chosen as the place for the re-location of the business from the UK.

The factory had started in Malta by doing general trade moulding and later ventured into the European cosmetics industry, focusing fully on this sector from 1975 onwards. In the 1990s the Malta plant became the corporate base. Company D has evolved to design and innovate packaging driven by innovation and a partnership practice with their customers, making the company a solutions provider and manufacturer. In 2018 the Chairman and CEO of the Group is reported to have stated:

“We’ve disrupted the traditional packaging business over and over again. In the 1970s ... [the firm] was an engineering business. In 1991...we presented ourselves as packaging suppliers that could create a beautiful package for our clients...As of 2017...we’re now a solutions provider to the beauty industry...innovation consists of linking new trends with technology with

different ways to improve the consumer experience...we've managed to create a really agile, diverse business model" (maltachamber.org.mt, 2018).

Company D in Malta has grown from just a production plant into an enterprise which comprises an integrated innovation centre, a logistics hub and corporate offices from where business is led. "Malta is the headquarters, a Maltese Company" says the Head of Operations, with financing coming from Malta being the main link to its sister holdings, reflecting upon the company's status today.

4.5 Company E

4.5.1 Company context

Company E is in the medical devices industry and it is the only manufacturing plant that the corporate group it belongs to has in Europe. The Malta plant's products include equipment and solutions such as suction canisters used during surgery, patient care applications, deep vein thrombosis and nutritional insufficiency applications and less invasive treatments for vascular disease, all falling under the umbrella of medical technology and business sector. It distributes its products around the world, with eighty percent going to mainland Europe, while the rest goes to Australia, New Zealand, Thailand, Mexico, Singapore, and Columbia. The Company has also won trade and manufacturing awards in Malta in past years.

Company E forms part of an MNE who is a 'Fortune 22' company, rating among the top of high revenue firms in America and who has its headquarters in Ohio. The corporate firm is present in the integrated healthcare services and products sector, and provides customised solutions for hospitals, health systems, pharmacies, ambulatory surgery centres, clinical laboratories and physician offices on an international level. Its healthcare products reach medical, surgical, pharmaceutical, laboratory, specialty, and nuclear sectors. Its strong distribution network includes distribution centres in the Netherlands, Japan, the United States of America and DHL in Australia. The Corporate Company follows an integrated logistics practice by having its own people posted in distribution centres through 3PL agreements. This ensures own packaging and added value. Distribution centres are fed according to location, while orders are streamlined through the corporate office. This MNE believes strongly

in leadership development which comprises adaptive leadership, building trust and motivating others – and trains its team leaders extensively for the purpose, so they could develop other employees. This builds skillset at the frontline level, which is closest to the customer.

4.5.2 The rationale for the original FDI in Malta

The corporate company, which was based in Texas at the time, was seeing that sales volumes were building for its products to Europe. It therefore decided to set up an operation in Europe. It was a choice between a UK country and Malta, and the latter was considered to be better. So, considering the increasing sales to Europe the American company decided to have a European base to reduce lead times and inventory. The envisaged benefits by Corporate were trade savings and making it easier to access the European market. Subsequently, Company E started production in Malta and export in June 1995, following a corporate decision, with the aforesaid envisaged objectives and benefits for investing in Malta.

Other factors helped to confirm Corporate's choice of Malta. They were the tax incentives being offered by Malta to potential FDI at the time, the easiness to find employees and the flexibility of the local workers.

4.5.3 How the company developed in Malta

An overview of the development of Company E in Malta is presented in Figure 4.5 below. The salient trends of development are described in terms of the following elements: products and technology, physical footprint, workforce, organisational structure and turnover.

Figure 4.5 - Company E – Development timeline

Company E - Development timeline																					
Medical devices																					
Milestones	1990	1995	1997	1999	2000	2002	2003	2004	2005	2006	2007	2009	2010	2012	2013	2014	2015	2016	2017	2018	
Turnover (Eur -M)																					
Employees		35-100					100 - 135							135 - 80							
Floor Space Sqr Mtrs																					
Single Product Development							Autonomous														
Portfolio Product Development																					
Technology development								New Blow Mould	Automation	New Blow Mould		Spin-off CF	ML acquired CF	Extrusion	New injection				Lid automation	Tube automation	Packing
Market share / growth - customers		France - Germany				Belgium - Turkey	USA - Spain		Japan - ANZ				Japan lost		MX - TH - MY - SG	Columbia	Japan				Ownership of
Acquired company						Company E						Company E - under new logo									

Products and Technology – Over the years, Company E has invested heavily in automation, making its first big technological move in 2005 and a major process being upgraded between 2004 and 2006. In more recent years the Company added processes within its production, all aimed at further automation. These included extrusion in 2012, new injection moulding in 2013, lid automation in 2016, tube automation in 2018 and new packing technology in 2018. In the last couple of years, Company E in Malta has invested heavily in automation.

According to the Director of Manufacturing, the Company is even compelled to resort to automation, as one way to mitigate the increasing challenges arising from more intense production (“juggling in the production schedule due to various products and small batches”) and a three percent cost increase of raw materials from Eastern Europe among other components prices going up – all adding up to increasing production costs. “But diversifying into new products is necessary, not to be dependent on one product, despite its challenges”, he states while worryingly concluding that they [the Company] have now reached the limit of automation. By working very closely, and in partnership, with recent technology or company acquisitions made by the mother company, Company E produces some of the most sophisticated equipment here in Malta.

Physical Footprint –The occupied area by Company E has been a constant fifty-one thousand square metres (as verbally confirmed by the Director of Manufacturing), since the reported “expansion of its Malta factory” by a prominent Maltese newspaper around 2010 (timesofmalta.com, 2010).

Workforce – The Company’s employee count can be divided into three stages during its start-up in 1995 till the present day. In 1995 it had started with thirty five employees who had increased to one hundred by 1999, reflecting the Company’s expansion and labour intensive operation. From 1999 the employee count continued to increase up to one hundred and thirty five until 2013, with its initial automation investment happening in 2005. By 2018 the number of employees had gone down to eighty, as a result of the Company’s heavy investment in automation.

Organisational Structure – In 2003 Company E became autonomous, eight years after its start-up and having proven itself to Corporate. Currently, the Company is an important manufacturing plant out of thirty four within the Group. For a certain time, Company E was the only representative of the MNE in Europe, which did contribute towards the ‘Made in Europe’ brand (as the Director of Manufacturing describes it) aspired for by Corporate. Now, it is the only manufacturing Plant in Europe, forming part of a network for distribution in Europe, comprising sales and marketing, together with Ireland and Spain; and distribution centres in France, Spain and Germany. Thus, Company E also gives its significant contribution in maintaining a good relationship with European customers and supporting the EU market. About eighty percent of the Malta Plant’s product goes to mainland Europe (mainly Germany, France and Spain), while the rest goes to Australia, New Zealand, Thailand, Mexico, Singapore, Columbia. Distribution centres are fed according to location (Europe in smaller batches mainly from Malta), while orders are streamlined through the corporate office.

The Company uses the JIT model, meaning there is no pipeline flow and no buffer stock at the DCs. The operation is based upon fast response, not only in production but also in other departments, for example when handling customer complaints. For Company E, this is kept in control by following ISO procedures and honouring several certifications by various bodies in the medical production sector. This technical

efficiency was already being recognised by its mother company in 2005, when it awarded the ‘Best Plant of the Year’ to Company E. Corporate had then bestowed Company E with six of eight awards given by the mother company to its various subsidiaries in 2010, which were ‘Best Plant of the Year’, ‘Best Manufacturing Director of the Year’, ‘Best Plant Goals Attainment Award’, ‘Best Inventory Management Award’, ‘Best Cost Management Award’ and ‘Best Service Level Award’.

The Director of Manufacturing claims that Company E is one of the best Plants of the Group for the following reasons:

- “Flexible workforce to mature management
- Responsive workforce – with a resulting time advantage
- Workforce willing to change
- Supportive workforce for corporate strategy and decisions”.

He adds that the above factors “justify why Corporate should invest in new products in Malta”, which has happened along the years.

Turnover - An overview of the turnover (in Euros – million) at given intervals to reflect a trend for Company E in Malta is presented in Table 4.5 below.

Table 13: 4.5 - Turnover – Company E

Turnover – Company E						
Year	1995	1996	2010	2011	2016	2017
Euro - M	8.6	9.1	11.6	10.8	14	14.7

4.5.4 How Malta fits into the corporate supply chain strategy

Malta had been purposely identified by Corporate as the location from where it could reach better its increasing European customer base and market by reduction of lead times and inventory. It still holds its place within the corporate revised supply chain strategy of integrated logistics, apart from also being the only manufacturing plant in Europe. Customers’ orders are streamlined through the corporate office, with support from the administrative offices in Switzerland and Ireland. The Malta plant works closely with DCs around the globe (but mainly with those in Europe), feeding according to location and in smaller batches for Europe. This operation for Company E includes

the co-ordination with the Group's own people posted in DCs (as part of a 3PL agreement), who then do the final packaging and any other added value.

4.5.5 The company's perception of how Malta has developed as a business location

"Malta has developed" says the Director of Manufacturing, immediately indicating at the support that the Maltese Government provides to FDIs through various agencies, including financial grants and tax benefits, which for example have enabled Company E to clear a corporate investment with a payback of three years; and education projects to upgrade and upskill the workforce.

However, The Director continues with concern that "lately, the Company is having a problem finding good technical people, that is, technicians with experience in automation. He explains that the technology of twenty years ago is now obsolete "technicians with experience in old automation technology are not suitable". Due to the more highly educated local workforce, the Director also states that they are even having a problem to find 'non-skilled' workers. This leads the Company to resort to overtime to stick to production deadlines (an extra expense); and to engage imported labour, which in turn presents challenges like acquiring work permits (which sometimes are delayed in being issued) for foreign labour. He also mentions the fact that engineers in Malta are not as highly paid as compared to other professions like lawyers and doctors, which could have a positive effect when hired locally by MNEs due to lower labour cost; or a negative one, because it could create a local shortage of such qualified people when they seek employment abroad.

4.5.6 Malta's continuing attractiveness as a business location

The Director affirms without hesitation that "Malta is still a place to do business in" while immediately mentioning funding as a main financial incentive offered to MNEs by the governmental institution Malta Enterprise through certain grants (for example, a thirty percent discount on capital investment). The Director had stated in an interview with Malta Enterprise that "Main benefits of operating in Malta are mainly tax credits on investments... the very advantageous lease rate especially when we compare our lease rates with those in the US...the political and social stability makes Malta a very

good place to operate in” (Malta Enterprise, 2016). Recruitment though has now become a problem which companies are partially combating by adopting automation.

4.5.7 Key Findings – Company E

Company E started as a production plant in Malta as a decision of choice by Corporate. It developed to produce sophisticated equipment and establishing itself as one of the Group’s best production plants, with high technical efficiency. In 2003 the Company became autonomous.

Now, it is the only manufacturing Plant in Europe for the whole corporate group, giving its significant contribution in maintaining a good relationship with European customers and supporting the EU market.

The Director of Manufacturing at Company E in Malta, states in an interview:

“Medical device business is very aggressive nowadays. In order to stay competitive, we have to excel...in three main factors - quality, service and cost; and our employees have been able to enhance change along these years so that we remain competitive. Our employees are very flexible...and they change to new technologies and new operating methods...and this is what makes us survive in this very aggressive market” (Malta Enterprise, 2016).

4.6 Company F

4.6.1 Company context

Company F in Malta produces O-rings, gaskets and V-rings with a main focus on automotive and industrial applications. Its manufacturing processes use mostly rubber and plastic moulding, while also executing strategic purchasing from the Malta plant. The local company has a high control of the materials used, complemented by its own mixing site (producing rubber compound not only for the Malta operations, but also for sister plants), R&D section driven by innovation, and supported by its own tools room, all affirming its technical leadership in polymers. Most of the Company’s production goes to a distribution centre in Germany, although some goes directly to customers, such as Bosch. Company F deal largely with companies in Germany, due to automotive customers, while being also the main suppliers of Siemens.

Company F forms part of a Group who knows its origins about a hundred years ago in Sweden. The Group is a world leader in engineered polymer technology and solutions for sealing applications, with operations in fifty countries. The Group's business concept is 'seal, damp and protect critical applications in demanding environments'. The Group comprises five business areas that cover Coated Systems, Industrial Solutions, Offshore and Construction, Sealing Solutions and Wheel Systems. The brand is well-known in a range of different market segments for several industries, which include automotive, marine, aerospace, agriculture and forestry, building and construction, mining, manufacturing, healthcare and medical, oil and gas, printing, rail and mass transit.

4.6.2 The rationale for the original FDI in Malta

The original company had actually started its operation in Malta in late 1961, when its founder, an aeronautical engineer and industrialist was experiencing business expansion and labour shortage in the UK operation. He saw an ideal opportunity in Malta, with the fiscal benefits then being offered by the Maltese government, an available suitable work force, government support, and a low cost and English speaking location. All these factors originally attracted the entrepreneur's investment in Malta. In 1969 the original company had changed its name.

The manufacturing plant continued to operate and had even undergone yet another name change and a change of ownership until the present Group took it over in 2003. This happened according to corporate strategy, by which the Group "had bought the seal business from [the then holding company] for good money, then entrusted Malta [Company F] to move forward with their operations", according to the Operations Director who continues that the Group "acquired an already existing production plant – they did not come to Malta - they just acquired the jewel on the crown".

4.6.3 How the company developed in Malta

An overview of the development of Company F in Malta is presented in Figure 4.6 below. The salient trends of development are described in terms of the following elements: products and technology, physical footprint, workforce, organisational structure and turnover.

Figure 4.6 - Company F – Development timeline

Company F - Development timeline												
O-rings - sealing solutions												
Milestones	1988	1989	1991	1993	1995	1998	2004	2008	2011	2016	2017	2018
Turnover (Eur -M)						48.5	43.7	36.4	43.4	49	51.3	
Employees							800	600	569	519	545	
Floor Space Sqr Mtrs						24000	26000	26000	26000	26000	26000	
Single Product Development	O-rings						O-rings, Gaskets, V-rings					
Portfolio Product Development as Vertical Integrated Processes	O-rings		O-rings, automotive Focus	O-rings, automotive Focus	O-rings, automotive Focus	O-rings, automotive Focus	O-rings, automotive Focus	O-rings, automotive Focus	O-rings, automotive Focus, Gaskets, V-rings	O-rings, automotive Focus, Gaskets, V-rings, Focus also on industrial	O-rings, automotive Focus, Gaskets, V-rings, Focus also on industrial , 2K rubber to plastic moulding	
Technology development	Material development and process development in house, sustained focus over the years											
Market share / growth	NA											
Established in Malta in 1961 as the original company												
Changed name of original company												
Became Company F in 2003												

Products and Technology – For a good twenty years Company F kept on producing O-rings focusing on the automotive industry, up till 2008. The Company had already acquired the Ford Q1 approval in the 1980s, in which period even R&D had come to the Malta Plant. In 2008 the Company had the production of V-rings and gaskets added to its existing processes, after having managed to survive through the financial crisis of that time. The company also invested further in R&D. In 2011, Company F extended the focus of its products to industrial applications and in 2017 it introduced a process from ‘2K’ rubber to plastic moulding. All material development and process development in has been sustained in-house over the years, supported by its own tools room, R&D, and innovation culture.

Physical Footprint – This manufacturing plant in Malta has had three site changes, the first two sites being acquired between 1690 and 1971. Company F occupies the latest and biggest (third) site with a footprint of twenty-six thousand square metres, relinquishing the second site it had occupied. Apart from the mentioned latest site which has become also its main premises, the Company even has a dedicated operation for the mixing of rubber, still in its very first original site.

Workforce – The original company had started with sixty people in 1961 and spiralled to about one thousand employees by 1971. In recent years the operative employee count has dwindled due to automation, being eight hundred in 2004 and six hundred in 2008. It is to be mentioned at this point, that following the financial crisis of 2008, the Company had then secured government assistance (grants) which were used to save jobs and add new ones, while also providing training to upgrade their skillset. Continuing on the Company’s labour count, it was five hundred and sixty-nine in 2011, five hundred and nineteen in 2016 and five hundred forty-five in 2017. The last figure reflects the addition of focus on industrial applications and increased business. Company F has a pool of highly skilled and flexible engineers.

Organisational Structure – The Group is “a world leader in its product and Company F Malta is part of it” says the Managing Director. The Malta Plant plays a highly significant role with factors like:

- Strategic purchasing.
- Closeness to suppliers who work in a supportive and responsible relationship.
- A tooling section, which facilitates and provides a quick response to clients.
- A mixing site in Malta, being in proximity to the manufacturing section.
- Its own R&D and innovation hub.

Company F in Malta sends eighty percent of its production to the DC in Germany, while the rest goes directly to key customers in Germany, and even to Japan and China. Company F works closely on Life Cycle Engineering with the three DCs that the Group has globally, one of which is in Germany (Europe); while it also works with various logistics centres through 3rd party logistics. The Operations Director describes this whole logistics activity as being “a slick model”.

Company F in Malta is a major consumer of polymers – hence it has a higher leverage on suppliers, even purchasing of consignment stock, which also benefits the Corporate Group through the Malta plant’s strategic purchasing.

Company F in Malta “has become a reference – a lead site for many products” proudly states the Operations Director, which he supports by mentioning that “Germans

[colleagues] look to Malta for problem solving” and that “customers come to Malta to design products or talk about issues”. The Company’s own engineers also go to other sites to give support – an added value. Company F has a high level of knowledge and automation, giving added value and total commitment to its customers. This is made possible by its highly skilled and flexible labour force, with a high level of engineering. Company F even has its own in-house education academy and provides consultancy for the Corporate Group, who incessantly supports the Plant in Malta with a lot of investments.

In 2017 Company F changed structure going beyond budgeting to a five-year rolling business strategy, encompassing its vertically integrated operation, strategic purchasing, tools room, R&D and innovation hub. This all contributes towards maintaining closeness to suppliers in a supportive and responsible manner and ensuring a quick response to its clients and peers, all backed up by an extensive build-up of knowledge and automation. Company F stands high within the Group, being a ‘one-stop-shop’, as the Company’s Managing Director describes it, while adding that “the profit margin that comes from the Malta product is double that earned by most competitors [to Company F] due to quality produced in Malta.”

Turnover - An overview of the turnover (in Euros – million) at given intervals to reflect a trend for Company F in Malta is presented in Table 4.6 below.

Table 14: 4.6 - Turnover – Company F

Turnover – Company F						
Year	1998	2004	2008	2011	2016	2017
Euro - M	48.5	43.7	36.4	43.4	49	51.3

4.6.4 How Malta fits into the corporate supply chain strategy

The Company’s Managing Director states that Company F “is in Malta as a result of long term investment, not because of FDI” while saying that the Company has anchorage due to the plant’s long presence on the Island. The Group would not invest (FDI) on the Island in present times.

However, being in Malta is seen as beneficial to the Company's customers by way of accessibility and reachability. Company F distributes its production through multi-modal means, mainly road (truck), and airfreight and courier service. This does instigate additional freight costs which could be a factor resulting from the geographical position of Malta. However, the same geographical position is an advantage when it comes to exporting to Germany and also for the procurement of raw material from the United Kingdom.

4.6.5 The company's perception of how Malta has developed as a business location.

The continuing financial assistance to FDI companies and other businesses is one prominently positive element that Malta has continued to offer and develop. One major benefit of Malta is its becoming a member of the European Union, and as a result no duty is payable on business carried out intra-community. Malta has also developed a good educational system, which results in companies like Company F having a good relationship with the University of Malta and MCAST, both for the recruitment of qualified employees and technicians and even to work on industrial projects. However, the higher educational level is making it difficult for manufacturing companies, like Company F, to find operatives on a lower level from the local labour pool.

4.6.6 Malta's continuing attractiveness as a business location

The Managing Director of Company F immediately refers to the political stability of Malta as one main factor that makes the Island a place to still do business in. Financial assistance to FDI companies, a well comparing cost of labour and not paying any duty on business transaction due to European Union membership are other positive points that make Malta remain a place for business.

A beneficial company cost of labour also still exists in Malta, which the Operations Director estimates at being "a hundred Euros are equal to approximately a hundred and ten Euros, when comparing such employment costs in Italy as a hundred Euros being approximately equal to two hundred Euros".

Although Company F is not in Malta through an FDI based decision, but because it acquired an already existing operation and continued to develop it, the Managing Director states “Still, Malta is good to do business in generally.”

4.6.7 Key Findings – Company F

The present Company F had started off as an already operating production plant in 2003, as a result of corporate strategy. Since then, the Company moved forward and developed their operations extensively.

Company F in Malta progressed to become a reference point within its corporate group, and plays a highly significant role with factors like strategic purchasing, providing quick response to clients and mixing of the base material. It even has its own R&D and innovation hub (including product design), gives support to sister subsidiaries and consultancy for the Corporate Group and houses its own education academy.

Putting the Company’s development in a nutshell, the Operations Director states that Company F stands high within the Group, being a ‘one-stop-shop’, and has moved on “from being a sub-contractor to an independent company”.

4.7 Key Findings - Overview of case study companies

In all the six case study companies that have been heard, there are significant similarities across the five topics discussed with them. These are summarised hereunder.

The rationale for the original FDI in Malta – A strong point are the fiscal benefits they enjoyed at the time of initial investment in Malta, and which are still applicable up to the present day. The availability, ability and adaptability of the local labour force at the time of initial investment in Malta was high; which factor might not be so strong at present due to certain unavailability of lower-skill workers and the high influx of foreign workers.

The Companies’ development in Malta - All companies have generally advanced from their initial status as a manufacturing plant to a higher standing within their corporate groups, becoming significant subsidiaries for reasons which include their quality output; now being centres of excellence for their products and related R&D and

innovation; doing strategic purchasing for the Group; having an efficient distribution set-up; being reference sites; and added value providers within their Group and for their customers. These companies' advancement is depicted within this chapter by the actual development timelines for each case study company's trajectory which include turnover, employees, floor space, single product development, portfolio product development, technology development, market share / growth.

How Malta fits into the corporate supply chain strategy - As reported by the respondents, Malta still fits into the local Plants' and their Corporate's supply chain strategies, with both the Plants and the place being considered key in a wider supply chain. Favoured elements for Malta are a good local legislation; political stability; comparable profit margins and high-quality yield; a good education system; and perceived high switching costs (re-location). Malta is seen as suitable for regional distribution but not as an international logistics hub, while it is not being considered by these companies as a low cost location anymore.

The companies' perception of how Malta has developed as a business location – Malta is still being considered as a place to do business in, due to factors like its geographical importance, being an English speaking country, having a good IT infrastructure, its size allowing accessibility and an even improved standard of education. However, the increasingly limited availability of space might affect expansion plans for such companies, and a lurking doubt of whether some of these companies would have invested in Malta now is felt.

Malta's continuing attractiveness as a business location - Malta is still a place that attracts business, overall, with elements like a good currency factor, easiness to do business and establish relationships and the still offered tax benefits being especially good for capital intensive business. The perceived continuing attractiveness as a business location is expressed inspite of externalities the Companies feel, like Customs regulations and cost of transportation, difficult labour availability, increasing labour costs and the sentiment that other industries are being given higher attention than manufacturing within the local economy.

The above outlines the organisational level of evolution, which could be described as the micro-level within co-evolution, since such FDI companies have evolved in a host

country where it was possible for them to operate and develop together with the host country's institutions, as addressed in the literature section 2.6, in conditions that made their evolution possible, whether intentional or coincidental. From the perspective of 'place', here mainly referring to a host country or region, it is said that regions may be considered as selection environments within which and across which evolutionary processes operate (Boschma and Frenken, 2006). Co-evolution of both FDIs and the host economy state, may involve 'path dependency' where the primacy of early events may shape the evolutionary trajectories of the organisations and institutions, and could result in a static equilibrium (Schmidt, 2018). This is not the case when looking at the FDIs and Malta in this research as shown in this chapter and the ensuing chapters 5, 6 and 7. It will be demonstrated that the macro and micro co-evolutionary dynamics have facilitated a co-evolutionary success in a fitness landscape. MNEs and their FDIs have engaged in institutional entrepreneurship with external institutions for mutual benefit, thus shaping the trajectories of both parties (Regner and Edman, 2014), while demonstrating the macro-level of co-evolution.

Conclusion

This chapter presented transcripts from the meetings held with high ranking representatives of the FDI case study companies in this research, providing also each company's context, the reasons for their initial investment in Malta, how each company developed in Malta; and their thoughts and perceptions of how Malta fits into the corporate supply chain strategy, how Malta has developed as a business location and whether Malta is still an attractive business location. Summaries of findings for each case study have also been outlined. Finally, a list of identified topics which the case studies agree about has been drawn up, showing a consensus between the case study companies.

CHAPTER 5: FINDINGS 2: LOGISTICS SERVICE PROVIDERS

Introduction

The findings from the interviews with the case study companies made it evident that interviews with logistics service providers would be necessary to further look into themes which emerged, including logistics, externalities, Customs, locational choice and FDI needs. These service logistics providers are being considered as legitimate partners, being very close to the FDI companies' ecosystem, including the host country within which they all operate together, thus being affected or affecting the companies' activities.

These providers become involved in the operations of the FDIs and the economic activity of the host country. They are the 'in-between' of the 'micro' and the 'macro' - third parties involved in the case study companies' logistics operations, while being instrumental in the movement of all types of goods into and out of Malta. While the FDIs and Malta are following their activities separately and in an interactive way, there may be new evolutionary paths that are being created with existing frameworks of institutional arrangements through the purposeful interventions of institutional and other economic actors (Strambach, 2010). Within such a co-evolutionary developmental context, this leads to the notion that "...the economic landscape does not tend towards some (predefined) unique equilibrium state... but is an open system that evolves in ways shaped by past development paths" (Boschma and Martin, 2010, p. 8). This is where the logistics service providers participating in this research are positioned, directly linked to the FDIs and indirectly contributing to the macro level of the mentioned co-evolution through the results of their service provision and operations, in a 'playing along' manner. Indeed, this becomes a different perspective from the adopted conventional way of looking at logistics services providers, who may even qualify for the term 'other economic actors', playing their part in the macro level of co-evolution.

5.1 Malta Freeport Corporation

The Malta Freeport was set up in 1988, situated in the southern part of Malta. It is a customs free zone with no taxes to be levied on commodities stores within its area, as stipulated by Maltese legislation enacted in 1989. The Malta Freeport Corporation is the official authority responsible for regulatory compliance and security services for

Freeport users and the surveillance and management of the customs free zone and warehouse. The Malta Freeport is managed by Malta Freeport Terminal Ltd, who has a sixty-five year concession to operate the container terminals and the distribution park facilities, and the Freeport Centre office complex. Initial planned activities carried out at the Malta Freeport included:

- Handling of containerised and break bulk cargo on its terminals
- A mineral oil terminal for storage and blending of oil products
- Industrial warehousing facilities.

Since the activities of the container terminal were privatised in 2004, according to the terms governing licensing and lease agreements between Malta Freeport Corporation Limited and Malta Freeport Terminal, the role of the Malta Freeport Corporation Limited has become more defined, as a government owned company entrusted to act as the authority and the regulator of the Freeport Zone. The current activities carried out at Malta Freeport are:

- Container handling
- Oil products handling
- Industrial storage facilities.

A meeting, where three guiding topics were discussed, was held at the Malta Freeport Corporation with:

- Mr Mark Vella – Senior Manager – Port Regulations and Business Development.

5.1.1 How the company has developed

The Senior Manager for Port Regulations and Business Development opened the meeting by posing the question “Why Malta Freeport?” and proceeded to give an account of the Malta Freeport’s development and operations. “It all follows upon Malta ancient maritime history” he says. Around the 1960’s, at the beginning of containerisation in Malta, the activity moved out of Valletta, Malta’s capital city and main port, and got located to Marsaxlokk, in the southern area of the Island, in 1962. The Freeport operation started with the handling of containers, oil products and industrial storage facilities. The deep waters were dredged up to seventeen metres to lay the seabed for the operation.

The Container Terminals are capable of handling next generation vessels with capacities of over nineteen thousand TEUs (Twenty Foot Equivalent Unit) and currently (2017) handle over three million TEUs per annum – it is the second largest in the Mediterranean. They are connected to one hundred and thirty ports worldwide, sixty six of which are in the Mediterranean and the Black Sea. The Terminals also offer Ro-Ro (Roll-on/Roll-off) facilities, now having a track record of over twenty five years. The Terminals' clients include 2M and Ocean 3, CMA CGM, China Shipping, Maersk and Hapag-Lloyd amongst others. The journey between China and Europe (involving several ports) has a transit time of just eighteen days.

The Oil Terminal, within the Malta Freeport, is run by Oiltanking - Malta as a subsidiary of Oiltanking GmbH, who is the second largest privately owned oil terminal operator in the world. The terminal's twenty four tanks have a capacity of five hundred sixty two thousand and four hundred and fifty cubic metres. Besides storage the terminal also provides value added services including 'make bulk and break bulk' operations and blending and adding treatments.

The Oil and Gas Logistics Base is run by Medserv plc, a Maltese public listed company (with subsidiaries in Cyprus, Italy, Middle East, Portugal and Libya) and they provide

- Logistics services and support
- Toll manufacture and mixing of drilling fluids
- Engineering support services
- Environmental services.

5.1.2 The company's perception of how Malta has developed as a place to do business in

Mr Vella underlines that Malta's strategic location in the heart of the Mediterranean is just six miles off the main shipping route connecting Asia with Europe and the Middle East. "This makes us [Malta] an automatic entry port to the EU and North Africa" he says. Mr Vella points out that the Freeport operates in direct competition against ports in the south of Sicily, just one hundred and sixty miles away; with also some business still going on with Libya, Algeria, Egypt and Tunisia.

From the status aspect, Malta is a Schengen and Euro Zone Country, with customs clearance able to be processed in Malta whilst goods are in transit and having a fully-fledged BIP – (Border Inspection Post) on site. Malta has also developed a robust ICT infrastructure - “i-gaming companies that located here are evidence”, opines Mr Vella. Malta also offers a number of fiscal incentives (both as tax refunds and tax credits) to the potential users and developers through the Business Promotions Act. Furthermore, Malta has maintained excellent international relations and a political stability which all foreign investors seek. Within this context, Malta Freeport Corporation acts as an intermediary with all other Authorities on the Island.

5.1.3 Malta as a place to still do business in and any implications

The Senior Manager is of the opinion that Malta has the potential to become an international trade and commerce centre that can serve Europe, North Africa and beyond. “We can attain a distinct competitive advantage that will increase value added operations and contribute to a higher GDP. Multimodal logistics, including sea and air for high value cargoes are already in place and need to be maximised”, he says.

Mr Vella continues to disclose that the Malta Freeport Corporation is looking to develop a Logistics Park on hinterland close to the current site and in proximity to Malta International Airport (just six kilometres distance between the two ports). He explains that it is the government’s intention to develop an area into a fully-fledged logistics park, where activities could include:

- Simple warehousing and storage, for Just in Time deliveries
- Consolidations and ‘Make Bulk’ and ‘Break Bulk’ operations
- E-Commerce – importing large quantities for re-distribution in smaller quantities, fast
- Labelling, packing and sorting
- Showcasing
- Quality Control and inspections by fully qualified personnel
- Assembly of goods
- Light Processing and other value added services

- Assembly and Light Processing may even qualify goods for 'Made in Malta' certification provided that the relevant necessary requirements are satisfied.

Here, Mr Vella comments that a potential site could be the old airport hangar being changed to a free-trade zone, possibly finding a big player to undertake the project. "The warehouses could attract keystone clients (like Proctor and Gamble for example). Malta is equidistant from the East Mediterranean and West Mediterranean" he remarks. However land limitation (available space) remains an issue that needs to be very well managed. On the other hand, he thinks that the problem of a diminishing labour pool is somehow being solved by the importation of foreign labour to satisfy demand across various and several sectors on the Island. The possible future emergence of sub-Saharan (Libya feels more comfortable to do business with Malta) could be another plus point to still do business in or from Malta. The Corporation's Senior Manager sums it up by saying that "The vision is an international trade and commerce centre."

5.1.4 Key Findings – Malta Freeport Corporation

The Malta Freeport is a transshipment hub which operates in direct competition with ports in the south of Sicily. Along the twenty-five years of its existence it has built up connections to several ports worldwide, divided between the Mediterranean and the Black Sea, Asia and various destinations. Its position in the middle of the Mediterranean definitely helps. The Malta Freeport enjoys a valuable status, being in Malta which is a Schengen and Euro Zone Country.

Malta Freeport's Senior Manager makes a reference to the fiscal incentives that Malta offers to the potential users and developers, while also pointing out that the Island has developed a robust ICT infrastructure (if by necessity for the new industries entering the economy). He mentions also Malta's maintained excellent international relations and political stability which all foreign investors seek.

According to the Senior Manager, Malta (through Malta Freeport Corporation) has potential to offer further value-added activities to customers, to become close to a logistics park (an international trade and commerce centre that can serve Europe, North Africa and beyond), an even more attractive proposal to customers. He implies

multimodal logistics, adding that sea and air facilities are already in place and in each other's vicinity and need to be expanded. However, issues like land limitation (available space) and the problem of a diminishing labour pool need to be properly addressed and managed.

5.2 Malta International Airport

Malta International Airport is Malta's only air terminal and it hosts around ninety seven percent of all tourists visiting the Maltese islands. It spreads over a sixteen kilometre perimeter and a seventy two thousand square metre air terminal, partnering with over thirty partner airlines and serving more than a hundred destinations. It has two runways and twenty eight aircraft parking stands; together with over one thousand and five hundred parking spaces for cars, twenty seven retail outlets and about twelve catering establishments (including a food court).

Malta International Airport plc runs the full operation and was registered as a company in 1991. Following a move towards privatisation in 2002, the shareholders of Malta International Airport are Malta Mediterranean Link Consortium Limited, the Government of Malta, VIE (Malta) Limited and public shares. Over sixteen thousand tonnes of cargo are handled annually. Over six million passenger movements were recorded in 2017.

Malta International Airport is a member of the ACI-EUROPE (Airport Council International – Europe). It continually strives to upgrade its terminals, and develop the building's surrounding perimeter, including its non-aviation segment, to cater better for travellers' experience and facilitate the experienced growth in tourism and cargo traffic. The SkyParks Business Centre is one of the brands owned by the MIA, inaugurated in 2012, and built on a one-stop-shop concept, offering business leisure and 'other activities' facilities to its tenants, including conference and retail space.

Malta International Airport's mission statement is:

"Our mission is to operate Malta's airport in a sustainable manner, provide an enjoyable visitor experience and deliver value to our stakeholders" (maltairport.com, no date).

A meeting, where three guiding topics were discussed, was held at the Malta International Airport with:

- Engineer Martin Dalmas – Head – Airport Operations.

5.2.1 How the company has developed

The Head of Airport Operations of MIA gives an interesting historical account. Unavoidably he mentions that, located halfway between northern Africa and Europe, Malta's geographical position in the heart of the Mediterranean has historically been of great strategic value for traders, merchants, and military powers. Civil aviation had already arrived in Malta in the 1920s, when the Maltese islands were still under British colonial rule. Malta's first civil airfield was constructed at Ta' Qali. Others, including one at Hal Far, shortly followed, all built by the British Forces. These were severely battered during the Second World War; civil operations subsequently centred on the one at Luqa airport.

More passengers and aircraft movements necessitated the construction of a civil air terminal in 1956. The British Government mainly financed the project. Malta's new passenger air terminal at Luqa was inaugurated in 1958 by the Governor of Malta of that time. It consisted of two floors and included basic facilities such as a restaurant, post office, cable and wireless office, and viewing balcony. Malta airport traffic increased consistently, and new airlines with larger aircraft began operating in Malta, together with the introduction of jets, resulting in increased interest in air travel to and from Malta. In October 1977, a new and longer runway was developed in Malta, together with an extension and the refurbishment of the air terminal. In 1987, a newly appointed government approved the construction of a new air terminal, to replace the thirty five year old terminal, while still effecting the upgrading of the 'old' terminal in the meantime. The present air terminal was inaugurated in 1992 and the Malta International Airport was operational in the same year, while the old Luqa airport terminal was effectively closed down for aviation.

Since opening in 1992, the air terminal has received continuous investment in infrastructure, equipment, personnel, and services. Malta's airport can land any class of commercial aircraft. Being Malta's only air terminal, Malta International Airport hosts around ninety seven percent of all tourists visiting the Maltese islands. The Malta

International Airport has also been developing its non-aviation segment. Over the past sixteen years, Malta International Airport's infrastructure has benefitted from an expenditure of more than one hundred and ten million Euros, with several upgrades, expansion, the development of SkyParks Business Centre. A recent terminal reconfiguration to facilitate further traffic growth includes the relocation of the Central Security Area to a bigger space, the upgrade of the airport's Baggage Handling System, the installation of eight additional check-in desks and the refurbishment of existing ones, a new VIP lounge, and a redesigned observation deck.

5.2.2 The company's perception of how Malta has developed as a place to do business in

"Malta's development to do business in, could be reflected in the development of Malta International Airport itself", comments Engineer Dalmas, when considering the amount of economic activity involving aviation and non-aviation the airport handles, contributing to more than fifteen thousand jobs (direct and indirect). This makes MIA a very important contributor to the local economy, especially since travel and tourism amount to circa twenty five percent of Malta's GDP, which is a significantly higher percentage than Europe's average. He confirms the steady passenger traffic that passes through the airport with various airlines, however he regrets that "airfreight tonnes still follow a flat and slow trend, being mostly belly cargo with airlines such as Air Malta and Aviaserve". He adds that DHL and TNT have in the last couple of years started with their own aircraft carrying freight, basically courier consignments, "but there is also opportunity for more cargo operations".

5.2.3 Malta as a place to still do business in and any implications

With the recent terminal reconfiguration project practically completed, Malta International Airport is now looking ahead to effect its investment programme for the next five years. This programme is expected to continue to further confirm the company's role in the local economy, as it enables it to further grow both its aviation and non-aviation segments.

The company's investment programme was revised following the recent approval of its comprehensive master plan. The approval was granted following an Environmental Impact Assessment, as part of which a public consultation period opened up the

opportunity to local stakeholders, environmental NGOs, and government authorities to review the master plan and submit their observations and recommendations. The master plan will be executed in three major phases, planned to:

- Equip the existing terminal with additional capacity so as to be able to cater for future growth in passenger numbers, especially considering that the airport has been registering a steady year-on-year increase in traffic;
- Continue evolving the airport complex into an easily accessible business and leisure hub, in line with the international trend that is seeing airports move away from serving solely as passageways to the world;
- Benefit, and add value to, the southern region by creating more leisure, recreational, business and convenient facilities in this part of the Island (maltairport.com, no date).

Malta International Airport will also start works on the construction of SkyParks II with an investment of forty million Euros, following the success of SkyParks Business Centre, to provide high-quality office space for businesses, commercial space for double-height showrooms, and a business hotel to the southern region and within a few minutes away from the terminal. Another envisaged project is the construction of a multi-storey car park, to improve on the flat ground existing one, with an estimated cost of twenty million Euros, to accommodate the growing demand resulting from the increased activity on the airport campus, again reflecting Malta as a place to still do business in.

Eng. Dalmas confirms that Malta is still a place to do business in and mentions possibilities for the future like jumpstarting a logistics hub - “the sealink is there, and the airport infrastructure is in place, yet logistics operations would also depend on airport land!” He talks about Malta Industrial Parks joining MIA to consider industrial development; about access to the airport which can accommodate cargo operations (like TNT and DHL on daily basis). However more apron space is needed for big aircrafts to be able to land at the Malta airport. Eng. Dalmas also discloses that MIA is in discussions with the government about new apron space, while stating that the current manoeuvring space allows for a fifty-two-foot wing span. This is a drawback when comparing with other European countries. “Imagine the possibility of staging the

Antonov (biggest air cargo plane) with a sixty-three metre wing span at the Malta airport” he says. (It is worth noting here that in January 2018 an Airbus A380 with a wingspan of almost eighty metres landed at Malta International Airport).

Coming back to the logistics hub concept, Engineer Dalmas states “Logistics is more than a ferry operation” and gives examples of what could be done in the ‘conceived’ logistics hub, such as:

- Bringing in, for example, electronics kits by airfreight to MIA, do further work on them (added value) and ship out again – the value may be high, but the volume is low.
- For these ‘smaller’ consignments, more hangars would be needed (a lost opportunity); aircraft size is to be considered with the thought of setting up aircraft parking (similar to boat berthing).
- This could be done by charging a cheap parking fee, which would eventually yield a higher turnover.
- To avoid higher expense to MIA, it has to start small and slowly grow big - a gradual growth.

All the above “could be opportunities – pockets for development”, says the Head of Airport Operations, adding that “More realistically the Malta Freeport would handle the large volume cargo by sea and adds value to it in Malta, bringing it in and sending it out to a number of destinations.” He then says that “the Malta International Airport is still highly focused on passenger transport and the limitation of land space still exists”. He gives the example of Lufthansa having to use other space for their aircraft maintenance site.

With regards to the resources needed for the above proposed logistics activities “MIA would run the core operation” he says “by conceding and facilitating; and the human resource could be supplied by third parties, for example Aviaserve (Globe Ground) who have their own expertise”, while also stating that the Maltese workers are highly trainable. With an optimistic tone he recalls the positive effect that passenger and tourism traffic has on Malta’s GDP – something which could also happen with the cargo sector.

However Eng. Dalmas insists that there has to be “master planning of the area around the airport, the perimeter and taxi-ways. The Government has to work with MIA in a holistic manner, not separately” with a culture of smart specialisation. He regrets that Transport Malta gives preference to the maritime sector, not aviation, and that it has been unapproachable and defensive when attempts were made by MIA for discussions. “There has to be a holistic co-ordinator - a regulator” stresses the Head of Airport Operations.

5.2.4 Key Findings – Malta International Airport

The present Malta International Airport had conceptually and physically started when the first civil airport was built by the British Forces in the 1920s. The present air terminal was inaugurated in 1992 and has received continuous investment in infrastructure, equipment, personnel, and services. Since then it has developed and grown, adding to its capability to handle passenger traffic, cargo, and additional services. It contributes to more than fifteen thousand jobs engaged in the aviation and non-aviation activities that it handles and that surround its business. The Head of Airport Operations firmly believes that there is potential for more cargo activity; together with its approved expansion plans to satisfy future increasing demand in passenger traffic and to improve as a business and leisure hub.

The Head of Airport Operations also believes that the airport could become involved in a ‘logistics hub’ concept on the Island (potentially including commercial activity), working in conjunction with the Malta Freeport, with the sealink and the airport infrastructures being already in place. Malta’s geographical position in the heart of the Mediterranean adds strategic value to the concept. However, this implies the issue of land space limitation, considering the eventual requirement for more apron space for big aircrafts. The needed human resource could be supplied by third parties, with their own expertise (and the high trainability of the Maltese workers). He adds that this has to be done with a culture of smart specialisation, in a holistic master plan with the Government through high co-ordination and regulation.

5.3 Company G – Packaging

Company G is Malta's sole manufacturing plant for corrugated carton products, including reels, boards and carton for commercial purposes and industry, as well as for domestic clients. Over the past fifty years Company G has evolved into providing high quality packaging products for a wide variety of clients both within the Maltese islands and beyond, including the North African market.

Company G seeks to excel into meeting customers' requirements, with an in-house team for design and product development and constant investment in technology and equipment, for corrugation manufacturing and conversion processes. Its customer sectors include food and beverage, manufacturers of metal and plastic products and pharmaceuticals amongst others.

A meeting, where three guiding topics were discussed, was held with the General Manager of Company G.

5.3.1 How the company has developed

The General Manager tells us that since 1965, when the company was founded to be a leading manufacturer of corrugated carton, it has come a long way to providing packaging solutions for its clients, to design, advise about choice of material, and manufacturing and finishing, including printing.

He then moves on to give an outline of the company's operation. It imports its raw materials from mills in Germany, Italy, Sweden and Canada. The nature of its raw materials dictates bulky shipping due to volumes and economy of scale. For these reasons and having to compete with other (bigger) corrugating Plants, it has to order paper to keep stock for eight to ten weeks, with weather conditions possibly also having an influence. Basically, the company holds an average of three months' safety stock which translate into one thousand and eight hundred tons of paper costing an average of four hundred and fifty Euros per tonne. The whole process of buying and selling even includes a mismatch between paying suppliers on a credit basis of sixty to ninety days while getting paid from customers on a basis of a hundred and twenty days credit (being one way of retaining customers against competition). This affects the cash flow, with unpredictable demand being part of the picture and overhead

import costs averaging an additional thirty-eight Euros per tonne. However, Company G “wants to stay reliable for its clients, even if it is somewhat difficult to compete against big buyers like China”, says the General Manager.

The company has also developed its technology becoming more automated, which ensures higher process utilisation, a better absorption of machine and labour costs. The General Manager states that “the investment which involves changing to more efficient machinery has to be justified, resulting in needing less people and even reducing processes themselves, for example a recent reduction of three processes to two.”

According to the General Manager: “The company cannot remain local” when talking about future development. He proposes some potential future ventures, like:

- Penetrating the southern Italian market to “reverse the process and turn the threat to an opportunity, by selling the corrugated board there to make up for lack of supply” influenced by the imports of finished cartons from the same area.
- Company G wants to expand on helping clients to ship to abroad, “already being done with one big FDI in Malta, by adding value and helping out Maltese industry”. The proposition is to “pack the product for the client, which would actually mean selling the box and the service”. It could also reduce warehouse space requirement for the client.
- Another envisaged process by the General Manager is pulp moulding, for example supplying carton pallets (instead of wooden ones), also already being done with the same one big FDI in Malta. This produces a lower and lighter pallet, hence more utilisation of height in the freight container.

The General Manager ponders: “Perhaps extend into shipping service?”

5.3.2 The company’s perception of how Malta has developed as a place to do business in

According to the General Manager, a persisting problem for local business is logistics. According to him, pressure has been put on government by companies since a long time to address the freight situation. He thinks that a few big freight agents ‘run the

show' and is of the opinion that government should subsidise local businesses in freight costs.

When it comes to manufacturing, the current Maltese economy drive is placing a lot of importance on other sectors, like tourism, financial services and e-gaming, while it seems like manufacturing has become 'not a priority'. The other sectors just mentioned (except tourism) are considered to be volatile industries in an economy and the General Manager insists that "Government needs to attract manufacturing into Malta – now!" being perceived as a more stable sector. "After all it has been in Malta for the last fifty or sixty years" he says. "But it needs support (maybe in the form of a subsidy) to help with the 'high' commercial rates charged to the manufacturing sector for energy (electricity) and with the onerous freight costs they have to bear."

When it comes to workforce (labour pool) the General Manager states that "It has become difficult to find adequate workers" and takes his company as an example (reflecting the experience of other companies) who is employing southern Italians, who are coming to work in Malta to avoid the average of sixty or seventy percent revenue tax they have to pay in their homeland. The matter is that there is a culture difference when comparing the foreign workforce to the local one. The Maltese workers are known for their flexibility and readiness to learn. Companies have to re-invest in re-training workers, and the element of worker loyalty becomes highly questionable in this situation. Even more so, when as a result of the currently booming Maltese economy, even the Maltese workers themselves are leaving their place of work, moving to other sectors for better pay, like there is in e-gaming, for example. He mentions the experience of having taken him three months to find a clerk and having to raise the wage for a helper to two hundred and forty Euros per week (as compared to the normal one hundred and seventy to two hundred and ten Euros per week). Carrying on about the culture gap in the workplace, again from his own experience in his company, the General Manager brings to light the fact that one has to be careful how to 'mix' the workforce within the company. He gives some examples of people from different countries in the same region or continent who still would not work together, or of different religious beliefs.

FDI see Malta as a more attractive place, with the tax incentives that they are offered, although then they would experience the issue of freight costs, when they come to export and shipping.

5.3.3 Malta as a place to still do business in and any implications

Expanding on his company's experience, the General Manager of Company G continues to say "There is even unfair competition, when others (competitors) import from southern Italy, without any control by bringing in goods with the catamaran, with no checks being carried out, for example pizza boxes – it boils down to black market". When coming to export, he says that "it is even a bigger problem, considering the total cost incurred". He brings the example that the cost of the finished product from Malta is more efficient (a better price). The problem arises when adding freight costs, because it does not remain competitive anymore.

Gathering the current issues mentioned in section 5.3.2, where costs need to be supported for the manufacturing industry, volatile sectors having become prominent in the Maltese economy, the difficulty to find adequate workers, the moving about of local 'reliable' workers for better pay, having to increase the rates of pay to attract workers, the resulting culture gaps at the workplace, the fact that it is harder on local business than foreign (FDI) mostly due to size and strength, the General Manager then adds another comment. He says that "higher wages could lead to a higher standard of living, a change in life style – it becomes a ripple effect" and asks "Will it all remain feasible in the long term?"

With regards to the consideration of Malta as a logistics hub, he is of the opinion that it could be "a hub to invest in, but not a hub to export." Mentioning some other current issues on the Island, like the exaggerated construction work all over the Island, the spiralling rent rates and property prices, the uncertainty that could hang over the heads of e-gaming employees (a volatile industry sector), he strongly states that there has to be a long term strategy. He fears there is a risk of a 'bubble burst' in the next ten to fifteen years and questions a government's contingency plan. He concludes by asking "What if something goes wrong! Is it all sustainable?"

5.3.4 Key Findings – Company G

Presently the only Maltese packaging manufacturing company in Malta, Company G had started as a carton corrugation plant. It has since developed into packaging design, material choice, product development, finishing and printing of corrugated boards and cartons for commercial, industrial and domestic end-customers, both for local market and export. The Company has also developed its technology becoming more automated, with plans for expansion on its value added service.

The General Manager says that a persisting problem for local business is logistics, principally the freight costs (which reduce price competitiveness) and is of the opinion that government should subsidise local businesses, together with giving industry better commercial energy rates. To add insult to injury, there is also unfair competition, with competitors import from southern Italy, without any controls. He states that more importance is being currently given to other industry sectors some of which he considers to be 'volatile', while manufacturing is not a priority, yet perceiving it as a more stable sector. Finding adequate workers is another challenge for Company G, with a 'drifting' local normally 'reliable' workforce, resulting in diminishing employee loyalty. Consequently the Company has to increase the rates of pay to attract workers, and culture gaps emerge at the workplace due to employment of different nationalities, when comparing the foreign workforce to the Maltese workers who are known for their flexibility and readiness to learn. He considers Malta being potentially a logistics hub to invest in, but not to export.

Finally, the General Manager questions sustainability (implying the currently booming Maltese economy) when mentioning current issues like the exaggerated construction work all over the Island, the spiralling rent rates and property prices, the uncertainty that could hang over the heads of employees in 'volatile' sectors. He strongly states that there has to be a long term strategy and questions a government's contingency plan.

5.4 Company H - Freight forwarders – Air

Company H is a well-established leading company within the supply chain and logistics sector in Malta. Over the past eighteen years it has received the Lufthansa Award for Excellence on several occasions and more recently also received 'The Best

Cargo Agent for Emirates Sky Cargo in Malta' already a few times. In partnership with its network of overseas agents the Company's services extend to practically all global destinations. It is committed to offer the very best service to all clients.

The company acts as an IATA Certified Cargo Agency and has been active in the cargo industry since 1945. It currently represents in Malta the major global freight forwarders and is also the general sales agent for Cargolux Airlines International. Its main activity is airfreight forwarding. To distribute its operations, the company also has subsidiaries to ensure a dedicated service. Its range of services includes:

- International Freight Forwarding
- Customs Clearance & Brokerage
- Transshipping of Cargo
- Packing Solutions
- Warehousing and Stock Management
- Handling of Dangerous Cargo
- Handling of Live Stock
- On board Accompanied Courier Service
- Handling of Valuable Cargo
- Aircraft Charters.

A meeting, where three guiding topics were discussed, was held with the Managing Director of Company H.

5.4.1 How the company has developed

Company H knows its origins when it was still working with British Overseas Airways Corporation (BOAC), the British state-owned airline created in 1939 by the merger of Imperial Airways and British Airways Ltd to move consignments from and to Malta, at the time when the Island was still a British colony. In the 1970's the national airline Air Malta was established, and with whom this freight company started working.

Company H then further diversified its freight activities and ventured also into trucking, partnering with brands like UPS, DB Schenker and Pan Alpina to upgrade into a worldwide service. The Managing Director recalls when he had started as a clerk, for

a time being stationed at the biggest FDI electronics manufacturer dealing with its freight documentation and handling. He eventually got given the task to organise the freight company's warehouse, continued to study while gaining experience and actually became the managing director of Company H. Since then the company left its offices in an industrial estate and moved to a strategic location, close to the national airport, and covers all modes of freight transport up to the 'last mile'. He states that it is the highest priority to "give the best service to your client – value added". The company continued to grow and has invested shares in a long-established bank in Malta and even has a majority holding in Maltapost plc, the postal service company in Malta having sixty branches all over the Island.

5.4.2 The company's perception of how Malta has developed as a place to do business in

The Managing Director says that Malta has developed into a changing economy with new sectors 'coming in' like financial services and e-gaming. It has also developed a guaranteed IT infrastructure, still offers a beneficial tax regime to FDI together with professional services and support, has a sound legal system, enjoys high trust from other countries, and has political stability.

"But we have the '21st century to 21st century' problem" he says explaining that resource management, manufacturing and capital have become issues. Workers with certain skills have become hard to find, manufacturing is not being given the due importance, while it strives to adopt automation to compensate for the shortage of adequate labour. Capital also needs to be very well managed to back up the technological investment and the higher wages that have to be offered by companies to attract and possibly retain workers. When it comes to the local labour pool, Malta now needs to resort to "the importation of labour, while foreign workers are only available at certain levels, with the effect being that we are losing out on the endogenous element of the local workforce (being flexible, ready to learn, hardworking) due to mixed cultures in the labour pool" the Managing Director continues.

According to the Director "Malta needs specialisation, a smart strategy. A 'scope of scale' needs to be set. After all, do you have a choice? Can we afford to have a

choice?” adding that “consent has to be reached between all stakeholders, an example being the plan of setting up a logistics hub in Malta. “What is a logistics hub? There has to be a shared understanding”.

5.4.3 Malta as a place to still do business in and any implications

Continuing on the concept of a logistics hub in Malta, the Managing Director of Company H believes that it could happen, but as already stated, it has to be set within a scope of activity. Considering Malta’s geo-position, the hub could be served by and serve all modes of transport. The initial question would be “What network would I need to develop?” says the Director, while commenting that “If not coming from a background of logistics, it is not easy to understand. It is about contacts, involving a few locals with connections and know-how, use the human element, consider the politics – all made up of ‘social clubs’”. It is already happening in Malta. The business activity is there”, he says, and refers to high value and low value airfreight solutions, multimodal solutions and stuffed containers. He mentions activities that the hub could serve (scoping) - like light manufacturing and logistically, such as cargo touching base with Malta on an ‘inputs – outputs’ model.

The Managing Director believes that the logistics hub in Malta will eventually happen but not on the offered conditions, as set in the government’s two unsuccessful calls in 2016 and 2017. “The bid was too expensive, and it needs much more. It needs training; it needs time; it has to be an agglomeration”, while listing a number of considerations and suggestions:

- It has to be public and private – a joint venture. “There are externalities – government invests in infrastructure, companies generate the business”.
- Infrastructure – the necessary or available area; ships generate too much traffic.
- Internet – Government has to provide and ensure.
- Economies of scale – agents; volumes; cargo.
- Conditions – has to guarantee activity for all stakeholders.
- People – training of people; an initiative that could be undertaken by government.

The Director opines that “alone we cannot compete, when thinking about ports like Rotterdam, Singapore and Hamburg – we need a big operator to manage it or else we could ‘jump on’ to be part of (or even supplement or complement) some strategic logistics partnership or alliance. He concludes on this matter with the thought that “We cannot do it on our own. We have to decide between regional and international. Malta could be a node in a network”.

Returning to the factors arising from how the Maltese economy is developing and considering whether it is still a place to do business in, the Director gives a couple of thoughts and implications:

- With the new sectors like the financial service and e-gaming offering higher wages than ‘normal’, people are going on to a new lifestyle; the rental rates and property prices are being influenced and have become too expensive – “what if the bubble bursts?”
- With the workforce becoming diverse with the importation of foreign labour, the ‘endogenous element’ which has attracted FDIs in the past might be lost; foreign workers only fill in certain levels. Therefore “Human capital has to be built up.”

5.4.4 Key Findings – Company H

Originally working with British Overseas Airways Corporation (BOAC) from 1945 and changing to the newly established national airline Air Malta in the 1970’s, Company H has since grown and expanded its services to a fully-fledged freight transport operation, becoming a representative of major global freight forwarders. It has even received awards for service excellence on several occasions from two major international airlines, making it a leader in the local freight sector. The Company also has subsidiaries to ensure a dedicated service within the freight sector and has also ventured into shareholding in a long-established bank in Malta and in Maltapost plc, the postal service company in Malta.

The Managing Director says that Malta has developed into a changing economy with a guaranteed IT infrastructure, while still offering a beneficial tax regime to FDI together with professional services and support; also having a sound legal system and

political stability. However, it has become difficult to find workers with certain skills and manufacturing is not being given the due importance, while striving to adopt automation to compensate for the shortage of adequate labour (needing capital for technological investment). Higher wages have to be offered to attract and possibly retain workers. Importation of labour could imply losing out on the endogenous elements of the local workforce due to mixed cultures in the labour pool. These are all concerns expressed by the Managing Director of Company H.

The Director believes that a logistics hub could eventually happen in Malta, but within a defined scope of activity. Malta's geographical position also facilitates different modes of transport. He suggests various ways for the hub's operation, such as having a big operator to manage it; being part of some strategic logistics partnership or alliance; deciding between regional and international - making Malta a node in a network. The hub could even serve value-added activities with cargo touching base with Malta, on an 'inputs – outputs' model. He suggests that the hub would have to be an agglomeration, with government investing in infrastructure and companies generating the business.

The Managing Director of Company H concludes by questioning the sustainability of people going on to a new lifestyle, the increasing property rental rates and prices implying influence by the higher wages being offered by the new industry sectors. He is also of the conviction that Malta has to build up its human capital (beyond the current importation of foreign labour), while implying the potential loss of the 'endogenous element' which has attracted FDIs in the past. The Director emphasises that Malta needs specialisation - a smart strategy.

5.5 Company I - Freight forwarders - Road and Sea

Company I was established in 1995, and forms part of a family owned group of companies. It is one of the leading providers of international air, sea and road transport services in Malta. Its privately-owned fleet boasts over one hundred and fifty trailers, forty road tractors, twenty-five of which are stationed in Europe. The company has direct links to mainland Europe through sea and air and operates in Central and Eastern Europe, including the Baltic States. It is also a full member of the International Federation of Freight Forwarders Associations (FIATA).

These freight forwarders also provide specialised services, including haulage in dry and reefer trucks, bonded warehousing and dry to controlled temperature warehousing, and transportation and handling of hazardous cargo.

A meeting, where three guiding topics were discussed, was held with the Managing Director of Company I.

5.5.1 How the company has developed

In the twenty years and over that Company I have been operating, it has constantly grown in terms of its operations, its privately-owned fleet of trailers and road tractors and in its experienced logistics team. It handles freight for several companies in Malta, including a leading FDI supermarket chain.

The Company has developed to operate within a network of depots in mainland Europe, on a regular and weekly basis; venturing even into transshipment from Asia. Its logistics team has developed into one who can handle and deal with the challenges that the nature of work presents, like the fact that Malta is an island (making logistics somewhat more complicated), the shipping line providing just a weekly service for exports and imports, port workers on some occasions and trailer scheduling.

Company I has developed its abilities to cope with challenging demands from clients, especially those in the manufacturing sector. These clients operate on a JIT basis, which creates small and multiple consignments, with short delivery times being a must. The 'lateness culture' is also another factor, with companies leaving till the latest time possible to hand over their consignments (to gain time on their side), increases the pressure on the forwarder to be able to transport the consignment to be boarded on the vessel in time. The increasing demands from clients and the increasing competition "are getting worse every year, and we have to give the best service at the lowest price, to satisfy our demanding customers" as the Managing Director puts it. Round trips and certain implications, like delays, trucks and truck driver regulations; night driving regulations and drivers' breaktimes add to the logistics challenge. Customs and their procedures are not considered to be of any problem by the Company Director. The Company faces also some unfair competition created by other

local freight companies who do not show local (Malta) and foreign (other) port charges when giving quotations to certain potential clients.

5.5.2 The company's perception of how Malta has developed as a place to do business in

The arrival of new sectors into Malta's economy like financial services and the gaming industry, "has created some consequences like young people going for higher paid jobs, the foreign workers leaving to go around for higher wages (changing jobs), a good part of the workforce hopping from one company to another" says the Managing Director. He continues to say that as a result, "companies keep looking for new people, with the challenge of re-training and 'grooming' them in the company's culture, offering higher wages in an attempt to retain workers, keeping in mind that it is difficult to find experienced workers."

The Managing Director also mentions the prospect that the government might be investing in Malta to set up a 3rd party logistics project (logistics hub). However, he adds that such a project requires "educating people, promoting the concept, changing the mentality in some work methods and creating a synergy between all stakeholders - business people can work their figures". He also sees 3rd party logistics as a good solution for short distance freight transportation and handling.

5.5.3 Malta as a place to still do business in and any implications

Here, the Managing Director of Company I comments that "Malta is not an easy place to do business; everybody knows each other; is in competition with each other; and it becomes personal - more than just business."

He also highlights other issues:

- "It has become a big problem in Malta to hire (recruit) people (as employees)."
- "Customs people do not really understand the logistics business. For example, the costs involved in picking up a car in the UK are no problem, but when transporting to Malta it becomes a problem because of extra costs that are incurred. The customer also does not understand that."

- “When it comes to home delivery (B2B distribution) traffic (due to congestion) creates a problem. In this respect the number of clients equals to the number of problems; it incurs a certain waste of time – there is no real gain. The solution would be to invest in IT.”

5.5.4 Key Findings – Company I

Company I has experienced constant growth in terms of its operations, its privately-owned fleet and in its experienced logistics team, becoming one of the leading providers of international air, sea and road transport services on the Island. It has established direct links to mainland Europe through sea and air and operates in Central and Eastern Europe, also venturing into transshipment from Asia. It has managed to keep up with the inherent challenges of conducting logistics from an island; with the increasing demands from clients and the increasing competition from other companies in the sector. Customs and their procedures are not considered to be of any problem.

The Managing Director of Company I thinks that the arrival of new sectors into the Maltese economy has created some consequences, such as the Maltese young people and foreign workers changing jobs for higher wages. This presents companies with the challenge of looking for new people, re-training and ‘grooming’ new employees in the company’s culture, and offering higher wages in an attempt to retain employees - it is difficult to find experienced workers.

The Director then comments that if the Government was to invest in Malta to set up a logistics hub it would require to educate people, promote the concept, changing the mentality in some work methods and creating a synergy between all stakeholders. He also firmly believes that investing in IT solutions would help and facilitate certain distribution operations and challenges, like home delivery (B2B distribution) and traffic congestion.

5.6 Company J – Couriers

Company J in Malta is a subsidiary franchise run by a long-established local family business (since 1946) in the freight sector and have now been associates with a worldwide courier company for over thirty years. The courier company handles parcels

and freight shipments between the rest of the world and Malta. Its service includes on demand booking, delivery on a specified date within two-to-five working days, door-to-door transport, customs clearance and track and trace. Services range from express air service for urgent documents and parcels to economy road service for medium to heavy shipments. The courier service daily flight to and from Malta allows for early delivery of imports and late cut off for export collections.

In 2018, the Company was awarded full Authorised Economic Operator (AEOF) Certification by Malta Customs and has become the eleventh to have the full certification out of sixteen companies in Malta who have the AEO status. This means that the Company has the highest levels in compliance, operates the best system of managing commercial and transport records to ensure appropriate customs controls, holds proven financial solvency and operates stringent security and safety standards. This internationally recognised accreditation throughout the EU and beyond, is granted to operators involved in the international supply chain namely freight forwarders, customs brokers, carriers, ports and terminal operators, as well as manufacturers, importers and exporters.

“Adhering to the highest operative and administrative standards has always been one of the most important principles in our business. It is our mission to deliver the safest and most professional service to our customers and achieving the AEOF status was another sound step in this direction,” states the Managing Director.

A meeting, where three guiding topics were discussed, was held with the Managing Director and the Business Development Manager of Company J.

5.6.1 How the company has developed

Company J have been an appointed associate of the global courier company ‘A’ since 1987. In 2016 this global courier company was acquired by yet another global courier company ‘B’. Resultantly, Company J have now been a Global Service Participant (GSP) for the courier company ‘B’ since 2017. The Maltese company still operates with both global courier companies even on a separate basis, which makes its operation a very dynamic one serving and connecting clients worldwide. Moreover, Company J has been able to adapt and work along the two different cultures of both

courier companies, one operating mostly within Europe and the other one covering the European, Middle East and Africa (EMEA) regions.

So, Company J has over the years widened and deepened its operation to connect to Europe, the Middle East, Africa (EMEA), together with China, India, and Southeast Asia. Its handling of consignments out of and into Malta has consistently increased over the years. It handled a high traffic of economy express volumes transported between Malta and its EU partners in the 2000s. Then from 2010 onwards Express delivery started gaining momentum at a fast pace too, and in 2015 Company J was included in global courier company 'A's extension of its Express Road Network. The benefits to customers include shorter transit times for Economy consignments, later departure times for exports, earlier arrival times for imports, and the ability to send larger and heavier consignments. This provides a service to the Asian exporters who serve the Maltese industry as well as Maltese imports of electronic, eco-friendly and household goods. A dedicated jet aircraft runs on a daily basis during weekdays on inbound and outbound journeys carrying the 'express' consignments.

The Managing Director of Company J rhetorically asks "Decline in airfreight industry? Where? In what? Malta?" The Director goes on to affirm the significant increase in air cargo handling and mentions i-shopping as one of the reasons for such an increase. If one had to look at manufacturing, and its more frequent and smaller consignments of imported raw materials, is another cause of high air traffic, courier service in particular which has become competitive in all aspects, such as delivery time and cost-efficient delivery. Here the Director takes the opportunity to praise the local talent of their employees, with their adaptability, flexibility and experience. Company J has a culture of long-term relationships and with a different perspective (maybe from some other family businesses) where for them the employee is "family - one of us".

5.6.2 The company's perception of how Malta has developed as a place to do business in

Commenting from the logistics perspective the Business Development Manager of Company J spoke about the request for proposals made by the Maltese Government in 2016 and 2017 for an international logistics hub, saying that it would be best to involve all organisations and stakeholders for discussion, recommendations and

drawing up of a project plan before actually presenting such a proposal. He then said that Malta has developed by offering a value proposition to attract and retain several FDI companies of good standing who have made an impact on the Maltese industrial scene, continuing that Malta has to look at smart specialisation as a way forward.

The Managing Director commented that the Malta Freeport “would not work” for Company J and its global courier partnerships, while reminding that “China has grown a lot and has also become a consumer”. “The Freeport concept is a transshipment hub”, while also commenting that “when it comes to airfreight, there is still a lot to be done”. The cost of airfreight is considered to be still expensive; trailer service (for groupage) has become affordable, with organised, regular shipping and departure service, according to the Managing Director. For the proposed logistics hub, the Director suggests that a feasibility exercise should be conducted, with considerations like “China shipping to US; a SWOT analysis; different industries, like fashion, pharma, FCMG; Alibaba policy; setting up in Malta – 3PL or 4PL; ‘break or bulk’ operation; contract agreement for an operator; a larger scale activity.”

5.6.3 Malta as a place to still do business in and any implications

The Managing Director immediately replies that there should be “Teams of experts to study what sectors would work for Malta”, and points out that pharmaceutical companies are moving to China and India; together with a manufacturing decline on the Island. But there is good business between European and US companies, and according to the Director “such events give even more reason to look for alternative industries for Malta”. Talking about the transshipment activity (at the Malta Freeport) the Director says that “with such a global logistics service already in place, why is not breaking down of bulk being done in Malta?”

The Managing Director of Company J thinks that there is an opportunity in Malta for some companies to develop a distribution service, which could be one way forward. According to the Director, “In Malta, providing a service is innate in the people, taking tourism and catering as examples. The ultimate purpose is providing a service, but politics must keep out of it!” Recruitment for any new sectors must be planned and provided in a timely manner. In conclusion, the Director poses the question “Link Malta Airport to the Malta Freeport?” and answers that “They are both in the same area. It

makes sense.” However, adding a cautioning note about the implications for the infrastructure which would be affected by traffic from delivery companies and transport.

5.6.4 Key Findings – Company J

Company J had started off as being an appointed associate of a global courier company, and later becoming also a Global Service Participant (GSP) for a second global courier company. Company J expanded its operations to satisfy both global courier companies, with their different cultures and various regions of operation. Thus, Company J has over the years widened and deepened its operation handling the consistent increase of consignments out of and into Malta. The Company eventually achieved highest levels in compliance and was consequently awarded the internationally recognised accreditation of full Authorised Economic Operator (AEOF) certification by Customs. Within this context, the Director praises the local talent of their employees, with their adaptability, flexibility and experience for their contribution to achieve such a high standard.

The Business Development Manager of Company J says that Malta has developed by offering a value proposition to attract and retain several FDI companies of good standing and that Malta has to look at smart specialisation as a way forward. He mentions the Maltese Government’s past proposal for an international logistics hub, and is of the opinion that there is an opportunity in Malta for some companies to develop a distribution service. The Company Director then suggests linking the Malta Airport to the Malta Freeport, both being in the same area, while cautioning about the implications for the infrastructure. She adds that a feasibility exercise should be conducted to properly consider the potential offerings of a logistics hub (such as breaking down of bulk); while also suggesting that there should be teams of experts to study what sectors would work for Malta (mentioning the manufacturing decline on the Island). But she believes there is purpose for alternative industries for Malta considering the good business activity, while reminding that recruitment for any new sectors must be planned and provided in a timely manner.

5.7 Company K - Bulk chemicals

Company K is an FDI project itself, having been incorporated in 1989 and started its operations in 1992. The company is part of one of the world's largest providers of independent tank storage for crude oil, petroleum products, and related liquids as well as liquid chemicals, gases and dry bulk, operating a network of eighty independent terminals in twenty three countries across the five continents.

Company K in Malta is centrally located in the Mediterranean and close to the main international shipping lanes between Europe, Africa and the Middle East, the Pacific Rim and the U.S, making it able to offer high service to its customers. Its unique location and operations make Company K a preferred storage and logistics partner for its customers in the Central Mediterranean, while being ideally positioned to make bulk for long-haul destinations and break bulk for Mediterranean ports. Over the years, the Company has been growing and became a hub for its activity in the Mediterranean Sea. Furthermore, it offers blending and treatment services of oil product cargoes to its customers, safe berthing for vessels up to one hundred and twenty thousand DWT (deadweight tonnage). It operates under the most international rigorous quality and safety standards with very qualified personnel and is committed to protect the environment in which it operates, even exceeding current European Standards. Company K also supports educational initiatives for the civil community (maltachamber.org.mt, no date).

A meeting, where three guiding topics were discussed, was held with the CEO of Company K.

5.7.1 How the company has developed

The CEO of Company K starts by saying that the Company is unique on the Island. The German mother company, being entrepreneurial, had come to Malta since North Africa was considered as being of a high risk and they needed a credible partner. At that time the Maltese Government had said it was ready to invest. He then recalls when he came to Malta himself in 1992, as a student ship broker (Malta was an ideal shipping location, having also shipbuilding). This was the time when Company K was being constructed.

In its first years, the Company (who had started as speculation) had limited space from where to operate, being almost land-locked, and therefore they concentrated on the optimisation of the business. Then the local authorities gave them a jetty, which they developed into a one thousand meter breakwater. The company's activities include warehousing, storage, tanking, breakdown, blending and bulk – “a business model adding value” as the CEO describes it. He goes on to say that “within the bunker market, the Company currently provides between one million seven hundred thousand and two million tons per year from Malta, as compared to five hundred thousand tons in 1992”. Before Malta joined the EU in 2004, Company K was subject to Customs control and procedures, being also a Customs bonded warehouse and not a free zone, which however changed since Malta joined the EU.

Company K has also passed through different shareholding, from when for example it first invested in Malta with fifteen percent owned by Company K and thirty percent by the Malta Freeport Corporation, to when Malta Enterprise who were willing to invest, held a thirty percent partnership until it had to sell out when Malta joined the EU. “It then became an attractive proposition (when Government sold out its original shares) and the shareholding changed to fifty five percent for the German ownership and forty five percent for the Maltese government” states the CEO, who adds that “the Malta Freeport Corporation is the Company's landlord”. “The Company keeps a low profile, and it does not provide fuel to Malta, shipping its product only outside of Malta – it is not interested in Malta as a domestic market” says the CEO. He then ponders upon a couple of issues saying that “the market has changed, power stations are closing down – that might be reducing the demand for oil. New regulations also keep being set, like the one for lower sulphur.”

5.7.2 The company's perception of how Malta has developed as a place to do business in

From the Company's perspective, it was of benefit when the Business Promotion Act came into effect in 1988, ‘To encourage the establishment of new businesses and the expansion of existing ones, and to make ancillary arrangements in relation thereto’, with its subsequent amendments over several years up to 2015. It meant that Company K started to qualify for tax credits and other incentives, in relation to the

Government's and Customs concessions in the maritime affairs sector. For the Company, 2006 and 2007 were a transition period, including the fact that it had four hundred million Euros invested in the Malta operation and received back one hundred million Euros in tax rebate. The Maltese authorities could not sell their shares due to Company K being a private holding and so they were sold back to the Company in tax credits – both entities not paying corporate tax.

The CEO says that “the Malta Freeport Corporation is the ‘boss’, and we refer to them, for example for power demand, following upon the structure from the past. We do not contact the government, we get zero help, but when we contact the Malta Freeport Corporation, we find help”, while adding that the Corporation's Chairman is a government appointee. He expresses his opinion that “Malta is living one step behind. It is living in past laws”.

5.7.3 Malta as a place to still do business in and any implications

Company K's Corporate had seen favourable factors when deciding to invest in Malta, such as its tradition of legal security, the fact that English was an official language, and the attractive borrowing terms for loans. The CEO of Company K acknowledges that the primary factor at the time of initial investment still remains valid, which is that Malta is a strategic geographical location. The Island continues to serve well as a terminal for the Company's activities, where small loads are gathered at a terminal like Malta until a large volume of material is available, and which can then be shipped overseas in a large vessel, technically ‘making bulk’ (considering that larger ships have to be used for longer distances to maintain an efficient freight-per-ton cost). Because of the frequently differing prices between Europe and the USA, it is advantageous to carry out this process within Company K in Malta. The opposite process, ‘breaking bulk’, also fits well as being part of the local operation, involving the storage of large cargo in Malta, where it is broken down into smaller volumes and shipped to smaller consumers or ports across the Mediterranean. “Breaking bulk is cheaper for the bunker market” comments the CEO.

The CEO summarises the flow by explaining that “material coming through the Suez Canal, the Bosphorus on the Gibraltar route is bound to hit the Island, since it passes by Malta anyway. The product comes from all over the world, for example India, China,

and involves offloading, smaller vessels, and parking. Company K is the trader, in the centre, a key position – in the middle, staying neutral and keeping options open”. The CEO points out the examples that Cyprus and Gibraltar are in a geographic middle position, but double freight is involved. He also states that ‘breaking bulk’ provides “a boost for the economy, with a further seven hundred and fifty jobs created in the supply chain ecosystem. The Company itself employs seventy five people”.

When it comes to Malta still being a place to do business in, the CEO mentions some concerns. He starts with the current problem of attracting labour. He states that Company K’s “employees are all Maltese. The Company has its in-house training programme, also engaging external lecturers. We try to stay away from foreign labour to avoid the culture gap.” He continues about the importation of foreign labour and the illegal immigration issue that Malta is facing together with the ‘legal’ immigration from other EU countries, all of which could breed a feeling of ‘they are taking our jobs’ among some locals. At the same time “everyone [the Maltese] wants to go to University” he says. Due to the increasing population in Malta, made up of the locals and inflated by the foreign workers to satisfy the growing economy (with its ‘new industry sectors’), the demand for accommodation has spiralled as have the rates for rent and property prices, as a result. This has triggered an exaggerated growth in construction, which he describes as ‘unsustainable’ while he comments that “there is zero investment in infrastructure, and it is too dense”. He thinks that the new sectors coming to Malta like financial services and e-gaming are volatile industries and asks “What will happen when they leave?” He also says that the banking system in Malta has become very difficult, “loan for business have become more expensive. Unsecured loans are totally out of question.” As an example, he mentions that the Company had to resort to public funding to pay a previous bond.

The CEO of Company K concludes by presenting the following questions and answers:

- “Would I invest today with those guys [i.e. Malta]?”
 - (Answer) “No. Credibility has been lost. The situation [in Malta] is not sustainable. We are here because of the past, not because of the present, nor the future. Moreover, we cannot reclaim land – the company is landlocked”.

- “Could Malta be an international hub?”
 - (Answer) “A regional hub is more of a possibility.”

His final message is: “Companies who invested in the past stay here [in Malta]. What about the new companies?”

5.7.4 Key Findings – Company K

Company K had actually started as a speculation project and Corporate had seen favourable factors when deciding to invest in Malta, such as the Island’s tradition of legal security, the fact that English was an official language, and the attractive borrowing terms for loans. The CEO of Company K acknowledges that the primary factor at the time of initial investment still remains valid, namely Malta being a strategic geographical location. In the beginning the Company had limited space for its operation but eventually developed into a one-thousand metre breakwater, expanding their activity and becoming a hub in the Mediterranean Sea. The Company has also passed through different shareholding, mainly due to Malta joining the EU, the eventual shareholding between the German ownership and the Maltese government making the Company a better business proposal. Company K starting to qualify for tax credits and other incentives for the maritime affairs sector. It has also established its own in-house training programme. The Company operates under rigorous quality and safety standards with highly qualified personnel and is committed to protect the environment in which it operates. Over the years, the company has grown to become a hub and preferred storage and logistics partner for its customers in the Central Mediterranean.

Yet now, the CEO mentions some concerns, such as the current problem of attracting labour, while stating that the Company tries to stay away from foreign labour to avoid a culture gap. Another concern is the unavailability of space, now rendering the Company as landlocked. He mentions issues which he thinks affect Malta’s sustainable development, like the Maltese wanting more to go to University; the increasing population in Malta, made up of the locals and inflated by the foreign workers to satisfy the growing economy; and the ever increasing demand for accommodation and the spiralling rates for rent and property prices. He considers the resultant exaggerated growth in construction as unsustainable and comments about

the lack of investment in infrastructure and its density. He also questions what would happen if the new (some volatile) sectors leave from Malta. From a company business perspective the CEO says that the banking system in Malta has become very difficult and goes on to express his doubt about future investment vis-à-vis the whole present situation. He ends by opining that Malta could be more a regional than an international logistics hub.

5.8 Key Findings - Overview of logistics service providers

Significantly common topics and issues about which the logistics service providers commented are summarised within this section.

The logistics service providers' perceptions of how Malta has developed as a place to do business in - Malta has maintained excellent international relations, political stability and a tradition of legal security (a sound legal system) - which all foreign investors seek.

However, the original highly regarded endogenous elements of the local workforce – their flexibility, adaptability, experience and being hardworking and ready to learn – is now at risk. Employment of foreign workers (different nationalities) possibly results in culture gaps at the workplace; there is even a culture difference when comparing the foreign workforce to the Maltese workers, implying the possible loss of the 'endogenous element' which has attracted FDIs in the past, due to mixed cultures in the labour pool. Now, the challenge of finding adequate and experienced workers in a diminishing labour pool needs to be properly addressed and managed, this being attributed to the arrival of new sectors into the Maltese economy. The movement of both the local (reliable) workers and the foreign workers between places of work for better pay is reducing the employee loyalty of the past. The young Maltese generation are wanting more to go to University to get higher paid jobs. It has become difficult for the manufacturing sector to find workers with certain skills, while it strives to adopt automation to compensate for the shortage of adequate labour (needing capital for technological investment). Companies have to offer higher wages to attract and possibly retain workers.

The Island has developed a robust ICT infrastructure (if induced by a changing economy with new industries). Perhaps, investing in IT solutions could possibly help and facilitate certain distribution operations locally. Yet, the overall perception exists that more importance is being currently given to other industry sectors some of which are considered to be 'volatile', while manufacturing is not a priority, although perceived as a more stable sector by the respondents.

Concern is expressed about people going on to a new lifestyle and a higher standard of living, and committing themselves to high property rental rates and prices, being influenced by the higher wages being offered by the new industry sectors (what would happen if the more volatile sectors leave from Malta?). The increasing population in Malta, made up of the locals and inflated by the foreign workers to satisfy the growing economy (with its 'new industry sectors') creates congestion. The resultant exaggerated growth in construction is unsustainable, creating even more density on the Island, within the already existent land limitation. These factors are affecting social well-being and the environment.

The logistics service providers' perceptions about whether Malta is still a place to do business in and implications – Overall Malta is still seen as a place to do business in. Positively, the fiscal incentives in the beneficial tax regime, together with the professional services and support that Malta offers to FDI, still remain. Also, English was and still is an official language (together with Maltese). Malta's geographical position in the heart of the Mediterranean adds strategic value - a primary factor at the time of initial investment of FDI which still remains valid. Furthermore, Malta's membership in the EU, making the Island a Schengen and Euro Zone Country, is an advantage for Customs clearance and preferential duty rates. This has enabled Malta to offer a value proposition to attract and retain several FDI companies of good standing.

The logistics service providers believe that a logistics hub could eventually happen in Malta, but within a defined scope of activity, such as light assembly, breaking bulk and packaging, with cargo touching base with Malta on an 'inputs – outputs' model - all 'value-added' activities. The proximity that exists between the Malta Freeport and Malta International Airport is considered as a positive factor. Malta's geographical

position in the heart of the Mediterranean adds strategic value to the concept. It is perceived by the respondents as a hub to invest in, but not a hub to export, logistics not being considered a major strength and even felt as a persisting problem for local business (the freight situation possibly influencing competitiveness). Also, the respondents think it should rather be a logistics hub on a regional level rather than an international level, where Malta could be a node in a network. Implications emerge, about the infrastructure which would be affected by traffic from delivery companies and transport; together with the issue of land limitation (available space) presenting concern about potential business expansion.

Sustainability is questioned (implying the currently booming Maltese economy) when mentioning current issues like the exaggerated construction work all over the Island; the spiralling rent rates and property prices; the uncertainty which could hang over the heads of employees in 'volatile' sectors and other aforementioned issues. These cast a shadow of doubt in the respondents' minds about future investment in Malta vis-à-vis the overall current situation.

Positively, perception exists that there is purpose for alternative industries for Malta considering the good business activity on the Island, and recruitment for any new sectors must be planned and provided in a timely manner. However, Malta has to build up its human capital, to go beyond the current importation of foreign labour. All agree that Malta has to look at smart specialisation as a way forward, in a holistic master plan with the Government - a smart strategy. A long-term strategy and a government contingency plan stand to be questioned.

Conclusion

This section explored what the logistics service providers had to say in relation to their operations in Malta and about Malta itself; adding on to the findings from the FDI case study companies. It includes transcripts from the meetings held with high ranking representatives of the logistics service providers in this research, providing also each company's context, how each company developed in Malta; and their thoughts and perceptions of how Malta has developed as a business location and whether Malta is still a place to do business in, with any related implications. Summaries of findings for each case study have also been outlined. Finally, a list of identified topics and issues that the respondents have commonly highlighted has been presented.

CHAPTER 6: FINDINGS 3: Key Informants - AGENCIES, INSTITUTIONS AND ACADEMIA

Introduction

Considering the emerging themes from the interviews with the case study companies and the logistics service providers, it became evident that further interviews would be of relevance to the research, so to delve into the 'wider picture'. Thus, key informants and institutions were then approached. The emerging or prompted themes included FDI needs, competitive fiscal policy, workforce availability and flexibility, skillset, EU membership and political stability, attractiveness, infrastructure, host country obligations, new or future sectors for potential FDI, innovative culture, change, education, sustainability and strategy.

Such institutions, including government agencies, are considered to be closely connected to both the FDI companies and also the host economy state, since they could also be affected or affect the companies' and the host country's activities, policies and strategies. It is about business and government interactions where both could influence each other, implying both institutionalism and co-evolution, as dealt with in sections 2.5 and 2.6 within Chapter 2 of this thesis. Being at the national level, these key informants from agencies, institutions and academia (whether governmental or non-governmental), contribute towards and influence the host country's decisions for its development, whether economic or sustainable. They are the drafters of existing (or new) frameworks of institutional arrangements through the purposeful interventions of institutional and other economic actors (Strambach, 2010), actually within "an open system that evolves in ways shaped by past development paths" (Boschma and Martin, 2010, p. 8). The term 'purposeful interventions' confirms interaction, either in established evolutionary paths (for both parties) or leading to new evolutionary paths within existing frameworks of the mentioned institutional arrangements. It is a situation of co-evolution where GVCs take the form of decentralised networks at the micro-level, made possible by the elastic stretch ('path plasticity') of institutions and institutional arrangements (Strambach, 2008) at the national level. The latter represent the macro-level of co-evolution - they are the external institutions to the FDIs and MNEs at the macro-level of such co-evolutionary dynamics (Cantwell et al., 2010).

6.1 Introduction to wider ecosystem - Malta's evolution

This section of Findings deals with national level institutions and therefore it is deemed suitable that background about Malta, including its cultural, social and behavioural aspects, is briefly outlined. Internal and external dynamics, namely the micro-status and insularity, its position within European surroundings, and its environmental factors converge to affect the current Maltese community (Sultana and Baldacchino (Eds.), 1994; Briguglio and Brown (Eds.), 2016).

Malta is an island nation and its central geo-position in the Mediterranean region makes it a highly strategic dynamic hub. Its political and legal stability, the English language as its second official language, flourishing economic situation and openness to business, confirms the country as an ideal point of entry into the European market. The economy of Malta is an industrialised and service-based economy. It has been included in the advanced economies group by the International Monetary Fund (imf.org, 2019) and is considered as a high-income country by the World Bank (data.worldbank.org, 2018). According to the WEF, Malta ranks thirty-seventh out of a hundred and thirty seven countries in the Global Competitiveness Index 2017-2018 (improving upon the fortieth place ranked for the previous year; ahead of Italy, Portugal, Slovenia, and Croatia) (www3.weforum.org, 2017). IMF reports that “Malta has been one of the fastest growing countries in Europe post-crisis, thanks to rapid rebalancing toward export-oriented services, notably remote gaming” and that “The banking system remains well-capitalized, liquid, profitable and resilient, but faces some challenges” (imf.org, 2019, p.2). Credit ratings for Malta for 2019 were set at ‘A2 with stable outlook’ by Moody’s and at ‘A+ with positive outlook’ by Fitch’s indicating the credit worthiness of Malta reflecting on the country’s borrowing costs (tradingeconomics.com, 2019). Without any hesitation it could be said that Malta has undergone a significant change in recent years, whether economic, social, physical and political, even if looking back just some sixty or seventy years.

From a fortress economy under British colonial rule it has gone through stages of attracting foreign investment starting in the late 1950s and continuing on after gaining independence in the early 1960’s, mainly being the beginning of modern industrialisation in Malta, the precursor having been shipbuilding and ship repair at the

'Dockyard' during British colonial rule (Brincat, 2017). At the same time tourism was becoming also a main contributor to the Maltese economy. This was a significant diversification from the then predominant merchant business mentality, while an increasing construction activity had started (to partly cater for the upcoming tourism sector). The very first FDI manufacturing included toy, packaging and rubber industries, followed by textiles, leather, plastic and tobacco, to mention the main ones. In the 1960s electronics and precision engineering FDIs started locating in Malta, followed by security systems and pharmaceuticals, denoting a transition from the initial low-cost manufacturing base for large-scale production for mass markets (export-oriented) and adoption of automation. In the most recent years came aviation services, financial and insurance services, information technology and life sciences, with the most recent additions being e-gaming, i-betting, Blockchain, AI and medical cannabis. A significant shift towards a service economy could be noticed. Still, challenges in Malta's labour market include the need for highly-qualified and highly-skilled workers trained in modern and upcoming technology; the need for non-skilled workers to fill the vacant created by local workers increasingly going for higher paid jobs and students continuing on to further higher education; an ageing population (like the rest of Western Europe); and the mismatch between the demand created by a booming economy and supply in the local labour market. It could also be said that attracting and maintaining sustainable, high value-added investment is important for Malta's economy.

One could freely say that the traditional Maltese culture and way of life has surrendered to modernity and globalisation, although in an introduction to the book 'Sociology of the Maltese Islands' (Briguglio and Brown (Eds.), 2016), Professor Baldacchino argues that Malta's role could rather be seen as being that of serving as a 'cosmopolitan hub' for its coastal neighbourhood. This implies an effect of economic, physical (environment) and political activities upon modern Maltese society. Different industries on the Island along the years could have influenced how Maltese students pursue their education to grab work opportunities and how workers are now shifting from work places for better wages (and maybe conditions). Malta's accession to the EU, as well as the use of ICT, internet, and social networking media have also contributed significantly towards modernity and globalisation of the current Maltese society. The highly active tourism, the inherent constant traffic of personnel and ideas,

the educational, legal and general institutional structure drawing from foreign (British, European and maybe even American) cultures and practices, influence through exposure the Maltese society to adopt Western trends, perhaps giving them the local touch, adjusting to a situation where traditional values and lifestyles often meet modern forms of behaviour. Considering this modern interaction with other cultures and also recent and previous interaction with colonial rulers of diverse origins, this small island has still managed to develop and structure its own distinct language, a live one, which even includes borrowed words from other languages it is exposed to (Sultana and Baldacchino, (Eds.), 1994).

Malta's industrialisation process and work patterns since the 1950s and workers' attitudes have morphed from basic survival and security (including scanty spending and money-saving) to a materialistic mentality. This reflects the gradual economic progress of Malta's economy – from dependence upon colonial military presence to manufacturing, industry and the recent new technology and services sector. Yet, the close-family mentality is still generally present in Maltese society, together with the importance given to the caring responsibilities for the young, the elderly and the needy, although the caring responsibilities might have now partially shifted to specialised institutions from the traditional care within families. Such could perhaps be attributed to 'modern society' factors like pressures of work, parents both working, single-parenthood, broken families, consumption and recreation. Still, given the small size (hence social cohesion) a high degree of social visibility, shared or acquired knowledge, the exchange of information and gossip are highly present in Maltese society, which is described by many as a 'welcoming society' made up of friendly people (Sultana and Baldacchino, 1994).

The influence of political parties and of the Catholic Church in Malta, with their separate and combined networks, reigns over all social classes in Malta. EU membership could have also initiated an assertive civil society to start challenging the dominance of traditional power, including that of the Church. The persistence of parochialism, patronage and political tribalism are challenged together with the gradually weakening influence of the Catholic Church. In the political context the British colonial rule is not to be dismissed, having left a significant mark on the Island's

administrative and even cultural levels, still partially present in certain legal and education systems.

The density and small size of the Island allows for omnipresence of the local government consequentially giving it considerable power and involvement in social, organisational, economy and infrastructure aspects. The same applies to the Roman Catholic Church (possibly considered an institution in itself) who is intimately involved in the Maltese society's life events such as birth, marriage and death; and is highly present in the society's education system through its church schools. The parish priest might even still remain a prominent figure in village communities.

Malta's politico-economic (and socio-cultural) properties place it in a position to play the catalyst and the intermediary in European matters, issues and occasional conflicts (occasionally even in international affairs, even though it might sound too ambitious a word). It enjoys credibility and thrust as an economy state. Internally, it remains to align economic growth with a sustainable policy for future development, to include social justice and resource management.

Physically, Malta has a mere surface area of three hundred and sixteen square kilometres and is a small archipelago. It is a very small nation state, with a relatively high land use of the available surface area (even more so in the very recent years through an exploding construction activity). It is inhabited by a dense population, in the recent years inflated by immigrants and foreign workers that came here or were brought in to satisfy the demand of a booming economy. Road traffic is busy. The Island is also scarce of natural resources – all to explain its environmental properties.

6.2 Government agencies and institutions

6.3 Central Bank of Malta

The Central Bank of Malta was established in 1968. In 2004, when Malta joined the European Union, the Bank joined the European System of Central Banks and became part of the Eurosystem in 2008. It follows on the Eurosystem's mission, strategic intents and organisational principles.

The Bank is an independent institution, and while carrying out its statutory responsibilities in the public interest, it occupies itself with:

- Monetary policy - promoting price stability in the euro area
- Financial stability – contributing to a stable financial system
- Payment systems – ensuring that payment and securities settlement systems are safe and efficient
- Market operations – supporting the development of financial markets
- Currency - meeting the demand for banknotes and safeguarding their quality and authenticity
- Economics and statistics – analysing the economy and compiling statistics
- Regulatory compliance – providing legal support and advice for the fulfilment of the statutory tasks of the Central Bank of Malta (source: centralbankmalta.org, no date).

A meeting, where three topics were discussed, was held at the Central Bank of Malta with:

- Dr Mario Vella – Governor.

6.3.1 An overview of Malta’s economic development strategy, with reference to FDI in manufacturing

Dr Vella starts the conversation by referring to longevity and change as an indication for development. He mentions some MNEs who have been in Malta for several years, including ST Microelectronics Malta Ltd, Brandstaetter Group – Playmobil in Malta, Aeromaritime Malta Ltd and Dold Industrial Automation Ltd as examples. Continuing about development, Dr Vella uses the terms ‘Cause and effect’, while posing the questions: “Are we attracting that size?” and “Have they made us the way we are?” while confirming that “We’ve evolved”, referring to Malta and its economy. A point which could be attributed to the longevity factor is that the MNE’s present in Malta (some of them family businesses) are hesitant of the transfer costs they would incur to re-locate (a good thing for Malta).

Along the years, the manufacturing sector has received the most investment from ME in the form of soft loans, to support people and technology (to have people backed by

technology) for an adequate skillset in response to industries' needs, one example being the investment of eight million Euros in a training programme. Dr Vella comments that "when looking at non-EU companies, there are presently thirty FDI foreign (non-EU) completed projects in Malta, including Canada and Israel, who export to non-EU countries.

Human resources – sixty million Euros have been invested, in soft loans to tax credits and up to ten thousand Euros in training to build up in capacity of the local labour pool – to avoid inflation through demand for human capital getting greater than capacity. A non-industrial mentality is also present, favouring easier and cleaner jobs and opting for continuing to higher studies, with the aim to acquire higher and professional skills for better paid jobs (better wages).

Issues facing industry in Malta include transaction costs that foreign companies have to pay, wages which go up for various reasons, although the latter is not an extreme cause for concern, while stability on the Island itself is a positive factor. Training, as a drive for development (upskilling) might affect an upgraded skill force and companies in terms like 'wages go up' (requested by better qualified personnel), loyalty to the company and long term stability (as better qualified workers change companies). When considering the issues that companies are facing, Dr Vella is of the opinion that the "not so smaller ones will survive better", in view of the present 'employee movement' culture. Mentioning big FDI companies who are in Malta (ten of them), he says that they command dependency – they all employ at least five hundred people each; but the good side is that they are also a source of economic multiplier, for example one of them has thirty five local suppliers in injection moulding sub-contracting (small companies), hence increasing capacity in certain sectors – up to a fifty-fifty division of labour between the MNE and the sub-contracted companies. Continuing on this argument, "smaller ones have less problems" and comes to the question of "big or smaller" FDI companies. He recalls that in the 1990s there was a capping of the largest FDI in Malta, saying "...a silly thing to do...an unaffordable timeline between capping and reaching the ideal".

Dr Vella concludes by wrapping the whole scenario under the term 'Trade ecosystem'. Expressing his opinion (coming from an expert economist) he says that "this is a

phenomenon – an economy shift happens every twenty or thirty years” and adds a word of warning: “However there has to be a strategy in place – adaptive – pro-active – fast”.

6.3.2 An insight into the sustainability of FDI strategy, in particular, the manufacturing sector

With regards to Malta’s economic development strategy and to FDI in manufacturing, Dr Vella states: “There is no national development strategy – we require it to be connected to EU strategy”.

Dr Vella expresses the importance and the necessity for “connectivity between training, innovation and company and production needs” as potential issues facing industry. He suggests that smart specialisation is a solution, although there is no national policy for it; but the labour force (local in particular due to its flexible disposition) is receptive to it. From the holistic view, “This calls for a right legal framework for each sector – regulation – to ensure stability, hence attractiveness (for FDI)” states Dr Vella.

Talking about the right size of FDI company, which Dr Vella calls ‘Mittelstand’, and the implied dependence factor in the case of bigger companies, he states that there is “no strategy – but emerges: what is the ideal size of company? There is no policy - but just evolving...”

6.3.3 Any thoughts about implications for social and environmental challenges that Malta may face

Cultural, social and political implications are not to be ignored in the current growing economy in Malta. Housing demand, resulting in increasing property prices and rent rates coming from shortage of labour and importation thereof, is posing a high risk...if the bubble bursts. The spiralling growth plateau sounds an alarm – it would not be possible to accommodate figuratively ‘around two million people’, and the requirement of resources that come with it. “Not possible!” emphasises Dr Vella.

Challenges that Malta is facing include shortage of people from the perspective of labour pool and skillset. The Bank’s Governor believes that “training is essential” and

that “people remain in Malta”, when thinking that fifteen percent of the current workforce is foreign and that they could even change employment for a few Euros.

Availability of space is a problem (for example a request by industry for a twenty thousand square metre footprint), and therefore development is restricted to small plots with another solution being demolishing old factories and rebuilding or building on top, going high. The environmental lobby puts pressure on space availability.

In the resultantly booming construction industry, banks are generally not getting involved to provide financing (personal loans and other lending schemes) – the consumer is the investor, putting a lot of pressure on society, which could result in ‘money problems’ in the long run. One is led to consider “a break in foreign workers coming to Malta – to control the overall situation”, ponders the Bank Governor. He continues to declare that “GDP is slowing down in the last three years, although still being above the EU average”.

6.4 Malta Enterprise

Malta Enterprise is a governmental agency responsible for attracting new foreign direct investment, as well as maintaining and supporting the existing foreign enterprises. It also acts as an advisor to government for economic policy, having constant contact with major economic stakeholders in Malta. FDI attraction and retention strategies are among its primary contributions through activities such as research and promotion. It has gathered experience over the years as it has evolved through various structures since being set up in the 1950s, with its most recent predecessor being the Malta Development Corporation. It further supports Malta-based business operations by serving as a catalyst for such companies to establish contact with counterparts within the Enterprise Europe Network. It also values highly long-standing relationships with MNEs who have been in the country for several years.

A meeting, where three topics were discussed, was held at Malta Enterprise with:

- Dr Mario Galea – CEO
- Dr Mario Brincat - Advisor on economic development issues
- Ms Audrey Genovese - Strategy Office - Consultant Policy Analysis

- Mr Brian Camilleri - Head of Research.

6.4.1 An overview of Malta's economic development, in relation to FDIs

Dr Galea starts the conversation - Looking back at the 1950s Malta was serving as a 'production extension' for mainly UK and German manufacturing companies. The economies of scale were well justified then, as in comparison to today, where Malta does not remain as competitive anymore. Profitability has proportionately suffered. Yet there are reasons which make Malta still economically viable for FDI, such as social costs (sixty percent compared to Europe), stability, its geographical location which facilitates connectivity by sea, air and electronically, due to a robust IT infrastructure.

The quality of workforce (as compared to that of previous years, say up ten years ago) is to be debated. There was a low turnover of labour in previous years in industry, where workers were trained and stayed loyal to the company. Now imported (foreign) labour makes up about fifteen percent of the workforce in Malta. This makes the labour pool more volatile, with a possible effect of discouraging the employer to train people, which in future might result in a lack of skills.

Dr Mario Brincat here makes a point about the Malta Drydocks practically being the first FDI in Malta. It was also the first to provide technical education in a formal manner. Hence Maltese workers were already getting used to working with foreign companies, with their mentalities, ways and methods. This prepared the Maltese skill force (then) to adapt for working with FDIs. Fellenberg Institute then followed on providing technical education in Malta, now currently being offered by MCAST, who provide several courses for students to be prepared for industry in real life, and to cater for new technology and new skills that are needed. Here, Dr Galea gives two examples of courses of a two-year duration provided by MCAST to train people to work in the aviation sector, given specifically for Lufthansa Technik Malta for six hundred technicians and for SR Technics Malta for four hundred technicians.

ME has continued to develop and maintain incentives to attract FDI, following the footsteps of its predecessor 'The Malta Development Corporation'. In the micro companies (mainly self-employed) tax benefits could be as high as fifty percent during the 'in-phase'. In 2014, a new scheme was introduced to provide sixty million Euros

worth of financing for over eight hundred Maltese SMEs (following an agreement between Bank of Valletta plc and the European Investment Fund, part of the European Investment Bank Group). This involves offered financing of up to five hundred thousand at lower interest rates with less stringent collateral requirements. Many of these local SMEs provide support to the bigger FDI MNEs in Malta. Such a scheme knows its beginnings back to 2008.

During the interview the CEO of ME disclosed that at the time there were thirty projects (FDI) from third countries (from outside the European Union) that were in discussion with this institution. He continues that “European countries do not need to invest in Malta as compared to the 1960s). Diversification (third countries) is good for Malta...Export goes to everywhere – good for Malta’s basket of currencies”.

6.4.2 The work of ME and its influence on the Maltese Government’s development policy and strategy

ME has a regulatory mechanism in place both for approval of FDI proposals based on factors such as viability of the enterprise, the size of capital investment, the sources of finance and the employment to be generated. It also has a full incentive scheme framework to attract FDI, such as investment tax credits, investment allowances on plant and machinery and on industrial buildings and structures, regular tax depreciation, a tax reduction for reinvested profits, training and management services grants, while shareholders (or their nominees) holding more than forty percent of equity enjoy indefinite work permits. Incentives are aimed at various sectors, ‘old’ and ‘new’, such as maritime and life sciences. ME also drives for faster response time to FDI’s proposed projects and the improved application of legal and financial regulation and support, with further considerations of free trade and Customs. This could be an opportunity for larger companies, and their subsidiaries. Here, the element of dependency of the host country and power tactics by the larger companies is mentioned, together with the sub-contracting they may provide to ‘local’ companies.

The CEO reflects upon “How a location evolves to be attractive”, while he continues that “the reality is a bit of both” – regulation and incentives. Investment promotion is carried out by ME on a one-to-one basis, by offering solutions and convincing to visit Malta. One out of two of the smaller companies invest, while the larger companies go

to other countries. The CEO of this government agency concludes by saying “We cannot be number one in incentives, but we can be the first in the service we give”.

6.4.3 Any thoughts about implications for social and environmental challenges that Malta may face

“New sectors need new skills, because technology is changing fast” states the CEO of ME, Dr Mario Galea. However, he continues that “Strategy is not always converging between industrial needs and education” and that this matter “should be adopted at EU level”. He looks at manufacturing as a good field for research and academia, both from a historical aspect (starting from the post-war period) and also as a potential recipient for research.

The infrastructure is a factor to be taken into consideration. ‘Space’ is what it is, when apart from manufacturing, one also thinks about the tourism industry, and the demand for office buildings. The CEO makes the comparison that areas of two thousand or three thousand square metres are still physically available with the financial allocation that would be needed - but definitely not twenty thousand or thirty thousand square metres. “Expensive mistakes must be avoided”, he says. It is not possible anymore to build outside development zones, which lobby groups strongly demonstrate against for the protection of the environment. Hence re-building old factories is what is being done, while also using the space ‘up’ and ‘down’. It is a growing economy and there is an increasing demand for services.

Yet, Dr Galea strongly believes that “Malta is small enough to turn the process around” through its “accessibility, the ability to take on the challenges for economic growth, and with training”.

6.5 Malta Life Sciences Park

The Malta Life Sciences Park (MLSP) was set up to provide an international class facility for life sciences and information technology development. It promotes research and development and drives the growth of the life sciences sector in Malta. MLSP offers access to experienced and professional business and financial advice, as well as assistance for internationalisation. It helps start-up companies take off with minimal preparation in order to focus on their core activities; as well as facilitating co-ordination

with other operators within the Park and with academia. It also provides support measures designed specifically to assist companies in Research and Development activities. The Park consists of two main buildings, namely the Malta Life Sciences Centre and the Malta Digital Hub. In summary:

- It assists in helping businesses and start-ups maintain a competitive edge in the global market.
- It acts as a focal point for advances in technology and research initiatives for the private industry, government and education.

Its stakeholders include:

- Malta Enterprise - the country's economic development agency, for attracting new foreign direct investment and facilitating the growth of existing operations.
- Malta College of Arts, Science and Technology - the country's leading vocational education and training institution.
- The Ministry for the Economy, Investment and Small Business - committed to diversify the Maltese economy with new opportunities for SMEs and to ensure its sustainability in the long term.
- Mater Dei Hospital - Malta's main general and teaching hospital aims to create a centre of excellence in the provision of effective and efficient acute patient centred quality care.
- The Medicines Authority – whose task is to protect and enhance public health through the regulation of medicinal products and pharmaceutical activities.
- Sir Anthony Mamo Oncology Centre - a joint European Regional Development Fund (ERDF), European Social Fund (ESF) and Malta government project. It includes four bunkers to house three linear accelerators used in cancer treatment.
- The University of Malta - over the past few years, the University has reviewed its structures in order to be in line with the Bologna Process and the European Higher Education Area.
- The National Commission for Further and Higher Education - the regulator of further and higher education in Malta for accreditation of further and higher educational institutions, programmes or courses; and the recognition of national or international qualifications (maltalifesciencespark.com, no date).

A meeting, where three topics were discussed, was held at the Malta Life Sciences Park with:

- Eng. J. P. Sammut – Chairman.

6.5.1 Any thoughts about the sustainability of FDI strategy, in particular, the manufacturing sector

The Chairman of MLSP seemed to confirm that there is no formal micro-economic strategy, beyond the government's or the Central Bank's macro-economic policy. Master Plans are written out for various sectors of the Maltese economy, but not specific strategies. He specifically mentions here the beneficial tax regime offered to FDIs.

Engineer Sammut notably provided his reasoning why the skill set of Maltese workers (and managers) develops so strongly over time. In the background of the current workers' moving between firms and changing employment, he is of the belief that "If for cultural reasons, people do not move firms or jobs for that matter, then they become the leading experts over time, tapping into years of experience and knowledge." Extending this thought, then the gained experience and knowledge of the people could well contribute towards the affirmation of FDI, in particular, the manufacturing sector.

6.5.2 The role of MLSP in Malta's economic development strategy

The Chairman explains that it is imperative for development to "recognise opportunities and jump in fast". Smart specialisation and advanced manufacturing are very connected to what happens at the Science Park, both at the Malta Life Sciences Centre and the Malta Digital Hub. These activities contribute even towards the servitisation of industry –"product is part of a service system" says Engineer Sammut. He boasts that MLSP offers a "bundle of services and is a whole system – a one stop shop" for the companies that use it. MLSP could even be considered as an 'incubation centre'. It offers 'a complete service based on the holistic', states Engineer Sammut. The success of this man's life sciences network (which one gathers that it is evidently his brainchild during the conversation) must not be overlooked. With its 'centre of excellence' culture, it could be considered as a form of strategic specialisation, which

represents a potential engine of economic growth, particularly in the advanced manufacturing sector.

6.5.3 Any thoughts about implications for social and environmental challenges that Malta may face

The chairman considers the “EU experience as a positive one”, from which Malta benefits in terms of funding and establishing certain standards both for the social and environmental aspects, amongst others. He mentions the local skill migration, which he calls “not true” while also reminding that Malta is “open to foreign skilled professionals”.

Matters like Malta’s eco-innovative system and social innovation, which are part of development and imply change (potentially posing an element of challenge), are closely watched by lobby groups.

6.6 Trade Malta

Trade Malta is a public- private partnership between the Ministry for Foreign Affairs and Trade Promotion and the Malta Chamber of Commerce, Enterprise and Industry. Its core function is to support Malta-based businesses to venture into international trading. Services offered by the institution include market research, training programmes in international business development and marketing, incentive schemes, promotion of international business opportunities, trade missions and export assistance.

A meeting, where three topics were discussed, was held at Trade Malta with:

- Mr Anton Buttigieg – CEO.

6.6.1 The extent of contact of Trade Malta with FDIs

Trade Malta is on the other end of the ‘supply chain’ of the economy – it deals with, encourages and supports Maltese businesses who are interested in venturing beyond the Maltese shores. So it has contact with ‘outgoing’ and not ‘incoming’ FDI. However, the CEO comments that investing “FDIs have failed to set Sales and Marketing office in Malta – Trade Malta could help.”

Mr Buttigieg believes that when one looks back at Malta to about forty years ago, FDI development has been sustainable, with one main contributor being the stability of this island nation, maintained from one administration to the other and their elections. He also mentions incentive schemes that had been constantly provided to FDIs in Malta over the years and the 1990s when there was a privatisation effort by the government, as in the cases of the airport and the Freeport. Recalling the fact that Malta lost some manufacturing, including textiles, to India, Egypt, Bangladesh, he now thinks that new sectors are needed to sustain the local economy (as in the recent diversification of industries like IT, financial services, i-gaming, Blockchain and AI), and mentions the Singapore model adopted some twenty five years ago. Mentioning the geo-political position of Malta, he expresses the thought of closing borders to control worker movement, which is a concern to both FDI and local companies.

6.6.2 Any issues that FDIs talk with Trade Malta about

The issue of shortage of skillset keeps coming up from FDIs in Malta. It is present worldwide, and in the most successful economies - a general experience of labour shortage. Issues that connectedly follow are the increase in salaries and the growing employees' turnover between companies.

6.6.3 The role of Trade Malta in Malta's economic development strategy

Trade Malta deals mostly with Malta-based companies. Its strategy is to venture into Western Europe, North Africa, sub-Sahara Africa. Trade Malta would like to see local entrepreneurs set up base outside Malta. Diplomatic and trade relationships exist with Turkey, China and Ukraine. This public-private partnership provides support through training programmes in international business development and marketing, incentives schemes and internationalisation programmes, and promoting interested local business worldwide. "International business is complex" ponders the CEO of Trade Malta, while pointing out that some of the local "entrepreneurs have come out of own bigger companies", for whom they used to work previously, denoting knowledge and experience. He gives an example of a Maltese parent company with a subsidiary in sub-Saharan Africa.

Expressing his personal perception, the CEO of Trade Malta thinks that “not too big business (should be attracted to Malta as FDI), because they could be a threat to local business”, and underlines that “small company fits small economy”. He supports his opinion by mentioning previous negotiations the governments of the day had to make with big FDI companies (MNEs vs. Government) in Malta to retain employees, including re-training and recruitment. He gives the past examples of power tactics and dealings with Drydocks and ST Microelectronics. This he strongly believes should be a part of Malta’s economic development strategy with regards to FDI. From a practical aspect, Mr Buttigieg says “small jobs are good for Malta, like when China built cranes at the Freeport, there was no maintenance agreement - getting a job done” and the rest lies with the government’s discretion and control.

Mr Buttigieg is of the conviction that “Malta’s key capabilities are not being stressed, hence the promotion of Malta to attract FDI is lacking a business brand” while adding that “There is no strategy to promote Malta on the international stage.” He specifically mentions ‘innovation and adaptability’ giving the example of a local IT company providing a solution to MIA, for a problem which is common at other airports, hence its applicability in other countries - a selling point for solutions, not products.

He also favours Malta’s economic development within a regional context while also mentioning regulatory EU limitations and Malta’s shipping connections; and considers the implementation of smart specialisation a priority.

6.7 Transport Malta

Transport Malta is a government authority, falling within the remit of the Ministry for Transport, Infrastructure and Capital Projects. Its mission is “to promote and develop the transport sector in Malta by means of proper regulation and by promotion and development of related services, businesses and other interests both locally and internationally” (transport.gov.mt, no date). The following sectors and supporting functions fall under its umbrella:

- Private vehicles
- Boats and yachting
- Public transport

- Licensing
- Operators
- Trucks
- Aviation
- Green transport
- Procurement shipping register
- Ports and marinas
- Safety research
- Online services
- GIS platform.

A meeting, where three topics were discussed, was held at Transport Malta with:

- Mr Joe Bugeja – Chairman.

6.7.1 How the transport infrastructure is evolving in Malta

Mr Bugeja started his conversation by pointing out that here is currently (in November 2018) a six hundred thousand population in Malta, and that fifty thousand more workers are needed in the next three years to keep up with the demand for labour by the growing economy. He then fondly says that “Malta is a small island but a big nation”.

Switching to the transport context the Chairman of Transport Malta highlights Malta’s geo-position and refers to its connection to the Suez Canal for the routing of cargo, which he considers to be a key strength. He then gives a brief historical account of how sea and land transport evolved in Malta, for export and import of goods. In recent decades sea transport was by Ro-Ro, then by containers (20ft and 40ft). Trailers were introduced in the 1970s and were the means of cross-over to and from Europe with some local freight forwarding companies investing.

Sea Malta Company Limited was established in 1973 by the Maltese government as the national shipping company. The aim was to provide maritime services to address the need of the nation in general and to assist the Maltese industry. In 2003 the Government confirmed that Sea Malta was making losses, even though it was never

subsidised by the state. In July 2004, Sea Malta met the requirements of the International Ship and Port Facility Security (SPS) code. In 2005 privatisation negotiations failed and the Government declared the company bankrupt. Sea Malta was liquidated and closed down completely in 2006. The routes operated by Sea Malta were offered to the subsidiary company set up by Grimaldi, Malta Motorways of the Sea (vassallohistory.wordpress.com, n.d.).

The Malta Freeport was established in 1988, based upon the hub concept for transshipment purposes. It serves for container handling as well as industrial storage. Clients' benefits from the Malta Freeport's operation include fewer mainline port calls, reduced voyage times and minimal diversions. In 2018, Malta Freeport Terminals handled almost three and one-third million TEUs. The Freeport is a key transshipment hub in the Mediterranean for the shipping lines that use its services, being located at the intersections of some important international shipping routes and geographically at the heart of the Europe/Maghreb/Middle East triangle.

The Motorways of the Sea project was approved by the EU Council of Ministers in 2003 and Malta was grouped with Spain, France and Italy on the Western Mediterranean Motorway of the Sea, while Cyprus was grouped with Greece, Slovenia, Turkey and the Black Sea countries. The purpose of the project was to promote inter-modal transport links with the maritime transport of cargo and ferry passengers, through effective short shipping routes and established four primary maritime transport networks within EU waters, stretching from the Baltic Sea to the Eastern Mediterranean Sea and the Black Sea. This gave even more significance to Maltese ports, with their long history in maritime activity. Malta Motorways of the Sea Limited was incorporated on the 25th November 2005, and immediately started establishing work relationships with local freight hauliers.

There was a "wish to grow and become professional" among all stakeholders Mr Bugeja recalls, while going on to say that it was like a "small industrial revolution to logistics" in Malta and part of a "global effort to create and sustain industry". The need to support industry and to support local industrialisation was becoming stronger, together with the sea passenger activity within the drive for tourism.

On the private sector side, the Malta Maritime Forum was set up in 2015. It is a non-governmental organisation that gathers Malta-based stakeholders in the maritime, logistics and transport sector in Malta to create and expand on the existing local network as an international maritime hub. Its wide range of members includes ship repair, terminal operators, oil and energy facilities, ship owners and operators, shipping agencies, marine surveyors, classification societies, educational institutions, maritime lawyers, stevedores, naval architects, maritime pilots, towage operators, cruise port operators, hauliers, maritime consultants and freight forwarders amongst others. It also acts as a constituted body to consult and be consulted by the government in the development of public policies that can affect the Maltese maritime sector.

The Chairman of Transport Malta boasts that “between 1975 and 2018 the number of registered ships under the Maltese flag rose from one ship to seventy-seven million tons – making Malta the sixth flag in the world”.

6.7.2 The key challenges for sustaining an effective transport infrastructure in Malta

“Road logistics present significant challenges” states the Chairman of Transport Malta, while pointing out that the “roads in Malta were never designed for three hundred and eighty-five thousand cars” (interviewed in late 2018). It is worth noting here that in the beginning of 2019 the general media reported a net average increase of thirty new vehicles on the road per day. Mr Bugeja adds that “for many, the one-driver car is a status symbol.” This implies that “a future cultural change would be needed - to forget the car” while continuing that “resistance to change is normal and it has to be managed”.

With an optimistic tone, the Chairman comments that “Malta is becoming cosmopolitan, and maybe that helps to change our style, including commuting”. He notes that “public transport is growing at eleven percent per annum, with four hundred buses and a recorded number of fifty million passengers” towards the end of 2018. He also mentions incentives like the value bus card, and actions being taken to help monitor the situation, including data collection by Transport Malta of road usage and regulations that may be enforced to control and facilitate the flow of traffic such as the

distribution of cargo during silent hours, however adding that the cost of distribution is high, and this would be an additional cost.

Mr Bugeja then goes on to mention some alternatives and solutions, starting with intermodal transportation, which involves bus and sea ferry between high commute locations, partly already in place with the possibility of applying it to other areas. Smart bus stops and smaller buses would also help to relieve congestion. The hub and spoke model for multi-connectivity applied for Maltese requirements. Another option could be the digging of underground tunnels. The sustainable mobility concept (as tried out in Madrid, Spain in 2018) could also offer alternative and interchangeable travelling modes. One project starting in Malta in 2018 was the introduction of one hundred and fifty electric cars for public use together with motorbikes and bicycles, offering also secure parking places. The Chairman concludes his argument by noting that the “young foreign community in Malta is already mentally conditioned” and the Maltese innate adaptability may help the situation in time.

6.7.3 An overview of the strategy for developing Malta as a regional logistics hub

Mr Bugeja thinks that “Malta has been following the ‘hub’ concept as a fundamental objective for its economic growth”. This is visible through various sectors and achievements that have placed and are still placing the Island as a strategic position. He then gives practical examples that “can be drawn through the container transshipment hub – The Malta Freeport; the printing of currency and security paper; the aviation industry whereby Malta is offering a mix of support services that continue to strengthen the hub concept. Other examples can be drawn through the Malta Flag’s great achievements, where the hub concept is also being followed through the flagging of super yachts wherein great results are being achieved from one year to another”.

Malta as a regional logistics hub? It is a known fact that Malta has been very keen on the subject and various efforts have been undertaken to develop the idea. A leading role has been tagged to Malta Marittima which has been doing it utmost to develop the concept. “I personally consider that Malta can be a good regional logistics hub as a natural extension of the Malta Freeport operation. The development of such a concept entails changes in the way we carry out the business. I am totally convinced that Malta

is fully prepared for such an undertaking, but costs need to be trimmed to create a more competitive product. Work is still ongoing but there is need for more time to develop the ideal product”, states the Chairman. He continues to clarify that the Master Plan is addressing the Valletta Grand Harbour operation and space utilisation, particularly the inner part of the harbour which needs a holistic innovative approach. He ends by saying “Nevertheless, it does not include plans for a regional logistics hub”.

6.8 Business 1st

Business 1st is on the ‘one-stop-shop’ concept giving support to business during the full cycle which could include planning, start-up, running, growing, and closing. Online services are also accessible on this government agency’s portal. It also provides support measures and initiatives and information sessions for entrepreneurs among its activities. Business 1st secures direct support for investors through regular presence and contact with the following entities:

- Malta Enterprise
- VAT for Business Activities
- Inland Revenue Dept. for Business Activities
- MTA
- ERDF and Jobsplus
- Identity Malta
- Environmental Health Directorate.

Thus, investors, whether entrepreneurs, sole traders or small enterprises, could avail themselves of the following services:

- legal entity establishment
- employment
- registration for tax purposes
- registration for vat purposes
- licences and permits
- tourism related licences
- data protection.

A meeting, where three topics were discussed, was held at Business 1st with:

- Ms Marika Tonna – CEO.

6.8.1 The extent of contact that Business 1st has with FDIs

Ms Marika Tonna explains that Business 1st deals mainly with persons who would want to set up a business in Malta. She observes that the feeling and concept of a ‘personal rapport’ is important in such contact to provide assurance to the potential investors. At Business 1st, “we are generalists, where an overall view and knowledge are needed in the sense that we give information about and how to deal with various entities and procedures involved in setting up a business here” says the CEO, giving examples like VAT registration, e-ID support, tourism, health authorities and planning authorities amongst others.

Ms Tonna explains that their operation is aimed at reduction of bureaucracy and regularisation to support start-ups and even already set-up companies for their further growth. She states that Business 1st “provides guidance to an average of one hundred customers a day including foreigners”, while commenting that there is a current “trend of more foreigners making enquiries, including university professors”. She continues that “some people have also other reasons for setting up in Malta, not just for business, but also personal”.

6.8.2 Any issues that FDIs talk with Business 1st about

Business 1st deals mainly with people making enquiries. They normally need help on how to proceed and may complain of some encountered experience of bureaucracy or having to go from one place to another for service and procedures. They do see it an issue when coming to deal with the local ‘conservative banks’, while beneficial tax schemes offered to FDIs are a certain attraction. VAT registration, e-ID support and regularisation in general are also a matter of concern for some clients. “For these reasons, Business 1st is working upon having a more informative and ‘easy-to-use’ portal in the future, also to include e-Services”, says the CEO.

6.8.3 The role of Business 1st in Malta’s economic development strategy

“Business 1st is a central agency offering a holistic service and is connected to Government, ME and GRTU, while also collaborating with many other offices” says

the CEO. She continues that “The concept and the entity started from and is strongly linked to the Office of the Prime Minister, the aim being to provide support, in the form of a government service to business, in particular start-ups”. This, in itself, could be considered as a contribution towards economic development.

Ms Tonna comments that diversification (seen also from the cases that Business 1st deals with) is a positive factor that contributes to economy. She says that it drives the growth of companies and the future economy. For moving forward Ms Tonna considers “divorce from ‘old’ regulations” as necessary “together with a new and innovative approach that includes consultation with industry”. Here, she also points out a necessary measure for the long term, being “education having to cater for industry in alignment, plus being designed for different cultures, considering the children of the ‘foreign’ workforce coming to Malta”.

6.9 Non-government agencies and institutions

6.10 Malta Chamber of Commerce, Enterprise and Industry

The Malta Chamber of Commerce, Enterprise and Industry is a private institution, originally established as a voluntary constituted body and officially recognised in 1848, who represents the business sector in Malta. Its main mission is to actively ensure the best economic and competitive environment for its members, who come from all economic sectors on the Island. The Chamber keeps constant interaction with the Maltese authorities as well as with Brussels. Its members, who consist of SMEs and large enterprises, local and foreign, are gathered into economic groups which include businesses made up of:

- Importers, Distributors and Retailers
 - HealthCare
 - Professional Community Lead Pharmacists
 - Wines, Spirits, Beverages and Tobacco
- Manufacturers and Other Industries
 - Electrical and Electronics
 - Food and Beverage Processors
 - Pharmaceutical Manufacturers
 - Plastics and Rubber Manufacturers

- Service Providers
 - Financial Services
 - Information and Communications Technology
 - Logistics
 - Shipping and Bunkering
 - Tourism
 - Yachting Services.

The Chamber provides a variety of value-added services to business, even in the field of internationalisation and constantly holds meetings for its members at national level, fora and seminars. It also organises trade missions for its members. The Chamber is part of the Enterprise Europe Network and is affiliated to Eurochambres and BusinessEurope.

A meeting, where three topics were discussed, was held at the Malta Chamber of Commerce, Enterprise and Industry with:

- Mr Kevin J. Borg – Director General
- Mr Nigel Mifsud – Executive Policy.

6.10.1 How Malta’s economic development (strategy) supports the business development of member businesses in Malta

The Director General started the conversation by referring to the European Union as a background to the economic situation and businesses in Malta. He states that the EU opened up doors for markets, saying that the majority of businesses are in favour of EU membership. Mr Borg says that the EU helped business and the market, together with funding in various ways. The 2018 Maltese EU Presidency has also helped promoting Malta in the business scene, apart from other sectors. With regards to funding, he points out that Malta has lost its Objective 1 status (state aid from the EU) due to its booming economy and high GDP average. Here he comments that “one cannot compare Malta to other bigger states when considering its size and maybe double insularity being an island”. Mr Borg goes on to mention the ‘geographic – economic position of Malta, being both an advantage and disadvantage. Here he gives the example of the shipping of export from Malta, which is regular (on a weekly basis)

but not always reliable. On the other hand, FDI businesses benefit from fiscal schemes such as a thirty percent tax credit and a ten percent on 'greenfield' investments, all part of government policy executed by Malta Enterprise for the attraction and support of foreign investment.

The Director General speaks of a change of strategy by Malta Enterprise, whereby they are applying a "scoped vision (specific sectors)" to attract FDI rather than the previous "wide promotion" questioning whether this is a limiting factor, and whether and how the existing FDI's requirements could be affected. As a result of the shift by ME, Mr Borg says that "the economic strategy used by MCCEI must be diversified in view of the Government's decisions to enter more sectors (over and above the already existing ones in Malta)", which he thinks would be a good move. He states that Malta could be a centre of excellence for specialised industries, for example the aviation sector; the maritime sector (Malta currently being number one flag in Europe), a tourism centre of excellence, attracting cruise liners and conferences. However, according to Mr Borg, there are issues like "the lack of land, and a lack of state of mind to serve at the level of champions expectations". He states that The Chamber had recommended 'health tourism' (considering also the good standard of health services in Malta) within a holistic context to form a brand (consider the case of North African requirement as an example) to the Government, but this was not taken on board. There are fragmented providers and the 'one-stop'-shop' concept is lacking, (look at Turkey, London, Switzerland). Mr Borg mentions another concept which is not implemented - 'a quality economy'. He says that "the private sector invests in its own quality but Malta as a nation does not (taking the examples of public transport, roads and Paceville [Malta's main nightlife centre]" while stating "there is no holistic strategy".

6.10.2 How the work of MCCEI influences the formation of Government's economic development strategy

The Chamber operates in a business environment, for commerce and industry which includes manufacturing with the aim to create the best environment and the best result, considering also the environment on a national level. The Director General insists that the process involves both being reactive on the immediate level and being pro-active for the long-term benefit.

Mr Borg then proceeds to explain how and to what extent The Chamber contributes towards the formation of the local government's vision for economic development. He mentions that In 2013 The Chamber felt that a previous economic vision did exist, being Vision 2015, covering six sectors, namely ICT, financial services, tourism, education, health and high-value manufacturing. With 2015 getting close the question came up of what do investors (FDI) expect? It was thought though that a vision based upon diversification, quality, and international business was needed for the Maltese economy. Building up on Vision 2015, the Chamber set up a think-tank which included the rector of the University of Malta and twenty chairmen and CEOs of leading companies in Malta to work on it. It took them over a year to draw it up taking three key factors into account – Malta's limited resources, the international scenario, and Malta's economic strengths and achievements. They produced the Economic Vision for Malta 2014-2020, focusing on eleven specific economic sectors, namely financial services, ICT including digital gaming, filming, life sciences, maritime transportation, aviation, tourism, green and low carbon, health services, education services and manufacturing. The report was based on six fundamentals: securing economic prosperity, fostering human development, supporting the further development of business and enterprise, building an innovative infrastructure, investing in infrastructure and the environment and government partnership with business and enterprise. Furthermore, fifty two recommendations were presented, to facilitate the success of the drawn up drivers, including perceived bottlenecks and also issues which were not strictly economic in nature. The report was then presented to the Prime Minister and to the Leader of the Opposition.

MCCEI also works in a recommendatory and collaborative manner with government institutions, with the aim to drive towards a holistic approach for the benefit of all sectors. Here Mr Borg mentions a project (version two and confidential) that MCCEI was working on with Trade Malta at the time of this interview. The Chamber gives feedback to the local government on various and several issues, legislative and other, such as infrastructure, traffic wardens, rent rates, foreign and local matters, industrial policy, manufacturing, required skills from the workforce and the national budget amongst others. It is highly involved in a contributory (perhaps persistent sometimes) with the Government when it comes to strategy and deadlines, based upon an ethos

of high level fundamentals for commerce and industry (representing its wide span of members), society, the environment and Malta as a nation.

The Director General praises the current improvements that are being implemented to improve upon the infrastructure and facilitation of inland transport, however, he tends to see them as being short-term solutions. He also points out the rapidly increasing foreign labour force on the Island and the issue of education not keeping up with new technologies and emerging new sectors within the economy.

MCCEI is proposing a full complement of HR resources by encouraging companies to keep older employees, who have the experience, know the company culture, can provide mentoring, training and consultancy to partially compensate for the somewhat lagging behind education, and the high requirement of foreign labour. Mr Borg considers that Malta's bottom line is doing well at the moment, as a result of the national budget proposal for the last three years. He says "Use this period of economic growth to be future proof, by actions like improving skills of labour force, being specific, to be flexible..." and continues that "now is the right time to make certain decisions and implement measures for sustainability."

6.10.3 Any thoughts about implications for social and environmental challenges that Malta may face

The first thought that Mr Borg expresses is about the Maltese economy being inflated by particular sectors which do not have big overheads, such as e-gaming and financial services, while saying that "the economy is to be made up of sustainable sectors, not only volatile ones." He then emphasises on maintaining the manufacturing sector and supporting its upgrading to advanced manufacturing within smart specialisation, with its value added element and also points out that employees have to be looked after – "low wages instigate low productivity". He underlines the anchorage that some established FDIs have on the Island. He says that land mass, infrastructure and the environment should be high on the agenda, together with pushing forward the local workforce, with speeded up education being one means. "It is about sustainability" he says and concludes that "Malta as a nation is not".

6.11 General Retailers and Traders Union

The General Retailers and Traders Union was founded in 1948. It is a well-recognised constituted body and a social partner representing owners of small and medium enterprises. Its core activity revolves around the interests of importers, retailers, wholesalers, manufacturers and logistics service providers, both at local and international involvement, through constant contact with government departments and state corporations and authorities. The Union liaises with all foreign consulates for Malta, even providing information about the strategic importance of Malta and other relevant points which may be of interest to their respective countries.

A meeting, where three topics were discussed, was held at the General Retailers and Traders Union with:

- Mr Paul Abela – President.

6.11.1 How Malta's economic development (strategy) supports the business development of member businesses in Malta

The President of GRTU immediately answers that “SMEs have to fight, when considering the presence of big competitors and their power on the local market”. However, one positive thing is the incentives and promotional campaigns that are offered to member SMEs by national institutions, banks and EU projects aimed to help and support also ‘start-ups’ (like Business START (‘B Start,’), a seed funding for start-ups initiated by ME), access to finance (like ‘Jeremy’ and ‘Jamie’ financing packages for SMEs from BOV and the EU), and The Malta Development Bank (MDB) offering easier access to finance to SMEs through reduced collateral requirements and finance costs.

According to Mr Abela the limited labour force absorbed by the larger companies who can offer higher wages than SMEs is limiting SME growth and could even be the cause for some of the latter to eventually close down. He continues that MNEs (for example ST Microelectronics and Playmobil) also “exert pressure on the capability of SMEs, one example being the outsourcing of production - not exactly the way ‘business partners’ should work.”

He further states that “it is not easy (for local SMEs) to operate on the international platform”, while pointing out that unfortunately “clustering is not strong here [in Malta].”

GRTU's president is of the opinion that a wage rise for workers would lead to higher productivity (a motivation) and also encourages higher co-operation between workers and employers.

6.11.2 How the work of GRTU influences the formation of Government's economic development strategy

GRTU has a position within Malta Enterprise, thus giving a contribution by voicing its recommendations in a clear and formal manner. Mr Abela mentions two recommendations coming from GRTU being (i) asking the local government to embark on to the third national strategy and (ii) suggesting that a 'retail school' be set up with the aim to produce higher grade sales personnel, while using the Maltese skillset more.

6.11.3 Any thoughts about implications for social and environmental challenges that Malta may face

Mr Abela highlights the spiralling rent rates of accommodation which are too high for the local community and families. It is also expensive for EU citizens within a certain wage scale and third country nationals coming to work in Malta, who however, share accommodation and thus are able to afford it.

It is a labour market in the current situation of a booming economy, also with the new industries that it is attracting. Larger companies can offer higher wages than SMEs (perhaps an unfair advantage). The President of GRTU states that this is all affecting existing businesses and that "the nature of business is changing, making training the employees a priority". Higher skill capability needs to be promoted and implemented to enable the local workforce to respond to newer technologies, even for example in the farming sector, which faces high competition coming from imported produce. School-leavers and their abilities and starting salary levels need to be addressed immediately. Mr Abela believes that "higher skill capability could be the means for higher wages."

The local infrastructure has problems to keep up with the increased demand for accommodation (space) and also the increase (if not congestive) in road traffic created (if partially) by the increasing population of foreign workers. "Urban consolidation is to

be seriously considered” states Mr Abela, while advising that “we have to be cautious how to proceed – Maltese mentality to do business might have to adapt”.

6.12 Academia

6.13 University of Malta

The University of Malta knows its origins back in 1592 with the founding of the Collegium Melitensae, run by Jesuits. In 1769, Grandmaster Pinto of the Order of St. John, signed a decree constituting the University with the aim of establishing a 'Pubblica Università di Studi Generali', thus constituting the University. The University currently holds more than eleven thousand and five hundred students, one thousand and seven hundred academics and one thousand and two hundred administrative staff (at the time of writing). It provides full-time or part-time diploma and degree courses, undergraduate to postgraduate level. It incorporates fourteen faculties, namely:

- Arts
- Built Environment
- Dental Surgery
- Economics, Management and Accountancy
- Education
- Engineering
- Health Sciences
- Information and Communication Technology
- Laws
- Media and Knowledge Sciences
- Medicine and Surgery
- Science
- Social Wellbeing
- Theology (source: um.edu.mt, no date).

To gain a perspective from academia, meetings at the University of Malta were held with:

- Prof. Maria Attard - Head of Department - Associate Professor - Geography - Faculty of Arts; Director – Institute for Climate Change and Sustainable Development.
- Dr Ing. Pierre Vella - Head of Department – Lecturer – Industrial and Manufacturing Engineering – Faculty of Engineering.
- Prof. Godfrey Baldacchino – Professor of Sociology - Faculty of Arts; Pro-Rector - International Development and Quality Assurance.

6.14 Professor Maria Attard - ICCSD

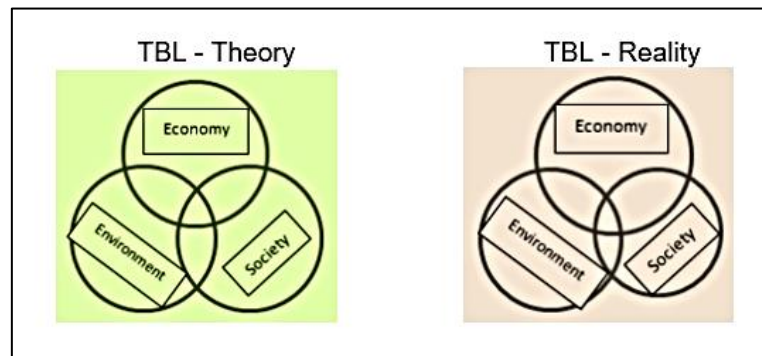
The Institute of Climate Change and Sustainable Development promotes social sustainability and carries out interdisciplinary research in areas related to sustainable development and climate change. Telemetry, IT tools, intelligent systems and modelling are means that the Institute uses for monitoring, research, decision support and strategic planning. Knowledge transfer and awareness on sustainable development and climate change are disseminated with enterprise and organisations. The Institute's primary main is to create initiatives and conduct research for improving quality of life in Malta.

A meeting, where four topics were discussed, was held with Professor Maria Attard.

6.14.1 The sustainability of Malta's rapid economic growth

Professor Attard starts with the wider view of sustainability – a definition – a general adopted perspective which is represented by three circles of equal size. “It is a matter of trying to keep balance of the diagram (where the three circles are equal)” she says, continuing that “in reality, rather than being equal, the proportion is different”, with Environment and Society lacking weight. The graphic depicted by the Professor herself as shown in Figure 6.1 is how she perceives the real situation locally, where ‘Economy’ is the largest circle, ‘Environment’ is smaller and ‘Society’ is the smallest, as a result of Malta's economic growth.

Figure 6.1: 6.1 - Comparison of TBL – theory vs. reality (Prof. M. Attard)



According to Professor Attard the local situation is “not sustainable in economic terms – have seen other places, where space is much bigger – construction is not the key – not sustainable – not being done properly.” She continues to say that tourism is growing, but is of the opinion that “it [tourism] is not being taken care of. E-gaming or i-gambling, currently the main driver for Malta’s economy at the moment is volatile.”

Professor Attard advocates the strengthening of manufacturing, mentioning the longevity and success of main manufacturing FDI companies (like the focal companies in this study) and makes the point that apart from the economic aspect “they are also contributing to environmental and social aspects – they address sustainability seriously.” She also affirms that “SMEs are important – they are the backbone of the economy.”

6.14.2 The implications for social well-being and the environment

Building upon the preceding statement, the Professor argues that it is worth noting that the main manufacturing companies (FDI) came here and evolved under “previous circumstances which were different from today”. She states that now we have different circumstances for potential new companies, and that “we need to define parameters of attractiveness.” According to her, “‘Growth’ is a problem – well-being is rather the indicator of development (in today’s terms)”.

Looking at the local situation, the Professor states that there are misalignments, mentioning the following factors:

- GDP
- Sustainability

- Developers
- Construction.

Here, she poses the question “What is the price of stone (really)?” and comments “It is a diminishing resource.”

She joins the elements of social well-being and the environment when speaking about implications of the local economic growth. She mentions the infrastructure (environment) and road safety and the ‘right to mobility’ (social well-being), together with the public transport system. She considers urban space distribution (dominated by thirty percent of the population, i.e. vehicle drivers) to be of high concern, with limited access to public space, reflecting a limitation on socio-environmental well-being. She also notes that the number of pedestrian fatalities from traffic accidents is on the increase. Expanding on these arguments she asks “What are we paying for our economic growth?” and indicates the implications of social justice and equity the risk of poverty and health, which in reality all affect attractiveness of a place. She goes on to complain that “we are losing pavement for pedestrians, bicycle paths and the (internal) connectivity of Malta is being reduced.”

6.14.3 Examples of current sustainability initiatives being undertaken in Malta

Professor Attard mentions current initiatives which she considers to be immediate solutions:

- Widening of roads by adding carriageways. This involves claiming private property, which used to be a very difficult and long process in the past, when land expropriation used to be highly resisted and even contested (even in court). “It is now happening without problems – why? Are people being paid highly for it, and who is paying for it?” she asks.
- Building bridges and flyovers, while questioning “Does it really mitigate traffic flow” and saying that “bottleneck points still remain”.
- The currently debated proposal of building an underwater tunnel joining Malta and its sister island Gozo. Again, she asks “How can we sustain it? By charging high toll fees? That is anti-society.”

“Could the above be called current sustainability initiatives?” asks the Professor.

6.14.4 Views on how transport infrastructure could be improved (in relation to the CEOs of our case studies stating that the local transport infrastructure is an issue)

The Professor presents two issues:

1. Transport infrastructure – limiting time (it is taking too long to travel across the island);
2. The environment (even connected to the above).

She suggests measures for improving the transport infrastructure:

- Short term measures:
 - Restore town centres, e.g. open spaces.
 - Encourage people to walk.
 - Fixed segregation infrastructure (public transport).
- Short to medium measures:
 - Cycling – it is to be encouraged.
 - Mass transit, for example car-pooling and shuttle service.
 - Inter-modal transport, like using land and sea (in the case of Malta's size).

6.15 Dr Ing. Pierre Vella - Engineering

The Faculty of Engineering at the University of Malta is made up of six departments, which conduct research in various fields while participating in numerous European and national funded projects. The Faculty collaborates with local and international industry. Engineering students and Faculty members work on projects with the local industry, for the development of various solutions, one example being production tools and methods in manufacturing. Its six departments cover the areas of:

- Electronic Systems Engineering
- Industrial and Manufacturing Engineering
- Industrial Electrical Power Conversion
- Mechanical Engineering
- Metallurgy and Materials Engineering
- Systems and Control Engineering.

A meeting, where three topics were discussed, was held with Dr Ing. Pierre Vella.

6.15.1 An overview of the development of engineering and technology education in Malta

Dr Vella starts by explaining that there are two layers of technical courses in Malta –

1. technicians – coming out of the Malta College of Arts Science and Technology
2. engineers – coming out of the University of Malta.

(It is to be noted that in 2018 MCAST has started offering engineering courses, but the debate remains about the validity of the warrant, a matter being contested by the Institute of Engineers in Malta).

The first technical lecturers were actually the trainers at the Malta Drydocks, some of whom went to the UK (back around the 1950s) to get a BSc degree. Some few, over time started taking up a doctorate in engineering (PhD); by 1983 there were still not many PhDs around. The Malta Polytechnic (the precursor of MCAST) was built in the early 1960s and started offering technical courses. Degree courses in Electrical, Mechanical and Civil Engineering were launched in 1963, originally run as external courses, with lectures at the Malta Polytechnic and examinations and graduation held at the University of Malta. The demand for engineers was still low in the mid-1960s. In 1988, having previously been run by the Faculty of Engineering and Architecture. With electronics and IT playing a very important part in the manufacturing and in the communications sectors, the demand for qualified engineers in the mechanical, electrical and electronics fields increased providing employment opportunities to the young Maltese qualified engineers. Dr Vella reminds that all through this development, UK standards were always taken as a benchmark.

6.15.2 Research and development projects in engineering and technology currently undertaken by University

The Faculty of Engineering offers tuition and supervision at both undergraduate and postgraduate levels while also conducting research in all fields covered by its six departments, namely

1. Electronic systems engineering
2. Industrial and manufacturing engineering

3. Industrial electrical power conversion
4. Mechanical engineering
5. Metallurgy and materials engineering
6. Systems and control engineering.

Dr Vella says that “the Programme of studies is run in the ideal way of how to do it” by considering the requirements of industry (including course design) and of engineering standards. The University sets a high entry requirement for its engineering courses. He says that accreditation for the mechanical engineering qualifications [his field] comes from the UK Institute of Mechanical Engineering with an external examiner assessing the ‘mechanical’ and ‘electrical’ graduates, both courses taking four years on full-time basis. “In reality, many students pursue their Masters and PhD qualifications abroad” states Engineer Vella while he regrettably adds that the University has experienced a decline in students (from one hundred down to fifty at the time of the interview) – “maybe other professions are more lucrative” he ponders.

6.15.3 The University’s involvement with Government in developing policy around research and development projects

It is innate in the Maltese culture to strive towards success, together with the ability to learn, its flexibility and adaptability, being also present at the employee level and context, according to Dr Vella. He boasts that “Maltese students do well abroad” when pursuing further studies, working on specific projects or in employment.

The Maltese government’s plan for Research and Development and Innovation (R&D&I) is incorporated in the National European Research Area Roadmap - Malta 2016 –2020, The University of Malta (as well as MCAST) has contributed towards the formation of the policy, which includes post-doctoral grants offered by the Maltese government encouraging research projects. Within this roadmap, the University of Malta also proposes the development of a Post-Doctoral Incubator Complex which will act as trans-disciplinary research incubator, in line with the University’s policy to foster a competitive and sustainable knowledge based economy. Concurrently, MCAST, as the leading provider of vocational training in Malta, is developing further internal research capacity to meet the demands of and give added value to industry by

collaborating with academics, students, and industrial stakeholders to identify gaps and contribute towards the development of tangible solutions.

Dr Vella concludes by saying that “Smart specialisation is the driver, with high ‘value added’ as the basis for future manufacturing. Whereas the process before was ‘input and output’ of engineers from university, it is now about more than being pro-active to industry requirements”.

6.16 Professor Godfrey Baldacchino – Professor of Sociology; Pro-Rector - International Development and Quality Assurance

The Pro-Rectorate for International Development and Quality Assurance at the University of Malta is a new pro-rectorate, created at the University in 2016. It is responsible for co-ordinating efforts to widen and deepen the internationalisation experience for staff and students on campus. It also monitors the pursuit of quality standards and promotes the nurturing of a quality culture in all that is done at the University. Its duties and responsibilities include making recommendations for the development and updating of the quality policy of the University; promoting and fostering its quality culture and supporting the implementation and the vision and strategy of the University; undertaking the necessary research on ways of improving the implementation and fulfilment of the said strategy and policy respectively; and providing feedback for improvement to staff and entities, including training, amongst others.

A meeting, where three topics were discussed, was held with Professor Godfrey Baldacchino.

6.16.1 Thoughts about current FDI in Malta and any opinion about the manufacturing sector

Professor Baldacchino is of the opinion that “we have seen in recent years a kind of a renaissance of manufacturing”, in spite of all the theoretical ‘doom and gloom’ scenarios heralding the closure of the manufacturing history of Malta. He states that “We have reached a plateau in certain industries, where we have managed to hold on to a number of long-standing, almost flagship industries”, while also seeing new manufacturing investment in Malta. He believes that a diversification and a deepening

of FDI extension and services happened on the Island, in comparison to the historical majority of FDI in the manufacturing sector. Now we're seeing IT, software, logistics, and most recently Blockchain and AI in Malta. The professor thinks that "All these are heralding a new wave of interest in Malta as an economic gateway to foreign investment, but of course the requirements are different." He explains that while manufacturing requires resources such as plant, space, land, material inputs, water, electricity and paper, in the case of services it is an almost 'do away' with those requirements and the most important in services is the human and intellectual capital. Here the implication is "the ability to find the people, people willing to learn, people willing to unlearn, to learn new things, do away with past practices, embrace new technologies, and then bring them on the run". Technologies are changing so fast that even though one may specialise in a particular technological area "One has to stay abreast, otherwise they become redundant". Professor Baldacchino believes that Malta has responded to this shift by extending its educational training and resources and infrastructure. He points out that "Now we are in a situation where MCAST and the University of Malta are each producing approximately three thousand graduates a year... and I think we're making progress, not forgetting the Institute of Tourism Studies, which is still graduating students".

This interesting shift in Malta, implies that manufacturing in certain areas has been maintained, inspite of complications, while service industries have deepened. The result is an enhancement in the diversification of the local economy, thus producing a sense of resilience as the Professor explains:

"It produces a sense of strength which should be capable of fading off downturns when they occur, because this is just a question of time. Downturns will happen. The economy cannot continue to grow at this fast rate, so when it happens I think we are prepared to the extent that not all economic activities would be negatively affected".

According to the Professor, the various industries amongst which are transshipment, tourism, finance, manufacturing (even if less profitable) should allow us "to bear the brunt of an economic storm when that appears on the horizon". He also believes that there is scope for manufacturing in Malta. The sector seems to have evolved to be less labour dependant, when comparing the 'older' element of labour input which used to be a high factor in the cost of manufacturing to today's situation where most

manufacturing investment has lower labour requirement. “It is by means of technology that you build your competitiveness and not just on the basis of the human person”. Differently, in niche sectors like high-end hospitality, “personal services are crucial” he states. Even in such niche sectors “most recently technology has changed the layout, the operation, the management itself, sometimes taking the place of a real person”.

Due to the shift of the local economic fabric to what it is now, the main challenge these days is human resources, with the immediate solution of importing workers from abroad (of which the Professor is rather critical) to compensate for the local shortage of people and labour. He rather sees this situation as “an opportunity to consider the technologies and different ways of doing things”. Such is the case of manufacturing where he thinks that “we are not fully appreciating the urgency of doing the quality leap from simply replacing labour with labour, to replacing labour with technology (like robotisation, mechanisation, investment in IT)” - as the long term solution to the challenges of labour shortages in the present situation,” and the key to long term competitiveness”.

When considering available space for allocation to industry, the Professor states that “There are very few places left in Malta where you can actually reclaim land”. The limitation comes from the island structure, where most of the coastline is close to a continental shelf, where the waters are not shallow and quickly become very deep, making it impossible to reclaim much more land. He strongly expresses that “the options are very much stacked in the direction of technological advancement. Which I think, even geography is nudging us in that direction - where would we reclaim land and with what effect on society?”

6.16.2 Thoughts about the effect of the current economic development in Malta on society and the environment

Professor Baldacchino’s immediate reaction is: “This is the big question that is facing us these days. This is the ‘hot potato’ I think that it is rarely debated and discussed and critiqued, unfortunately”. He suggests that more resources and more time need to be dedicated to explore the full impact of what is happening around us. “The changes are rapid, the changes are deep - they are affecting everyone” he says mentioning that Malta has shot up from eight percent of its population being born somewhere else in 2013 to eighteen percent of the population being born somewhere else in 2018. This places Malta as the third country among EU member states that have the third highest

proportion of individuals who were not born in that country – after Luxembourg and Cyprus. “...and it has caused many changes” he says, mentioning the fact that nowadays, a Maltese person has to automatically switch to English in many every-day situations. This demonstrates that the use of Maltese, even though it is the national language “has retreated to almost the status of an exotic activity” as the Professor describes it, continuing that “the foreigners also expect that the Maltese speak in English... We just switch to English and I think that’s bad.” He suggests that now rather than later, some guidelines about the use of Maltese in public spaces and in events should be set, whether we expect foreigners to be at least offered the possibility to learn basic Maltese. It would at least show interest, motivation and willingness of foreigners to connect with the local culture. The language factor is also of concern in old people’s residential homes, where a percentage of the elderly Maltese cannot speak another language or in the kindergarten sector, where several care workers and kindergarten assistants cannot speak either English or Maltese, both situations posing risk and chaos. This can be considered as one of the social consequences of the economic development in Malta. Upon reflection, this falls within the cross-cultural competence consideration, which is about the ability to appreciate the differences, nuances in the way in which people behave, generally, but also in relation to religion, sport, dress, food and other customs. Professor Baldacchino says that “There are many aspects where people bring along a baggage of cultural endowments, which can be different from those that we in Malta take for granted. We cannot take them for granted anymore.”

The Professor then talks about the environment where Malta is “witnessing an explosion of construction, part of which may be necessary to accommodate new families and part of it is probably just speculation. And that is driving the prices of property to the roof”. Even the University of Malta has been affected by the rising price of rental accommodation that foreign students would have to pay to rent an apartment, in comparison to five or six years ago (between two hundred and five hundred Euros then versus seven hundred to one thousand Euros a month in duplication of expenses), “which has made us less competitive to a certain point.” According to the Professor another contributing factor could be that of Malta being flush with liquid cash while he opines that “The bank deposits are overflowing; government issues treasury bills to borrow money from the Maltese they are always over-subscribed; the bank

gives zero interest”, and as a consequence people invest in construction. It is a vicious cycle... this is success breeding failure. We are victims of our own success” states the Professor. Here, he reiterates upon his suggestion that perhaps for Malta it is time to really start thinking about investing somewhere else, such as Pantelleria, as an option, calling the whole situation like “we are living in a ‘pressure-cooker’ with the pressure valve not working properly. We cannot contain this.” He mentions effects of excessive construction like asthma, respiratory diseases, pollution and waste – “waste is a serious problem, which is creating various problems because we don’t recycle enough”. He rhetorically asks “Which community is going to say o.k. to dumping of rubble, for example? Imagine how communities would stand up against them.” He describes the situation as “building up a lot of stress and it is not a sustainable policy to maintain. It is not the way to look at Malta in twenty or thirty years’ time. We don’t want to turn out Malta into a jungle of concrete.” In such circumstances either the bubble will burst and people will suffer or prices will continue to grow in a scenario where demand would outstrip supply. This could possibly happen even when there are individuals who are coming from Northern Europe willing to spend more than the Maltese to buy whatever accommodation they need.

Another effect of the current booming economy is overpopulation. According to the Professor “Nobody knows what the population of these islands is...because to find an accurate figure of the population you have to have a sense of who are the residents.” He states that certain foreigners do not know whether they are residents or not, even more when “They might plan to leave very soon, and they might not.” The whole situation could be considered as a paradox of development where success could lead to the not so successful side effects, which will have long-term implications on society and its environment.

6.16.3 The University’s involvement in the formation of an economic development strategy for Malta

The Professor states: “Well, because it is the University of Malta, obviously we cannot stay out of that. We are certainly involved because we have also a responsibility. We are really a publicly funded institution of higher education.” As a university professor he hopes that the university is producing the graduates that the economy needs, and who are good enough, skilled enough and adaptable enough in order to not just

maintain its economic development trajectory but also to pre-empt what are the requirements of the future. He says this against the thought that today's students have their maintenance grant, and at least half of them work, which might undermine their commitment to study, having a job already, and probably not planning to be in the same employment for forty years.

As to whether the University of Malta is involved in the formation of an economic development strategy for Malta, the Professor poses the question: "Is there an economic development strategy for Malta?" while continuing "Because as far as I know there isn't one." He explains that Malta went through thirty years of development plans up to 1988, followed by sectoral planning which are not holistic, comprehensive blueprints. He backs his argument by quoting the Minister of Education being present at a university strategic planning session, who after congratulating the University, commented that "Perhaps Malta should have its own strategic plan". The Professor adds that "you cannot simply have rapid economic development without a strategy because then the mechanisms of acceleration and growth will kick in and take over a life of their own." He further theorises that "stakeholders have an interest in growing the economy, wanting more of the same, and possibly encouraging the growth of the existing sectors, while keeping out competition" which is "a recipe for disaster - it could look great in the short term, and in the long term it would be disaster".

The Professor proceeds to admit that "I was hoping that with the diversification of the economy the construction sector would have a lower clasp. Unfortunately it has not happened. We are running." He then connects climate change to the overall current construction activity in Malta, including road construction and land speculation, by asking "Do we keep in mind that most probably waters will rise?" This would have an adverse effect on the built areas in valley zones, which in reality has made us less competitive by corroding the natural habitat. Rising water will render productive and agricultural lands to salt marshes. The Professor concludes by saying "It is no longer natural - it is on theory."

6.17 Key Findings - Overview of Key Informants – Agencies, Institutions and Academia

In the interviews with key informants from institutions several themes emerged which could be considered as key themes for the initial FDI investment in Malta in comparison to the current overall development on the Island; as well as being in general agreement with and reflecting the responses provided by the FDI case study companies and also the logistics service providers in this study.

The topics discussed with the various key informants and the key findings from this chapter are grouped by themes as shown hereunder. From this chapter key themes emerge, which will partly feed the Discussion chapter in this study.

Competitive fiscal policy (and financial assistance) – Competitive fiscal policy (and financial assistance) has been a constant foremost attraction and motivation for FDI companies in Malta (and even to local SMEs) as confirmed by government and non-government institutions. The manufacturing sector (being the scope within this study) has over the years benefited from preferential tax benefits, financing, lower interest rates and soft loans, to support people, technology and capital and ‘greenfield’ investments. This also helps with any transaction costs that foreign companies may incur and reduces the need for loans from the local ‘conservative’ banks.

Workforce availability and flexibility - Workforce availability and flexibility has been a major positive factor for FDI manufacturing companies that came to Malta between the 1950s and the early years of 2000. The qualities of the Maltese workforce, which include flexibility, the readiness to learn and company loyalty, their gained experience, the tacit knowledge, their technical know-how and their managerial abilities, have been acknowledged by several FDIs.

In more recent years, Malta started facing a shortage of people from the perspective of labour pool and skillset with the overall quality of the current general workforce becoming subject to debate. Now imported (foreign) labour makes up about fifteen percent of the workforce in Malta, making the labour pool more volatile. It has become a labour market in the current booming economy, also with the new industries that it is attracting. Issues that connectedly follow are the increase in salaries and the

growing employees' turnover, with the larger companies possibly being able to bear the brunt better than the smaller ones.

EU membership and political stability - EU membership and political stability are also considered by the key informants as being a significant contributor towards the attraction of FDI to Malta. The EU experience has been overall a positive one, from which Malta benefits in terms of funding, market exposure and establishing certain standards both for the social and environmental aspects. It goes well with the majority of MNEs who could benefit from funding in various ways such as employment and research grants, through the channelling of local government agencies. European Union membership could be seen as being a background to the economic situation and businesses in Malta, providing market opportunities, and the preferential treatment regarding customs duties within the EU zone. Certain regulatory EU limitations may not be so favourable to some.

Education - Apart from the importance given to education on a national level, it has also been a subject of priority for the Maltese government in its interaction with FDI, which such investing companies have always considered as a positive factor. MCAST and the University of Malta offer technical and degree courses respectively, with the main purpose to cater for the requirement created by the industries on the Island, a good number of them being FDI. More recently, the Maltese government set a plan for Research and Development and Innovation (R&D&I) which is incorporated in the National European Research Area Roadmap - Malta 2016 –2020 with the participation of the University of Malta (at academic level) and MCAST (at vocational level). Thus Malta responds to the shift to new technologies and industries and inherent new skills by extending its educational training and resources and infrastructure. Dr Mario Vella comments that “training is essential” and that “people remain in Malta”. Some respondents expect education to be more pro-active in the face of the fast changing economy and new skills that emerge. Beyond this, the implication arises that education now would also have to address the different cultures coming from the mix of foreign workers on the Island.

Sustainability - Dr Mario Vella maintains that cultural, social and political implications are not to be ignored, while for the purpose of this study social well-being and the

environment are of significant interest. Dr Vella continues to say that the spiralling growth (of the Maltese economy) sounds an alarm. It immediately refers to the housing demand that is resulting in increasing property prices and rent rates, being too high for the local community and families, expensive for EU citizens within a certain wage scale and third country nationals coming to work in Malta. This is coming from shortage of labour and importation thereof and the availability of space which has become a problem. In the resultantly booming construction industry, banks are generally not getting involved to provide financing, with the buyer carrying the onus (which could result in 'money problems' in the long run), while one is led to consider a break in foreign workers coming to Malta to control the overall situation.

The diminishing space within the infrastructure is a factor for concern, apart from housing it is also required by manufacturing, the tourism industry and for office buildings, with any building outside development zones now being totally out of question. Road logistics present significant challenges with the improvement being done upon the infrastructure and facilitation of inland transport eventually being seen as short-term solutions by the key informants. Implications include road safety, the 'right to mobility' (social well-being), the public transport system, urban space distribution (dominated by thirty percent of the population, i.e. vehicle drivers), increasing pedestrian fatalities from traffic accidents, limited access to public space – all mounting to a limitation on socio-environmental well-being. Pollution coming from road traffic and from the high construction activity is affecting the health of the general society.

Innovation - All the key informants call for a 'new way or approach' towards Malta's economic development, if also sustainably, calling for innovation and adaptability. Professor Godfrey Baldacchino considers the present situation as "an opportunity to consider the technologies and different ways of doing things" and thinks that "we are not fully appreciating the urgency of doing the quality leap from simply replacing labour with labour, to replacing labour with technology". Smart specialisation and its implementation are highly quoted by the respondents, being seen as a solution for moving forward and taking "a new and innovative approach that includes consultation with industry", as Ms Marika Tonna puts it. The Director General of MCCEI advocates maintaining the manufacturing sector and supporting its upgrading to advanced

manufacturing within smart specialisation, with its value-added element. Dr Mario Galea considers manufacturing as a good field for research and academia. Dr Engineer Pierre Vella insists that smart specialisation is the driver, with high 'value added' as the basis for future manufacturing. MCCEI believes in diversifying its economic strategy in alignment with the Government's decisions to enter more sectors, while strongly suggesting that Malta could be a centre of excellence for specialised industries. Professor Maria Attard recalls that the main manufacturing companies (FDI) came here and evolved under "previous circumstances which were different from today". She points out that "now we have different circumstances for potential new companies...we need to define parameters of attractiveness" and advocates the strengthening of manufacturing. She firmly states that apart from the economic aspect, "the manufacturing FDIs in Malta address sustainability seriously". Mr Paul Abela affirms that "we have to be cautious how to proceed – Maltese mentality to do business might have to adapt" and Dr Mario Vella suggests that "smart specialisation is a solution, although there is no national policy for it, however trusting that "the labour force (local in particular due to its flexible disposition) is receptive to it".

Development and Strategy - It is inevitable to ask about development and strategy, about which the key informants gave their views and statements. The CEO of Malta Enterprise maintains that Malta is still economically viable for FDI, mentions the Island's robust IT infrastructure and states that "Malta is small enough to turn the process around" through its "accessibility, the ability to take on the challenges for economic growth, and with training". The Chairman of MLSP advises that "it is imperative for development to recognise opportunities and jump in fast". Professor Baldacchino explains that the recent "renaissance of manufacturing" demonstrates a diversification and deepening of FDI, including services. In his opinion this is heralding a new wave of interest in Malta as an economic gateway to foreign investment (with the requirements being different), affirms that there is purpose for new generation manufacturing in Malta, with less labour dependency and adopting more technology.

Yet in view of all the above, "there has to be a strategy in place – adaptive – pro-active – fast [implying also FDI company size]" warns Dr Mario Vella. He immediately confirms that "there is no national development strategy – we require it to be connected

to EU strategy". The same is confirmed by Professor Baldacchino who even warns that "you cannot simply have rapid economic development without a strategy because then the mechanisms of acceleration and growth will kick in and take over a life of their own." The President of GRTU also confirms having asked the local government to embark on to the third national strategy. The Director General of MCCEI complains about the lack of 'a quality economy' saying that "the private sector invests in its own quality but Malta as a nation does not - there is no holistic strategy". From the perspective of a logistics hub for Malta, the Chairman of Transport Malta speaks about a Master Plan addressing the Valletta Grand Harbour operation and space utilisation, while disclosing that "it does not include plans for a regional logistics hub" as part of any wider strategy. The Chairman of MLSP confirms that there is no formal macro-economic strategy, beyond the government's or the Central Bank's micro-economic policy. He says that "Master Plans are written out for various sectors of the Maltese economy, but not specific strategies".

Conclusion

This section explored what the representatives of the participating institutions, as key informants, had to say in relation to Malta's eco-system. It includes summaries of the meetings held with influential stakeholders and academics. Each institution's context and their thoughts and perceptions have been provided, with any implications to related topics and themes emerging from the previous findings from the FDI case study companies and the logistics service providers. Finally, an overview of the key responses and comments is summarised, showing validation by the institutions' representatives of emerging key themes.

CHAPTER 7: DISCUSSION

7.1 Introduction

This chapter aims to synthesise and discuss the findings (including respondent comments and perceptions) gained from the case study companies, the logistics service providers and the key informant institutions that participated at the various stages of this study. The discussion attempts to link the key findings to the relevant literature on FDI, regional development, sustainability, institutionalism and co-evolution.

The discussion follows upon the findings coming from the micro (the case study companies), meso (the logistics service providers) and macro (the key informant institutions) levels of actors who are together in a 'place' - the host economy state. They might work separately, but also collaboratively as shown in this research, while they have also evolved, maybe not in synchronisation, but still in the same 'place' and along the same temporal span, hence making it a co-evolutionary path. This happens within a complex set of co-evolutionary dynamics - the co-evolution of MNE activities with institutions both external and internal to the firm (Cantwell et al., 2010) taking place at multiple levels (Madhok and Liu, 2006), in a regional economy following an evolutionary development). The discussion progresses to consider the wider aspect of co-evolution, that is the macro-level, when Malta's development is discussed, which development potentially having an impact on the participating FDI companies in this research and raising issues about the Island's sustainable development itself. It is being argued that the macro-level of co-evolution is the aspect that facilitates or stifles progress, by the institutions' following of 'path plasticity' (flexibility and adaptation) (Strambach, 2008, 2010) or lack thereof.

7.2 Evolution of case study companies

7.2.1 Rationale for the Original FDI in Malta

Most of the original decisions to invest in Malta by the related MNEs resulted from a combination of two major compelling factors, namely low labour costs, in line with classic low-cost location theory (Weber, 1929; Hoover, 1967), and fiscal incentives as part of an incentive structure of attractive offerings available to potential investors by

Malta (following North, 1990; Lu et al., 2014). Some MNEs also had a long-term vision for growth in Europe, combined with a policy to look for an already existing plant, as in the case of Companies B, C and E as outlined in Chapter 4. The reason was that Malta proved to be attractive due to its position in Europe, more specifically in the centre of the Mediterranean, for those MNEs looking for optimal locations for their operations in order to improve customer service in response to increasing sales in the European market, together with the perceived additional distribution benefits of reduced lead times and inventory, hence cost savings (Krugman, 1991; Venables, 2004; Glaeser, 2010). Other MNEs needed to consider relocation, due to unfavourable conditions for business in their existing locations (such as overseas competition, business expansion and labour shortage) with Malta being their preference of choice. Additionally, significant factors included the adaptability of the local labour force, widespread use of the English language, the island culture implying flexibility, and an easily available and suitable work force, all proved attractive to the foreign companies at the time. Two instances involving personal factors are also worth mentioning, where the owner of an organisation underpinned his decision to invest in Malta by personal trust in a prominent Maltese acquaintance, while another had followed his accountant's recommendation of Malta as a place for the re-location of the business, after the latter had paid a visit to the Island. Eventually, these FDI companies ended up anchored on the Island.

The MNEs have been instrumental in the development (and expansion) of their subsidiaries by transferring products and technology from other overseas plants to Malta (denoting trust), also facilitating their progress for mutual benefit. Apart from the support of their MNEs, other factors that have contributed to the development of these FDIs are the provision of training to their own employees at various levels, ensuring a high level of knowledge; and the initiative and ability of the local or locally based managers who served as catalysts of progress. The support mentioned here, as provided by the MNEs to their FDI subsidiaries, reflects the definition (see section 2.3) of FDI according to IMF (1993) and OECD (1996) that international investment reflects a lasting interest in another economic location. "The lasting interest implies the existence of a long-term relationship between the MNE and its FDI subsidiary and a significant degree of influence by the investor on the management of the enterprise" (imf.org, 2005, p. 86, para. 359) through the provided support (product and technology

transfer, knowledge transfer and capital investment). The findings of this study confirm that FDI longevity has been instrumental the success of the case study companies featured in this research. Furthermore, there is evidence of the 'dynamic capabilities' (Augier and Teece, 2007; Pitelis and Verbeke, 2007; Steen and Liesch, 2007), reflected in the MNE's capacity for adopting a continuous adaptation process of linking its internal strengths with external opportunities through the identification of productive scope identified by managers, in a strategic decision to expand abroad; the choice of the foreign location to define value added activities, and the potential internal growth (internalisation) that could be facilitated by foreign expansion through the availability of additional resources and their managerial services (Hymer, 1976; Rugman, 1996). These elements have contributed to the consistent growth of the FDIs located in Malta, and who participated in this research.

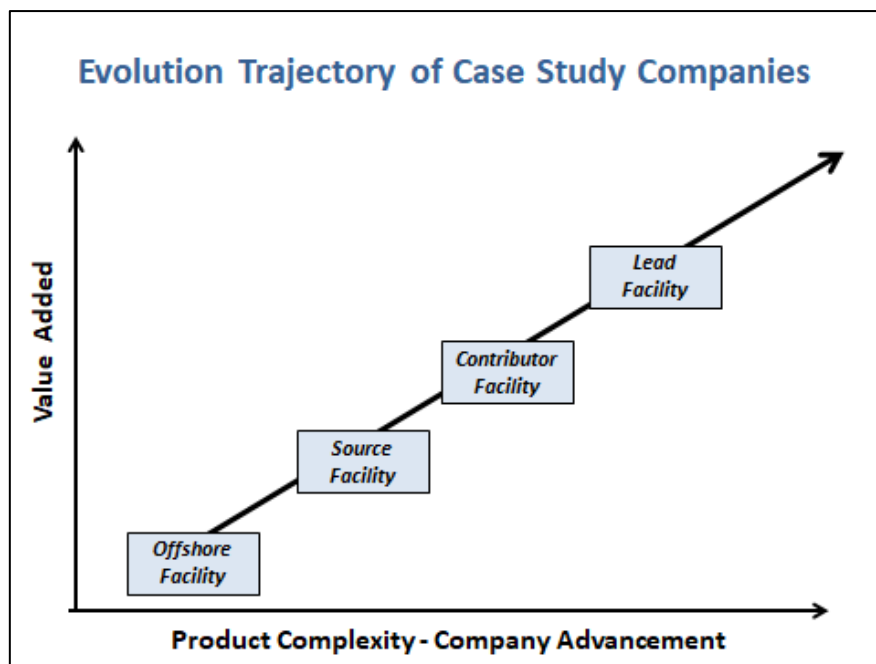
Considering the changing circumstances in Malta during the last two or three decades, together with changes in the global situation, all playing a factor in decisions of value chain optimisation and locational choice, the author wonders whether such companies would invest in Malta today, as actually questioned by some of the case study companies themselves. This is discussed later in the chapter.

7.2.2 Development trajectory

All six case study companies have generally advanced from their initial status as low-cost manufacturing subsidiaries (whether as a 'green field' development or as an acquisition of an existing production plant) to a higher standing within their GVCs. They have become significant subsidiaries receiving enhanced mandates from their parent HQs, which include becoming exclusive production centres of excellence for certain products, with related R&D and innovation responsibilities; acting as a strategic purchasing centre for the MNE; creating an efficient network for regional distribution and customer service; and other added value provisions within their parent company GVC. These examples of operational mandate enhancement relate to what Dunning (1979) calls 'technology-related firm-specific advantages (FSAs)', which involve R&D product innovation in a connected flow of knowledge spillover in product development and value-added services, representing a contributory factor in the growth of a MNE through product quality improvements and innovation cost efficiency.

In fact, all of the case study companies followed a similar evolutionary path in Malta, which appears to conform with Ferdows' (1997) study of the growth of foreign factories (FDIs) from mere production plants to centres of expertise within their MNEs' network. A generic trajectory diagram as shown in Figure 7.1 emerges for the case study companies' advancement from their initial stage to their current status, providing a development profile of their operation.

Figure 7.1 - Generic trajectory diagram – case study companies



The case study companies have progressed from being just assembly units to becoming autonomous fully-fledged companies within their organisations. They carry out product management not only for their own product families (competence centres for their exclusive products), but also having control of the materials used even by sister plants, affirming their technical leadership. They do this by being highly involved or even leading product and process design, R&D, innovation and automation. Furthermore, they are 'customer-influenced', even practising product customisation to ensure full customer satisfaction across their GVC. They have reached a status where they even promote their 'own' products. These highly-developed subsidiaries also influence the transfer of labour intensive work, low-cost, mature or low-level automation products to other sites while keeping the high-value products, high-end manufacturing and high-level automation in Malta. One company is even the corporate

HQ, with the Head of Operations saying that “Malta is the headquarters, a Maltese Company”, with financing coming from Malta being the main node in a GVC; and being also the main logistics centre for the MNE. All of the above case study companies contribute significantly to their GVCs. It should be noted that Malta’s membership of the European Union is also of significance to their parent companies. Malta was not an EU member at beginning of the development trajectories of the case study companies, but EU membership has reinforced the country’s geographical importance in Euro-centric GVCs.

The late founder of one Group with a subsidiary in Malta stated that “When I look back now on the economic development of the...Group of Companies, I note with great satisfaction that the investment in Malta was one of my best business decisions” (Dulger, V., 2015). However, the development, or any further development, of the established FDIs in Malta now becomes a matter of question. Several factors that will be discussed within this chapter are affecting potential further progress for these companies. Two main examples are the labour shortage and the limited availability of industrial space that are being experienced on the island. It is not only as a means of progress for competitiveness, but also as a way to mitigate against these two mentioned setbacks, that the case study manufacturing companies are compelled to resort to automation, but, as one production director comments, there could also be a limit to the extent of automation that could be applied. On the other hand, it could also be that the companies themselves could reach a point where development is not more possible, due to various internal or corporate reasons, which could emanate from policy or strategy.

7.2.3 Development enablers and constraints

The companies have constantly provided training to their employees to facilitate a suitable skillset, in some cases even following a rigid recruitment process, to ensure a pool of highly-qualified personnel. Most parent companies still regard positively the local workforce, whose ability has been an encouraging factor in many cases for companies to invest further locally. The Maltese workers have been reported to perform comparatively well when it comes to productivity and efficiency (as to foreign counterparts), also willing to learn and co-operate. This comes from a flexible and responsive workforce at all levels, with a resulting time advantage which is important

in any industrial application. Yet in recent years a shortage of available labour is being faced in Malta. Companies are depending even more on technology through automation to reduce the labour shortage challenge. At the same time, this has induced a high importation of foreign labour into the Island. The local booming economy is also influencing high employee mobility. Loyalty at the workplace is consequently diminishing. Some companies almost become reluctant to invest in employee training as a result of the aforesaid factors. The question inadvertently follows – how will all this impact on the historically highly regarded (by the FDI MNEs) quality output of Malta’s labour force and their companies?

Labour

Managers at all the participating case study companies have emphasised the excellence of their Maltese human capital as a crucial factor of their respective development trajectories. The case study companies have described the Maltese workers’ attitude by using terms such as ‘innovative and flexible’, ‘adaptive’, ‘accommodating’, ‘having a complementing culture’, ‘facilitating the mixing of Maltese and foreign attitudes and mentalities’, ‘well educated’, ‘having good use of the English language’. This can be easily said to be a main in Malta’s positive externalities based on education, knowledge spillover (the successful practice of knowledge transfer) and culture. The strong reference to the qualities of the Maltese skillforce agrees with the element of ‘melding of location-bound and non-location bound knowledge especially through international human resources management’ (Goerzen and Beamish, 2007; Pitelis and Verbeke, 2007; Tan and Mahoney, 2007; Verbeke and Yuan, 2007), whereby managerial services facilitate market penetration and ensure intra-MNE coordination through international diffusion of human resources. The expatriates’ ability for the transfer of tacit knowledge and linking internationally transferable knowledge to the new location-bound knowledge, confirms the receptivity and adaptability of the Maltese labour force and its contribution towards the success of the FDI companies in Malta who participated in this study.

Industrial space

The footprint of the case study companies has always increased at some point in time of the companies’ development, even more than once in some cases. Spreading out has not always been possible, and additional premises have been allocated to the

companies on occasions. Some footprint expansion is still being granted to FDI companies (manufacturing being an industry that requires layout space). Yet, Malta Enterprise and Malta Industrial Parks now have to follow an even more controlled policy since not much more available industrial space remains; and also due to pressure groups campaigning for social well-being and the environment. Malta Enterprise is promoting and encouraging demolishing and re-building of 'old' sites, 'building down and up'. Furthermore, not much more land reclamation is left to be exploited for any purpose, industrial or otherwise, on the Island.

Technology

All the case study FDI companies have undergone a gradual development in Malta. Over the years they have followed a development path in various ways which included the increasing of their product portfolios; process development; the introduction of new machines, equipment and technologies; adopting improvement practices such as lean manufacturing; implementing automation; product diversification; conducting research; design and development for their own products and the mother company's.

Fiscal incentives

The continuing fiscal incentives in various forms, such as advantageous tax policies, financial assistance and preferential rates for lease of space and premises, among other forms of support offered and provided by the Maltese government and its agencies to FDIs have been a constant factor, even an enabler, contributing towards the development of the case study companies and similar enterprises on the Island. Such support is a contribution of the economy state within its institutional role to FDI, and could include factors like information about investment opportunities, negotiation, regulations, legal frameworks, co-operation and economic interaction (Dahlman, 1979; Coase, 1992; Putnam, 1993).

Future prospects

Managers of the case study companies confirm that they would carry on with their business in Malta while others have stated that they stay in Malta because of lock-in created by their long and heavy investment and because transfer costs would be too high to justify their going somewhere else. This is a worrying thought, when one considers their contribution to the Maltese economy over the years, including placing

Malta in a widespread business network. This confirms the need to 'look after' these companies within the manufacturing industry base in Malta, ensuring not to neglect them because of higher focus on new (if not volatile) industries that are currently dominating the Maltese economy. Their established presence on the Island even suggests that new generation manufacturing industries are to be attracted to Malta to enlarge the local FDI manufacturing pool, which has proved to be a reliable and stable means of contributing to the Maltese economy.

7.3 Evolution of Malta

7.3.1 Path trajectory

Over the last sixty years, the Maltese economy has evolved in a resilient way starting with low-cost and labour-intensive manufacturing and tourism. Malta was treated as a low-cost 'production capacity extension zone' by mainly UK and German manufacturing companies in the 1950s and the 1960s, when the economies of scale were well justified compared to today, when the Country is no longer perceived as a significantly low-cost labour cost location. New industry sectors followed over the years, including financial and insurance services, specialised tourism, maritime activity, professional services, more value-added manufacturing (increasingly automated); still more recently followed by information technology, i-gaming, blockchain and AI. EU accession in 2004 has encouraged some of the aforementioned activities in Malta, especially export-oriented, financial and professional services. This denotes a shift towards a 'service-economy' and a 'knowledge-society' within Malta's booming economy, which is currently experiencing an almost non-existent level of unemployment and the need to import foreign labour.

A robust IT infrastructure has developed in Malta, a feature normally found in developed economies where a significant level of R&D infrastructure and knowledge is present in a host-country (Chiao et al, 2008), perhaps by necessity to attract and accommodate the aforementioned digitally dependent new industries that have emerged in the current Maltese economy. This becomes quite relevant when one considers the drive towards a form of 'smart specialisation' with a shift from manual to technological and digital technologies. Although Malta is no longer the low-cost country it used to be, it still compares well with main European countries (such as

social costs being an average of sixty percent compared to Europe). Malta is engaged in the development of what may be termed a 'strategy of smart specialisation' involving electronics, pharmaceuticals, logistics, aviation services, financial services, and information technology services amongst others, representing the type of high value industries likely to benefit a small island economy (Chand, 2004; Read, 2004; Georghiou et al., 2014). However, it has been confirmed by key informants that this is more of a public relations exercise than an official government-sponsored strategy. Malta is attracting significant levels of FDI, is investing in new physical infrastructure (mainly due to considerable levels of EU funding), and continues to develop its pool of skilled labour, IT infrastructure, roads network and financial services provision. This shows that different circumstances could attract different types of industry, which could maintain a momentum for both investing companies and host locations with respect to FDI.

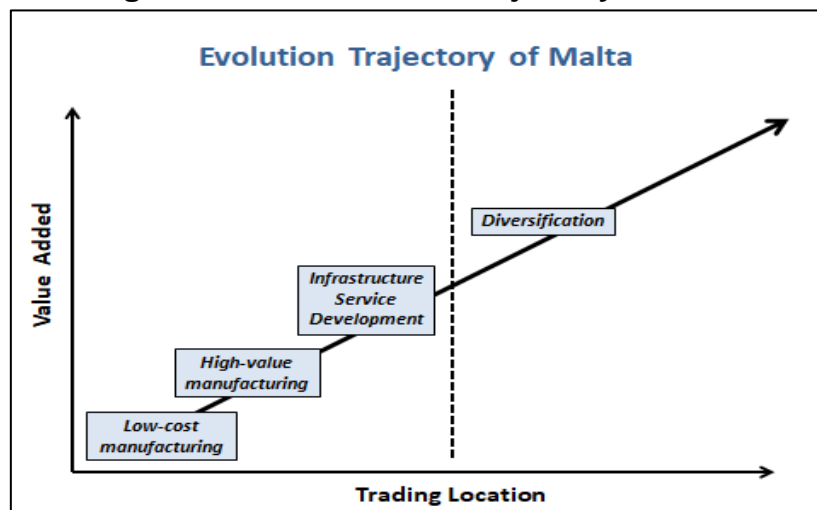
Malta's economy has actually grown, but it has not developed along a rigid path, building on a previous low-cost commodity manufacturing sector (e.g. textiles), which began, in the 1980s, to migrate to lower labour cost economies in developing countries. Malta has, in terms of both domestic business expansion and inward investment, evolved in a very flexible, if almost haphazard way, denoting a high degree of institutional plasticity (Notteboom et al., 2013). In other words, Malta has demonstrated a certain extent of flexibility and openness in its approach to regional development, in the sense that its institutions have attempted to exploit a range of investment options and opportunities, avoiding lock-in to a negative path dependency of economic decline based on low-cost, low added-value manufacturing industries. Therefore, it is reasonable to argue that Malta has pursued 'path plasticity' rather than 'path dependency' with regard to the stabilising and guidance functions of its institutions (Strambach, 2010). As a result, the Maltese economy might be considered to have developed by transitioning into a service economy; while society has developed by becoming a 'knowledge society'. This, in turn, induces the question: is this a change, growth or a development? 'Development' (in the sustainable context) has been understood as important for developing nations and considered as distinct from 'growth' by some authors (Caldwell, 1984; Barbier, 1987). According to Barile et al. (2018), and based upon the argument that an organisation (of any form for that matter) is viable as long as it is sustainable –

“the definition of the evolutionary trajectories of the system leads to a matrix of evolutionary options that distinguishes between growth and development. The growth actions will qualify the purpose of achieving a significant quantitative increase in the entity of the results achieved by the system, whereas the development operations are characterized by the achievement of significant improvements in the use of embedded capabilities” (p. 8).

Yet, this distinction becomes vague when more recently other authors treat the term ‘sustainable development’ like that of ‘sustainable growth’, making it an oxymoron (Redclift, 2005; Johnston et al., 2007; Brand, 2012). Perhaps the development factor of society in relation to Malta’s evolution lies in the fact that it has to be technology savvy to satisfy the new industry entrants into the Maltese economy. The author believes that an element of evolution has been present in the FDI companies, society and Malta, because it is shown to have happened; while development has a rather deterministic implication, which is questioned in certain aspects within this study.

A generic trajectory diagram as shown in Figure 7.2 shows Malta’s stages of economic evolution from low-cost manufacturing to diversification.

Figure 7.2 - Evolution trajectory of Malta



7.3.2 Location externalities

Malta has evolved from low-cost manufacturing location to a diversified service-based and knowledge economy. A phenomenon based on the emergence of externalities that facilitate an appropriate environment or eco-system required for the kind of enriched location necessary to facilitate the evolution of the case study subsidiaries as ‘lead corporate nodes’ within their respective GVC networks. The antecedents of

such externalities appear to be historically determined, such as Malta's geographical position at the crossroads of the Mediterranean (geo-physical), cosmopolitan people, a long experience of FDI starting with the Royal Naval Dockyard, a strong legal system, island resilience and work ethic, underpinning a cultural evolution of entrepreneurship (Saxenian, 1994a; Vella, 1994; Beugelsdijk, 2007; Brincat, 2009; Bazuchi et al., 2013).

It is worth noting that enterprise clustering is not a widespread phenomenon in Malta. Two clusters of service companies exist in close proximity of the airport and the free port respectively, but, with the possible exception of Malta Life Sciences Park there are no industry sector clusters in Malta. There are several industrial zones on the Island, in the form of business parks on which groupings of heterogeneous enterprises have chosen to locate to take advantage of fiscal incentives or of space availability. However, this does not represent intentional (Marshallian) clustering to exploit agglomeration effects (Amin and Thrift, 1992; Harrison et al., 1996; Bathelt, 2005; Storper, 2009). Apart from reports on two limited, short-lived examples of initiatives in horizontal purchasing collaboration (Spiteri, 2013) and pharmaceutical logistics (Haber, 2012), no sign of intentional clustering by companies was observed during the research study, nor indicated by respondents during interviews with the case study companies or other key informants. Therefore, the classic knowledge spillover arising from Marshall-Arrow-Romer (MAR) externalities resulting from the close physical proximity of firms in the same industry sector (Amin, 1994b; Audretsch and Feldman, 1996) appears to be missing from Malta's socio-economic landscape. However, a 'local buzz' of information and learning (Storper and Venables, 2004) does appear to exist in Malta's socio-economic structures. This is almost certainly due to 'Jacobian' spillover arising as a proximity effect between people in heterogeneous firms from differing sectors in a relatively small island spatial structure (Jacobs, 1969; Brown and Duguid, 1991; Wenger, 1999; Amin and Cohender, 2004).

The study found that the following positive externalities had significantly contributed to Malta's economic development: excellent human capital, competitive fiscal policy, workforce availability and flexibility, widespread education opportunities, the legislative structure, political stability and EU membership. These development factors for Malta were validated by three prominent key informants: the Governor of the Central Bank

of Malta, the CEO of Malta Enterprise and the Pro-Rector (International Development) of the University of Malta.

The above mentioned development factors for Malta are among elements that Bevan and Estrin (2004) call 'decision determinants', for MNEs and their FDI enterprises, which could include input costs; geographical distance; institutional and legal factors; trade and political stability; form of privatisation; capital market development; country-risk; size and level of economic and institutional development of a host country; unit labour costs; and EU membership as a validation of the host country's adequacy through the admission requirements set by the European Union.

Human capital

The perceived excellence of Maltese human capital factors has been confirmed by all participating case study companies as a key enabler of their evolution, having positively influenced their growth from low-cost plants to lead subsidiaries. The management of the FDI case study subsidiaries and their parent companies have described the attitude of Maltese workers by using terms such as 'innovative and flexible', 'adaptive', 'accommodating', 'having a complementing culture', 'facilitating the mixing of Maltese and foreign attitudes and mentalities', 'well educated', 'having good use of the English language'. This reflects the "human resources – the skills and capacities of a local workforce", being an institutional element and a growth driver of local economic growth of a host economy (Taylor and Plummer, 2011, p. 48). This can be easily said to be Malta's key positive externality, based on education, knowledge spillover and culture. On one hand being "human capital: fundamentally the local stock of skilled and educated people", and on the other hand being "access to high technology and technological leadership at the enterprise level" (Taylor and Plummer, 2011, p. 49). The strong reference to the qualities of the Maltese skill force also aligns with the element of 'melding of location-bound and non-location bound knowledge especially through international human resources management' (Goerzen and Beamish, 2007; Pitelis and Verbeke, 2007; Tan and Mahoney, 2007; Verbeke and Yuan, 2007), whereby managerial services facilitate market penetration and ensure intra-MNE coordination through international diffusion of human resources. The expatriates' ability for the transfer of tacit knowledge and linking internationally transferable knowledge to the new location-bound knowledge, confirms the receptivity

and adaptability of the Maltese labour force and its contribution towards the success of the FDI case study companies in Malta. This argument also implies that value chain practices could possibly contribute towards evolution and upgrading of host country institutions (Kaplinsky, 2004; Connelly et al., 2013) perhaps affecting elements like society and human resources.

Logistics hub

Ironically, nowadays Malta no longer seems to be of significant logistical importance. Looking at Table 7.1, a cross-section extracted from the Logistics Performance Index Report 2018, shows that Malta’s performance in logistics aspects places it as sixty-ninth out of a hundred and sixty countries, which could not be considered as a relatively low ranking in Europe, when compared to Germany, the United Kingdom and Cyprus, as an example. Yet, it does not qualify as high in the ranking list.

Table 15: 7.1 - Malta’s logistics performance rating

The World Bank - Global Rankings 2018									
Country	Year	LPI Rank	LPI Score	Customs	Infrastructure	International Shipments	Logistics Competence	Tracking & tracing	Timeliness
Germany	2018	1	4.20	4.09	4.37	3.86	4.31	4.24	4.39
United Kingdom	2018	9	3.99	3.77	4.03	3.67	4.05	4.11	4.33
Cyprus	2018	45	3.15	3.05	2.89	3.15	3.00	3.15	3.62
Malta	2018	69	2.81	2.70	2.90	2.70	2.80	2.80	3.01
Mauritius	2018	78	2.73	2.70	2.80	2.12	2.86	3.00	3.00
Uganda	2018	102	2.58	2.61	2.19	2.76	2.50	2.41	2.90
Afghanistan	2018	160	1.95	1.73	1.81	2.10	1.92	1.70	2.38

(Source: lpi.worldbank.org, 2018)

The above seems to confirm the perceptions of most of the case study companies, and some of the logistics service providers, that Malta is not an important logistics hub. To summarise some of the participants’ replies:

- “The Malta plant is important for tax and labour, but not important as logistics hub”.
- Not logistic attractiveness – it is not why [companies] come here.”; “...logistics are not seen as a strength for Malta”.
- “As a logistical hub, Malta is a good location – for Europe, but not globally”.
- “The fact that Malta is an island [makes] logistics somewhat more complicated”.

It could thus be concluded that Malta is not an important logistics hub, and does not provide a positive agglomeration effect in this context. It has indeed been confirmed by the case study companies that they came to Malta not for pure logistical reasons, but mainly because of low labour costs, a beneficial tax regime, an available educated, English-speaking and flexible Maltese workforce and some to be closer to their European customers. Wanting to acquire an already 'up-and running' Plant was another reason for some others. So, in this context, these investing companies were looking for factors that provide a 'wider attractiveness' of a place, rather than just logistics.

Fiscal policy

Malta has retained its advantageous fiscal policy (and financial assistance) for FDI up to the present day. The continuing beneficial fiscal regime offered to FDI companies and other businesses has remained as an advantage to the Island, being a prominently positive element. Indeed, the continuing fiscal incentives in various forms, such as advantageous tax policies, financial assistance and preferential rates for lease of space and premises, among other forms of support offered and provided by the Maltese government and its agencies to FDIs have been a constant factor, even an enabler, contributing towards the development of the case study companies and similar enterprises on the Island. Such support is a contribution of the economy state within its institutional role to FDI, and which could include factors like information about investment opportunities, negotiation, regulations, legal frameworks, co-operation and economic interaction (Dahlman, 1979; Coase, 1992; Putnam, 1993).

Workforce availability and flexibility

The availability and flexibility of the Maltese workforce, has been one attraction to the MNE's that had invested and located in Malta in past years. It has actually been an offering that the Island could make to prospective FDI. The factors were the relatively low cost of labour and the innate qualities of the local workers, at all levels. As discussed above, the qualities of Maltese workers have been described as 'innovative and flexible', 'adaptive', 'accommodating', 'facilitating the mixing of Maltese and foreign attitudes and mentalities', 'well educated', 'having good use of the English language'. In addition, the local worker's readiness to learn and their attention to detail and quality have been instrumental in the development of the case study companies

and industry in general in Malta. It all facilitates “building upon where there is knowledge already”, as the managing director of Company A explains it, denoting development in itself.

Political stability

In a way that supports and is instrumental to economic development, political stability has been consistent in Malta, from one administration to another. Good international relations and political stability are considered to have been the source of the credibility which a foreign investor looks for in a potential location option, as well as being a necessity for the international standing of the country itself. The adaptability and ability of Maltese politicians to respond rapidly to inward investment opportunities, and their approachability and proximity to businesses and people have been significant contributors to the economic evolution, industrial and commercial, of Malta.

EU membership

Another major benefit of Malta is having become a member of the European Union, and as a result no duty is payable on business carried out intra-community, which is considered as positive factor by the case study companies. Several of the case study companies state that during Malta’s preparation to join the EU and when it actually happened in 2004, they experienced no major shocks. Additionally, EU membership ensures the compliance of Malta with pan-EU standards and rules, which in itself is considered as an important positive externality

Education

Education has also been a development driver for FDIs, with Malta developing a good educational system. Companies have a good relationship with the University of Malta and MCAST (together with private training centres), both for the recruitment of qualified employees and technicians and even to work on industrial projects. During the interview with Malta Enterprise, Dr Mario Brincat makes a point about the Royal Navy Dry Docks were the first facility in Malta to provide technical education in a formal manner. This prepared the then Maltese skill force to adapt to begin a tradition of working with FDIs. The Fellenberg Institute was then established to provide technical education in Malta, which is now currently offered by MCAST, who provide courses that prepare students for industry. Most case study companies also affirm that they

have always encouraged technical, educational and role-related training for their employees, providing it in-house or in training institutions. These same FDIs agree about the 'good attitude' of the Maltese labour force being receptive to 'knowledge transfer'. Government assistance (grants) has also been given in several cases to help companies to provide training to upgrade their workforce skillset, sometimes even to save jobs and add new ones.

Legislative structure

Malta's legislative structure has been confirmed positively with a degree of satisfaction by several of the case study companies' respondents who use terms like 'a sound legal system', 'tradition of legal security', 'legal stability', 'legal and general institutional structure'. Dr Mario Vella, Governor of the Central Bank of Malta strongly recommends, from the holistic view, the upkeep and further improvement of Malta's existing legislative structure when stating "This calls for a right legal framework for each sector – regulation – to ensure stability, hence attractiveness (for FDI)". Dr Mario Galea (outgoing) CEO of Malta Enterprise, states that through its mechanism, this institution drives for 'the improved application of legal and financial regulation and support' for FDIs. Business 1st, a government agency, helps investors setting up business in Malta with 'legal entity establishment' as one of its offered services. This seems to go along with Bevan and Estrin (2004) including 'legal factors' within several elements that they consider could be decision determinants, challenges or advantages for FDI enterprises. 'Common legal frameworks, for contracts and commercial norms and rules' is one contribution that the economy state could make, within its institutional role, through government or state agencies, and that could be translated into benefits that include reduction of costs (Dahlman, 1979; Coase, 1992) related to economic activity, including that of FDI companies.

Concluding comment

These above factors, still present in the current state-of-affairs for industry and commerce in Malta, are a result of institutional arrangements set by policy makers (some are key informants in this study) channelled and implemented through government institutions and agencies, following discussions with and recommendations from non-governmental entities and academia (also key informants in this study). This structure goes to show good governance (policy and practice) from

the side of Malta as the host state economy to the FDIs, as affirmed by the participating FDI companies and logistics service providers themselves.

In spite of Malta now being described as no longer a low-cost location by the participating FDI companies, together with an emerging negative externality, namely the current shortage of labour that they face, the companies remain committed to the Island. Some also mention certain Customs regulations and freight transportation cost as being negative externalities. They have stayed because of the educated and skilled workforce, and the beneficial fiscal regime, together with the fact that they feel that Malta is a safe place to do business; a democracy with a good legislative structure that is also part of the EU single market. Malta's safety for business implies positive institutional arrangements of a host state that include political risk, property rights, administrative systems, bureaucratic quality and expropriation risk, all of which can attract or deter potential FDI from investing in a foreign country. These have been referred to as 'costs of doing business abroad' by Hymer (1976), and the 'liability of foreignness' by Zaheer (1995). The institutional infrastructure must be based upon pull factors (for FDI) that determine the competitive advantages of countries and regions (Dunning, 2004a, 2004b).

These factors have helped to build up a certain extent of institutional effectiveness for Malta over the years. This confirms that a global value chain might still continue to invest and sustain its FDI operations in a location for other reasons than just cost – it is about the value that is created in that place. Malta becomes a value node in the global value chains of the investing MNEs and succeeds to remain competitive in relation to aforementioned positive factors, if not for its original factor as a low-cost country. Malta provides the 'wider attractiveness'.

7.4 Sustainability

Sustainability is now discussed in the next sub-sections for both the case study companies and Malta in terms of 'environmental-economic factors (viability)', 'socio-environmental factors (bearability)' and 'socio-economic factors (equitability)'. A detailed explanation of these factors is provided in literature review sections 2.7.2, 2.7.3 and 2.7.4, and also relates to Figure 2.3 in Chapter 2.

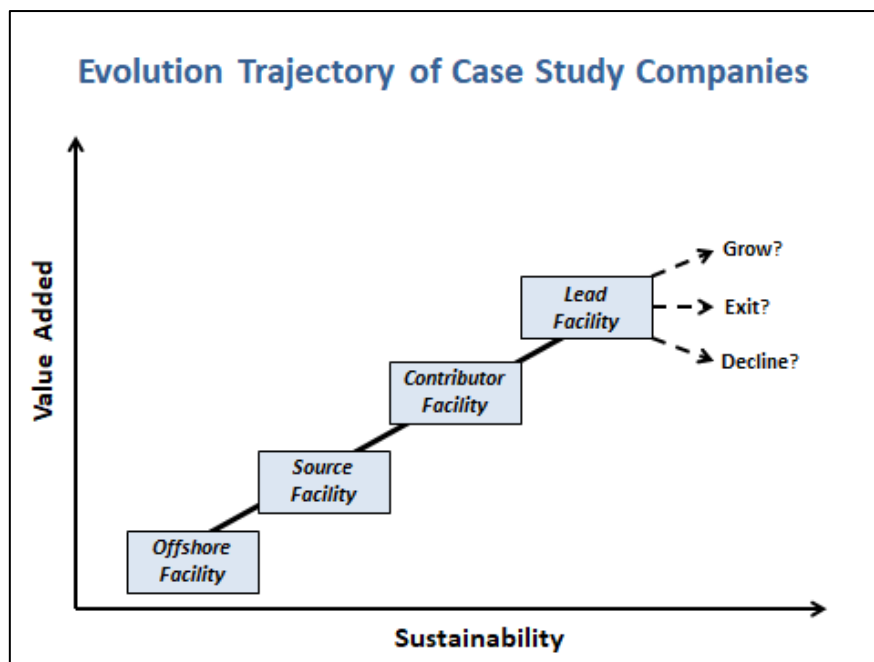
7.4.1 Company development sustainability factors

The case study companies all have a development strategy which depends increasingly on the availability of a talent pool to sustain a 'lead' status in their respective GVCs. Their problem is a lack of people. There is a need to increasingly augment their human talent pool with technology. What happens if the technology and the upskilling of the labour force are not sufficiently well developed in a timely manner to meet their needs? Will they stay in Malta or suffer a downgrading of their corporate status? Additionally, if they leave or whither, there are negative implications for the host country, such as job losses and attraction loss (as illustrated in Figure 7.3 below). Furthermore, as discussed in section 7.2 above, other factors may potentially constrain further development of the established FDIs in Malta. To overcome a labour shortage the case study companies may conceivably feel compelled to invest heavily in automation. One academic expert states that "the options are very much stacked in the direction of technological advancement". However, that may reflect a 'one size fits all' policy aspiration. As one production director comments, there could also be a limit to the extent of automation that could be applied in the kind of agile high-precision manufacturing environment. This argument implies limits which would need to be considered by MNEs when planning investment strategies in a foreign host economy, both from their internal capabilities and also from what the potential host country could offer.

Looking at the findings from the macro-level co-evolutions of the six case study companies with respect to Malta, it is clear that a trajectory of increasing success is observed for each one as a result of a long term presence on the Island. This upwardly beneficial economic trajectory for all six Malta-based subsidiaries (and, as a result of continued inward investment, for the Maltese economy) is profiled by Figure 7.1 above. So far, this beneficial trajectory of the case study companies has been the result of continued episodes of inward investment by their foreign parent enterprises. Figure 7.3 below reflects this common trajectory up to the present time and, based on the perceptions of the case study informants, projects three possible future outcomes: *grow*, *exit* or *decline*. 'Grow' represents continued long-term inward investment (i.e. a sustained upward trajectory resulting from a continuing stream of significant inward investment). This projected scenario assumes Malta remains competitive in terms of valued externalities (especially in terms of talent and innovation). In other words, from

a macro perspective, a continuing growth trajectory depends on the one hand that the companies continue to have access to a level strategic asset capital in Malta (e.g. an appropriate labour pool, land and local services) to sustain further growth, and, on the other, that the host can continue to provide an appropriate volume of strategic asset capital. 'Exit' reflects a future scenario in which inward investment ends and the MNE exits Malta. In this scenario Malta does not remain competitive in terms of strategic asset capital. 'Decline' represents a downward trajectory in which there is a significant reduction of inward investment. In this scenario Malta's competitiveness gradually erodes as the companies discover that appropriate volumes of local strategic asset capital become increasingly difficult to source. All case study informants and most of the other key informants, believe that because Malta has followed an open economic system based on attracting various industry sectors, like financial services and e-gaming, in recent years (perhaps even giving them more attention than manufacturing), then manufacturing may indeed find that appropriate volumes of local strategic asset capital become increasingly difficult to source. The implications of this phenomenon are discussed in Section 7.6 below.

Figure 0.3: 7.3 - Generic trajectory diagram – case study companies' future sustainability



7.4.1.1 Environmental-economic factors (viability)

One factor which might affect potential further progress of the established FDIs in Malta relates to the fact Malta is running out of usable industrial space. It is understandable that in a small place like Malta (with a mere surface area of three hundred and sixteen square kilometres) limited availability of land would be a natural consequence, with density (from population size) and busy traffic adding the pressure on the infrastructural environment. However, the limited availability of industrial space on the Island limits potential plant or warehouse expansion opportunities, which may negatively affect the competitiveness of the Maltese subsidiaries within their respective GVCs.

As discussed in sub-section 7.4.2.1, a rapidly expanding construction boom is causing further erosion of available land. From the case study findings, it is seen that company requests for additional space for expansion are not always granted, as Malta Enterprise is resorting to both using vertical space (i.e. adding additional stories to existing factories and the re-building of old ones. One respondent (Professor Baldacchino) also confirmed that Malta is a small archipelago with very few places left for any actual land reclamation. The limitation comes from the Island's structure, where most of the coastline is close to a continental shelf, where the waters quickly become very deep.

7.4.1.2 Socio-environmental factors (bearability)

The general infrastructure of Malta has also been commented upon by the participants of this research study. Further to the limited availability of land, the transport infrastructure has been criticised by the logistics service providers. They experience difficulties when it comes to home delivery due to traffic congestion, implying a resultant certain waste of time, which reduces the business gain. The country's 'just-in-time culture' is also another challenge when companies leave till the last minute to hand over their export consignments which still have to be transported to be boarded on the vessel or aircraft in accordance with a rigid flight or ship departure schedule.

The Chairman of Transport Malta confirms that "road logistics present significant challenges", while pointing out that the "roads in Malta were never designed for three

hundred and eighty five thousand cars”. The President of GRTU also affirms that the existing transport infrastructure has problems to keep up with the increase in road traffic and states that “urban consolidation is to be seriously considered”. Professor Attard adds that it takes too long to travel across the Island, implying that the local transport infrastructure creates a time limitation. Several respondents think that the current implementation of improvements to the infrastructure for the facilitation of inland transport, are rather short-term solutions. These participants also offer some ideas to control and facilitate the flow of traffic such as the distribution of cargo during silent hours (implying additional cost to local distribution); alternative intermodal transportation involving bus and sea ferry; smart bus stops and smaller buses. Yet, their conclusion is that certain bottleneck points would still remain.

The current infrastructural network still remains a source of frustration to companies and logistics providers. Apart from the already mentioned congestion and delays, one other significant point is how scattered the industrial zones are, even though mainly placed in the southern part of the Island where both the Freeport and the Malta International airport are located. The present infrastructure does not allow for closer grouping of industrial zones, as in the attempt by the institutions in Malta to ‘group’ similar industries by industrial zone, to create clusters (hubs) within dedicated areas to accommodate specific industries of the same nature.

According to OECD (2019), infrastructure investments that strengthen resilience become ever more necessary, and should include better transport management and improved building design. The whole situation suggests the necessity of a geographically advantageous location to make significant government-sponsored investment in physical infrastructure and related effective information technology systems (Porter, 2000; Sheffi, 2012b). Improvements to the local infrastructure should incorporate a holistic design to include industrial zones with manufacturing space, warehousing and transportation facilities.

7.4.1.3 Socio-economic factors (equitability)

The labour shortage currently experienced in Malta is, as discussed above, a constraint on corporate growth. In addition to investments in further automation as a

means to compensate for this shortage, manufacturing companies are experiencing higher wage costs in order to sustain worker retention. This is happening at a time of a low level of unemployment in Malta, standing at 3.7 percent, as at March 2019 (nso.gov.mt, 2019a), facilitating high levels of labour mobility. According to the Executive Chairman of Jobsplus, the rate of employee turnover is around thirty eight to forty percent (as at March 2019), having increased steadily in recent years (independent.com.mt, 2019). This contributes to the reported fact by the case study companies that Malta is not the low-cost place it was when they initially invested.

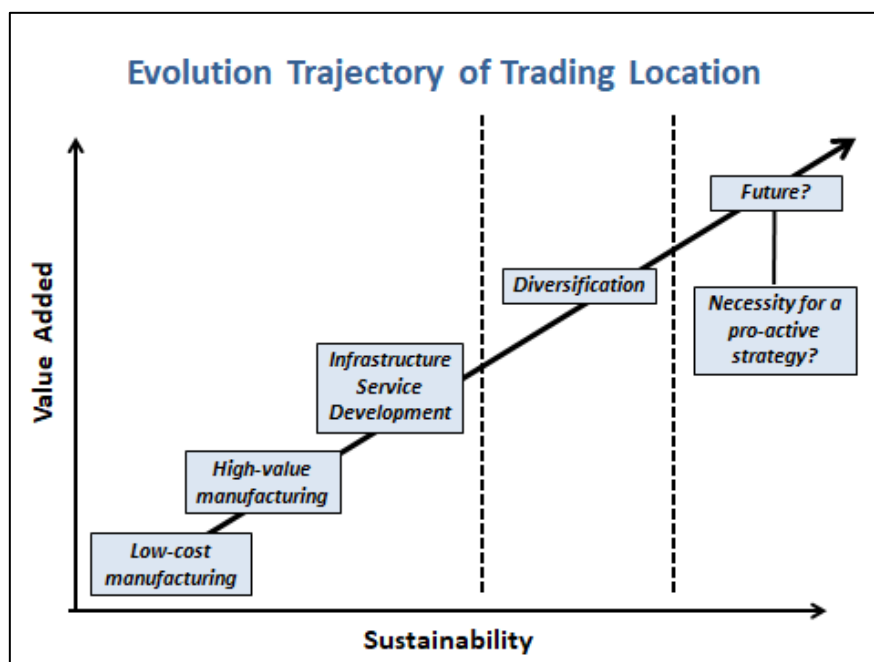
Another contributing factor is that the Maltese workforce is shifting towards a 'knowledge society', thus adding to the demand for low-skilled workers which is being satisfied partly by the local workforce and increasingly by imported labour. The whole situation is creating an imbalance in wage levels, possibly even more in the lower skilled sector, where contractors are providing foreign labour to companies. These engaged foreign workers are however being paid by the contractors in most cases at a lower rate that is standard to Malta. This reflects the situation where according to EUROSTAT (2018), the average incomes of immigrants are normally lower than those of native workers. Tammaru et al. (2020) further state that "In most European urban regions there is a substantial overlap between income inequality and inequality along ethnic lines since many immigrant groups are overrepresented in low-skilled jobs and associated low incomes" (p. 450). This implies social injustice and economic inequality (Sassen, 1991).

7.4.2 Regional development sustainability factors

Malta has emerged as a 'good place to do business'. However, Malta's talent pool is diluted by diversification, which is an understandable consequence of opportunistic capture of new investment categories such as e-gaming, a booming economy and an ageing local population. This in turn could be a consequence of Malta's lack of a proactive development strategy – the absence of a holistic strategy for the Island's economic development. Malta needs to continue developing intellectual capital and to attract skilled workers to satisfy the growing economy, thus appearing to follow a path that leads it to 'develop as a growth centre' (Hirschman, 1988). However, it is unlikely that specialised industrial clusters stemming from the agglomeration effects of the close proximity of economic actors (Venables, 2004) will develop. Malta's size, and its

'open economy' policy, in spite of previous attempts to build specified sectors like aviation services and e-gaming, are limitations to its capacity for developing highly concentrated specific industrial or service clusters. At the same time it must not become highly dependent on one or two sectors, in case of a downturn, exit of such sectors, or even 'power asymmetries' (which are unlikely to favour Malta due to its small size relative to many MNEs). What now for Malta? A generic trajectory diagram as shown in Figure 7.4 shows Malta's stages of economic evolution from low-cost manufacturing to diversification, while questioning Malta's future sustainability, now emerges. The concept of sustainability trajectories demands effective governance and policy to ensure the sustainable development of an economy (Angel and Rock, 2009). With Malta ranking at fourth place for the highest population density in Europe already in 2017 (worldatlas.com, 2017), it makes sense to examine Malta's sustainability trajectory, implying the impacts of urban development on the local environment, ultimately reflecting upon its regional sustainability within the triple bottom line concept.

Figure 7.4 - Evolution trajectory - Malta's future sustainability



7.4.2.1 Environmental-economic factors (viability)

With the Maltese government looking towards service industries to boost the economy, which is currently being rated at 'A+' (stable to positive) by Fitch, at 'A2' from 'A3' by Moody's and being described by the EU as the fastest growing economy among EU

member states, several effects are impacting on the built environment. The construction industry has aggressively expanded to exploit the property development opportunities generated by the growing economy, simultaneously generating secondary employment opportunities. However, the resulting building boom is taking up a significant percentage of the still available space on the Island, consequently also reducing any possibilities of allocating more space for industries like manufacturing, with space running out in the existing industrial zones. One important consideration is that of industrial activities that are close to the waterline, which limits spatial expansion due to the meagre possibility of reclaiming land from the sea because of Malta's size and geo-physical structure. Moreover, there is demand for space from the additional requirements of tourism, infrastructure, and office accommodation sectors. The environmental lobby effects on space availability are also increasing, blocking any further use of 'outside development zone'. According to Professor Baldacchino, "This is success breeding failure. We are victims of our own success. We cannot contain this. It is not the way to look at Malta in twenty or thirty years' time. We don't want to turn Malta into a jungle of concrete. We cannot contain this". The situation has already been experienced by certain respondents and could negatively affect future FDI prospects, due to concerns about Malta's environmental-economic sustainability. From the aspects of 'impact on a territory' or 'the interests of a territory', this potentially endangers "the enhancement of the heritage of a geographical area" (Barile et al. 2018, p. 9).

Referring again to the 'environmental-economic' factors, and 'ecological economics', (the two different schools of thought) and admitting to the physical limitations imposed by the size of the Island, it emerges very strongly that Malta's land mass is being depleted. This becomes a highly negative externality, considering that Malta lacks natural resources. It then strongly follows that (i) technology cannot resolve the problem through the substitution of natural capital by human-made capital (environmental-economic); and (ii) government has to make trade-offs to balance economic growth and the environment, having to acknowledge the physical limits to the material growth of the economy and finding solutions to preserve natural capital (ecological economics). It is highly logical to examine Malta's sustainability trajectory through the lens of urban sustainability. The higher the demand and conversely the lower the land area, the more significant is the ecological footprint of economic

development. Rapid economic growth in a small densely populated region, such as Malta, has a highly significant ecological footprint (Wackernagel and Rees, 1996), as confirmed by the findings of this research.

Climate change is a further concern. It is highly probable that the sea will rise. In which case it becomes even more important to consider within the contexts of road construction, land speculation and when building in valley zones “which in reality has made us less competitive by corroding the natural habitat” as Professor Baldacchino points out. Professor Maria Attard warns that “the local situation is not sustainable in economic terms – construction is not the key – not sustainable – not being done properly”. As Holden et al. (2016) insist: “...any notion of sustainable development must acknowledge environmental limits...” (p. 2).

Taking the argument further, the little biodiversity present in Malta is also being reduced through the consumption of land by the construction industry. The variety of plant and animal life is slowly losing its natural habitat. Insects serve as pollinators for crops grown on the Island, while any use of pesticide in local farming continues to destroy habitats and these same pollinators. Perhaps, the size of Malta, being relatively small when compared to other countries, downplays the importance of such a topic when considering that due to its limited natural resources, the Island depends highly on the importation of practically all commodities, which is an accepted fact. This becomes a factor of substitutability, whereby ‘anything’ could still be available without having to rely on nature to provide it, and therefore awareness and importance of the local natural habitat does not remain a priority in the everyday life of people.

The limited land mass, the infrastructure, the overdeveloped urban consolidation imply unsustainable resource consumption landscapes (Leichenko and Solecki, 2005). This renders the dimensions of viability a high priority, making ‘now’ as the right time to make certain decisions and implement measures for sustainability in Malta.

7.4.2.2 Socio-environmental factors (bearability)

In the opinion of several respondents, Malta does not recycle enough of its waste outputs, not only to construction waste, but also to household waste, both of which

have rapidly increased due to the increased population on the Island. According to Barr and Gilg (2006) urban sustainability is affected by changes in household consumption and waste management policies. Malta has indeed become metropolitan – effectively one big city and suburbs – as a result of its booming economy. It becomes an important issue for Malta (highly dense in terms of population and buildings) to assess the sustainability of its economic activities and the closely related urban development. This is an issue that has implications for regional governance.

Malta's inflated population also needs increased transportation capacity and while public transport is actually used, many foreign workers are driving their own cars as well, in addition to the local community, adding to the already existing problem of heavy traffic originally starting from the local community. Increasing traffic is also contributing towards air pollution. This requires a future solution for traffic management on the Island which would imply a culture change. Mr Joe Bugeja of Transport Malta and Professor Maria Attard have both given examples of potential solutions for the challenging road infrastructure and logistics in their responses. These include intermodal transportation, like bus and sea ferry between high commute locations and mass transit, like car-pooling and shuttle service.

7.4.2.3 Socio-economic factors (equitability)

The construction boom and the increasing traffic associated with the booming economy are causing a rise in health issues. Increasing yearly asthma rates are reported in Malta, much attributed to the dust generated by excavation and building, and materials used which include limestone (limited availability remains due to almost depleted stone quarries) and the high amount of cement dust, due to the increase in use of cement bricks (being cheaper than the natural limestone). So, a combined pollution of air is being caused by the building industry and the excessive traffic generated on the roads, consequently contributing towards increasing asthma, respiratory diseases, pollution and waste on the Island.

The fast-paced economic growth is affecting society overall. The influx of foreign workers has inflated the population on the Island to the extent that government departments cannot precisely quantify the country's actual population. Malta had

already been reported to be densely populated with an official figure of about one thousand, two hundred and sixty-five inhabitants per square kilometre, while denoting further 'unaccounted' numbers (Grech, 2015b). The same author gave a recent comparative account saying that "Whereas in 1995 only 1.9% of the population residing in Malta were foreign citizens, twenty years later this proportion had risen to 5.9%. In particular, since EU accession, the number of foreign residents has doubled in absolute terms and their increase has exceeded the growth in Maltese citizens" (ibid, p. 17). According to NSO (2019b), in the ten-year span between 2008 and 2018 the number of foreign nationals in the population (of Malta) quintupled. It was reported in 2018 that according to the CEO of JobsPlus, Maltese workers only satisfy a quarter of approximately ten thousand new jobs created each year, and if the current rate of economic growth in Malta persists, there could be an increase of between twenty-eight to thirty thousand foreign workers on the Island in the next four years (independent.com.mt, 2018). The question arises about the real possibility of continuing inflation of the population on the Island. This translates into high-density in an urban environment. The obvious effects of high population density such as pollution and waste (caused by consumption, production and distribution activities within the locality), and less obvious examples like disease transmission, contribute towards economic, social and environmental stress.

The result of the current shortage of labour, the subsequent rising wages and the better paying industries are influencing the standard of living and the life style of certain sectors in society, perhaps indirectly encouraging a higher life-style and possibly a more extravagant one. A concern commonly expressed by the participating FDI companies, the logistics service providers, key informants and academics prompts the questions: If a downturn comes and 'the bubble bursts' what would happen? If the more 'volatile' industry sectors that are currently a strong driver of the Maltese economy leave the Island (or something else going wrong), could the rising wages be sustained? It is seriously doubted whether a concrete government contingency plan exists. This could result in 'money problems' in the long run, as Dr Mario Vella puts the term, and indicates the implications of social justice and the risk of poverty within society, according to Professor Maria Attard.

The inflated population has created a high demand for accommodation. This has been followed by extremely high rent rates and uncontrolled exaggerated property prices. Social well-being is being negatively affected through unaffordable (for local and foreign workers) rent rates and property prices, which are much higher than what the average Maltese family would afford; some foreign workers rent a place and share it between a few of them that move in to share the rent cost. This is happening while there are individuals who are coming from Northern Europe willing to spend more than the Maltese to buy whatever accommodation they need. The situation reflects imbalance and 'inequity'. The increasing population volume increases demand for affordable housing, making the demand for housing stock an important theme in regional development (McCarthy, 2002; Counsell and Haughton, 2006) with implications for social and environmental justice (Agyeman and Evans, 2004; Pacione, 2007).

Perhaps the immigration factor and social mobility through education of a higher skilled native workforce (Sassen, 1991) earning higher incomes, play a significant role in the housing and accommodation demand situation. A divide emerges between lower paid workers (foreign and local low-skilled workers) and higher paid workers (foreign and local high-skilled workers), implying their respective purchasing power. The inequality in income restricts the choice of quality and sometimes location of accommodation (Arbaci and Malheiros, 2010) while others invest in the rental market, possibly taking a certain extent of risk, when relying on the received rent to offset their bank loans or mortgages on the purchased property. This social imbalance seems to stem from the emergence of an unregulated property development market in the absence of a national policy on social or affordable housing (Andersson et al., 2010). The construction boom and demand for accommodation increases the need of funds from society. Yet, banks are conservatively getting involved in building loans, with the consumer being the investor under the unfavourable contract payment terms that most developers and estate agents are presenting to property buyers. It is all contributing towards a ripple effect, where people are pushed further to find better paid jobs or ask for wage increases, putting pressure on people and also the employers. In the same instance, another sector of society being flush with liquid cash and because the bank gives next to zero interest, this same sector of society invest in construction instead, which becomes speculation and encourages the construction and property market to

uphold the 'high' property prices. Again, this reflects a certain lack of equitability within society. Both the demand for accommodation, and the construction activity to satisfy it, have implications for social and environmental justice (Agyeman and Evans, 2004; Pacione, 2007), and appears to be a systemic failing in Malta's institutional arrangements. As Professor Attard points out, citizens have the 'right to mobility' (social well-being). She considers urban space distribution to be of high concern, with limited access to public space, implying the decreasing (internal) connectivity of Malta, all reflecting a limitation on socio-environmental well-being. Expanding on these arguments she asks "What are we paying for our economic growth?" and indicates the implications of social justice and equity, the risk of poverty and health, which in reality all affect the attractiveness of a place.

A further potential threat to social well-being arising from the booming local economy, is a decline in the use of the Maltese language, due to the high influx of foreign immigrants of whom a significant percentage cannot speak English (an international language), let alone Maltese. The attitude of entitlement expecting that the Maltese speak in English is also present, one contributing factor being that English is promoted as an official language in Malta (even if as a means to attract the needed import of foreign labour). In fairness, several foreign workers do take interest and learn some Maltese, and some institutions also encourage the learning of Maltese providing basic courses to such workers. What is even worse is the fact that a number of foreign persons work in the healthcare and childcare sectors, where old people and children may not always be able to communicate in another language than Maltese, posing a high risk to social-well-being. Not to be forgotten is the resulting cross-cultural competence which has an effect on the Maltese heritage, at the place of work (an industrial effect) and prompting the need to be considered for the educational and social contexts. Local economist Gordon Cordina puts it together when reported saying: "But the fundamental question is whether this is sustainable into the future, within the context of a rising and more diverse population, a more congested environment and, potentially, an erosion of traditional networks and arrangements that we typically associate with a Maltese identity" (maltachamber.org.m, 2019).

7.5 Policy Implications

This study has examined the two sides of a long term evolutionary path involving six MNE FDI initiatives and the host region. Both are motivated by factors that they would consider as advantageous. Basically, firms look to advance their ownership advantages while host countries strive to improve their competitive standing in the global environment. At the same time, MNEs and their subsidiaries are potentially able to serve the host country by way of upgrading the local labour force through training, diffusion of knowledge with domestic firms and collaborative projects with local education and research institutions (Cantwell and Narula, 2001; Dunning, 2001), eventually becoming sources of mutual benefit. According to Bevan et al. (2004) FDI is undertaken not to exploit existing resources but rather by increasing resources and capabilities through the interactions with the host locations. Additionally, Rugman and Verbeke (2001) state that investors would prefer locations where the institutional set-up enables the development of their firm-specific advantages while leading to new challenges for both the MNEs and the host countries' development policies. Therefore while global value chain managers search for attractive externalities coming from a host country (or region), regional development managers seek the right type of MNE investments that would fit their economy. Malta has been largely successful in attracting the 'right sort' of foreign investment for its economy – a finding that is supported by the European Commission, which opens its 'Country Report Malta 2019' by stating that:

“As Malta’s economy continues to grow strongly, the main challenge is to ensure that its development is sustainable in the long term. In recent years, Malta has seen high GDP growth, strong employment growth, a budget surplus and a buoyant services sector. Economic growth appears to have been driven by structural changes, such as the shift towards the services sector, which are expected to continue in the short term. However, ensuring the sustainability of Malta's development remains a challenge. Risks to Malta’s future growth and attractiveness to potential investors include infrastructure bottlenecks, constraints on natural resources, low skill levels, an ageing population and vulnerabilities in the governance framework” (ec.europa.eu, 2019b, p. 3).

Furthermore, this research study appears to confirm Grech’s (2015b) hypothesis about the changes in the Maltese economy that would require “...operators (in Malta)...to focus greatly on retaining their competitiveness ...potentially necessitate significant changes in labour market practices... the supply of labour... investment in education

and training, together with providing necessary infrastructure – especially in new areas such as digital networks, will remain of key importance” (p. 32).

In sub-section 7.4.2 above, questions were raised about the sustainability of Malta’s economic development. Perhaps, it could be said that Malta is resilient when looking back at its historical and economic evolution. How far could Malta’s sustainability carry on into the future is a matter to be weighed against the Island’s constraints, such as size, lack of resources and the absence of a structured holistic strategy for its economic development. Within the sub-sections 7.5.1 and 7.5.2 the author will discuss the implications for global value chain policies and regional development policies in connection to this research.

7.5.1 Implications for global value chain policies

Considering the changing circumstances in Malta over the last two or three decades, together with the impact of globalisation, all playing a factor in decisions of supply chain optimisation and locational choice in the global value chain context, the author wonders whether such companies would invest in Malta today, as actually questioned by some of the case study companies themselves. Issues of general concern among the participants were labour shortage (a negative labour availability), the limited availability of industrial space, and the possible limit to the extent of automation a firm could undertake – all are potential constraints on potential FDI expansion plans.

Regarding the confirmed current attractiveness of Malta (as a location) to the companies wanting to reach closer to their European market (as in the case of some case study FDIs within this study) it shows that geography matters, based upon the facilitation of lean and ‘just in time’ practices for the investing enterprises through delivery time gain being facilitated by locating in Malta. Furthermore, this makes Malta a locus of innovation and flexibility for FDI, especially by small to middle sized MNEs, when considering the enhanced status the six case study companies have achieved in their respective GVCs. It also shows that companies stay in a place even if the reasons for doing so change over time from the factors that contributed to the original location decision – even if the externalities (e.g. geographic position, tax and exchange rate policies, legal, political and administrative systems, knowledge and education) remain ‘immobile factors’ (Dunning, 2001).

From a different perspective, the increase in labour costs reported by the case study companies has, according to one General Manager, become somewhat irrelevant to the location decision. In actual fact, it is *lock-in* factors that keep his Company in Malta (i.e. the consequential relocation costs, embedded tacit local employee knowledge and the personal locational ties resulting from a long-time investment in Malta). This company representative states that “if there wasn’t the knowledge we would go to East Europe, for example”. This thought echoes what Friedman (2005) refers to as ‘multinational firms, with no allegiance to place, in a world without borders’. However, place-related long term benefits may evolve over time, leading to a FDI enterprise to put down deep roots and develop a sense of allegiance to a location.

Rising wages emanate from four main factors – (a) the Maltese workforce consists of more qualified people (Malta increasingly becoming a ‘knowledge society’), with workers becoming choosy and working in more specialised positions (knowledge-based), hence asking for higher wages; (b) the ‘new’ industry sectors have created new opportunities for employment, several of them offering better pay than the norm in Malta; (c) in Malta’s booming economy there is an almost non-existent level of unemployment (demand necessitating a high import of foreign labour); and (d) it is a problem to find workers at various levels, especially in the manufacturing sector, so employee retention becomes a priority which fuels wage increases. The low level of unemployment, standing at 3.7 per cent as in March 2019 (nso.gov.mt, 2019a), is leading to higher levels of labour mobility. There is a potential danger that GVC managers, when making potential location decisions, may conclude that the benefits of Malta’s talented labour force are outweighed by the risks associated with increasingly high labour mobility, leading to labour shortages, high costs and retention issues.

The potential of a location’s labour force could be an advantage amongst the determinants of foreign direct investment (Bevan and Estrin, 2004). More qualified people (in the local labour pool) is considered a positive location advantage (being a knowledge based asset) and could enhance the ownership advantages of a firm, since it could denote receptiveness to a higher level of knowledge and technology transfer, possibly transforming the subsidiary into an innovation facility. Concurrently, this

becomes quite evident from the trajectories of the case study companies, turning Malta into a locus of innovation and flexibility through the aforementioned innate qualities of the Maltese labour pool. This happened with the MNEs' initial transfer of their ownership advantage within firms across borders, when investing in Malta through their subsidiaries as a way to internationalise their production rather than selling it to a third party via licensing or franchising (Dunning, 2001), maybe even because of their nature of industry. These MNEs have continuously increased their investment in their subsidiaries in Malta confirming trust. These factors connect all three factors of Dunning's 'OLI' paradigm, i.e. ownership (the firm's enhancement), location (the indigenous labour pool asset) and internalisation (the further vertical integration through knowledge and technology transfer).

The qualities of the Maltese labour force is now a point of discussion due to the high import of foreign labour because of the booming economy in Malta, resulting in a culture mix in the local labour pool which, some of the research informants feel might dilute the strength of the innate qualities of the Maltese labour force. Upon reflection, this perception comes from companies who have been operating on the Island over two decades or more and who experienced a less diverse workforce when they initially invested – a workforce who has been historically acknowledged as a proven attraction to FDI. Perhaps, 'newcomers', i.e. new FDI who comes to Malta might not be so conscious of the difference, as is probably the case with the i-gaming companies as new entrants into the local economy. Considering the culture mix in the local labour pool now, it becomes necessary for MNEs through their global value chain managers, to have a global mindset when configuring a global strategy (Murta et al., 1998); together with capabilities like cultural awareness and locational flexibility, when configuring a global value chain (Eriksson et al., 2014).

The 'new' industry sectors have created new opportunities which from the labour aspect are a source of significant competition pressure to the established FDIs on the Island, considering the limited size of the local labour market and the country's openness. This again, could affect these established firms' labour productivity and costs, possibly impacting negatively on their ownership advantage. Following upon Dunning's eclectic paradigm (Dunning, 2001), a firm must have certain ownership advantages that would enable it to contain any additional costs associated with setting

up and operating abroad (while still remaining competitive). Prominent 'cost' themes emerging from this research for the participating FDI companies while operating in Malta include increase in wages and resulting rising wages, relocation costs due to the long-time investment (if it were to be considered).

On the other hand, all participating companies have spoken positively about the fiscal incentives and support that has been consistently provided by the Maltese institutions at the time of start-up and even along their continued operation. A thought emerges about whether tax incentives would remain feasible in the long term. This is a highly important point when knowing that fiscal policy has been a main attraction and a retention factor for FDIs and Malta. In an interview given to Malta Today (2019a), a reported reply of the Governor of the Central Bank of Malta Dr Mario Vella, seems to rebut such a concern when saying:

“...while you might succeed in attracting foreign companies through attractive taxation regimes... it doesn't follow that, if the tax incentive disappears, the companies would automatically just up and leave. They would have established an entire network of relations here; logistically, it might still be convenient for them to stay. It is simplistic to think that there is 'one thing' that sustains everything; the reality is more complex than that...” (maltatoday.com.mt, 2019a).

The above discussed points in this section go to show that reasons for locating in a specific place can change over time. Location advantages could include factors of endowment and availability, geographical factors, the allocation of resources, fiscal and exchange rate policies, labour costs and productivity; together with knowledge based assets, infrastructure and institutions of a potential host economy (Dunning, 1977; Narula and Dunning, 2000; Bevan et al., 2004). Also, legal, political and administrative systems become highly important immobile frameworks which determine the international attractiveness of a location, hence determinants of FDI. It has also been seen that such location advantages do in fact interplay with ownership advantages, and the internalisation decisions of MNEs as indicated by Dunning (2001) in his eclectic paradigm. Therefore it becomes a natural necessity for MNEs and their global value chain policies to consider a location holistically and for value chain managers to analyse elements and their interplay before deciding upon investing in a foreign host economy state - basically investigating carefully the institutional

environment of a potential host country before deciding to internationalise (Trevino and Mixon, 2004).

7.5.2 Implications for regional development policies

In this discussion the author has stated more than once that the findings of the research study reveal that Malta has an excellent pool of human capital and that the country is on a journey to transform itself into a knowledge economy. Both of these factors are of great strategic importance to Malta's long term economic development. However, most of the respondents to the study (both company managers and other key informants) express concern that this is an aspiration that is becoming conceptualised in the minds of the country's institutional policy makers, management consultants, educators and (young) citizens as a 'brave new world' of the 'internet of things', blockchain and knowledge creation services, in which employment and wealth creation will be generated by pure service sectors, such as finance, e-gaming and PC applications development. The study informants fear that the importance of manufacturing (especially the kind of low volume, high value manufacturing in which the case study companies excel) is being overlooked in such a conceptualisation of economic reality. They all agree on the criticality of knowledge industries to Malta's long term future, but are concerned that a key knowledge sector, namely manufacturing, is being overlooked by an obsession with sectors that are inherently transient in nature (i.e. switching costs from a server located in Malta to another elsewhere are relatively low), and in which FDI decisions are primarily linked to fiscal incentives. Moreover, there is a real danger that the talent pool available to the manufacturing sector will shrink rapidly as young people ignore manufacturing as a career opportunity, which would create a negative externality for established foreign owned manufacturing companies in Malta. Most respondents (including some senior institutional informants) believe that a rebalancing of economic development policy is necessary.

In a recent article the Minister for Economy expressed concern at the decline in the number of youngsters looking for a career in the manufacturing sector and noted that this is one of the challenges that both the government and the private sector face and will face in the future" (independent.com., 2019). Concurrently, the Governor of the Central Bank of Malta, Dr Mario Vella believes that it is necessary to increase the

capacity of the local labour pool to avoid inflation through demand for human capital becoming greater than supply. He insists that there is a necessity for “connectivity between training, innovation and company and production needs” and to enable the local workforce to respond to newer technologies. Several companies and businesses in Malta seem to consider that the local educational institutions are less than proactive to their meeting the skill needs of employers. In agreement, the Director General of MCCEI says that “pushing forward the local workforce, with speeded up education” should be high on the agenda to ensure sustainability of economic growth. As discussed above, managers at the case study companies have expressed frustration at the difficulty of finding production workers and technicians with knowledge in the latest technologies. This implies (i) a lack of coverage of technical skills in the current education curriculum on the Island, even if ‘a good educational system’ is perceived as the norm in Malta, and (ii) an imbalance between the types of education courses being undertaken or provided, perhaps leaning more towards the creative knowledge sectors and de-prioritising more practical skill related subjects. Both Dr Vella’s recommendation and the comment from the Director General of MCCEI, and others, point towards a ‘timely’ review of Malta’s academic and vocational education requirements. Education and knowledge and the resultant potential of a location’s skillset are among a region’s key ‘immobile factors’ (Dunning, 2001). These are critical location advantages that attract potential FDI, and could eventually serve to augment the ownership advantages of the investing firms.

Almost all the participating case study companies confirm that they would carry on with their business in Malta while others have stated that they stay in Malta because of anchorage created by their long and heavy investment and because switching costs would be too high to justify transfer to another location. This is a worrying thought, when one considers their contribution to the Maltese economy over the years, including locating Malta as respected node in global business networks. This confirms the need for the country’s institutions to ‘look after’ these companies within the manufacturing industry base in Malta. However, this also posits a counter question: would not the benefits of this value creation network connectivity remain anyway if Malta developed as a purely service node without a manufacturing presence? Is the manufacturing sector really so important to Malta’s economic development? The macroeconomic facts indicate that the answer is yes – (the right kind of manufacturing

sector (low volume/high value) is important. Indeed, manufacturing is considered to be a stable and sustainable contributor to Malta's economy by all of the contributors to this research study. Firstly, the FDI manufacturing companies serve as business multipliers and provide a certain extent of knowledge spillover when interacting with local businesses (Cantwell and Narula, 2001; Dunning, 2001). Secondly, manufacturing in Malta is not actually in decline as an aggregate industrial sector, in spite of an increasing common consensus on the Island that it is in decline. It is worth noting that according to Grech (2015a) "the decline in the relative importance of agriculture and industry (in Malta) stems from the emergence of new services operators rather from an actual decline in the value added of these sectors" (p. 2). A recent article reported a statement by the Minister for Economy that "the manufacturing industry contributes to 11% of total full time employment, making it the second largest employer in the country, and noted that the sector has transformed from one based on large-scale manufacturing for mass markets to one based on exclusivity and value-added operations which focus on niche markets" (independent.com., 2019).

Table 7.2 shows that manufacturing in Malta still makes up a significant percentage of its total exports, and its contribution actually increased over the period 2017-19.

Table 16: 7.2 - Manufactured goods as percentage of total exports from Malta

Export - € million								
Comm. Group	2017		2018		January - February			
					2018		2019	
Total	3665	%	3278	%	516	%	520	%
Semi-manuf. Goods	150.6	14.5	153.1	19.4	30.6	17.6	29.7	22.4
Misc. Manuf. Articles	380.2		482.4		60.1		86.6	

(source: nso.gov.mt, 2019c)

The so called volatile or transient industries that are currently dominating the Maltese economy would not be 'rooted' through long-term investment, nor restricted by high switching costs (locating to another country) since their investment is minimal as compared to the capital investment made by manufacturing FDIs, in a value-added industry. Perhaps, one could also question the extent of the contribution of such volatile or transient industries to a host economy with regards to skills and a long-term

experience curve for the local labour force through the transfer of tacit knowledge and linking internationally transferable knowledge to the new location-bound knowledge (Goerzen and Beamish, 2007; Tan and Mahoney, 2007). This argument might become more relevant in the case of Malta if it were possible to assess the amount of the imported foreign labour that such ‘volatile’ industries employ. Perhaps furthering sophisticated production of goods and services (including the exports thereof) would now be the next step for Malta. Positively, Malta’s stance of open trade and investment regimes is looked upon by various authors as an enabler of participation in global value chains (Bamber et al., 2014; Farole and Winkler, 2014; Moran, 2014).

The above implications prompt the thought that regional development planners should “study what sectors would work for Malta” (as the Managing Director of Company J states), together with identification of all the location advantages pertaining to Malta. Stoian and Filippaios (2007) argue that “Countries should ensure that they put in place an established mechanism for recruiting and training public servants, with autonomy from political pressure so that legislative and institutional stability is ensured across governments” (p. 364) – in the context of this study, the ‘public servants’ are the Island’s regional development managers, and the ‘mechanism’ of Malta Enterprise. There is a strong case for arguing that the Malta’s regional development managers and Malta Enterprise have done an effective job in attracting FDI to the Island, and that institutional plasticity (i.e. flexibility and innovativeness) has played a significant role in this success. However, the *laissez-faire* approach pursued by policy makers may have its limits in an increasingly competitive world for regional FDI (especially in small developed regions, and in high value precision manufacturing). Most key informants state that there is no strategy regarding the ideal size of an FDI enterprise that is best fit for Malta’s economic evolution – a fact confirmed by the CEO of Malta Enterprise and the Governor of the Central Bank of Malta. When one considers again the factors that delineate Malta’s current economic and social situation, such as a tight labour market, a small labour pool, increased labour mobility, importation of foreign workers, amongst others, one is led to conclude that Malta is suitable for a certain type of corporate DNA – specialist, small companies; and that innovative ways (such as exploiting the technologies emerging from the Industry 4.0 revolution) have to be found to make the labour pool more productive. It also follows that as part of any formulation of development policies, Government will have to make policy decisions, perhaps

consider some limitation of growth – but at the same time increase competitiveness within those limits of growth. Otherwise, in the coming decades, Malta might not be attractive to MNEs. Basically, the Maltese authorities should deeply consider how to control and maintain a balance between economic development, social development, and environmental development (Grybaite and Tvaronaviciene, 2008; Lapinskiene and Peleckis, 2009), i.e., establishing a defined relationship between sustainable development and economic growth.

7.5.3 Implications for sustainable economic growth

A recent article online reported that: “The Finance Minister said Malta was not prepared for the sudden high level of growth of the past few years and the country's infrastructure was beginning to feel the pressure of the unprecedented expansion” and that “Many sectors weren't ready for this type of economic expansion and it has presented the government with new responsibilities,” (maltatoday.com.mt, 2019b). The Governor of the Central Bank of Malta Dr Mario Vella had indeed stated that “Fast economic growth does not happen without shaking a society's economic, social, cultural, political and institutional equilibria...”, during his address at the 2018 annual dinner meeting of the International Financial Services in Malta, as reported by Malta Today (maltatoday.com.mt, 2019a). These reports depict a positive picture of growth, yet also mention ‘fast growth’ and ‘unexpected growth’, almost implying lack of control and a lack of strategy, while strongly prompting a question about the sustainability of such economic growth.

“Unexpected growth” should come as no surprise when one considers that Malta has had an opportunistic economic development in the last fifty years, when no holistic strategy for the development of the Maltese economy has been officially formulated. Before then, the first three Master Plans for economic development that Malta had in the years between 1959 and 1974 have been mainly focused on attracting FDI, in whatever form it could entice, while accommodating the requirements of industry in a reactive manner. As noted above, this state of affairs remains the status-quo in Malta, according to the informants of this research study. Does Government have a contingency plan? This question inevitably addresses the sustainability elements of social well-being, environment and economic. It does not seem that meaningful proactive action is being taken, with rather reactive measures (perhaps short to medium

term) being applied in the last couple of years, such as the widening of roads. This calls for action that could be considered as the government's responsibility (Jordan and Adger, 2009; Reis, 2012) as a structured, autonomous and legitimate entity to provide within a complex relationship with the economy and society in a development of material life and social relations.

Malta falls under Capello's (2011) description of regions as: "small geographical entities where it is rarely the case that all necessary goods are produced locally; and, conversely, where those goods that are produced frequently exceed local demand for them and are sold on domestic or even international markets" (p. 7). Looking at Malta's current built environment and traffic density, it is possible to describe the Island as a metropolitan region (Aoyama et al., 2011) – arguably as a smaller version of Greater Manchester in England, for example, "consisting of places linked together by daily commuting and business-to-business relationships" (ibid, p. 93). Malta's main commercial and governmental activities lie in its capital city, such as the Central Bank of Malta, while its main industrial activity, its international airport and Freeport are found mainly in the southern part. Then some other government agencies are scattered in some other localities. Urbanisation on the rest of the Island resembles a constellation of suburbs surrounding, following and supporting these two main centres of activity. Considering the European and international scale that Malta involves itself commercially, politically and industrially (the FDIs in Malta could be considered as part of global value chains), then the Island could be considered to form part of the global economic world. Upon this thought, the following statement applies with a sense of urgency to Malta: "Every country and region should design and rapidly implement integrated pathways to sustainable development that correspond to their specific needs and priorities, and contribute also to the necessary global transformation" (developmentaid.org, 2019).

Whilst some authors prioritise the economic aspects of development, regional or local, such as employment, income, wealth creation and prosperity (Storper, 1997; Beer et al., 2003; Scott and Storper, 2003; Hague et al., 2011), others (Mulligan and Carruthers, 2011; Perrons, 2011; Burchi and Gnesi, 2013) consider other elements as meaningful, including individual and social aspects like health, quality of life and the frequently mentioned term 'social well-being'. The environmental, social, cultural and

political aspects are being recognised as elements or drivers of sustainable development (Morgan, 2004a; Pike et al., 2007; Jackson, 2009), with climate change and resources, including the effect of demographics. This extant literature definitely points towards factors which come into questioning the sustainability of Malta's economic development and growth, when considering the findings from this research. In its 2019 manifesto MCCEI states and requests:

“In the present scenario, it is most relevant to ask whether the current rates of growth are sustainable with the same output and level of skills emerging from our educational institutions. If the constant rise in the overall cost of labour, rising operating costs and the prevailing rates of rent inflation are sounding alarm bells for our near future. If the current infrastructural network and the present internal transport and logistics structure are still adequate for the rate of growth expected in a year or so” (maltachamber.org.mt, 2019a).

Holden et al. (2016) argue “that sustainable development constitutes a set of constraints on human activities, including economic activities” (p. 3). Therefore, a holistic economic development strategy should be formed for Malta to ensure sustainable development by identifying key themes, similar to the ones outlined in this study and which “must be applicable at the appropriate geographical and institutional scale” (ibid, p. 11).

With a word of warning, Maltese economist Gordon Cordina has been reported as stating:

“When analysing the bare essentials of Malta's competitive advantage, it often boils down to offering investors and business partners a number of factors, such as a cost-efficient operating environment, coupled with our distinctive selling proposition as a Mediterranean archipelago with an attractive lifestyle where people can work, relax, heal, learn and be creative. This combination of factors has attracted tourism activity, foreign direct investment and the new economy based on jobs in financial services and iGaming. Should Malta lose its 'happiness' proposition, I believe that this would be of significant detriment to the economic performance of the country” (The Malta Business Observer, maltachamber.org.m, 2019).

As a concluding thought, within the holistic co-evolutionary paradigm connecting regional development and sustainability, economic, social and the natural and human development could be a process of adaptation to a constantly changing environment, or compelled by change, while this development is concurrently itself a source of change (Munda, 1997). Considering any past and (possibly) continual influence

resulting from the contributions of decision makers who could have participated in the formation of policies “relevant to the purpose of sustainability ...a redefinition of what has been previously defined as equitable, viable, and bearable” (Barile et al. 2018, p. 4) now becomes necessary. Consideration of the relationship between competitiveness and the environment (Porter and Linde, 1995) remains strongly valid priority in the creation of a sustainable economic development policy that links the environment, resource productivity, innovation and competitiveness.

7.5.4 Implications for institutionalism

In viewing the findings of this research study through the lens of institutional theory, it becomes apparent that three theoretical elements have implications for policy makers in Malta: namely, legitimacy, isomorphism and embeddedness.

Legitimacy

The legitimacy of institutional arrangements applies both to business organisations and the state plus state-sponsored agencies, as discussed in sub-section 2.5.2 above, and reflects an overall consensus of the ‘rightness’ of the actions of an entity within a social construct of shared norms and values (Suchman, 1995). Legitimacy for a business organisation may, for example, be linked to the expectations of its owners and of the state acting as host to the organisation, and that was, and remains, true for the six FDI case study companies featured in the study. Obtaining legitimacy is more straightforward for a firm. Whilst issues such as heritage, culture and managerial politics all shape its institutional arrangements over time, these arrangements remain focussed on the business of gaining competitive advantage, value creation and capture, maintaining revenue streams and, of course, corporate social and environmental responsibility. In other words, the institutional arrangements of the firm relate primarily to business efficiency (Moe, 1990). By contrast, legitimacy is a more complex phenomenon for the state, in which politics plays a much more overt role. Legitimacy for a state organisation tends to evolve as a trade-off between efficiency and political agendas allied to self-interests plus social activism (Moe, 1990). Therefore, state organisations operate within the context of an ‘institutional duality’ (Moe, 1990) balancing economic efficiency with an often dysfunctional (or at least confused) national or regional polity.

Interestingly, in Malta the tension between economic efficiency and political/social legitimacy appears to be relatively low. When politicians and state agency managers say that 'Malta is open for business' their intentions appear entirely valid and to be legitimised by society. This seems to be the result of several locational factors: the small size of the Island and thus a tight interlocking of society, which means that decision makers tend to be in close proximity to the electorate; a sense of entrepreneurship that runs deep in Malta's culture; and a positive acceptance of FDI leading back to the establishment of the Royal Naval Dockyard in the early 19th century. All of which generates an agile institutional foundation to support regional economic development and a flexible work ethic in the country's labour pool. However, tensions have surfaced in recent years that may undermine this common sense of purpose, arising from increasing concerns within Malta's society about the potentially negative impacts of rapid economic growth on the country's environment and social fabric – as discussed in sub-section 7.5.3 above. Institutional duality is becoming a serious issue to which Malta's government must give urgent consideration if its *laissez-faire* economic development policy is to remain legitimate.

Isomorphism

Isomorphism relates to the similarity of institutional and organisational structures and processes, whether this is the result of imitation or independent development within similar constraints (Hawley, 1968; Meyer and Rowan, 1977). A relatively high degree of isomorphism across the six case study companies was observed during the study. They displayed similar values, organised around almost identical ('lean') managerial hierarchies and processes, employed similar reporting structures with their respective HQs, and displayed common competitive entrepreneurial cultures that appeared to be shared across their respective workforces. Therefore, it is perhaps no coincidence that all six companies experienced very similar evolutionary trajectories (as discussed in sub-section 7.2.2 above). This phenomenon seems to be the result of two interlocking factors. Firstly, the origins of five of the case study MNEs were similar – medium sized enterprises serving specialist business-to-business markets with relatively high value products, and they have retained a similar business model over the past decades throughout the expansion of their respective technology platforms, sales turnovers and internationalisation strategies. The exception being Company E, a much larger US owned MNE, which by the time it entered Malta already had a mature

internationalisation strategy. Secondly, all of the six subsidiaries were managed by largely Maltese senior management teams (supported by foreign expatriates at the beginning) relatively soon after their establishment. The Maltese executives tended to have worked for other MNEs (often abroad) before taking up their leadership roles but they brought with them an entrepreneurial mindset derived from the Maltese culture and institutional conditioning, including an experience of and ease with foreign cultures and a network of personal contacts on the Island. It was a mix that proved successful for the subsidiaries over the decades. It appears that Maltese leadership may also have had a homogenising effect on Company E, so that the culture of its Maltese subsidiary came to resemble that of the other five case study companies. A similar homogenisation has in reality occurred in all six companies; all appear to be Maltese companies, rooted in a Maltese institutional setting with little sign of the respective national cultures of their parents – although the corporate cultural similarity of the parent companies may be considered to be a mitigating effect in this respect. Thus it seems reasonable to suggest the existence of a ‘*normative*’ form of isomorphism (DiMaggio and Powell, 1983) in the study’s sample of case study companies, which far from being an ‘iron cage’ (Weber, 1952) has proved to be a positive externality.

Embeddedness

The notion that economic activities are inseparable from place-related social and cultural systems (Krippner and Alvarez, 2007) – embeddedness – appears to hold true for Malta. The findings of this study strongly indicate that geography does indeed count. Aoyama et al. (2011) suggest that embeddedness in a place may be measured in several directions: (i) length of residence by a firm; (ii) density of interpersonal and inter-firm relationships; (iii) dynamics of local institutions; and (iv) influence on international trade and FDI.

Firstly, all of the case study firms have operated in Malta for several decades, have enjoyed the benefits arising from a number of positive externalities (as discussed above), and their parent companies intend to continue their operations in Malta for the foreseeable future. Some respondents have indicated that their companies are locked into Malta because the value created by the Maltese subsidiaries outweighs the rising labour and social costs of doing business on the Island, and the deep rootedness of the investments made by the parents, plus the talent and tacit knowledge of the local

workforce represent high switching costs. It is reasonable to argue that all six case study companies are subject to a high degree of path dependency (David, 1985) in terms of their long term investments in Malta, which rely on the increasing returns generated by their subsidiaries on the Island.

Secondly, there is a web of inter-personal, inter-institutional and inter-firm networks in Malta – which may be termed as ‘institutional thickness’ (Amin and Thrift, 1993, 1995) – that is appropriate for the size of the location. Malta does not appear to suffer from what MacLeod (1997) calls ‘institutional overkill’. Its small size appears to be a factor limiting institutional density, whilst retaining institutional thickness. In fact there is evidence that Malta’s government is actively seeking to streamline the bureaucratic processes of its business facing institutions. If institutional thickness is defined as a measure of the quality of an institutional setting (Amin and Thrift, 1993, 1995), then it appears that Malta scores highly in this regard.

Thirdly, institutionalism in Malta appears to have been largely beneficial to the Country’s economic development, as discussed above. Its institutions are collectively legitimised by politicians, business managers, workers and society in general, and (largely) discourage behaviours (e.g. corruption) that might impede growth. However, as discussed in Section 7.4.2, Malta’s institutions have been slow to reconcile rapid economic growth with its increasingly negative impact on the Country’s environment and society. That stated, there is evidence to indicate that Malta has demonstrated a high degree of institutional plasticity (Notteboom et al., 2013) in the creation of multiple innovatory paths to support businesses within a wider domain of positive institutional arrangements. In other words, Malta’s government has obtained beneficial results from an ‘elastic stretch’ of its institutions (Strambach, 2010), without abandoning the strengths of its institutional arrangements.

Fourthly, the findings of the study clearly demonstrate how deeply a sample of MNEs have become embedded in Malta resulting in a continuing stream of investment in their subsidiaries on the Island, and in the evolution of the location (and its economic actors) as an important node in a variety of GVCs.

7.5.5 Implications for co-evolution

During an interview with the author, the Governor of the Central Bank of Malta posed a fascinating question regarding the long term effects of FDI. He said: “I often wonder if Malta shaped the [FDI] companies or did the companies shape Malta?” while finishing the question by pondering “Have they made us the way we are?” Whilst Dr Vella did not explicitly use the term ‘co-evolution’, it seemed clear that the phenomenon was in his mind. This sub-section attempts to answer Dr Vella’s question. There are two aspects of co-evolution theory that emerge from the literature and are worth discussion with regard to the findings of this research study. These are (a) the twin dynamics of macro co-evolution and micro co-evolution and (b) the fitness landscape

Macro co-evolution and Micro co-evolution

Macroevolution is the term used by Madhok and Liu (2006) to describe the dynamics of co-evolution that relate to a firm and its external (local) environment. *Microevolution* is the term used by Madhok and Liu (2006) to describe the dynamics of co-evolution that occur within a MNE between the parent and its subsidiaries (or between subsidiaries and the whole MNE). Madhok and Liu contend that both external macro and internal micro level co-evolutionary processes transform the MNE, driving the developmental trajectory of the firm’s knowledge and capabilities, and is potentially a source of competitive advantage – or ‘co-evolutionary advantage’. Madhok and Liu also contend that co-evolution at the different levels will occur at different speeds, and that this speed differential leads to a ‘dis-synchronisation’ effect in the co-evolution of the MNE. According to Baum and McKelvey (1999), evolution is faster at sub-unit levels than at higher levels of the organisation, because sub-system level activity has fewer complexities and that variation, selection and retention processes tend to unfold more quickly than at the overall system level. The findings of this research study strongly indicate that the theoretical dynamics of multi-dimensional co-evolution does apply to the six case study companies in Malta, and over the long run to Malta itself.

The case study companies did generate ‘co-evolutionary advantage’ for three parties: the subsidiaries, their parent MNEs and Malta. The evolutionary trajectories of all the case study companies from low-cost, offshore manufacturers to innovatory lead value creators were facilitated by the long-term existence in Malta of positive externalities

(human capital, education, workforce flexibility, political stability, amongst others), as discussed in sections 7.2 and 7.3 above. The subsidiaries evolved relatively quickly between the successive stages of their respective trajectories. For Malta, the corresponding period of approximately two decades was just one of several relatively short episodes of evolution over two centuries from colonial outpost to first world EU economy. Moreover, for Malta, this represented one of several concurrent evolutionary paths in an open economic system shaped by past development paths (Boschma and Martin, 2010) – other paths, for example, include the development of the offshore financial services and e-gaming sectors facilitated by EU membership and attractive fiscal location incentives. Whilst the evolutionary path of high-value precision manufacturing (epitomised by the case study companies) has probably had less short term impact on Malta's economy, it has longer term implications in two ways. Firstly, high-value precision manufacturing represents the latest evolutionary stage of the manufacturing sector in Malta, and probably represents the most appropriate form of economically sustainable (and non-transient) manufacturing sector given the country's increasing constraints with regard to labour availability, land use and wage costs. Secondly, the continued existence on the Island of such manufacturing enterprises has, via knowledge spillovers and the associated enrichment of university teaching and research, enabled Malta to evolve (and market itself) as a centre for manufacturing innovation. Together, both development trajectories represent macro co-evolution between the case study companies and Malta.

The fitness landscape

So, is this study able to provide an answer to Dr Vella's question? Yes, it can, to some extent. There is empirical evidence to support the notion that co-evolution has and is occurring in Malta between its institutions and some of its FDI companies. The findings relate to a small sample of FDI companies, but nevertheless they are based on longitudinal case study data: there is reasonable evidence to indicate meaningful co-evolution over an extended timeframe. The findings also indicate that there is a 'right size' of FDI enterprise for Malta – typically parented by a small-to-medium (i.e. *Mittelstand*) MNE, occupying a technology-driven high-value niche, with relatively modest demands on the Island's constrained resource endowment. In other words, the findings indicate the existence of an appropriate fitness landscape for Malta's economy. This has implications for FDI policy in Malta.

If one applies the fundamental natural selection principles of generalised Darwinism (variation-selection-retention) to Malta's economic fitness landscape, an interesting (if perhaps somewhat simplistic) picture begins to emerge. Whilst generalised Darwinism is criticised on the grounds that it ignores human intentionality (Lewin and Volberda, 1999; Vromen, 2001; Hodgson, 2004; Witt, 2004), it does provide a fascinating heuristic to explore economic trends, institutions, or business enterprises over time (Hodgson, 2002; Knudson, 2004; Vromen, 2004; Hodgson and Knudson, 2006; Essletzbichler and Rigby, 2007). As an economic region, Malta represents a selection environment (Boschma and Frenken, 2006) within which a population of economic actors and institutions are engaged in variation, selection and retention of wealth creation capabilities and routines (Essletzbichler and Rigby, 2007).

Examination of the historical evolution of Malta's fitness landscape highlights the existence of human agency and intentionalism with respect to both FDI enterprises and the Island's institutions. Malta has historically competed for FDI irrespective of source or sector profile (i.e. 'blind' competition). This may have led to the evolution of admirable institutional plasticity, but in an increasingly competitive FDI environment, Malta needs to become more intentionally selective about its extant and future inward investment portfolio, by adopting a more 'hierarchical renewal' selection engine if it is to sustain an appropriate balanced economic development – one that is based on attracting the 'right' inward investment partners.

7.6 Discussion of Findings in Relation to the Literature

The findings of the study have several implications for academic theory. These relate to six areas of theory: industrial location theory as applied to global value chains, foreign direct investment, regional economic development, institutionalism, co-evolution and regional sustainability.

1. Industrial location theory and GVCs

The focus of industrial location theory has evolved over the last thirty years from a preoccupation with optimal cost location solutions (essentially the cost of labour) to a more nuanced focus on the capacity of a location to generate potentially competitive new knowledge or drive innovation (essentially the quality of its pool of human talent)

(Goerzen and Beamish, 2007; Pitelis and Verbeke, 2007; Tan and Mahoney, 2007; Verbeke and Yuan, 2007; Taylor and Plummer, 2011). The study looked at this phenomenon from the perspective of both global value chains (as exemplified by the six case study companies) and a locational node (Malta).

A core concept of GVC theory concerns the nature of governance in transnational activity networks that reflects the globalisation of business management. The notion of linear chains of intermediate commodities rigidly controlled by a parent MNE in the manner of a 'global commodity chain' no longer fits the reality of sustaining competitive advantage within global markets. Indeed, GVC theory proposes that the mode of governance within a GVC is not determined by the product per se, but by the nature of intermodal network relationships and innovation flows (the so-called 'geography of transactions') (Gereffi et al., 1994). If the notion of 'geography of transactions' is to have validity then two conditions should be identifiable within a study of GVC evolution over a period of time: (i) that individual nodes within the network will increasingly augment the knowledge flows that originate from the parent so that subsidiaries also become significant sources of innovation (Kaplinsky and Morris, 2001; Gereffi and Fernandez-Stark, 2011; Sturgeon, 2013; Hernandez et al., 2014; Kano et al 2018); and (ii) the spatial context of a node may affect its ability to prosper with respect to other subsidiaries within an activity network (i.e. geography matters) (Amin and Thrift, 2000; Boschma and Frenken, 2006; Frenken et al., 2007; Essletzbichler and Rigby, 2007; MacKinnon et al., 2009). The study provides empirical evidence that both conditions exist and have evolved over the long term. Firstly, all six case studies have developed as centres of innovation within their respective GVCs, and this in turn has generated continued levels of inward investment and trust. Secondly, the parent nodes of all six GVCs regard the long term performance of their respective Malta-based talent pools to be internally competitive and of sustained value to the overall activity network – a phenomenon common to all the case study enterprises, irrespective of sector and parent nationality. These findings represent an empirically derived contribution to GVC theory.

What makes Malta competitive as a locational node? Neo-classical trade theory postulates that some locations are more attractive to investors than others because they generate greater increasing returns than other comparable locations, and that

increasing returns are likely to be a cause of and result from specialisation (Bathelt, 2005; Storper, 2009) – in essence, leading to some form of place-related agglomeration of economic actors and resources (both tangible and intangible). Increasingly, it has been accepted that the key location-related externalities relate to the accumulation and dissemination ('spillover') of knowledge within some form of 'regional innovation system', comprising a highly concentrated close proximity network of specialist economic actors supported by an appropriate institutional infrastructure. Such specialist spillover is considered to be a Marshall-Arrow-Romer (MAR) externality (Glaeser et al., 1992; Feldman, 1994; Audretsch and Feldman, 1996). However, the theory also hypothesises a different type of spillover that allows for the proximity effects of firms from differing sectors to facilitate knowledge transfer, and thus innovation and economic growth: Jacobian externalities (Jacobs 1969; Amin 1994a; Amin 1994b). The study revealed that whilst Malta has no significant sector-clusters, there is clearly inter-firm knowledge spillover between local firms operating in different economic sectors. All six case study companies exhibit high levels of expertise in product and process innovation in high-value component precision engineering, even though they operate in different sectors. Furthermore, employees appear to be able to move between such local firms without any loss of capability-related performance. This seems to be supported by an appropriate institutional infrastructure involving an education system providing excellent levels of engineering and technical education, plus a cultural affinity with problem-solving, inculcated by what was once the region's largest employer (the Royal Navy) within an environment of scarce resources. The empirical evidence strongly indicates the presence of Jacobian, rather than MAR, externalities has a beneficial effect on knowledge spillover, and that commonality of 'local buzz' derived from local proximity factors (Storper and Venables, 2004) is equally as effective in creating increasing knowledge returns as agglomerations of sector specialism. These findings represent an empirically-derived contribution to industrial location theory

2. Foreign direct investment

The 'Penrosian Effect', which underpins the resource-based view (RBV) of the firm, states that the limits of a firm's growth rate are a result of managerial constraints, and

thus behavioural, learning and environmental dynamics are significant determinants of firm growth (Uzawa, 1969; Rubin, 1973; Slater, 1980; Tan and Mahoney, 2005). Within FDI theory, the Penrosian Effect allows for location-based behavioural and learning dynamics to explain variations in returns to a foreign investor (e.g. a MNE) from the original or subsequent investment. The findings of the study reveal that all six case study firms are the result of long-term FDIs that have enabled both the Malta-based subsidiary and respective GVC (in which it is an activity node) to progressively grow in terms of economic return. In addition, as noted above, the presence of Jacobian externalities appear to have facilitated the beneficial dynamics of a location in generating satisfactory returns from the stream of inward investments. This research provides some empirical evidence to support the theoretical importance of place-related dynamics within the context of FDI and perhaps the RBV of the firm.

Later extensions to FDI theory expand on the locational aspects of firm specific advantages (FSAs) that stem from original investment decisions and influence subsequent investment decisions, further reflecting the shift in emphasis on place as an endogenous factor in investment policy decision-making processes (Erickson 1994; Rugman, 1996; McCall, 2010; Hudson, 2016; Perrons, 2017). This is certainly a feature of the eclectic paradigm development of internalisation theory, otherwise known as the 'Ownership, Location and Internalisation (OLI) Framework' (Dunning 1979, 1988; Pitelis and Verbeke, 2007). The study findings strongly indicate that all six case study firms have continued to demonstrate, over a long period of time, significant ownership, location and internalisation advantages for their parent MNEs. However, one limitation of the extant studies is that they appear to adopt a static, somewhat theoretical view of investment decision-making (Stimson and Stough, 2008; McCall, 2010). By contrast, this study has taken a longitudinal view of the focal case study firms, recognising the fact that MNEs may remain in a location long after the original advantages have ceased to exist and superseded by different advantages. For example, this research has identified that, in addition to stable governance and a strong institutional environment, at least three specific location advantages were common to the original investment decision by all six case study MNEs: relatively abundant skilled labour, low employment costs and fiscal inducements offered by Malta's government. As noted above, some of these advantages have diminished over time: there is now a shortage of skilled labour, employment costs have increased.

Indeed, some of the case study respondents state that the absence of such location advantages would have resulted in investment elsewhere if the original investment decision had been made today. The reasons they remain in Malta now stem from the lock-in effects of local innovation and the high switching costs of moving to another location, in addition to continued governance stability and institutional strength. In effect, they are currently embedded in the local economy. The findings of this longitudinal study go some way to add an additional dimension to FDI and internalisation theory – the need to consider the nature of location lock-in dynamics over a period of time.

3. Regional economic development

A key finding from the review of regional development literature is the emphasis on endogenous location related factors: that access to production factors does not fully explain variations in regional growth, and that development phenomena are more fully explained by understanding innovation, growth and standardisation of product profit cycles within specific locations (Markusen, 1985; Romer, 1990; Erickson, 1994; Rees, 2001; Smętkowski, 2018). Regional economic development theory describes both local resource factor endowments and limits to growth (as does sustainability theory, which is discussed in more detail below). However, there is less discussion in the extant literature on the nature of place-related competition for resource factors and the criticality of the assumptions made by institutional actors (Jessop, 2001; Ascani et al., 2016). The prime resource factor limitations for Malta are the availability of skilled labour and land, both of which are now extremely limited and thus represent significant constraints on further economic growth. Several sectors of the Maltese economy compete for these scarce resource factors, notably financial services, e-gaming and tourism, as well as manufacturing. This study has identified a *laissez-faire* policy of regional development in Malta which has resulted in a national inward investment portfolio tilted towards (arguably fashionable) new service dominated sectors (such as financial services and e-gaming) that, whilst contributing positively to both national gross domestic product and balance of payments, have become significant consumers of scarce resource factors. This is a potentially problematic regional development strategy because these growth service sectors, which are exclusively foreign-owned, have invested in Malta as a result of government fiscal incentives rather than in response to a perceived attraction to deeper knowledge and innovation-based local

resource endowments. This means that long-term lock-in effects are unlikely to occur in sectors where switching costs are low and the actors operate in highly contestable factor resource markets (which primarily centre on local fiscal benefits). By contrast, the engineering sector has been somewhat overlooked by local institutional actors and is not necessarily seen as a development priority, even though it is Malta's second largest employer and accounts for over 20% of balance of payments revenue. A majority of respondents to this study expressed dissatisfaction with development policy assumptions and emphasised the need for institutional actors to re-balance Malta's inward investment portfolio towards both longer term economic stability and a better match with the region's knowledge and innovation-based resource endowments. The findings of the study provide an empirical contribution to the debate on the decision-making dynamics of regional economic development.

4. Institutional theory

Institutionalism was found to be a critical theoretical construct in facilitating an understanding of policy interactions between regions and the global value chains of MNEs – the so-called 'geographies of governance'. Two key findings emerged from the literature review of institutional theory: (i) how the concept of legitimacy may explain institutional efficiency within a region; and (ii) the relationship between institutional embeddedness and regional development.

According to the literature on neo-institutionalism, legitimacy for institutional actors (e.g. Malta's government and agencies) represents a trade-off between economic efficiency and political agendas, allied to self-interests plus social activism (Suchman, 1995; Reis, 2012). In other words, state organisations operate within the context of an 'institutional duality' in terms of balancing economic efficiency with political/social legitimacy (Moe, 1990). The literature suggests that high levels of tension between economic efficiency and political/social legitimacy often lead to dysfunctional (or at least confused) national or regional policy; whereas low levels of tension will lead to significant levels of clarity in policy. The theory implies that national or regional policy always derives from proactive institutional agency (North, 1990; Putnam, 1993; Hillmann, 2013). However, the findings of this study indicate a more nuanced conceptualisation of institutional duality, and thus institutional legitimacy. It is clear from the empirical evidence that in Malta the tension between economic efficiency and

political/social legitimacy is relatively low. It is also evident that, in the opinion of several institutional-actor respondents (including influential policy-makers), that Malta does not proactively pursue an economic development policy, and that this has been the political *status quo* since 1974. The empirical evidence strongly indicates that institutional actors in Malta exhibit entrepreneurial (or opportunistic), and thus flexible, behaviour with respect to development initiatives. The evidence (historical and empirical) suggests a subtler, but no less useful, explanation for a lack of institutional tension between efficiency and legitimacy in Malta: the result of a long-term entrepreneurial and trading culture, coupled to highly dense social networks incorporating most of the Island's population. In this case, institutional legitimacy appears to flow from societal economic self-interest that binds political actors to a common will (rather than top-down political policy). leading to what may be described as a form of institutional plasticity (as further noted below with respect to co-evolution). The study, therefore, provides a contribution to neo-institutional theory that allows for specific place-related or spatial networks to partially explain legitimacy within the context of regional economic development.

Institutional theory also has implications for economic development policy via the notion that the dynamics of institutional embeddedness may explain long-term inward investment relationships in a region (Bellandi, 2001; Gertler, 2003; Morgan, 2004b). As noted above, Malta has dense highly interrelated social networks that indicate regional cohesion and consensual societal stability, and represent a high degree of 'institutional thickness' (Amin and Thrift, 1993; 1995), but not the kind of 'institutional overkill' (MacLeod, 1997) that may denote statist rigidity or dysfunctional policy. The findings of this study provide some empirical evidence that supports the proposition that the scope (*quality*) rather than the scale (*quantity*) of institutional thickness is of greater significance to the longer-term beneficial consequences of institutional embeddedness. Moreover, it appears that the engine of institutional thickness is not top-down place-making policy but evolutionary bottom-up societal networks of consensus rooted in regional cultural norms. In addition, the study provides empirical evidence to support Aoyama et al's (2011) contention that the impact of regional embeddedness may be measured by (i) the length of residence by a firm; (ii) the appropriate density of interpersonal and inter-firm relationships; (iii) the dynamics of local institutions; and (iv) the corresponding international trade flows and FDI.

5. Co-evolution theory

The study examined two key themes that emerge from the applied literature on co-evolution theory: (i) the evolutionary path described in General Darwinism is not rigid and significant degrees of freedom may exist, thus introducing the notion of path plasticity; and (ii) co-evolutionary dynamics of MNE and place may be observed at both macro and micro levels of interaction.

Path dependency emphasises the primacy of early events in shaping the evolutionary trajectories of organisations and institutions, and may result in a state of structural inertia and entrepreneurial inflexibility (Arthur, 1988; David, 1988, 2005; Hall, 1994; Walker, 2000; Schmidt, 2018). Theorists have increasingly noted that the autopoietic nature of evolutionary paths is diminished when applied to economic and societal domains, whilst the effects of managerial agency become more powerful (Garud and Karnoe, 2001; Sydow et al., 2005; Martin and Sunley, 2006); thus introducing significant degrees of freedom in terms of path renewal choice (i.e. path plasticity) to the extent that the chance of actors becoming locked into a path-determined equilibrium state is likely to be an exception rather than the norm (Martin and Sunley, 2010). The study has identified that elements of path plasticity are at work within the context of Malta's economic development, and thus provides useful empirical evidence that supports the notion of 'institutional plasticity' (Strambach, 2008; Notteboom et al. 2013) within the literature, which contends that new evolutionary (i.e. regional development) paths may be created within existing frameworks of institutional arrangements through the purposeful interventions of institutional and other economic actors (Strambach, 2010).

The literature on co-evolution as applied to the theory of international business proposes that co-evolution occurs at multiple levels within economic and societal domains, and co-evolutionary dynamics may be observed at both macro and micro levels of interaction (Baum and Singh, 1994; March, 1994). At the macro level, co-evolution takes place at GVC network nodal level between economic and institutional actors (MNE subsidiary and geographical location). At micro-level, co-evolution occurs within a GVC between focal subsidiary, parent company and other network subsidiaries. In either case, local institutional actors have a co-evolutionary influence

on a GVC either directly, at a macro level, or indirectly at a micro level (Madhok and Liu, 2006). This study, which focuses on the macro dynamics of co-evolution, found strong empirical evidence of competitive (or co-evolutionary) advantage derived from a long-term presence in Malta, for the six case study companies and for Malta itself. Furthermore, the similarities between both the case study profiles and their respective evolutionary trajectories indicate the possibility that Malta represents an appropriate fitness landscape for the successful evolution of a certain scale and scope of MNE – primarily medium-sized precision manufacturing firms operating within global high-value product markets. Thus this study contributes some useful empirically-derived case study research to the theory of co-evolution in international business and the emerging field of evolutionary economic geography.

6. Regional sustainability

An increasing focus on sustainable growth has emerged in the theoretical domain of regional economic development; namely, that in order to be sustainable, regional development must encompass more than just economic growth and extend to include the environmental and societal domains that impact on place and are affected by local institutional arrangements (Mulligan and Carruthers, 2011; Perrons, 2011; Burchi and Gnesi, 2013; Lee and Gereffi, 2015). This is a consensus that is also reflected in the empirical domain of regional economic development featured in this study. Almost all of the respondents interviewed as part of this research - both economic and institutional actors - agreed on two themes: (i) Malta is fast approaching limits to its economic growth and that environmental and societal factors have been overlooked; and (ii) the absence of coordinated economic development policy, which may previously have been an institutional strength in terms of economic efficiency (as noted above), is increasingly becoming a significant weakness in terms of the Island's institutional arrangements. The resulting consensus among respondents is the need for a regional economic development policy that incorporates all three elements of the triple bottom line (TBL): economic, environmental and societal. One weakness of the theory on sustainable regional development is that much of the literature tends to focus on specific themes (e.g. urban development) rather than a balanced range of sustainability issues (as framed, for example, by the TBL) (Agyeman and Evans, 2004; Pacione, 2007). When the TBL concept is featured in the literature it is usually treated at a theoretical level, rather than operationalised and informed by empirical findings

(Balkyte et al., 2010; Silvestre, 2015; Fu and Zhang, 2017). Some useful attempts to operationalise the TBL model have emerged from the general literature on sustainability – primarily, the use of the intersections of the three elements of the model: environmental-economic dynamics (viability), socio-environmental dynamics (bearability) and socio-economic dynamics (equitability), to visualise trade-offs (Barile et al., 2018). This study has applied this approach to identify such trade-offs with respect to Malta. In doing so, the study contributes to theory an embryonic tool for isolating trade-offs as a basis for modelling sustainable regional policy options.

7.7 Discussion of Findings in Relation to Practice

The findings of the study, coupled with the theoretical insights discussed above, have useful implications for three areas of practice: (i) GVC investment policy, (ii) institutional regional development policy and (iii) sustainability policy.

The goal of increasing returns from a stream of FDI decisions (i.e. location-related investments) is at the heart of GVC policy-making conducted by MNEs. The findings of the literature review strongly indicated that an above average source of returns resulted from the presence of two forms of locational advantage. First of all, economic advantages derived from direct resource factors such as talented, rather than low-cost, labour, together with indirect resource factors including spatially-derived economic externalities, such as knowledge spillover. This class of locational advantage relates to the perceptions of MNE policy-makers regarding the potential contribution of such resource factors to the geography of transactions within their transnational activity networks. Secondly, the attractiveness of a location is also dependent on the presence of an advantageous local geography of governance, based on a coherent development policy enabled by appropriate institutional arrangements. The findings of the literature indicated that MNEs must take into account the (inter-locational) comparative benefits of both forms of locational advantage when making GVC-related investment decisions. The empirical research conducted in this study reveals that policy-makers in all six case study companies did take into account both types of locational advantage in their original and subsequent investment decisions with respect to Malta. However, according to the case study informants, far more emphasis was placed on economic advantages than the corresponding institutional arrangements; whereas, a proportionally greater (or equal)

emphasis has been on institutional arrangements in later investment decisions. This reflects a growing recognition by MNE policy-makers that the (economic) sustainability of their revenue streams is significantly affected not only by the stability and legitimacy of place-related institutional arrangements, but also by the existence of high barriers to exit in locations where they have become deeply entrenched over a relatively long period of time. In other words, there is an implicit realisation of the lock-in effects of co-evolution at a macro level resulting from a successful locational investment policy, and that an exit strategy could potentially incur high costs should the 'performance' of local institutional arrangements deteriorate. Policy-makers within the case study firms are increasingly paying attention to the degrees of freedom that local institutional actors actually enjoy with regard to place-related economic development policy. In doing so, they perceive the need for a more balanced approach to regional economic development that factors in environmental and societal constraints to resource factor growth. This more nuanced and balanced focus on investment policy both reflects the emerging body of literature and is a significant empirical finding in terms of practice.

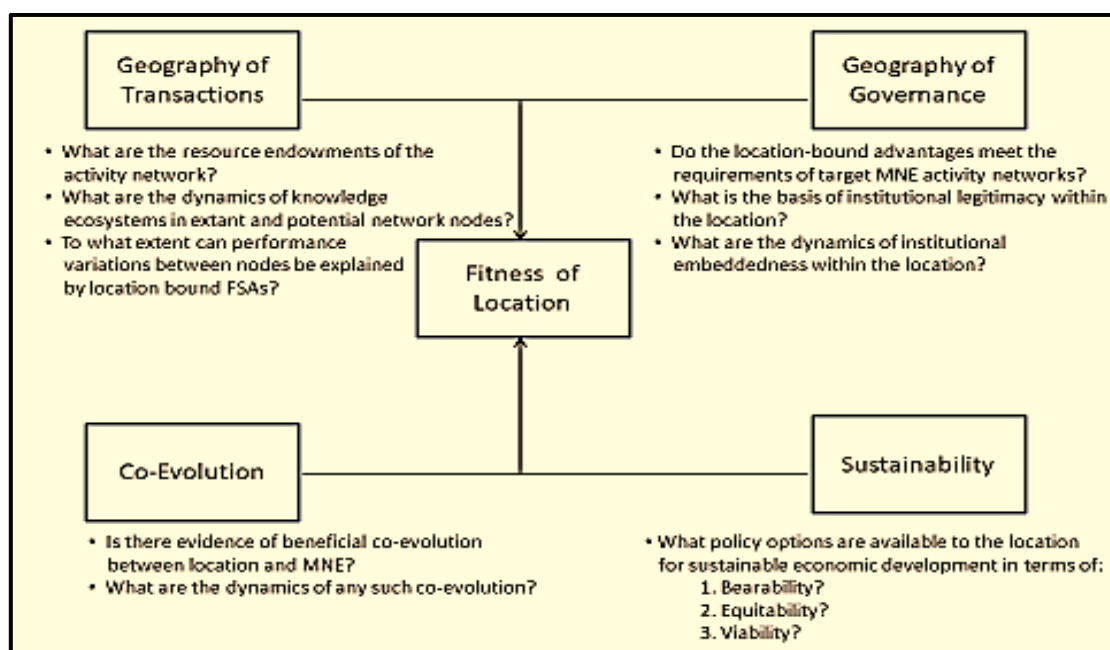
The practice implications for institutional regional development policy-makers is a little more complicated but nonetheless just as significant. The complication derives from two sets of place-related dynamics. First of all, the presence of institutional duality faced by institutional actors balancing social legitimacy and political expediency with economic efficiency, as noted above, may distort policy goals and their implementation. Fortunately for Malta, political/social legitimacy and economic efficiency are relatively well synchronised, in spite (or perhaps because) of the *laissez-faire* approach to development policy exhibited by its institutions. Secondly, spatial scale (in terms of, for example, population size, economic diversity and institutional overlap) is a complicating factor in the development of regional development policy. The greater the spatial scale of a region, the greater the challenges involved in agreeing development goals and developing a coherent development policy; and vice-versa. Malta's relatively small spatial scale, coupled with relatively low institutional/economic tension, potentially facilitates an arguably straightforward environment in which to develop a coherent economic development plan. Within this context, a significant practical finding from the study is a growing requirement for Malta's institutional policy-makers is to create a proactive economic development strategy that fulfils two needs: (i) to develop a balanced portfolio of inward investment

positions, including a high proportion of positions that represent long-term economic stability; and (ii) to reassure long-term inward investors of the future sustainability of above average returns based on location-specific advantages.

A related practical implication centres on the need for regional development policy to recognise and incorporate the triple bottom line construct into regional development policy-making. In subsequent presentations of the findings of this study, both corporate and institutional informants agreed that the core TBL elements of *viability* (environmental-economic factors), *bearability* (socio-environmental factors) and *equitability* (socio-economic factors) provide a simplistic, but practical, framework with which to identify, categorise and assess challenges to the sustainability of a regional development policy.

The prime focus of this research study has been on the fitness of Malta as a viable node in the respective global activity networks of six MNEs. The consensus of the various informants to this study is that Malta remains an appropriate fit in the GVC strategies of six MNEs. As noted above, there are four interlocking dynamics that effect locational fitness: the geography of transactions, the geography of governance, co-evolution and regional sustainability. The practical implications of all four are illustrated in Figure 7.5 below:

Figure 0.5: 7.5 - Analytical framework for assessment of locational fitness



In summary, the empirical findings of the study appear to confirm the findings from the literature presented in section 2.8 above; namely that the fitness of a location to become and remain a favoured node in a MNE enterprise activity network depends on two factors: (i) the presence of locational advantages, including spatially-derived economic externalities, perceived by a MNE to be relevant to its geography of transactions; and (ii) the presence of an advantageous local geography of governance based on a coherent development policy enabled by appropriate institutional arrangements. Furthermore, the dynamics of co-evolution and (balanced) sustainable development both reinforce and constrain the evolutionary trajectory of both parties: enterprise and host. This insight provides a useful analytical framework for both GVC policy practitioners and institutional practitioners to assess the implications of locational fitness in terms of their respective policy considerations.

7.8 Conclusion

The findings of this research study reveals the antecedents, the development, the effects and the implications of a symbiotic relationship between a small island regional economy (Malta) and a sample of foreign-owned manufacturing companies. Both Malta and the foreign-owned subsidiaries have undergone a remarkably similar evolutionary journey over three or so decades, from low-cost outpost to valued node in a global value chain. In doing so, the positive externalities of the host country have acted as powerful enablers of development for the subsidiary companies; both sets of forces have interacted and evolved over time. This symbiotic relationship may be considered to be one of 'co-evolution'. The positive institutional dynamics of both state and firms, founded on a commonality of entrepreneurship, flexibility, good governance and shared legitimacy, have also played a pivotal role. Malta has displayed institutional plasticity over a long period of time enabling its economy to absorb and prosper from foreign investment. The foreign investors have observed and supported the evolution of their Maltese subsidiaries to become (to use a term borrowed from evolutionary theory) a 'key species' in their respective global value chains; therefore they remain firmly embedded in Malta. The subsidiaries have gained a form of internal competitive advantage, derived from a growing capacity for innovation and knowledge transfer within their MNE networks, resulting in long-term lock-in. The MNE investors are largely *Mittelstand* firms that represent an appropriate evolutionary fit for Malta's small

and increasingly resource constrained economic landscape. However, there are clear warning signs that Malta's rapid economic growth is beginning to become problematic for the continued integrity of the Island's infrastructure, ecology and societal well-being, which present critical challenges to the legitimacy and sustainability of the Country's economic development.

CHAPTER 8: CONCLUSIONS

Introduction

This chapter concludes the thesis by presenting an overview of the research, of how the objectives were fulfilled and of the research contributions to theory and practice. It also discusses the limitations of the research and suggests areas for future study.

8.1 Research study overview

The aim of this research was to understand what makes a state economy within a region attractive to multinational enterprises in their global value chain optimisation, the host country's involvement and development policy and the implications for its sustainable development. Malta was the place of investigation. The review of existing literature provided a background, confirming purpose to the undertaken research. The author collected data from various sources and at different levels to offer a holistic and different point of view from previous studies, by looking at the long-term relationship between a value chain and a place, including a historical background for the underlying and developmental aspects. This longitudinal study includes empirical research and evidence that contributes to theory and practice. There does not seem to be much empirical research or evidence that is longitudinal. By adopting a multidisciplinary paradigm through various domains of study in the literature, this research captured plurality of perspectives to provide a widened viewpoint, while also providing opportunities for further study.

8.2 The research objectives fulfilled

The research moved forward to achieve three research objectives, which have been satisfied as indicated below:

8.2.1 Research objective 1

'To identify and assess the factors that impact on the attractiveness of Malta to foreign direct investors in the manufacturing sector seeking to optimise their global supply chains'.

From the open-ended interviews held with high-ranking representatives within the six FDI case study manufacturing companies and the seven logistics service providers',

positive and negative elements about the attractiveness of Malta to foreign direct investors have been identified. These elements have been named in sections '4.7 Key Findings - Overview of case study companies' and '5.8 Key Findings - Overview of logistics service providers', while also addressed in Chapter 7: Discussion.

8.2.2 Research objective 2

'To understand the drivers of Malta's regional development policy'.

During the meetings, topics related to the responses from the case study companies and the logistics service providers were discussed with the key informants according to their sector, from within government and non-government agencies and institutions and academia, representing the national level. Positive and negative elements related to the drivers of Malta's regional development policy have been identified. These elements have been named in section '6.5 Key Findings - Overview of Key Informants – Agencies, Institutions and Academia'; and in Chapter 7: Discussion.

8.2.3 Research objective 3

'To consider the implications for the triple bottom line of economic, environmental and societal sustainability, in particular, environment and society'.

The implications for the triple bottom line of economic, environmental and societal sustainability have been included in Findings Chapters 4, 5 and 6; and categorically outlined in section '7.5 Regional Sustainability' which looked at Environmental-economic factors (viability), Socio-environmental factors (bearability) and Socio-economic factors (equitability) in Chapter 7: Discussion.

8.3 Research contribution to theory

The purpose of the research was to study the antecedents, dynamics, effects and implications of the respective evolutionary trajectories of a small island regional economy (Malta) and a sample of foreign-owned manufacturing companies long established there, in order to gain insights into how locations develop over time as successful nodes in global value chains. The empirical findings are presented in Chapters 4, 5 and 6, and discussed in Chapter 7, and offer contributions to three theoretical domains: regional development, institutionalism and co-evolution.

Regional development

The research provides empirical longitudinal evidence to demonstrate how a regional economy evolves over an extended timeframe of three decades. Furthermore, the study offers insights into how a sample of long established foreign-owned companies evolved over the same timeframe. The study gives insights into the respective development trajectories of region and its value-creation actors, thus providing theorists with a rich, dynamical picture of the regional development narrative of a location and its contribution to a variety of global value chains.

Institutionalism

Most studies of institutionalism concentrate on national state or regional governance arrangements and processes. The scope of this study encompasses the dynamics of institutionalism in multinational business organisations and their global value chains as well as in state agencies. The study contributes empirically derived insights into the effects of legitimacy, isomorphism, embeddedness and institutional plasticity in both MNEs and a small national economy, and discusses the interrelated effects on both sets of actors.

Co-evolution

Research into symbiotic institutional and business enterprise relationships in the domain of regional development studies and evolutionary economic geography is still in its infancy. Theorists complain of a lack of empirical and longitudinal research studies. This study contributes research on the co-evolutionary dynamics of a regional economy and six foreign-owned firms located in the region that is both empirical and longitudinal in nature. In doing so, the study provides empirically derived insights into the dynamics of co-evolution at both the macro and micro levels of abstraction.

8.4 Research contribution to practice

The research also sought to undertake practical analysis of the evolutionary dynamics of regional economic development that might provide policy makers with actionable insights. Therefore, the contribution to practice relates primarily to regional development policy and sustainability.

The study has adopted the principles of the triple bottom line construct, utilising the core elements of *viability* (environmental-economic factors) *bearability* (socio-environmental factors) and *equitability* (socio-economic factors) as a simplistic, but practical, framework with which to identify, categorise and assess challenges to the sustainability of economic policy. This is not a novel concept; the conceptual vectors of viability, bearability and equitability have previously been utilised to study the overlapping dynamics of sustainability. However, the application of this framework to regional development in Malta not only provides researchers with an empirically-derived case study, but, possibly more importantly, offers regional policy makers and planners a simple tool to identify challenges to and pressures on the sustainability of development policy, visualise interrelationships between such forces, and assess trade-offs.

8.5 Limitations and further research

The research has primarily focussed on a relatively narrow sample of case study organisations plus a small cross-section of key informants to obtain primary data. Whilst most of the findings have been validated by case study respondents and key informants, this remains an exploratory study. Its focus was on a specific sub-sector of Malta's manufacturing sector, namely, high-value, low-volume precision engineering, which may imply sample bias. Nevertheless, the author believes this to be a coherent sample and the findings have construct, face and internal validity. All the respondents provided honest thoughts and opinions, reflecting experiences and perceptions of their own and Malta's environment and change dynamics. This reasonably implies that the author has been able to develop a critical study. As this is a qualitative study, no statistical tests of association and validity are possible. Therefore, a further quantitative study to test the findings of this exploratory study might be useful in providing further validation of the findings. Moreover, the findings relate to just one specific location, which raises issues regarding their generalisability. Whilst the uniqueness of geographical locations, embedded as they are in historically derived evolutionary dynamics, hypothetically points to the likelihood of place-derived heterogeneity in the findings of future studies, it would be useful to test the methodology and assumptions of this study in other economic regions.

Further research may usefully be conducted both within Malta and in other economic locations (whether sovereign nations or integral autonomous regions).

In Malta further research might include:

- Extending the research to: (a) a larger sample of foreign-owned firms occupying a business niche similar to those in the exploratory sample; and (b) a much broader sample of foreign-owned firms representing a cross-section of niches in Malta's manufacturing sector as a whole.
- Conducting a quantitative, questionnaire based, survey of FDI enterprises to create panel data to facilitate statistical tests of significance.
- Create a simulation model (possibly utilising the functionality of systems dynamics – e.g. *Goldsim*), incorporating the sustainability vectors of viability, bearability and equitability, to simulate and assess the sustainability effects of alternative economic growth scenarios.

The above three research propositions may also be usefully conducted in other geographic locations of economic activity. They, and the findings of the study, are of potential interest to researchers in a variety of academic domains, such as economic geography, ecological economics, evolutionary economics and supply chain management.

8.6 Conclusion

The author believes that the findings presented in this thesis provide a worthwhile contribution to theory (literature) and to practice (policy makers); and to researchers seeking to conduct empirical studies in various areas treated within this research.

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Appendices

Appendix I: Indicative Questions - All Participant Categories

Indicative Questions - All Participant Categories					
Case studies / Participants	Interview questions				
	1	2	3	4	5
Case study FDI	The rationale for the original FDI in Malta	How the company developed in Malta	How Malta fits into the corporate supply chain strategy	The company's perception of how Malta has developed as a business location	Malta's continuing attractiveness as a business location
Logistics service providers	How the company has developed	The company's perception of how Malta has developed as a place to do business in	Malta as a place to still do business in and any implications		
Government agencies and institutions					
Central Bank of Malta	An overview of Malta's economic development strategy, with reference to FDI in manufacturing	An insight into the sustainability of FDI strategy, in particular, the manufacturing sector	Any thoughts about implications for social and environmental challenges that Malta may face		
Malta Enterprise	An overview of Malta's economic development, in relation to FDI	The work of ME and its influence on the Maltese Government's development policy and strategy	Any thoughts about implications for social and environmental challenges that Malta may face		
Malta Life Sciences Park	Any thoughts about the sustainability of FDI strategy, in particular, the manufacturing sector	The role of MLSP in Malta's economic development strategy	Any thoughts about implications for social and environmental challenges that Malta may face		
Trade Malta	The extent of contact of Trade Malta with FDI	Any issues that FDI talk with Trade Malta about	The role of Trade Malta in Malta's economic development strategy		

Transport Malta	How the transport infrastructure is evolving in Malta	The key challenges for sustaining an effective transport infrastructure in Malta	An overview of the strategy for developing Malta as a regional logistics hub	
Business 1st	The extent of contact that Business 1 st has with FDIs	Any issues that FDIs talk with Business 1 st about	The role of Business 1 st in Malta's economic development strategy	
Non-government agencies and institutions				
Malta Chamber of Commerce, Enterprise and Industry	How Malta's economic development (strategy) supports the business development of member businesses in Malta	How the work of MCCEI influences the formation of Government's economic development strategy	Any thoughts about implications for social and environmental challenges that Malta may face	
General Retailers and Traders Union	How Malta's economic development (strategy) supports the business development of member businesses in Malta	How the work of GRTU influences the formation of Government's economic development strategy	Any thoughts about implications for social and environmental challenges that Malta may face	
Academia - University of Malta				
Director – ICCSD; Associate Professor - Geography	The sustainability of Malta's rapid economic growth	The implications for social well-being and the environment	Examples of current sustainability initiatives being undertaken in Malta	Views on how transport infrastructure could be improved (in relation to the CEOs of our case studies stating that the local transport infrastructure is an issue)
Head of Department - Engineering	An overview of the development of engineering and technology	Research and development projects in engineering and technology currently	The University's involvement with Government in developing policy around	

	education in Malta	undertaken by University	research and development projects
Professor of Sociology; Pro-Rector - International Development and Quality Assurance	Thoughts about current FDI in Malta and any opinion about the manufacturing sector	Thoughts about the effect of the current economic development in Malta on society and the environment	The University's involvement in the formation of an economic development strategy for Malta

Appendix II: Transcript Company A 2017-05-15 May 2017 GM 1

Company A - Case Study - May 2017 – GM 1

Research title: “An investigation of Malta’s evolution in global value chains and the implications for sustainable development”

Interviewee: General Manager

Case study: Company A

Date: 15th May, 2017 - Start time: 14:45 (1st meeting)

Full transcript

Duration: approximately 1 hour

The meeting started by outlining the interview questions to the interviewee:

1. The rationale for the original FDI in Malta
2. How the company developed in Malta
3. How Malta fits into the corporate supply chain strategy
4. The company’s perception of how Malta has developed as a business location
5. Malta’s continuing attractiveness as a business location.

His free answers followed in his own free conversation basically covering ‘Business development supply chain strategy (corporate) – Company A (subsidiary) fits in how?; culture change within the Group; corporate’s and subsidiary’s views regards to Malta; and Corporate’s supply chain strategy.

In the past Corporate’s philosophy was based upon subsidiaries operating as independent companies – even selling their products, in competition with sister companies, selling their products to maximise profits as an individual company, rather than within the group. The present corporate philosophy is moving into ‘information management’, for a coherent operation between subsidiaries (and holistic). The aim is to increase overall gains through exercises like consolidating service providers; hubs for eventual stock minimisation; keeping zero stocks in subsidiaries and sales office close to Germany (the Corporate headquarters), e.g. in Austria, Switzerland being provided by hub in Germany, also a regional hub for Europe.

The mother company is strong in West and South Europe; and is now looking at US, Brazil, China as hubs. The Group’s supply chain comprises manufacturing, hubs serving downstream; with final assembly prior to releasing product into the market (medium / high volume). The upstream portion of its supply chain is based on specialisation within its subsidiaries, using multiple channels / streams, perhaps aimed at reducing risk by adopting a 90/10 policy – in-house production and outsourced production respectively. The intention is risk mitigation against 3rd parties. This policy includes distribution with regional hubs, aimed strategically towards markets and location; where the Middle East is being considered as a significant potential. In the above context, Malta holds a strategic position to reach and serve the Southern European, North African and Mediterranean regions.

Initially, the Group’s culture was based on labour cost. Currently, it has shifted to “excellence in the product we produce”.

Talking about FDI in Malta, the use of English language; knowledge transfer; culture.

1980's (flexible and adapting labour force); tax holidays; investment aids, have all been important and attractive elements. Considering a couple of manufacturing contexts, early production industries in Malta followed upon creation of volumes to be self-sustaining (e.g. pharmaceutical and electronics). Electronics, initially had no strategy (various companies) but eventually proceeded to transfer expertise to younger generations. Resultantly, Company A has become the centre of excellence for electronics within the Group.

When it comes to FDI location in Europe, there is competition with Eastern Europe (in comparison to Malta's location). So Corporate steered further towards added value in its supply chain to fight competition, having other manufacturing sites in Europe, with Company A being the only electronics manufacturing subsidiary plant within the Group for electronics. Competition for Company A is not internal but external. The Group's electronics manufacturing is in Germany and Malta, based upon the decision to produce in-house and where to consolidate. This is the relationship between Malta (subsidiary) and Germany (mother company) - building upon where there is knowledge already (Malta). In 2016 it has been decided to produce within the Group (electronics manufacturing in Malta); while outsource to 3rd parties, e.g. Hungary. There was an exercise to measure pure cost – a benchmarking process, where Company A emerged as slightly higher. However, Company A provides significant added value in elements like the selling factor; manufacturing prototypes and production of samples at an accepted cost; reaction time; flexibility; in-house resources; reliability to deliver; good delivery times. Malta plant is also involved within an integrated process with R&D with the aim and result to reduce defects; establishing process stability; purchasing, production and product reliability; product cost; design; making samples, cost (80% is made up of component cost); component rationalisation. Purchasing of components is being transferred to the Malta plant (Company A) taking on both operative and strategic functions.

Company A provides overall added value – in the electronics and diaphragms manufacturing, it takes the initiative; in the sensors production it follows the mother company, at the same time providing information to Development to reduce wastage and increase productivity. Company A's contribution to R&D is to make product cost competitive; set upon the notion that expertise lies in the production process - an FMEA process (failure mode and effects analysis).

The island / survival culture is reflected in our attitude (the Maltese workforce) – being flexible, adaptive, accommodating; possessing a complementing culture within a context of mixed attitudes and mentalities, i.e. Maltese and foreign.

Company A (the Malta plant) has also built up knowledge added value through and accompanied by internal optimisation, and by providing knowledge transfer to R&D for facilitating manufacturing. Its intangible values include efficiency; geographical position; cost; productivity; innovation working towards the corporate target of 500/10 (500 million Euro turnover, 10% profit until 2020); sustaining its position in the long run upon knowhow; low cost; its product on the high end; the brand strategy; efficiency gains; savings. Corporate still owns technology, processes; sales and profit; education systems.

End of meeting.

Appendix III: Transcript Company A 2017-05-15 May 2017 JS

Company A - Case Study - May 2017

Research title: “An investigation of Malta’s evolution in global value chains and the implications for sustainable development”

Interviewee: Purchasing Manager

Case study: Company A

Date: 15th May, 2017 - Start time: 11:00

Full transcript

Duration: approximately 1 hour

The meeting started by outlining the interview questions to the interviewee:

1. The rationale for the original FDI in Malta.
2. How the company developed in Malta.
3. How Malta fits into the corporate supply chain strategy.
4. The company’s perception of how Malta has developed as a business location.
5. Malta’s continuing attractiveness as a business location.

His free answers followed in his own free conversation basically covering ‘Business development supply chain strategy (corporate), the placement of Company A (subsidiary) in it; culture change within the Group; and Company A’s important role in purchasing and challenges encountered.

He starts the conversation by mentioning issues encountered in his purchasing role and highlights the challenge of procurement by asking “Where do you buy from?” Germany (meaning the mother company) is highly exigent on the quality of raw materials bought for its production – it is a corporate belief, having always held on to the culture of buying European. Now, a process is very cautiously and painstakingly being permitted to change to Asia for certain procurement. There is a wide variety of materials to source and purchase. It requires a vast know-how. The electronics production makes up 65% of the total materials base of all Company A’s production lines. Other issues arise from dealing with distributors and not directly with manufacturers, as used to be the case before, with the latter now detaching themselves from direct selling. Then there are also buy-outs, for example Avnet Electronics and Arrow Electronics. Buyer power is another factor that reduces a buyer’s supplier database, and consolidation of requirement for different plants within the Group has to be applied to build volumes to give more power to the procurement function. Finding alternatives, not only suppliers, but also manufacturers, is another challenge

The mother company has assigned all electronics production and assembly to Company A - both SMT (surface mounted technology) and THT (through-hole technology) processes for a total of 250 PCBs (printed circuit boards). Concurrently, the operative and strategic functions of purchasing have been transferred by the mother company on to Company A in Malta – a corporate decision which was based on Company A’s high standard of performance and production. Basically, the “feel is in Company A (brains, heart, fingers – for the company’s branded pumps).

One has to think out of the box, when considering and deciding between Europe / Germany vs. Asia; supplier vs. supplier; manufacturer vs. manufacturer (for technical

specifications) when purchasing. A continuous price comparison and benchmarking exercise is followed for electronic components. This, in the current demand increase in electronics materials (internal and external); the inherent problems regarding supply chain; no chance for better prices; and no commitment from suppliers on delivery times.

The above factors all drive towards making production more flexible, being compelled to adapt. Things get more difficult when distributors look for best markets for their commodities – it is indeed a fluid, dynamic sector (both market and technology). Distributors even hold inventory sometimes, for price advantage. Eventual delivery time fluctuations result, e.g. an increase from 5 weeks to 36 weeks for delivery. With key suppliers, we ask them to confirm lead time, following an exercise on weekly basis.

Internally, Company A operates on a 'lean' policy – that becomes dangerous – even more in the present situation of the component market. The Corporate Group's strategy is to apply a reduction of its global inventory by 2020 – even between group subsidiaries. This has to be done in the face of unstable customer demand. Company A resorts to a close monitor and keeping of buffer stocks, applying ABC classification, and looking at what went on in the last 4 months – to prepare ourselves for the next levels of inventory.

R&D will remain at the mother company, although Company A is trying to penetrate. It only makes sense when considering the close ties between R&D, Purchasing and the necessary communication between them. A cultural change is gradually happening within Corporate. There is a change in top management. The founder of the Group has passed away in 2016, hence a current transition period for the Organisation's culture and strategy.

For Company A in Malta, the current Operations Director is in Germany (the headquarters), while the General Manager is Maltese and based within the company locally. The Malta plant is entrusted with the production of key components for the final product, while also having to have contingency materials for planned projects. It becomes a political issue. Muscle power might be used with local suppliers, apart from the advantage of proximity.

It becomes a choice (where possible) between overseas companies vs. local companies. The 80 / 20 rule is integrated into the inventory holding plan. Low cost and new sources are constant elements - there is the price pressure. Then the factor of advantage of overseas companies is also present over both the mother company and even more on the Maltese subsidiary, who may both be considered as a smaller customer by these organisations – they are 'bigger' organisations – perhaps a size culture?

Company A in Malta is the supply base for rubber products, electronics and probes, while the sales office in Malta co-ordinates with the sales department in Germany. For the sake of the local operation and planning, it makes a difference having an office in Malta vs. Europe.

Government may be in favour of an increase in manufacturing in Malta; but is pushing more for services industries like financial and gambling / gaming.

When it comes to cost comparison, it results that Eastern Europe is more expensive than Malta for manufacturing. Malta is good for costs, and not as easy as mainland Europe for logistics. When it comes to labour, Malta has a flexible labour force and mentality; perhaps some union limitation through intervention. Employee control perhaps is an important factor (e.g. sickness) in a manufacturing environment. Although Maltese are also English speaking, there may be an element of language barrier arising from the German culture of using the German language within a German organisation.

End of meeting.

Appendix IV: Transcript Company A 2017-05-15 May 2017 JC

Company A - Case Study - May 2017

Research title: “An investigation of Malta’s evolution in global value chains and the implications for sustainable development”

Interviewee: Financial Controller

Case study: Company A

Date: 15th May, 2017 - Start time: 12:15

Full transcript

Duration: approximately 1 hour

The meeting started by outlining the interview questions to the interviewee:

1. The rationale for the original FDI in Malta
2. How the company developed in Malta
3. How Malta fits into the corporate supply chain strategy
4. The company’s perception of how Malta has developed as a business location
5. Malta’s continuing attractiveness as a business location.

His free answers followed in his own free conversation basically covering ‘Business development supply chain strategy (corporate) – Company A (subsidiary) fits in how?; culture change within the Group; corporate’s and subsidiary’s views regards to Malta; and Corporate’s supply chain strategy.

The interviewee stated by talking about his background and previous employment with Combino Pharm; Medichem within the pharmaceutical manufacturing sector. He describes the sector as a club, while saying that “you need a lot to join it”. This involves generics (knowledge thereof); pricing; the race vs. competitors; and the price life cycle.

Switching over to Company A, he states that it has been an investment trajectory by its mother company. The Malta plant has also seen a change in business portfolio, e.g. probes manufacturing; R&D involvement; becoming leading manufacturer for electronics within the Group; performing well compared to other subsidiaries.

Corporate strategy was to stretch as much as possible across the globe; to reach as much as possible; a multi-national; and reducing the load from its head office, its payroll, being partly transferred on to Plants (subsidiaries) within their ‘self-sufficient’ operations.

Why Malta was a success – he attributes this to quality and efficiency, when it comes to procurement of components and the production of sub-assemblies – all creating value. As a comparative example, once the mother company tried electronics in China –the yield was not above 70%, inspite of the lower cost) – China could not produce ‘quality level’. Corporate holds high quality parameters. Challenges faced by the Malta plant’s procurement role include long lead times; basically having an effect when the long suppliers’ lead times play against the short delivery times requested by customers.

Corporate is increasing its efficiency measures, including KPI’s and the engagement of more technical people. The Head Office is restructuring, also observing KPI’s – it is becoming increasingly more focused.

How is the increased investment in Malta justified? It is not only about cost – the Malta plant might not be the cheapest, but it scores high on Quality and its link to R&D – Company A working very closely with Headquarters.

Continuous (weekly) testing is carried out on cost and pricing, including the production of samples, which is done in Malta, being also costed without the need by headquarters for a feasibility study regarding the subsequent product that will be produced by the people who will work on it (same Plant – Malta subsidiary). It is about producing from day 1- as compared to pharmaceuticals where lab testing is applied, involving also eventual product transfer; scale-up; cost trap; volumes; batch; and yield.

The Malta plant faces challenges like product change which could result in component obsolescence. This necessitates rigorous stock analysis. However, compensation is requested from the mother company.

Corporate had adopted ‘cost-plus’ policy 5 years ago (a method of pricing the product in which a fixed profit factor is added to the costs) across all its production plants. This required budgeting; detailed projections of production and products; the creation of cost centres; hourly rate per cost centre – all was discussed with Head Office. New and improved software was introduced and installed across subsidiaries and mother company, to incorporate BOMs (bill of materials), routings (representing stages in the production stages and defining work-in-progress for inventory purposes). This added value by breaking down by production stage; facilitating cost centre rates by direct cost of product and overheads; with recommendations coming from both subsidiary and mother company, together with concurrent negotiations and proposals.

Transfer-pricing was also applied by the mother company on its manufacturing subsidiaries (including Company A in Malta), being a new concept, since subsidiaries were not used to transfer profit to the mother company in previous policy. This dictated further stringent accounting principles; and perhaps a reluctant reaction from subsidiaries (by not wanting ‘their’ profit to be transferred. But this was applied even for reaping benefit from taxation purposes. Agreement was reached and established between the mother company and Company A (as a subsidiary). Agreement was extended to the licensing and support of software – all based on contract form, including clauses and set criteria. Corporate (the mother company) procures and pays for licensing, e.g. internet, while all subsidiaries partake and benefit, through the extended operating platform, i.e. SAP.

The mother company engages EY as its auditors. It also charges subsidiaries (including Malta) management fees and technical fees, for items that include, work carried out at the headquarters for the subsidiary, support, reporting, based on number of hours – issuing quarterly invoicing to subsidiaries – all stipulated within ‘the contract’. However, all the above has a reasonable basis. It is not only for profit, but certain re-imburement is also given to subsidiaries. It is a process that involves profit, shareholder dividend and refund of taxation.

From the aspect of FDI – Company A (Malta) competes with China, Hungary, and other subsidiaries. It is comparable in some areas while not with others. It is a matter of benchmarking, taking into consideration several elements like manufacturing;

costing; aggressive competitors at quoting (internal and external); economies of scale; innovation; changes; and break-quantities.

Malta has a labour force who is young, educated, English speaking, flexible, and holding a good attitude. The implications amount to best practice. Company A operates shiftwork in some production departments like SMT and Injection Moulding, to justify return on investment on its automated production in these sections; while also having the capacity to absorb previous sub-contracting.

End of meeting.

Appendix V: Transcript Company A 2017-05-15 May 2017 GM 2

Company A - Case Study - May 2017

Research title: “An investigation of Malta’s evolution in global value chains and the implications for sustainable development”

Interviewee: General Manager

Case study: Company A

Date: 19th May, 2017 - Start time: 10:00 (2nd meeting - wrap-up)

Full transcript

Duration: approximately 1 hour

The 2nd and ‘wrap-up’ meeting with Company A started by recalling the interview questions with the interviewee:

1. The rationale for the original FDI in Malta
2. How the company developed in Malta
3. How Malta fits into the corporate supply chain strategy
4. The company’s perception of how Malta has developed as a business location
5. Malta’s continuing attractiveness as a business location.

The interviewee started by saying that the economy is doing well in Europe; also suppliers, with a result of increasing lead times due to high demand. This collides with a stock-reduction exercise in 2016 within the Group.

Then the interviewee was provided with a summary of response gathered from a variety of people (other participants and the points and themes they highlighted) met in between the 1st and this 2nd meeting (while leaving Company A out of it), focusing on domestic and global settings, as shown hereunder:

Focus	
Domestic	International / Global
transport - in / out of Malta	focus on value added
expensive way to do business	Freeport - land problem
perceive control	can handle the big ones'
Malta being an island	MNE's to take advantage of that
groupage freight-frequency	sea in - air out, etc. modes
logistics hub – why – justified?	(could capture local demand in the process)
international competition	human resource
unfair competition - China	MIA - growth is passenger freight
Company G - local focus	problem - cargo
consensus about hub between Freeport - MIA	aircraft parking - space problem - big ones
attract FDI to build hub!	

The interviewee then mentioned several factors and presented various arguments - Freight and logistics: we have to work and compete with a big operator like China – which makes a multi-modal hub absolutely necessary.

Infrastructure: it needs improvement to help the flow of business on the Island.

Economic growth and development: the approach should be ‘Start small, grow gradually’.

Expansion of the local economy: focusing on financial services and gambling, which need little effort to invest.

Supply chain and Logistics: restrained by controlled growth.

Emphasis is being given by government more on tourism, gambling and financial services (than manufacturing), while it should rather follow an examination of the following elements:

(1) Contribution by GDP by sectors (data collection is made by ME; NSO)

(2) There is no clear view of the manufacturing base in Malta.

(3) Smart specialisation needs to be seriously considered.

Profile of FDI (current):

- other sectors have grown (other than manufacturing).

- there is a mix of human capital in the manufacturing sector.

- a shift from manual to technical and digital is happening in manufacturing, though gradual.

- added value comes from process need and satisfying it.

- starter companies are needed – creating own products.

FDI: availability of work force – English speaking; flexible; cheap - providing more overall added value.

Logistics hub: the presence of a logistics hub would increase attractiveness to FDI; while manufacturing base would become stronger - one facilitates the other.

Interviewee was asked: 3PL – what would make Malta attractive to you?

Reply: Maintenance + support services – referring to the general infrastructure.

Interviewer intervened: Initiatives, perhaps they should be demand based (an understanding thereof) for the right perception of a supply base, including location planning.

Interviewee added that there has to be an understanding of logistics in Malta, by looking at the forces operating in Malta, assessing the risks, and considering potentialities. Additionally, one has to look at demand, see what manufacturing base is made up of, and getting to know how stakeholders perceive the whole situation, in a holistic manner.

A 'logistics hub' would not only be a hub contributing to an economy, but would also create attractiveness – with “one sector (manufacturing) influencing other sectors”.

End of meeting.

Appendix VI: Transcript Company J - Case Study – Log. Serv. Prov. May 2017

Company J - Case Study – Log. Serv. Prov. May 2017

Research title: “An investigation of Malta’s evolution in global value chains and the implications for sustainable development”

Interviewees: Managing Director
Business Development Manager

Also present: Joint Executive Officer

Case study: Company J – Couriers – Logistics Service Provider

Date: 18th May, 2017 - Start time: 10:00

Full transcript

Duration: approximately 1 hour

The meeting started by outlining the interview questions to the interviewees:

1. How the company developed in Malta.
2. The company’s perception of how Malta has developed as a place to do business in.
3. Malta as a place to still do business in and any implications.

Their free answers followed in their own free conversation basically covering the Company J’s development; culture change within the Group; business; logistics; views regarding to Malta; and potential business aspects.

The Managing Director started the conversation by immediately mentioning the increasing difficulty encountered when it comes to recruitment, i.e. trying to find people to be employed by the company.

The Business Development Manager followed by giving an outline of how Company J has undergone changes in its operations and partnerships, basically how the business has developed in recent years. He mentioned the connections between TNT and FedEx (the latter based upon GSP (Generalised System of Preferences – USA)). He also gave examples of how customers or potential ones demand a service, such as using RFQ (Request for Quote), for example for consignments for and from Africa and within the EU consignment. He says that customers even export with Air Malta (airfreight vs. courier). A short reference to the operating air carrier was made – mentioning ASL Airlines Belgium, formerly TNT Airways) used in the Europe operation. He then highlighted the difference between the US and European cultures – where the former’s (FedEx) mind-set is based upon ‘legal and quicker’; and the PSP philosophy (People, Service, Profit) - based on the belief that by creating a positive working environment for employees, they will provide better service quality to customers, which would then lead to customers using FedEx products and services.

The Managing Director then spoke about Malta’s proposal for logistics hub; saying that there has to be involved organisations and stakeholders. There would need to be a proper discussion and evaluation of the project, in a holistic manner, before it could be even put forward for consideration.

She also spoke about FDI, such as Company A, opining that smart specialisation is the way forward for manufacturing in Malta, while also referring to FDI in Malta even from outside Europe, like the Indian investment in the pharmaceutical company Aurobindo Pharma Malta.

Switching on to the company business, she states that China is growing a lot, also becoming a consumer. She does not see the Malta Freeport as being part or contributing to Company J's business – their nature of business is different – “will not work for Company J” (who are courier service providers). The Freeport concept is based on a transshipment hub working with shipping lines. With regards to airfreight, she thinks there is “still a lot to be done”, mentioning another company within the local group (a family business) who deals directly with Seaway for sea freight.

The Managing Director then prompts a question: “Decline in airfreight industry – where? – in what? – Malta – with all the i-shopping?” She continues to say the Company J's offering of courier economy express is competitive in all aspects. Considering the manufacturing decline in Malta, hence lower volumes, her opinion is that the cost of airfreight; trailer service (groupage freight) has become affordable - being an organised, regular, shipping and departure service. Such service is currently provided in Malta by Grimaldi Lines, and a lower presence by Tirrenia Lines. With reference to manufacturing and a general customers' demand, Just in Time might present a nightmare for freight carriers, but then it provides an opportunity for courier service.

She then talks again about the Malta Freeport and the increasing business growth related to China and the logistics hub concept in Malta. For the logistics hub idea in Malta, she recommends that a feasibility exercise, should be conducted, for example considering China shipping to US; a SWOT analysis assessing trade-offs; looking at different industries, such as fashion, pharmaceuticals, FCMG; checking about Alibaba policy. Such considerations could provide a better definition for the setting up in Malta of a logistics hub, taking elements like 3PL / 4PL; break / bulk operations; contract agreement with customers and operators; gradual potential for up-scaling.

Returning to the recruitment topic, the director states that talent locally (in Malta) is characterised by adaptability and flexibility. Referring to her own company's policy, she says that employees are considered like ‘family’ – “one of us”, based on a culture of long term relationships – perhaps a different perspective on family business.

Going back to a business discourse, she is of the opinion that there is an opportunity in Malta for some companies to develop a distribution service, while asking whether it “could be a way forward?” She continues to say that “in Malta – providing a service is innate in the Maltese”, mentioning the examples of financial; tourism; catering, plus other sectors. She says that the ultimate purpose is about providing a service, but “politics must keep out of it!” she strongly advises. Bringing back the argument about the potential logistics hub in Malta in relation to the transshipment activity going on through Malta Freeport, she describes it as a global logistics service. She asks: “why is not breaking down [of consignments] is not being done in Malta?” She cautions that pharmaceutical manufacturing companies are moving to China and India. This provides an even stronger reason to look at European and US companies – while there is “even more reason to look for alternative industries for Malta”.

She proposes that there should be a formation of specialised “teams – experts to study sectors that would work for Malta!” She argues about the possibility of the link between the national airport and the Freeport (they are both in Hal Far area in great proximity). She says it “makes sense” logistically and physically, when considering factors like the internal road infrastructure; traffic; delivery companies; and transport issues.

End of meeting.

Appendix VII: Transcript Central Bank of Malta 01.11.2018
Central Bank of Malta – Key informant - November, 2018

Research title: “An investigation of Malta’s evolution in global value chains and the implications for sustainable development”

Interviewee: Governor

Also present: Advisor – Economic Development Issues - ME

Case study: Central Bank of Malta

Date: 1st November, 2018 - Start time: 09:30

Full transcript

Duration: approximately 1 hour

The meeting started by outlining the interview questions to the interviewee:

1. Could you please give us an overview of Malta’s economic development strategy, with reference to FDI in manufacturing?
2. We are particularly interested in the sustainability of FDI strategy, in particular, the manufacturing sector. Could you please give us an insight on this?
3. Have you any thoughts about implications for social and environmental challenges that Malta may face?

His free answers followed in his own free conversation basically covering FDI in Malta and the manufacturing sector, development strategy in Malta, and sustainability aspects.

The Governor started his response by mentioning some manufacturing FDI success stories in Malta, like ST Microelectronics, Brandstaetter (Playmobil Malta Ltd), Aeromaritime Malta Ltd and Dold Industrial Automation Ltd – all having gone through longevity and change.

Then he explains that there is no national development strategy. He says that “we require it to be connected to EU strategy”.

Referring again to the FDI manufacturing success companies in Malta, he points out the size of these companies which could be described as small to medium enterprises, using the term ‘cause and effect’. He asks “Are we attracting that size? Have they made us the way we are? We’ve evolved”, while talking about the FDI manufacturing companies in Malta and the Maltese economy and the interactions between both parties.

He adds that the manufacturing sector has received the most investment from Malta Enterprise, mostly in soft loans. He mentions soft loans given out to support companies with “people and technology” – so companies have people (employees) backed by technology. He mentions the example of Lufthansa Technik who needed 600 technicians. Only 200 were available initially, but then the company invested € 8M in a training programme (through a soft loan), and were able to secure 700 technicians in total.

Mentioning the challenges currently faced by industry in Malta, he highlights the shortage of people, which demonstrates even more that “training is essential – that people remain in Malta”, as he emphasizes.

He mentions yet another example of FDI manufacturing company in Malta, Methode Electronics, who had acquired Merit Malta Ltd. (“the Methode story”), while also saying that some FDIs are even family businesses – explaining their longevity in Malta through long-term investment or anchorage due to transaction costs (re-location).

Then he goes back to issues faced by industry in Malta, mentioning the current significant employee turnover, which destroys the otherwise long standing stability in the local labour market, while also creating instability which in turn compels employers to offer higher wages in an attempt at retention. Employee loyalty is being lost, when they go to other sectors that may be offering higher wages. Investment in training becomes more important, within a ‘connectivity’ exercise between training, innovation, and company and production needs. He mentions that 15% of the current workforce in Malta is foreign, repeating that people change employment even for just a few Euros.

Again, he mentions that the human resources problem is high (unavailability). Government, through Malta Enterprise, invested € 60M in the last 4 years – in soft loans to tax credits of up to € 10K, towards the provision of training to build up in capacity of the local labour pool – to avoid inflation through demand greater than capacity.

Apart from the human resources challenge that industry faces, space is also becoming an issue (with the implication of potentially limiting expansion of existing FDIs and for the allocation of space to new FDIs, including any potential sectors. He brings up the example of a Chinese company coming to Malta wanting to build a dock in Bugibba (in the north of the Island) requesting a 20000 square metre footprint. “That is a problem” he states. The policy becomes therefore to develop in small plots; also demolish old factories and build on top going high. The environmental lobby also exerts its influence on space availability and effects.

When it comes to challenges that Malta may face, the Governor mentions cultural and political implications, impacting on social and environmental aspects. He immediately highlights the increasing demand for housing, caused by a growing population on the island which includes the influx of foreign workers (to satisfy the shortage in the local labour market). He suggests that a break in foreign workers coming to Malta might be necessary, to control this situation. He refers to this as the “Growth plateau” and exclaims [figuratively] “2 million people! Not possible!” He sums it up as a human resource problem. The increasing demand for housing, in turn influences rent-prices. Employees then ask for higher wages; another demand for higher wages also coming from a higher skilled sector of society. The demand for housing continues to encourage the exploding construction industry, where banks hardly get involved in the financing for developers, consequently the consumer is the investor. This presents yet the risk of what could happen “if the bubble bursts”, through a downturn in the current booming economy. A non-industrial mentality seems to be creeping in when importance is being given by Government to new industry sectors, perhaps more than the manufacturing industry.

He sees smart specialisation as the solution towards mentioned challenges like the 'side-lined' manufacturing industry and to reduce the demand for foreign labour amongst others. However, he states that there is no policy set for 'smart specialisation' in Malta, although he does believe that the local labour and skill force is receptive to it. He continues that within this context, there has to be the right legal framework for each sector (of industry in Malta) to establish regulation and to ensure (and attain) stability in the local economy, hence attractiveness to foreign investment.

He then expresses some economic perspectives. He states that GDP in Malta has been slowing down in the last 3 years, but it is still above the average in EU. Currently, Malta Enterprise is looking at proposals from FDI non-EU companies, including 30 foreign non-EU projects, such as from Canada and Israel, completed applications for projects that export to non-EU countries. Looking at the overall FDI base in Malta, he is of the opinion that "the not so smaller ones will survive better", considering the aforementioned issues that companies are currently facing, most notably the current 'culture of employee movement' as he labels it.

In view of the faced issues by the manufacturing industry, he specifically mentions relatively big FDI companies in Malta like Trelleborg Sealing Solutions Malta, ST Microelectronics, Playmobil Malta. He adds that "smaller ones have less problems", referring to 'bigger' and 'smaller' companies, mentioning as a comparative example two pharmaceutical producing FDI companies in Malta, namely Actavis (employee count over 500) and Medichem Manufacturing (Malta) Ltd (employee count about 50).

This brings the Governor to the argument about the amount of Malta's dependency on 10 big companies, who employ over 500 people each, yet being also an economic multiplier, e.g. Playmobil Malta who have 35 suppliers in injection moulding – small companies based locally, with a production apportionment of - 50% Playmobil Malta – 50% sub-contracted companies, hence increasing capacity in certain sectors.

Extending the argument, he quotes the term 'Mittelstand' meaning the ideal size of FDI company within a host country, continuing to state that there is– no strategy about the 'ideal fit' for Malta, but he observes that it emerges, while putting the question "the ideal size of company?" and adds "Not policy – but just evolving". He recalls when in the mid-90s there was an attempt by the government to cap the largest acceptable size of FDI in Malta (e.g. ST Microelectronics), which he states was "a silly thing to do", continuing that there is an "Unaffordable timeline between capping and ideal". Apart from FDI, he says that not all companies may actually be interested in innovation (following upon their traditional and conventional production methods), such as Magro Brothers in Gozo, producing tomato paste.

The Governor concludes by wrapping up the overall situation into what he calls "the trade eco-system" where "every 20 / 30 years", considering it as a phenomenon, "an economy shift happens". His concluding comment is that in view of the current overall situation in Malta, the need becomes urgent for a "strategy that is adaptive, pro-active and fast".

End of meeting.

Appendix VIII: Transcript Malta Enterprise 02.11.2018

Malta Enterprise – Key informant - November, 2018

Research title: “An investigation of Malta’s evolution in global value chains and the implications for sustainable development”

Interviewee: CEO

Also present: Advisor – Economic Development Issues

Strategy Officer

Head of Research

Case study: Malta Enterprise

Date: 2nd November, 2018 - Start time: 12:30

Full transcript

Duration: approximately 1 hour

The meeting started by outlining the interview questions to the interviewee:

1. Please give an overview of Malta’s economic development, in relation to FDIs.
2. How does the work of ME influence the Maltese Government’s development policy and strategy?
3. Have you any thoughts about implications for social and environmental challenges that Malta may face?

His free answers followed in his own free conversation basically covering FDI in Malta and the manufacturing sector, development strategy in Malta, and sustainability aspects.

The CEO started by explaining that in the 1950s, (the initial) FDI manufacturing companies were basically production extensions of their mother companies, mainly from Germany and UK. When it came to management of these daughter companies, the Germans were handing over to Maltese management, while the British still retained their own management. In those days the economies of scale were justified through production volumes. Nowadays, Malta is not competitive anymore (as much as it was initially), when it comes to production. It is to be said that present FDI manufacturing companies have seen a decrease in (proportionate) profitability and a reduced quality of workforce (as compared to the initial engaged Maltese labour force). Yet, social costs are still relatively low in Malta (60% compared to Europe). There is also stability on the Island, which possesses a strategic geographical location which facilitates connectivity by sea, air and electronically. With reference to the labour force of previous years, there was a low turnover in industry, which was based on training provided by the employer and employee loyalty. Now, industry is turning to foreign workers (15% of the workforce is currently foreign). This makes the labour market more volatile with the consequence of discouraging the employer to train employees (investing in training). As an afterthought, this might possibly result in future lack of skills. In previous years in Malta the initial technical training had been provided by the Malta Drydocks. Following that the Fellenberg Institute provided technical training needed for industry. Presently it is MCAST that provides such training.

One has to realise that “new sectors need new skills – technology is changing fast”, as the CEO puts it. One has to face the current “real life” when it comes to industry. Even academia could and do contribute in this through the application of research. He states that strategy is not always converging when it comes to the industrial sector,

and that it should be adopted at EU level, with an emphasis on education. Again he says that “the manufacturing sector is the best recipient for research”, calling it “a post-war” economic development. He explains that it is necessary to link people and technology and gave examples of how Lufthansa Technik had needed 600 technicians, following which, MCAST had set up a 2-year training course to satisfy their need; the same thing happened for SRT who needed 400 technicians. In both cases there were only 200 technicians available at the time of requirement. In view of the above outlined situation, the CEO optimistically remarks that “Malta is small enough to turn process around”. Accessibility is a positive element in Malta.

The current economic growth presents challenges, like the need for training for upskilling the labour force; it impacts on the availability of space, which is needed by the tourism sector, industry and for offices – basically affecting the whole infrastructure. Here he demonstrates the limited availability of space by mentioning two examples of requested space by potential FDI, which could not be satisfied. A Chinese logistics company needed to build a port of their own at St Paul’s Bay and a Canadian medical cannabis who wanted Comino, which is actually a nature reserve.

He says that an average footprint of 2000 or 3000 square metres is still available for value-added industry. Malta Enterprise provides space and financial allocation – they are possible. But ME has to avoid ‘expensive mistakes’, e.g. the allocation of exaggerated footprint like 20000 or 30000 square metres – that is not possible. Building in ‘outside development zone’ (ODZ) is not possible anymore - lobby groups put on the pressure. ME is now adopting a policy of re-building old factories – up and down, to utilise the space.

In the present Malta’s growing economy, there is more demand for services, i.e. service industries. Malta Enterprise also supports micro industries and the general FDI where at the ‘in-phase’ between 50 and 100 euros could be tax free. This government institution also helps self-employed people and supports local demand. An example is the € 60M that went into “the pockets of SMEs. It contributes towards a ‘multiplier effect’, which scheme was first introduced in 2008, covering investments from Germany, UK and USA. The CEO discloses that ME is currently processing 30 projects from 3rd countries. He states that “European countries do not need to invest in Malta [anymore]. This makes ME look for diversification in attracting FDI, like from 3rd countries. It is actually a benefit for Malta, considering that there may be direct competition, e.g. German investment in Cyprus. But diversification attracts more industry sectors, while export goes to everywhere, bringing in a varied basket of currencies to Malta. It actually goes contrary to Porter’s models about threats.

“But there has to be regulation to attract FDIs”, states the CEO. This includes new sectors like ‘Life Sciences’ and the old-standing maritime sector. There also has to be a good response time, i.e. the span between an initial FDI proposal and the final acceptance. This is supported by good legal and financial framework in Malta, together with free trade and Customs procedure as laid out by the EU. It is “How a location evolves to be attractive”, he says, where both regulation and recognizing reality are necessary – “a bit of both”. It is about attracting “the right size of investor”, he continues while stating that some opportunities for larger companies and their subsidiaries exist in Malta. He brings the examples of Baxter (Malta) Trading Co. Ltd and its development in Malta; and the case of induced redundancy of workers by De La Rue

Malta, where ME responded by attracting Crane Currency Malta, who actually invested and absorbed the 150 'experienced' people laid off by De La Rue Malta.

The CEO points out the current investment promotion being undertaken by ME where one-to-one attention is given, including offering of solutions and convincing potential investors to visit Malta. He says that 1 out of 2 invest finally, while adding that larger companies are going to other countries, while mentioning First Croatia Portfolio Malta Ltd (declared as employing 10 people and engaged in sub-contracting activity, turning out to be a risk-rated company). He mentions that ME is still cautious when it comes to dependency on 'big' MNEs to avoid power tactics they might resort to. The CEO concludes by saying: "We cannot be no. 1 in incentives, but we can be 1st in the service we give".

End of meeting.

Appendix IX: Transcript University of Malta 12.06.2019

Professor of Sociology and Pro-Rector- UoM – Key informant – June 2019

Research title: “An investigation of Malta’s evolution in global value chains and the implications for sustainable development”

Interviewee: Professor of Sociology and
Pro-Rector for International Business Development and Quality Assurance.

Case study: University of Malta

Date: 12th June, 2019 - Start time: 14:00

Full transcript (from audio recording, as requested by interviewee)

Duration: approximately 1 hour

The meeting started by outlining the interview questions to the interviewee:

1. What are your thoughts about current FDI in Malta? Do you have any opinion about the manufacturing sector?
2. What are your thoughts about the effect of the current economic development in Malta on society and the environment?
3. Is the University of Malta involved in the formation of an economic development strategy for Malta?

His free answers followed in his own free conversation basically covering FDI in Malta and the manufacturing sector, sustainability aspects and development strategy in Malta.

Professor’s comments:

“Very interesting questions. They will allow us enough scope to delve into the topic at the level required for a doctoral thesis.”

1. What are your thoughts about current FDI in Malta? Do you have any opinion about the manufacturing sector?

I think we have seen in recent years a kind of a renaissance of manufacturing, we have really discovered that in spite of all the theoretical ‘doom and gloom’ scenarios impacting on manufacturing (heralding the closure of the manufacturing history of Malta) I think we have seen that this does not happen. We have reached a plateau in certain industries, where we have managed to hold on to a number of long-standing, almost flagship, industries like Methode Electronics, like Brandstaetter (Playmobil Malta Ltd), and Farsons Group itself (it’s more being a domestic company), but we have also seen of course new manufacturing investment like Crane Currency Malta for example, the most one, so that’s as far as manufacturing having a problem is concerned.

At the same time, I think we’ve also seen a diversification and a deepening of FDI extension and services. It is not something that we have been used to, not something historically normal in the history of Malta, most FDI had been involved in the manufacturing sector, now we’re seeing that IT, software, logistics, and then of course most recently blockchain, AI, etc. All these are heralding a new wave of interest in Malta as an economic gateway to foreign investment, but of course the requirements are different. Where manufacturing for example requires plant, requires space,

requires land, requires material inputs, water, electricity, paper, etc., in the case of services it's an almost 'do away' with all of those. The most important in services is the human capital, intellectual capital; so the ability to find the people, people willing to learn, people willing to unlearn, to learn new things, do away with past practices, embrace new technologies, and then bring them on the run, in the sense these technologies are changing so fast that even though you may specialise in a particular technological area you have to stay abreast, otherwise you become redundant as soon as ...

So we have seen this shift I think, Malta has responded to this shift by extending its educational training and resources and infrastructure. Now we are in a situation where MCAST and the University of Malta are each producing approximately three thousand graduates a year. They each have approximately twelve thousand students. That's not bad, we're still low by European standards, but I think we're making progress. Not to mention ITS (Institute of Tourism), of course, it is still graduating students. So it's a very interesting shift, so like that we have maintained manufacturing in certain areas (in spite of complications), but we have really deepened services, and in such a way that we have enhanced the diversification of the local economy which of course produces a sense of resilience. It produces a sense of strength which should be capable of fading off downturns when they occur, because this is just a question of time.

Downturns will happen. The economy cannot continue to grow at this fast rate, so when it happens I think we are prepared to the extent that not all economic activities are likely to get a 'hit on the face'. We have transshipment, we have tourism, we have finance, manufacturing itself (less profitable)..., so there are so many areas which all considering, should allow us to bear the brunt of an economic storm when that appears on the horizon. So my opinion about the manufacturing sector, which is the follow-up question, is that yes, there is scope for manufacturing in Malta and it seems that it is a manufacturing sector that has itself evolved in such a way that it is no longer labour dependant. The labour input, labour is a factor, in a strategy, cost of manufacturing it used to be as high as for example seventy percent in the case of textiles. Now it's no longer the case. Most manufacturing investment today, including domestic, has lower labour requirement which is a good sign because it is by means of technology that you build your competitiveness. You don't build your competitiveness just on the basis of the human person, except in those niche sectors like high-end hospitality, where personal services, grooming, I don't know... There are very few services that only depend almost completely on the character, the personality, the position of the individual. *EVF example, old people's care for example*, - but even there, technology has changed the layout, the operation, the management itself, and that technology is taking the place of a real person.

Of course, the main challenge these days, therefore, because we have shifted our economic fabric, to what it is now. The main challenge is human resources – and there the answer, I'm afraid I'm a little bit critical of what is happening. I mean, of course the obvious answer to shortage in labour supply is to provide that supply. So there aren't enough people here, we import workers from abroad. However, I think it is also an opportunity for us to consider the technologies and different ways of doing things. And so, especially where manufacturing is considered, I think we are not fully appreciating the urgency of doing the quality leap from simply replacing labour with labour, to

replacing labour with technology – robotisation, mechanisation, investment in IT, etc. are I think the long term solution to the challenges of labour shortages in the present situation. *EVF robotics, automation.* And we have for example Farsons, who have unlike many other operators that have decided rather than simply replacing people or adding people to their process - they have invested in robots. Their assembling plant now is completely robotised. And that is I think the key to long term competitiveness. *EVF I have been talking to some other manufacturing companies and as well, they are pushing towards automation. They have to. EVF The reasons they gave: first of all, the labour shortage; secondly space shortage, and so they have to find a solution.*

We are an island, an archipelago, surrounded by water, most of the coastline is close to a continental shelf which means that the waters are not shallow, very quickly they become very deep, which makes it therefore impossible to reclaim land. There are very few places left in Malta where you can actually reclaim land. So the options are I think very much stacked in the direction of technological advancement. Which I think, even geography is nudging us in that direction. *EVF That's another consideration – land reclamation – it's an extension of the limitation.* Of course, where would we reclaim land, and with what effect on society? The next question is on society and the environment. Which community is going to say o.k. to dumping of rubble, for example? *EVF. examples of Chinese logistics company who wanted Bugibba and Canadian cannabis company who wanted Comino.* Imagine how communities would stand up against them. But the pressures will be there, they won't go away. *EVF Lobby groups.* But that's the nature of politics. Even here [at the university], on a smaller scale, it happens all the time. Yesterday we [University] had a meeting with a delegation from India, it's a consortium of twenty-two universities, they have six hundred thousand students. They want to send hundreds of students here. Oh, oh, take it easy man! I mean, we start with twenty, see if it works, then perhaps take another twenty, we'll see... *EVF Somebody said that to me "we have to start small, and have to grow big gradually, as much as it is possible".* That is the sustainable way. *EVF ...and that points towards one of the literature sections I mentioned to you – symbiosis – co-evolution.* That allows us the time to get to know each other and to grow together. Very important – 'growing together'.

2. What are your thoughts about the effect of the current economic development in Malta on society and the environment?

This is the big question that's facing us these days. This is the 'hot potato' I think that it is also, in a way, like an elephant in the room – it's rarely debated and discussed and critiqued, unfortunately. I think we need more to dedicate more resources, more time to explore the full impact of what is happening around us. The changes are rapid, the changes are deep, they are affecting everyone. Malta has shot up from eight percent of its population being born somewhere else in 2013 to eighteen percent of the population being born somewhere else in 2018. So just in five years the difference is ten percent. We're the third country in member states of the EU that has the third highest proportion of individuals who were not born in that country – after Luxembourg and Cyprus.

And it has caused many many changes. Just to mention a few, one of the changes is language. Today, where in the past you might have been in a community, in a church, in a bar, in a shop, at school, where people could be assumed to understand Maltese, and people would start the conversation in Maltese and continue in Maltese,

nowadays, very quickly you find yourself in a situation where one, two, three or more people in the group are people from somewhere else. And therefore, automatically you have to switch to English. So the use of Maltese, even though it is the national language, the use of Maltese has retreated. It has retreated to almost the status of an exotic activity. And the foreigners of course also expect that the Maltese speak in English...and the foreigner, who cares about Maltese anymore? We just switch to English and I think that's bad. *EVF That hurts me personally*. And it hurts me too. So hopefully we should take the opportunity, now rather than later, later may be too late, where we have some guidelines about the use of Maltese in public spaces, in events...whether we expect foreigners to be at least offered the possibility to learn basic Maltese. If you expect to operate in Malta you have to have some proficiency in Maltese, nothing drastic. *EVF an entry requirement would be learning some basic Maltese*. But at least it shows your interest, your motivation, your willingness to connect with the local culture. *EVF one application would be 'old people', some of whom can only speak and understand Maltese*. I mention old people again. Carers who are working with these old people who (quite a few of them) cannot speak another language. It's even more serious. *EVF it is more serious – it is in the health sector. A higher risk*. Education – My wife [the professor's wife] works in that sector - there are various kindergarten assistants and carers who can't speak English or Maltese – you can imagine the chaos. *EVF Communication, risk of miscommunication, consequences*. So language is one of the consequences, the social consequences of the economic development. We call it cross-cultural competence. So this means the ability to appreciate the differences, nuances in the way in which people behave, generally, but also in relation to religion, in relation to sport, in relation to dress, in relation to food. There are many aspects where people bring along a baggage of cultural endowments, which can be different from those that we in Malta take for granted. We cannot take them for granted anymore.

Here I turn to the environment. Of course, we are witnessing an explosion of construction, part of which may be necessary of course, to accommodate new families and part of it is probably just speculation. And that is driving the prices of property to the roof. At the university, one of the ways we have been affected, for example is the price of rental accommodation. Up to five or six years ago it would have been normal for a foreign student to come study here full time to rent a flat for about between two hundred and five hundred Euros a month. That is now completely impossible. Nowadays the trends are, for here [the university], about seven hundred and one thousand Euros a month in duplication of expenses, which has made us less competitive. To a certain point. The impact on the environment is I think also a constant of Malta being flush with liquid cash. The bank deposits are overflowing, whenever the government issues treasury bills to borrow money from the Maltese they are always over-subscribed, so money is no problem. But of course, money, when the bank gives you zero interest, or negative interest, you need to invest. And what the people like to invest in? Construction. So it's a vicious cycle. A vicious cycle, and this is proven, this is success breeding failure. We are victims of our own success. Which is also one of the reasons why last year I was being interviewed by a local newspaper, and I put in a suggestion that perhaps for Malta it is time to really start thinking about investing somewhere else, and I suggested Pantelleria, as an option. Because we are living in a 'pressure-cooker' with the pressure valve not working properly. We cannot contain this. This is nothing to do with politics. *EVF Factual, intelligent assessment*.

And I'm not mentioning asthma, respiratory diseases, pollution, waste – waste is a serious problem, which is creating various problems because we don't recycle enough. So all this is building up a lot of stress and it is not a sustainable policy to maintain. It is not the way to look at Malta in twenty thirty years' time. We don't want to turn out Malta into a jungle of concrete. *EVF Another thing that worries me is the example of Ireland. The 'housing bubble'.* *EVF Aren't we realising, aren't we looking at it? Are we shying away from it?* This is unfortunately, when a particular individual, of a particular company, was commissioned to answer that same exact question – the answer was no, there's no housing problem. So he's either wrong, in which case, of course the bubble will happen and people will suffer like the Irish have suffered; and if he is right that would mean that prices will continue to grow. Because demand is always going to outstrip supply. Even when there are individuals who are coming from Northern Europe who are willing to spend more than the Maltese to buy whatever accommodation they need. *EVF and even, the way I look at it, the extreme case – the bubble bursts – but still the amount of foreign influx we have here won't go out of the island in just a month – it will carry on for a certain amount of time. It will drag on.* Nobody knows what the population of these islands is. Because to find an accurate figure of the population you have to have a sense of who are the residents. In fact, these foreigners, even if you ask them, they do not know if they are residents or not. They might plan to leave very soon, and they might not. *EVF it will drag on. It's a paradox at the same time, but... It is a paradox of development.* Agreed. So our success is leading us to the not so successful side effects, which will have long-term implications on the Maltese society and its environment.

3. Is the University of Malta involved in the formation of an economic development strategy for Malta?

Well, because it is the University of Malta, obviously we cannot stay out of that. *EVF I didn't want to put you in a corner.* But you gave me leeway. *EVF it's a natural question.* We are certainly involved because we have also a responsibility. We are really a publicly funded institution of higher education. So hopefully we are producing the graduates that the economy needs in order to not just maintain its economic development trajectory but also to pre-empt what are the requirements of the future. Ideally, our graduates are good enough, skilled enough, adaptable enough to not just satisfy the requirements of the here and now but to be able to move along and plan and they themselves create the scenario of the future. That is at least my hope and my conviction as a university professor. *EVF The word hope places a bit of a question mark and I say that with the implication of different generations with their cultures, their exposures.* Of course - the most recent generation of students is very different from that of twenty, thirty years ago. Nowadays, of course, people, they have their maintenance grant, but over and above that, at least half of them work. So even though they're supposed to be full-time students, many of them are not full-time students. They are part-time, sometimes full-time, employees, or self-employed, earning money and that also means that their educational efforts are not a priority. *EVF Their loyalty ...* They are side-lined. Their loyalty is very often to their pockets, not to their books, and their study and research. So that has implications on the seriousness with which they take their courses, the amount of reading that they do. Their ability to attend lectures, sometimes. There are cases when they have to skip lessons because they're working or ... *EVF So really, what would be the real level, personal level, not from the side of the university, that they could reach, in a way, because it all comes from the depth they have gone into what they have studied.* They might have decided that the

depth is not important. They've got a job already, they're not interested in careers or academic jobs, they won't be in the same employment for forty years. *EVF Which is also a big element currently. Companies I've spoken to ... people are just moving about like ... Huge mobility... EVF...like ants. For fifty cents, they just change their job.* This is an interesting point.

Yes, there is something else of course connected to this question because when you say 'is the University of Malta involved in the formation of an economic development strategy for Malta' – is there an economic development strategy for Malta? *EVF Thank you. Because as far as I know there isn't one. EVF You are confirming...I can mention the names for you – Governor.* OK, good. I'm glad to hear that. Great minds think alike. There is no strategy. So Malta went through, remember, thirty years of development plans and six of development plans up to 1988. EVF ...and master plans. After 1988, we stopped having national development plans and we switched to sectoral planning... the development plans were from 1959 to 1988 – that was by Dr Alfred Sant. ... So we have a number of sectoral plans which are really strategies rather than plans, I mean they are not holistic, comprehensive blueprints. EVF Thank you. You just echoed... the word 'holistic'. That hurts me. *EVF That hurts me as well.* That's another thing that really hurts me, when I think about it. Minister Evarist Bartolo [as minister of Education], he came to open one of the sessions that we held at the university in connection with our strategic planning, we have finalised the draft for five years of strategic planning. EVF I did send some input – I did send some feedback as well. You know I was at the session. For me it's important. It's important. EVF I might be an outsider, or an observer, and that's even more important. So he was congratulating the university for this plan, and he made a very simple comment. He said "Perhaps Malta should have its own strategic plan". And of course we don't. And he made a point in fact. *EVF Which is good. Hopefully, maybe somebody like that could influence somebody else, but who knows? Because, again ...* This question ties in with the previous one eh, because you cannot simply have rapid economic development without a strategy because then the mechanisms of acceleration and growth will kick in and take over a life of their own. This is always the way. We have stakeholders by any means, and their interest in growing the economy. They want even more, more of the same. So they want to encourage the growth of the existing sectors, while keeping out competition. It's a recipe for disaster. It could look great in the short term, and in the long term it would be disaster.

EVF And it will be great for some, but in the long run... I pose a question to myself sometimes, it could sound stupid but it could also be very direct and deep, and that's me: Really and truly, who, how and how much are we benefiting from this booming economy? That's a very interesting question. Especially when new investment coming in has to bring in foreign workers. EVF Yes. And of course they pay very little taxes, so what are we achieving there? EVF There's a leak in the system. Many leaks. That's a very interesting question. Thank you for not asking me that question. It's very tough. *EVF I told you, it's ... The answers are there but as you say, it's a hot issue., and it's very... It's a question where you have to be careful with whom you could be talking about it, how you tread on to it, etc.* I was hoping that with the diversification of the economy the construction sector would have a lower clasp. Unfortunately it has not happened. EVF It has even, this is a personal opinion, it has even increased the power these people have in their hands. The evidence is all around us. *EVF Whoever says no... Has his head in the sand. EVF ... is either a cloud-niner or a liar. Sometimes I*

talk a bit direct. Well, that's good. EVF That's me. I am the same. EVF I think you can also compare me to Professor Maria Attard, you know how she shoots. You spoke to her as well? Oh yes, I'm sure. She gave you a piece of her mind. EVF But, as you said earlier, it's important that different perspectives come out, the basic thing about them is the honesty and the genuinity of the argument. Not just honesty and sincerity, backed by the experience and the evidence. I can back up what I have said with statistics, documents. So I know what I'm saying. It is not just an opinion. EVF Even when I'm saying certain things I don't even go into statistics, you just have to have a look around and they still come out. All you have to be... is to have some intelligence. Hopefully, again as you said, you can't really say to which direction things would move. There are no real indictors at the moment, you can't really see trends, it's just something running forward. Running is the word. We are running. EVF I might draw on some of these comments, sort of draw out of them in the discussion and the conclusion (of my thesis), which would come out of the different perspectives. Not in the conclusion but in the discussion. The conclusion is meant to connect to with what you started off, the literature review EVF and then also pointing to some future... you know points that would need to be taken up for future study.

One thing that I haven't talked about is climate change. Do we bother with climate change? When we talk about development, for example, I don't know, road construction or land speculation. EVF *the effects.* Do we keep in mind that most probably waters will rise? And therefore for example the Burmarrad valley (Wied Ghajn Rihana), the Manikata valley, il-Maghluq at Marsaskala, etc., building in those areas, which has made us less competitive. Some of our most productive and agricultural lands will become marshes, salt marshes. The people in Mgarr won't be able to grow strawberries anymore, in a few years' time. Who is thinking about these things? EVF *First of all, we are definitely not helping. My answer to when people are a bit overpassionate about climate change is – climate change happens anyway, every thousand years there is a climate shift, another age, but we are definitely not helping. We are contributing to speed up the process. Exactly. It's no longer natural. It's on theory. EVF There was a time, we're just mentioning waters, for about a hundred years, for example, Malta was totally submerged, not even a sign of life. Is that going to happen again? Who knows? It's already happening in America. The East Coast. EVF there's already land that's being flooded. Yes I know, Louisiana, etc. EVF yes, it is worrying.*

End of meeting.

Appendix X: Validation of the findings

The University for
world-class professionals



An investigation of Malta's evolution in global value chains and the implications for sustainable development

Emanuel Vincent Farrugia

Key Themes

- Research objectives
- Evolution of case study companies
- Evolution of Malta
- Key research findings
- Conclusion: Malta as a *fitness landscape*

Research Objectives

To assess the factors that impact on the attractiveness of Malta to foreign direct investors in the manufacturing sector

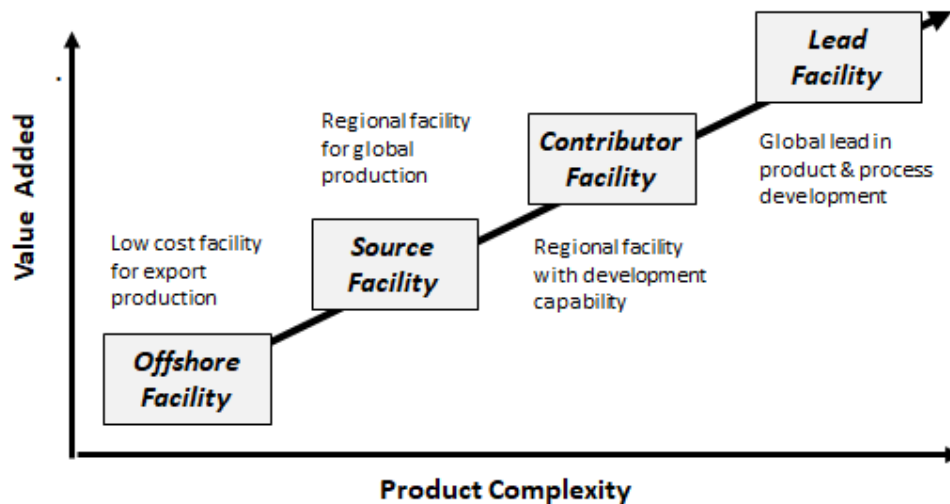
To understand the drivers of Malta's regional development policy

To consider the implications for the triple bottom line of economic, environmental and societal sustainability.

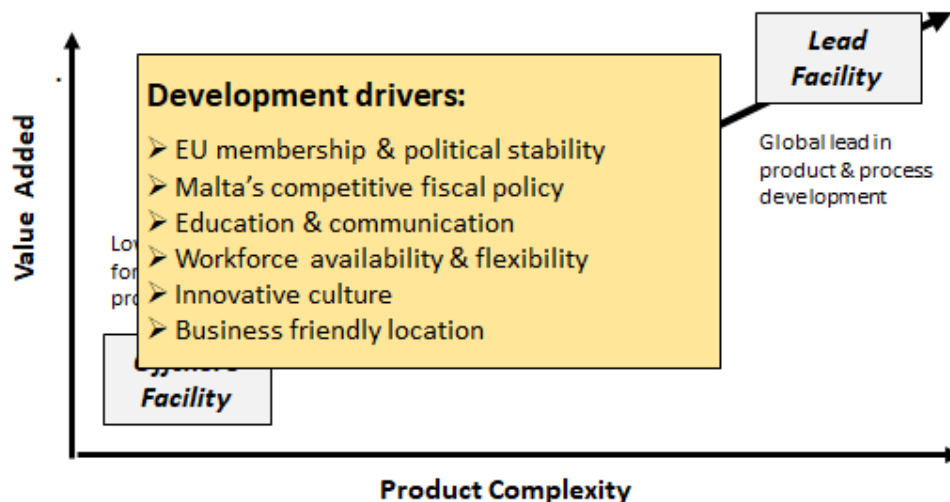
Research Methodology

- Case studies of 6 foreign-owned high precision engineering companies with a long-term presence in Malta
- Interviews with key informants representing a cross-section of Malta's logistics service providers (including transport companies, freight forwarders, Malta Freeport, Malta International Airport)
- Interviews with key informants representing a cross-section of Malta's key institutions (including Central Bank of Malta, Malta Enterprise, University of Malta)

Development Profile of Case Study Companies



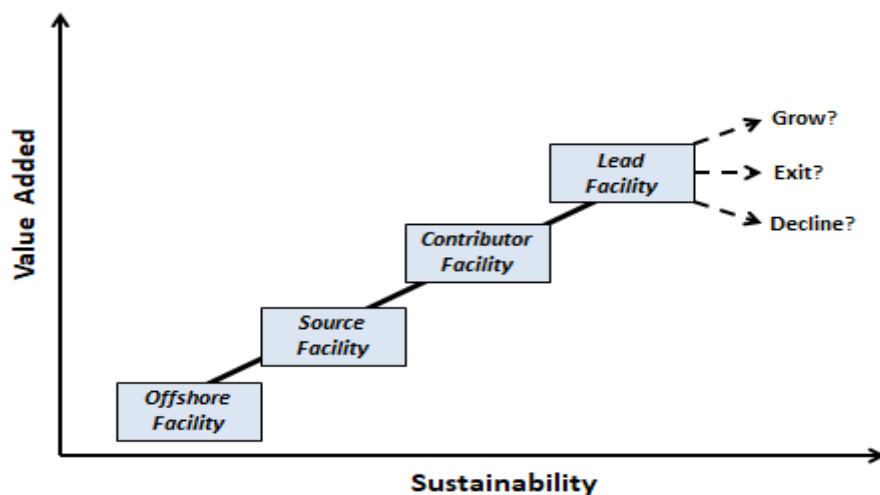
Development Profile of Case Study Companies



Case Study Company Perceptions of Malta as a place to do business

Externality:	Historically:	Now:
➤ Legislative framework	Highly positive	Highly positive
➤ Political stability	Highly positive	Highly positive
➤ Fiscal policy	Highly positive	Satisfactory
➤ Quality of life	Highly positive	Highly positive
➤ Education and communication	Highly positive	Highly positive
➤ Transport Infrastructure	Somewhat negative	Increasingly negative
➤ IT networks	Satisfactory	Highly positive
➤ Labour availability and flexibility	Highly positive	Somewhat negative
➤ Labour cost	Positive	Positive
➤ Trading location	Positive	Positive
➤ Regional logistics hub	Satisfactory	Somewhat negative

Evolution Trajectory of Case Study Companies

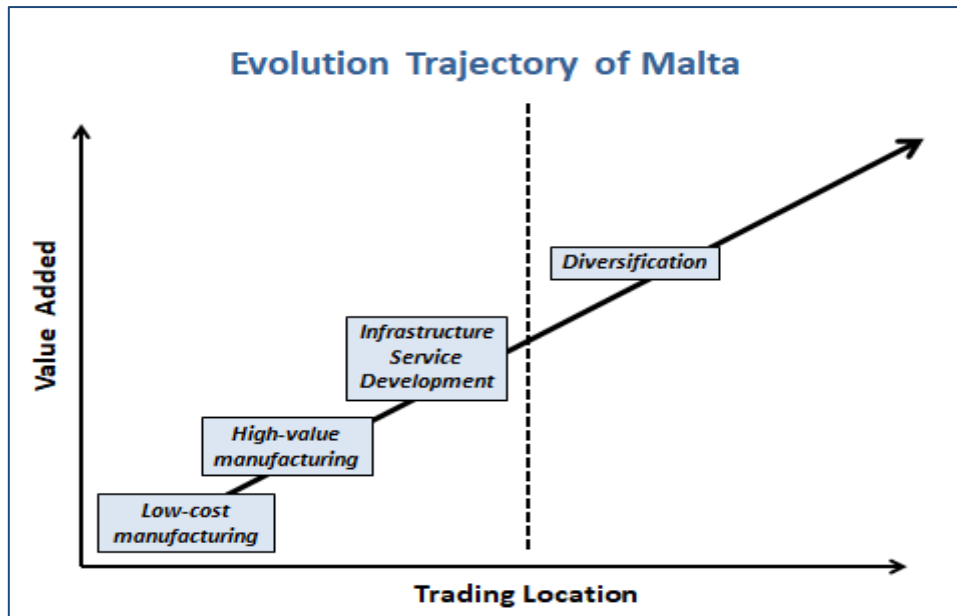


Future Options for Case Study Companies

Grow	Exit	Decline
Malta remains competitive in terms of valued externalities (especially in terms of talent and innovation)	Malta does not remain competitive in terms of valued externalities	Malta's competitiveness gradually erodes as key externalities become difficult to find
<i>Long-term inward investment</i>	<i>Inward investment ends and/or MNE exits Malta</i>	<i>Significant reduction of inward investment – slow death</i>

Answer appears to depend on the continued integrity of key externalities:

- Innovative culture
- Workforce availability & flexibility
- EU membership & political stability
- Sustainable place development



Does Malta have a balanced economic development policy that is sustainable in the long run?

Two types of inward investment diversification strategy:

1. **Smart opportunism:** leveraging externalities such as Malta's competitive fiscal policy and business friendly location (e.g. as represented by financial services and e-gaming). Low barriers to exit. Few long term lock-in opportunities.
2. **Smart specialisation** ⁽¹⁾: leveraging externalities such as Malta's innovative culture, talent pool and education system (e.g. high value precision engineering as represented by the 6 case study companies). Relatively high barriers to exit (at least for now). Significant long term lock-in opportunities.

The research findings indicate that Malta does not have a balanced economic development policy. Is this a reasonable supposition?

Summary of Key Research Findings

- Global value chains
- What makes Malta attractive to GVCs
- Limits to Regional Economic Development
- The Role of Malta's Institutions
- Co-Evolution – Macro Level
- Co-Evolution – Micro Level
- Sustainable Regional Development

Global Value Chains

- The **geography of transactions** ⁽²⁾ concept is key to GVC theory. Essentially, the influence of a node (i.e. subsidiary company) in a GVC network is determined primarily by its relationships with and innovatory contributions to the overall network.
- Such influence depends on the existence of two conditions:
 1. that an individual node will increasingly augment the knowledge flows that originate from the parent so that subsidiaries also become significant sources of innovation.
 2. the spatial context of a node may affect its ability to prosper with respect to other subsidiaries within an activity network (i.e. geography matters).

All 6 case study companies meet these two conditions and represent successful nodes in their respective GVCs.

What makes Malta attractive to GVCs?

- Neo-classical trade theory ⁽³⁾ postulates that some locations are more attractive to investors than others because they generate greater increasing returns than other comparable locations, and that increasing returns are likely to be a cause of and result from specialisation. However, MNEs now look for innovation and knowledge returns from their FDIs. Theory suggests that large economic agglomerations are necessary within a location ⁽⁴⁾.
- All six case study companies exhibit high levels of expertise in product and process innovation in high-value component precision engineering, even though they operate in different sectors. But Malta has no significant sector clusters. The knowledge spillover appears to originate from geographical close proximity of actors skilled in problem-solving and that this is a source of local cultural pride.

Limits to Regional Economic Development

- Malta is running out of the key resource endowment factors that has made the location so attractive for the six case study companies. These are: skilled labour and land.
- There is competition for key resources between long established manufacturing FDI companies and the newer service-related FDIs. Manufacturing companies perceive themselves as a low priority and would prefer a rebalancing of the local economy.

The consensus of most key informants is that Malta's inward investment portfolio is balanced towards short-term opportunism. Is this a reasonable supposition?

The Role of Malta's Institutions

- A region's institutions play a crucial role in facilitating an understanding of policy interactions between regions and the global value chains of MNEs – the so-called *geographies of governance* ⁽⁵⁾. Institutional theory proposes that (i) the concept of legitimacy may explain institutional efficiency within a region; and (ii) the relationship between institutional embeddedness and regional development¹.
- **Legitimacy** ⁽⁶⁾ for institutional actors (e.g. Malta's government and agencies) represents a trade-off between economic efficiency and political agendas, plus social activism. In other words, state organisations operate within the context of an *institutional duality* in terms of balancing economic efficiency with political/social legitimacy.
- **Embeddedness** ⁽⁷⁾ refers to the notion that economic activities are inseparable from social, cultural and political systems. The dynamics of institutional embeddedness may explain long-term inward investment relationships in a region. One key dynamic is *institutional thickness*.
- **Institutional thickness** ⁽⁸⁾ is achieved when a region's institutions: (a) effectively serve diverse roles; (b) are collectively legitimised; (c) discourage behaviours that might impede growth, and (d) help create appropriately dense networks of social relations among economic actors.

The Role of Malta's Institutions

The research findings indicate that:

1. Malta has low tension between efficiency and legitimacy, and therefore a high level of institutional legitimacy. This appears to be the result of a long established entrepreneurial and trading culture, coupled to highly dense social networks incorporating most of the Island's population.
2. An appropriate level of institutional thickness. However, in Malta, the core dynamic seems to be evolutionary bottom-up societal networks of consensus rooted in regional cultural norms, rather than top-down place-making policy.
3. There is evidence that Malta's institutions have demonstrated a high degree of development *path plasticity* ⁽⁹⁾ in response to the evolving needs of its (foreign owned) economic actors. This is a form of co-evolution.

Co-Evolution – Macro Level

- At the macro level, co-evolution takes places at GVC network nodal level between economic and institutional actors (MNE subsidiary and geographical location).⁽¹⁰⁾
- This study found strong empirical evidence of competitive (or co-evolutionary) advantage, derived from a long-term presence in Malta, for the six case study companies and for Malta itself.
- Furthermore, the similarities between both the case study profiles and their respective evolutionary trajectories indicate the possibility that Malta represents an appropriate fitness landscape for the successful evolution of a certain scale and scope of MNE – primarily medium-sized precision manufacturing firms operating within global high-value product markets.

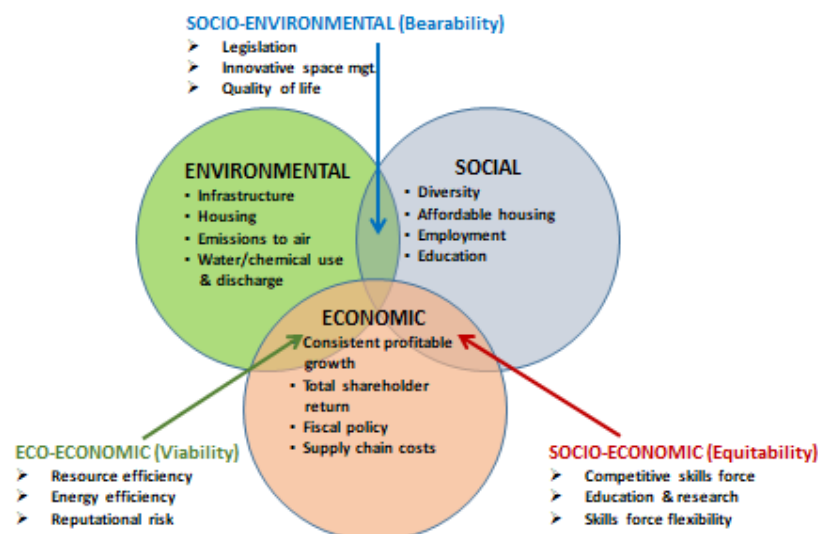
Co-Evolution – Micro Level

- At the micro-level, co-evolution occurs within a GVC between focal subsidiary, parent company and other network subsidiaries. ⁽¹¹⁾
- As the development trajectories of the case study companies evolved, they concurrently became originators of product and process innovation and generators of knowledge transfer within their GVCs. This led to the receipt by the case study companies of successively enriched value creation mandates from their parent HQs – one even became the new HQ of its MNE.
- Therefore, it is reasonable to conclude that clear evidence of micro co-evolution was observed during the study.

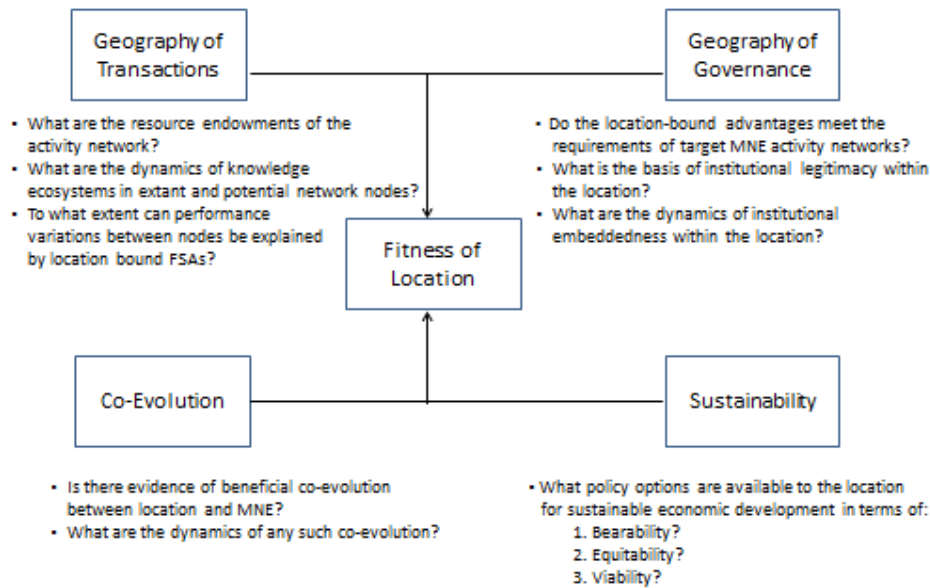
Sustainable Regional Development

- **ALL** key informants have expressed concerns with the sustainability of Malta's economic growth in terms of the environment and social fairness.
- The case study informants indicate that **balanced** sustainable locational development is a key externality that impacts on investment decisions.
- Balanced sustainable locational development involves analysing development trade-offs in terms of *bearability*, *equitability* and *variability*. Most key informants have provided examples of what they consider policy issues with regard to all three trade-offs.
- The consensus is Malta does not have a balanced sustainable development policy. Is this a reasonable supposition?

The Triple Bottom Line ⁽¹²⁾



Location Fitness Checklist Questions



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