Distributed Leadership in Middle Management:

a comparative study of the educational and private sectors

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Abstract

The aim of this comparative and interdisciplinary research project was to investigate Distributed Leadership (DL) in Middle Management (MM) in the public and private sectors in Malta. This is apposite as Maltese contemporary education reforms are creating decentralised school systems and distributed leadership within Colleges. Similarly, in the private business sector, particularly in newer industries such as iGaming, new organisational models are being tried including leadership at lower levels. In addition, DL is currently viewed as the dominant format for both schools and commercial enterprises.

Whereas leading theorists construe DL predominantly as a frame of analysis, other scholars take a more practical or applied view. In both cases, there was little agreement on the meaning of the term, and very few empirical studies of DL in action.

With the aim of contributing a new theoretical framework, this research adopted the structure-agency analytical approach (Archer, 2003) in which structure and agency can be analyzed individually but not comprehended separately: organizational members (middle managers, in this study) who take an active part in DL act as agents within the organizational structure, who respond to, utilize and shape structural resources, cultural and social relations in organizations.

The whole research comprised two phases (Study 1 and Study 2) and it employed an iterative sequential mixed method approach. More specifically, the aims of the first qualitative phase (documentary study, Study 1) were to explore the structural elements of DL in Middle management and to develop a framework for the empirical investigation of the agentic dimension (Study 2). Instead, using surveys and interviews, Study 2 adopted an explanatory sequential mixed method approach in order to investigate DL forms of configuration in both sectors and, in particular, how different levels of middle management involvement in leadership distribution are affected by and/or affect organizational and individual dimensions in both sectors.

So far, Malta has little research on this in either the education, or in the business sectors so this project, by seeking data from both sectors, adds to local studies and to international comparative management studies research on DL, MM and effects of differing organizational cultures. In addition, cross- sector comparisons in MM offered unique possibilities for combining analyses

of variations within dependent and independent variables, improving the foundation for new theoretical developments about the DL construct and its operalization.

Statement of Authenticity

I hereby declare that the work in this thesis is my original work, gathered and produced specially to fulfil the purposes and objectives of this study. To the best of my knowledge it contains no material previously published or written by another person, except where due acknowledgement is made in the thesis.

Giambattista Bufalino

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Chapter 1. Introduction

1.1 Introduction

The aim of this comparative and interdisciplinary research project was to explore Distributed Leadership (DL) in Middle Management (MM) in both public and private sectors in Malta. In the context of the current study, the public sector refers specifically to state schools, namely primary and secondary schools, while the private research context is indicated by the newer and significant industry in Malta, namely iGaming private companies.

At a general level, DL is currently viewed as the dominant format for both schools and commercial enterprises (e.g. Special issue on *Management in Education*, 2016; Bolden, 2011), largely but not exclusively to describe "leadership that is shared within, between and across organizations" (Harris and DeFlaminis, 2016, 12). Whereas leading theorists (Gronn, 2008a; 2008b; Spillane et al. 2007; Spillane and Coldren, 2015) construe DL predominantly as a frame of analysis, other scholars (e.g. Hulpia et al., 2012; Bellibas and Liu, 2018) take a more practical or applied view. In both cases, there is little agreement on the meaning of the term, and very few empirical studies of DL in action in both sectors (Tian et al., 2016).

Hence, in order to supplement and develop the field, the present study aimed to contribute to the further development of concepts and dimensions within the DL framework adopting a "methodologically sound and theoretically driven" perspective (Hulpia et al., 2012, 1749). In fact, one purpose of this research was to operationalize DL and to make it clearly distinguishable, measurable, and understandable in order to explore conceptualizations of DL within middle management in both organizational contexts. I decided to focus on middle management because it takes a position of theoretical and practical interest since middle managers are placed in the center of DL practice and they are directly involved in the distribution of leadership within and across the organizations.

As an introduction to the study, this chapter begins by highlighting the need for undertaking such a study, briefly providing information on the international and the limited Maltese research on DL and middle management. After that, I will be referring to the specific research contexts and to the significance of this study in the Maltese context. Subsequently, I will introduce the

aims and research questions for the study as well as information about the methodology being used. Finally, I present a definition of key terms and an overview of the structure of the thesis.

1.2 Rationales and significance of the study

1.2.1 Distributed Leadership

DL is an established concept in the international literature on educational leadership and business management (e.g. Bolden, 2011; Bolden at al., 2011; Carson et al., 2007; Gronn, 2000; 2015; 2016; 2017; Thorpe et al., 2011; Tian et al., 2016). However, although the general DL theoretical framework may be well investigated, the field lacks clarity in its concepts. Indeed, several literature reviews on DL (e.g. Bennett et al., 2003b; Bolden, 2011; Tian et al., 2016; Woods et al., 2004) notice that the literature lacks a consensual definition of DL and heated debates about the definition of DL have not yet been fully resolved. In fact, DL literature remains generally at either a conceptual or descriptive level and mostly stems from qualitative case studies of educational institutions (Bolden, 2011) without examining leadership from the perspective of the individual (Tian et al., 2016). Despite this conceptual confusion, the DL framework suggests that leadership shouldn't be defined as something an individual person in a certain position exerts. Instead, DL is a type of action that directs and supports coordinated collective action, and as something that can be shared and distributed by choice or by emergence out of daily workplace situations (Gronn, 2002). In this sense, Gronn (2002) points out that when leadership is extended to multiple people in an organisation, the synergy created by the interactions of the different leaders in the organisation is far more powerful than the sum of the separate individual leadership actions.

Harris and DeFlaminis (2016) notice that DL pioneers initially used the concept as an analytical framework, rather than a set theory. As a result, conceptual debates and attempts at identifying defining dimensions have flourished. However, many approaches rely on broad theoretical notions, rather than clear concepts and an explanatory model (Bolden, 2011; Tian et al., 2016).

Given these premises, the present research project attempted to contribute a new theoretical framework (Woods et al., 2004) and empirical evidence to the existing DL literature. In doing so, the framework adopted in this research was based on the structure-agency analytical

approach (Archer, 1995; 1996; 2000; 2003) in which structure and agency can be analyzed individually but not comprehended separately. Grounded in this approach, Woods et al. (2004) distinguish between both agentic and structural dimensions of DL: organizational members (middle managers, in this study) who take an active part in DL act as agents within the organizational structure, who respond to, utilize and shape structural resources, cultural and social relations in organizations. A detailed description of the structure-agency model will be discussed in Chapter 4 (section 4.2).

To sum it up, this research framework (Archer, 2003; Woods et al., 2004) was adopted to scrutinise both structural and agential dimensions of DL and to address the general purpose of the study, that is exploring the DL model in the attempt to provide a better source of its theoretical development and methodological understanding. In fact, the DL field of study needs to proceed in affording more precise methodological operationalizations and to explore relations with outcome variables (Bolden, 2011). I attempt such endeavours as the next stage of research on DL.

1.2.2 Middle Management

In the past decades, middle management continued to be researched in a number of countries even though it was less studied when compared to other research carried out on senior leadership (Collier et al., 2002; Cranston, 2006; De Nobile, 2018; Dinham, 2007; Harris and Jones, 2017; Radaelli and Sitton-Kent, 2016; Simkins, 2012). Also, the Maltese contexts seemed to have received much less attention (Vella, 2015). However, in response to the recognized need to research DL more widely (Harris, 2013; 2014; Hartley, 2007; 2016), there is a growing realization of the centrality of middle-level managers in making a vital contribution to organizational improvement (Harris, 2014). While the different studies on the roles and duties of middle management in both public and private sectors will be discussed in more detail in the following chapters, here it suffices to claim that middle managers can be considered in the 'middle' of leadership processes, since they formally connect top leaders with employees. In fact, by definition, they are positioned centrally in DL and they can be considered as an important expression of DL (Harding et al., 2014). In this sense, this research investigated forms and formats of DL and, in particular, how different levels of middle management involvement

in leadership distribution were affected by and/or affect organizational and individual dimensions in both sectors.

1.3 The research context

The topic of DL is particularly timely, as recent Maltese state educational reforms (Educational Act, 2006; National Curriculum Framework, 2011) created decentralized state school systems and encouraged DL. In fact, this reorganization of state schools has altered the form of the school leaders' roles, and middle managers had to cope with new modes of collaborations and distributed work models. Similarly, in the private business sector, new organizational and flattened models are being tried, including devolving leadership to lower levels, particularly in newer and growing industries, such as iGaming, which is a significant industry in Malta with approximately 400 operators and 8,000 employees, contributing approximately 12% to Malta's GDP (MGA, 2017). In this sense, the Maltese islands have been regarded by the EU Commission as Europe's Gaming Hub (Games Audit, 2012).

In this section, I will describe both research organizational contexts in Malta in order to situate and contextualise the DL topic and its relevance to the purpose of the study. To this end, I will be referring to the major historical milestones related to the development of the education system and the school sector in Malta with particular emphasis on decentralization processes. At the same time, I will briefly provide an overview of the iGaming industry which is considered a key driver of Malta's economic growth (MGA, 2017).

1.3.1 The school context in Malta

Malta has a tripartite system of state, church and independent schools. The majority of the student population attends state schools while about 30 % of the student population attends non-state, that is either Church schools or independent schools (Cutajar, 2007).

Education in the Maltese educational institutions (except those attending Church schools or independent schools) is free of charge and the Ministry of Education and Employment (MEDE) is responsible for the administration, organisation and the financial resources in state schools at

all levels of education. The National Minimum Curriculum and the National Minimum Regulations for all schools are established by the state according to the rights given by the *Education Act 1988* and the *Amendment to the Education Act* of 2006 and 2010.

Compulsory education in Malta is between the age of 5 and 16 and is regulated by the Directorate for Quality and Standards in Education (DQSE) within the Ministry for Education and Employment (MEDE). Compulsory education consists of an 11-year programme (age level 5 to 16) with the first 6 years being covered in primary schooling (Eurydice, 2019; see also more details about the *Stages of the Education System* in Appendix 1).

The past 20 years have seen various attempts by the Maltese government to devolve greater responsibilities to the school site given a history of a highly centralized and bureaucratic system (Cutajar and Bezzina, 2013). Throughout this period, the Maltese educational system has been undergoing a structured, gradual but steady change in terms of decentralization and increased school autonomy, with the main aim being that of renewal, modernizing it in line with global policy development (Mifsud, 2016b). In this sense, one of the major challenges that has faced the reform was how to develop a balanced approach to decision making as one shifts from a highly centralized system to a more democratic and participative model (Cutajar et al., 2013).

The decentralisation process in the Maltese education system could be understood in the light of neoliberal education policies (Hill and Kumar, 2012; Hursh and Henderson, 2011; Peters, 2001) which have been formulated in many European countries (Eurydice, 2013). In fact, the politics of the later part of the 20th century have been denoted by the emergence of neoliberalism (Dohertly, 2007; Peters, 2001; Pinto, 2015) through the promotion of self-management and de-governmentalization of the state (Mifsud, 2016a). I do not intend to elaborate further on each element constituting neoliberal governmentality or to deepen the current debate across different fields (Ball, 2012; 2016; Centeno and Cohen, 2012; Moini, 2006); rather I would like to frame (within this context) the Maltese policy trajectory and its changes in the organisation, structure, and leadership practices in the local education landscape in order to justify the significance and the relevance of this research in the Maltese school context.

An overview of noteworthy landmarks in the development of the Maltese education system, particularly those between 1989 and 2005, will help to give depth and scale to this section of this chapter.

The Maltese education system closely follows the British model (Sultana, 1997) due to the long years of colonisation under their empire. When in 1964 the Maltese islands gained independence from the UK, the political change triggered several revolutionary educational reforms.

Traditionally, the educational system has a large measure of central government control (Cutajar, 2007; Cutajar et al., 2013) and schools are used to working within a hierarchical, centralised and bureaucratic system (Bezzina and Cassar, 2003; Bezzina and Testa, 2005; Bezzina and Cutajar, 2013). Although in 1989 the Minister of Education initiated the devolution of responsibilities of schools, the move towards decentralisation until that time had been sporadic, fragmented and without the necessary visionary framework (Bezzina, 1998).

One can argue that it is only since the mid-1990s that educational reforms in Malta started taking place at a fast and rapid pace (Bezzina, 2019). In 1994, the Minister appointed a Consultative Committee on Education, which submitted a report entitled *Tomorrow's Schools: developing effective learning cultures* (Wain et al., 1995). This document envisaged a shift of educational governance from top-bottom bureaucracy to 'communities' and paved the way for a revised *National Minimum Curriculum* (NMC) published in 1999 to respond to the cultural, social, and economic challenges emerging in Maltese society, in its progression towards full EU membership (2004). As suggested by Mifsud (2016a), this document could be regarded as the first effort at re-culturing the Maltese educational system rather than a re-structuring of the system, since it calls for a "paradigm shift in our value system, beliefs, norms, and skills" (Bezzina, cited in Giordmania, 2000, 456). However, only in 2005 with the publication of the seminal policy document entitled *For All Children to Succeed (FACT): a New Network Organisation For Quality Education in Malta*, the reform process in Malta reached a significant stage in its journey.

While the documentary analysis of the policy documents will be carried out in the following chapters, here it is important to note the introduction of the notion of 'networking' which has initiated the drafting of the new amendments to the Education Act - later ratified as *The Education (Amendment) Act 2006*. In effect, to ensure quality education for all, FACT reinforced the implementation of the decentralisation policy by considering the schools network as "the essential unit of organisation to replace the questionable dichotomy of top-down and bottom-up approach to educational change" (FACT, xi). In fact, the proliferation of the

metaphor of the network has become an established part of many educational landscapes. Whether they have "imposed" (Chapman and Hadfield, 2009, 1) this idea on schools or they foster what Castells terms a 'creativity culture' (2001), according to policy makers, networks have been defined as: "purposeful social entities characterised by a commitment to quality, rigour, and a focus on standards and student learning" (Hopkins, 2005, cited in FACT, 2005, 37). Thus, FACT envisages that through networking opportunities, schools will be in a much stronger position to meet the needs of their students (Galea, 2006). In addition, the challenges related to the networking system are that of creating an intentional learning community (Lieberman, 1996; Bezzina and Testa, 2005; Bezzina, 2006a) in which educators and schools have greater responsibility to determine the way forward and to develop schools as learning communities (Bezzina, 2000; Bezzina, 2006a; 2006b; Salafia, 2003). This implies a process where other members of staff and not only the senior leaders would have the capacity to be leaders and to exercise their leadership abilities (NCSL, 2007). This means that many teachers can also have leadership responsibilities in their schools, while middle managers can be seen as key personnel in improving teaching and learning, also fulfilling various administrative functions (see also 1.3. *Decentralization reforms* in Appendix 1)

The *Education (Amendment) Act*, Cap.327 called for the shift in decision making that saw its inception in the mid-1990s. The government sought to address the situation to adopt a more decentralised approach to policy making. In fact, it was widely acknowledged that the traditional school system was no longer appropriate to take Maltese education into the 21st century and it had become clear that a change was essential.

The radical reform of governance from a hierarchical, apex governed structure, to a new network organisation with more autonomy in the schools and colleges was formalized in the *Education (Amendment) Act* of 2006, which established inter-school networking in all state schools in the Maltese Islands. Following a 3-year foundation plan between 2005 and 2007, all the state-maintained Maltese schools were arranged into ten autonomous regional colleges ('College' is the legal term to denote the network of schools) with primary schools feeding into secondary schools (Figure 1.1, see also *List of Colleges* in Appendix 1). This configuration was meant to ensure that children will begin and finish their education in the same college.

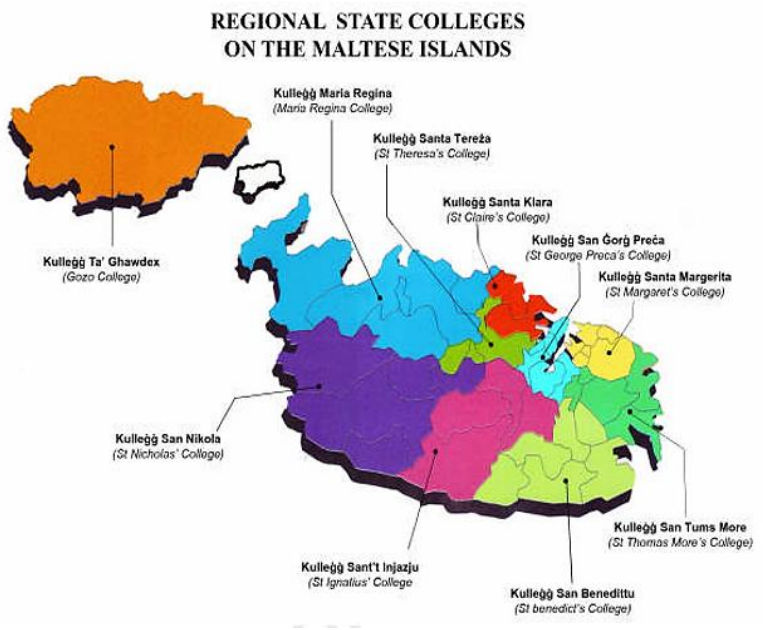

Fig 1. 1 The location of the ten Colleges formed by the *Education (Amendment) Act, 2006*.

Considering the Act of 2006, school governance became central to our policy-making discourse, particularly with implications for collaboration within and across levels, encompassing both internal and external accountability. In fact, the *Education Act* (2006) sanctions the concept of decentralization in a number of areas, which gives the State Colleges and schools more freedom of governance. It gives each of the Colleges "…legal and distinct personality…" (Cap.327 Art. 50, 1).

The 2006 Act also sanctions the provisions for:

- a consultative College Board,
- a College Principal, as the Chief Executive Officer of the College, who is accountable to the College Board,
- a Council of Heads, formed by the Heads of all the primary and secondary schools within the college, who is accountable to the Principal,
- and that all the educators of the college involved in the educational journey of their students will be accountable for their actions and teaching.

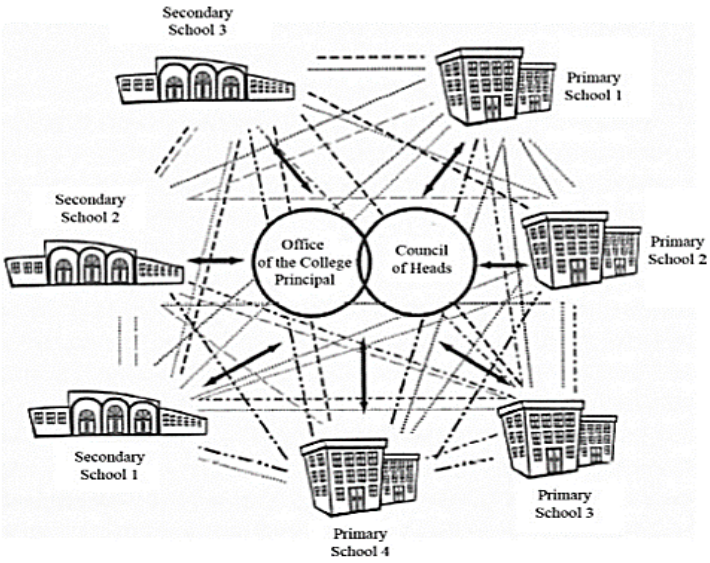

Fig. 1.2 Representation of a College structure (Fabri and Bezzina, 2010)

After almost a decade from its inception whether the benefits of DL are realized in practise remains an open question (Mayrowetz, 2008; Cutajar et al., 2013). Recent local research (Bezzina, 2006a; Cutajar and Bezzina, 2013; Cutajar et al., 2013; Mifsud, 2015a; 2015b; 2016a; 2016b; 2017a; 2017b; 2017c) has shown different approaches; however, the consensus view is that the decentralization and autonomy have only been partially achieved. In fact, while a top-down approach to change management continues to be adopted, the opportunity to establish and develop a network seems to represent a missed opportunity (Cutajar et al., 2013). Although having empathised the issues of ownership and implementation, an independent large-scale study commissioned in 2011 by the Malta Union of Teachers (MUT) indicated also that College System has facilitated increased collaboration and cooperation in terms of sharing of facilities and resources across the board (less than six in ten respondents; n=1474) and it has been instrumental in the introduction of new roles providing increased professional support. Results showed that the vast majority of the 1474 respondents (more than eight in ten) indicated that the College System has brought about an increase in the volume of work both to personnel in the teaching grades as well as to the school Senior Management Team (Borg and Giordmaina, 2012).

1.3.2 The iGaming sector in Malta

Malta is the smallest country in the European Union with a Gross Domestic Product (GDP) of €11,108.6 million and a population of 413,000 in an area of 316 km (National Statistics Office, 2018). According to *The Global Competitiveness Report 2016-2017* (World Economic Forum, 2016), the most comprehensive assessment of national competitiveness worldwide, Malta has been placed in the 40th place amongst a rank of 138 economies. Moreover, in 2015, Malta's growth outpaced the growth registered at EU28 level, which stood at 2.2 per cent and the Euro Area 19 at 2.0 per cent, a pattern observed since 2012. As result, the Maltese economy expanded by 7.4 per cent. In 2015, Malta registered the fifth highest employment rate among the young and the third lowest employment rate among the old (National Statistics Office, 2016).

In this economic scenario, the iGaming industry is one of the largest and fastest growing industries in Malta. In fact, it is estimated to have generated just over €1.1 billion in terms of Gross Value Added in 2017, as shown in Table 1.1, with the sector's share in economic value-added standing at 11.3%.

	2015	2016	2017
Number of licences (remote)	490	513	625
Number of companies in operation	276	266	294
Gross value added (€m)	€901.9	€1,006.3	€1,108.4
Employment - Full-Time Equivalent (FTE) jobs[3]	4,707	6,193	6,673
Remote	3,908	5,327	5,861
Land-based	799	866	812
Gaming tax revenue (€m)	€55.2	€56.3	€59.1

Note: Number of licences (remote) and number of companies in operation relates to stock as at the end of December and refers solely to the MGA licensed entities.

Table 1.1 Headline indicators of iGaming industry activity (MGA, 2017)

Despite the rapid growth of iGaming in the last few years and the direct contribution it has had on the European economy, a clear definition of what constitutes 'iGaming' is still lacking. Due to this absence, the definition of 'iGaming' remains vague and broad, and therefore it can be said that it encompasses any type of gaming offered by means of distance communication (Chetcuti, 2014; Mamo et al., 2019).

Traditionally it was called ‘gambling’, a practice that has been around in some form or another for thousands of years. The introduction and advancement in technology and new communication systems has created a new way of gambling referred to as ‘Remote Gaming’ which Zammit et al. (2016) and Grima et al. (2017), define as any form of gaming by means of distance communications. In fact, the activity of gambling is regulated by the term ‘gaming’, rather than ‘gambling’, under the Maltese legislative framework. In this sense, iGaming is defined as an activity consisting in participating in a game, offering a gaming service (business to consumer) (B2C) or making a gaming supply (business to business, B2B).

Maltese legislation does not distinguish between the medium providing the activity (online or land-based) and therefore the general definition of gaming applies to all gambling, regardless of the channel of distribution adopted by the operator to reach its customers.

Drawing on the recent *Gaming Definitions Regulations* (2018) in this thesis the ‘iGaming sector’ refers to the economic sector focused on the provision of gaming services and gaming supplies gaming service.

In 2004 Malta became the first EU Member State to enact comprehensive legislation on remote gaming. In fact, industry stakeholders consider Malta as one of the foremost tried and tested jurisdictions in the world (MGA. 2017). Malta introduced its new *Remote Gaming Regulations* in April 2004. These regulations were a much awaited mile-stone superseding the previous law regulating offshore betting offices. In this sense, Malta has been able to capitalise on its EU first mover advantage and has continued to be proactive in developing its regulatory framework to sustain the island’s competitive edge at the forefront of the gaming sphere.

Today, Malta hosts in excess of 280 remote iGaming operators (that is, operators that provides its gaming service in gaming premises) holding 460 plus active licenses (Table 1.1) for online offerings such as casino-type games, online lotteries, poker derivative games, peer-to-peer (P2P) gaming and game portals, and sports book operators, amongst others.

Fig. 1.3 indicates that, excluding public administration, the iGaming industry has consolidated its position as the third-largest sector in the economy, exceeding in terms of size of value added other sectors which were traditionally major economic pillars. Furthermore, iGaming contributes to the generation of value added through input-output linkages in other major

sectors, including professional services, financial and ICT activities, hospitality and catering services, distributive trades and real estate.

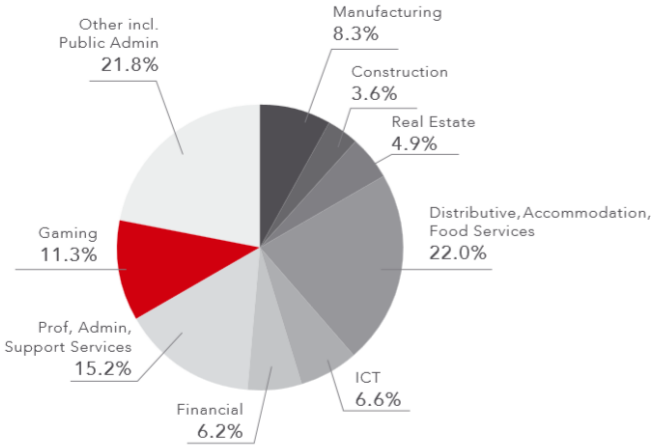

Fig. 1.3 Contribution of the iGaming Industry to value added (MGA, 2017)

The economic success in the iGaming industry was the result of a smart specialization strategy (Georghiou et al., 2014). Malta's economic growth has been assisted by the transition from a dependence on manufacturing, towards a service economy, and the creation of industry sectors reliant on higher value-added economic activity (see also *Gaming Industry Growth Statistics* in Appendix 2). More specifically, in the 1990s, the structure of the Maltese economy started to be slowly transformed into one embracing more knowledge sectors like financial services, ICT companies and iGaming (Falzon, 2014). This transformation intensified into the beginning of the 21st century (Ernst and Young, 2015) with the publications of amendment to the Department of Public Lotto Ordinance (LN. 34 of 2000). In fact, in 2001, The Public Lotto Ordinance was replaced by the *The Lotteries and Other Games Act*, which provided an effective tool to regulate gaming activities. As a main priority, the law set up the Lotteries and Gaming Authority (LGA) a single regulatory body that was responsible for the governance of all gaming activities in Malta. In this sense, the enactment of the *Lotteries and Other Games Act* vested the LGA with a wide array of powers, thereby providing the necessary tools to implement effective regulation. Overall, *The Act* was virtually a clear acknowledgement of the existence of the iGaming industry (Fenech, 2004). In 2004, Malta became the first EU member state to regulate iGaming and in May 2004 it realized the *Remote Gaming Regulations*. (see also *Origins of iGaming* in Appendix

2). This move gave licensees the benefit of being located in and regulated by a jurisdiction that forms part of the European market. In 2015, the Lotteries and Gaming Authority (LGA) has changed its name to Malta Gaming Authority (MGA) which is now the single, independent, regulatory body responsible for the governance of all gaming activities in Malta, both online and land-based (see *MGA section* in Appendix 2).

1.4. The relevance of a comparative research

The present study used cross-sector data from middle managers with the aim of exploring differences or similarities in DL and of how DL operates at middle management level in both state schools and private iGaming companies. The growing interest in DL in middle management has led to a consequent growth in empirical work and, indeed, such research is timely, given the challenges facing organizations described above. A comparative research is therefore relevant for a number of reasons.

First, to advance the development of theory in this field, with this research, I wish to present a framework (structure-agency) to overcome some of the inadequacies in theoretical frameworks of DL and measurement approaches employed thus far (Bolden, 2011; Tian et al., 2016). To this end, the study design included a comparative strategy, in which I explored DL theoretical conceptualizations and I attempted to validate an instrument for DL measurement by comparing the findings and measurement properties found in the traditionally investigated DL context of school organizations with a maximal diverse context, namely iGaming companies. The rationale of this research design strategy was that if I could explore and measure DL phenomena with the same properties in both schools and a maximally different organizational context (iGaming companies), this strategy could be applied in many other contexts, thus adding to the generalizability of the study. This falsification inspired strategy was inspired by rationales described in Flyvbjerg's (2006) critical case sampling strategy.

Second, both contexts of research are worth exploring since the relevance of the DL model may have for middle management. For example, in relation to the Maltese educational sector, with the earlier indicated decentralisation process introduced by the recent reforms there was an unprecedented move to bring about radical changes to the way education was conceptualised and reformed (Bezzina, 2019). The reform necessitated the introduction of new roles and new

responsibilities as well as new fundamental changes in the way school practitioners (i.e. middle managers) synergized, related and collaborated. Such a move required several significant shifts from unconnected thinking to systems thinking, from an environment of isolation to one of collegiality, from individual autonomy to collective autonomy and collective accountability (Cutajar and Bezzina, 2013). It is within this context that the cultural change underlining the significance of team work and joint working has to take place. In this sense, the Maltese school context appears to offer a favourable field to explore the dynamics of organisational participation, leadership distribution and the different degrees of participation and engagement which also comprise DL phenomena at different levels and particularly, in the middle layer of management.

Same trend has been characterized the iGaming sector. In fact, in this modern, dynamic and relatively young industry, much is made of the need for organisational agility and innovation and the role technology plays as a contributor to these attributes. To operate effectively in complex business environments, many iGaming companies have adopted flatter, decentralized structures and cross-functional team-based work (Drew and Coulson-Thomas, 1997; Young-Hyman, 2017). In addition, over the past 15 years, many of Malta's first establishments of iGaming operators have grown from small start-ups to industry leaders (Gaming Malta, 2018). Because of the constantly evolving technological frontier, the productivity of many iGaming companies is considered to be influenced to a large extent by the level of their employee engagement and creativity. In this sense, iGaming managers have many opportunities to put efforts into shaping organizational culture and influence positively employee engagement in order to gain the organization's operational and strategic goals. Many iGaming companies moving towards cross-functional team-based work (Drew and Coulson-Thomas, 1997) have adopted an organizational culture (e.g. power distance) which incorporate and value participative and collaborative values. These new organizational structures support collaboration and open communication between all employees regardless of one's title or position, foster teamwork and require multidisciplinary, a distribution of tasks and roles, high customer involvement and collaborative work. Finally, the flat structure of many iGaming companies together with the idiosyncratic professional and collaborative corporate culture brought me to explore issues related to leadership practices and distribution, especially in

relation to middle management since they may have effect on innovation and the overall performance of the company.

Third, at a general level, a significant body of literature on DL exists comparing private-sector, commercial organizations with public-sector and third-sector, non-commercial organisations (Andersen, 2010; Boyne 2002; Marginson, 2018; Moulton and Wise, 2010; Rainey and Bozeman, 2000; Sweeney et al., 2018). In this sense, cross comparison analysis is not uncommon in leadership studies (Charman and John, 1994; Gilbert and Veloutsou, 2006; Omotari, 2013). However, review on DL tend to merge findings from different sectors failing to account for the differences in organizational contexts which may have led researchers to produce inaccurate generalizations. This confirms the need for context-specific research in this field. For this reason, by exploring similarities and differences between the business and the education sectors, this study wishes to reduce current confusion regarding the DL construct and provide suggestions for its conceptualization.

The forth reason comes as a consequence. In fact, by identifying the structure - agency analytical framework as a theoretical lens for examining the phenomenon of DL in middle management, the opportunity to explore cross- sector comparisons gave unique possibilities for combining analyses of variations within variables, thus improving, the foundation for new theoretical developments about the DL construct and its operationalization. In other words, this comparison offers an interesting opportunity to extend my understanding of DL in middle management and its potential relationship with identified variables

The latter reason is of practical nature. In fact, investigating possible comparisons and similarities with business sector management practices has therefore likely been valuable for various reasons i.e. in seeing what is transferable and equally whether or not there are lessons from school management that might be worth industry's consideration. In fact, Malta has little research on this in either the education, or the business sectors so this project added to local studies and to international comparative management studies into the effects of differing organisational cultures.

1.5 Research aims, questions, and sub-studies

The present research project has two aims. The first aim of this study is to further theorise and to operationalize DL leadership on the basis of the structure-agency model. The other aim is to provide new DL empirical and comparative evidence by investigating its manifestations in middle management in both state schools and private iGaming companies in Malta.

The whole research project comprised of two studies (Study 1 and Study 2) conducted between 2015 and 2018, with the specific purpose of exploring the structural dimension (Study 1) and the agentic dimension of DL (Study 2) in middle management in Malta. Built on the structure-agency framework, the following research questions (RQ) have been established:

DISTRIBUTED LEADERSHIP	*STUDY 1 Structural perspective*	RQ1. What are the structural manifestations of DL in state schools and private iGaming enterprises in Malta? Are there any difference/similarities?
	STUDY 2 Agentic perspective	RQ2. How do middle managers from both the public and private sectors enact DLA (Distributed Leadership Agency)? RQ3. How does DLA relate to outcome variables (performance, innovation, commitment and job satisfaction)? Are there differences in DLA in middle managers from the public and private sectors?

The research questions were investigated using specific research methods for each study, and the whole research project (Study 1 together with Study 2) employed an iterative sequential mixed method approach (Teddlie and Tashakkori, 2009). An iterative mixed methods research design (Creswell et al., 2003) provided the consummate framework to explore DL using different methods in such a way that the resulting mixture is most likely to result in complementary strengths and no overlapping weaknesses.

More specifically, to address RQ1, a qualitative approach has been chosen. Specifically, the objective of Study 1, using documentary data, was aimed at:

a) exploring the structural elements of DL in middle management in Malta;

b) developing a framework for further empirical investigation of the agentic dimension (Study 2);

c) guiding the development of the research instruments.

On the basis of the key findings of documentary research which was deepened through a review of the literature, the following dimensions have been identified in order to develop the conceptual framework for the Study 2: 1) Attitude to Involvement; 2) Job Autonomy, 3) DLA; 4) organizational commitment; 5) Job Satisfaction; 6) Innovative behavior; 7) Job performance. RQ2 and 3 focused on both quantitative and qualitative approaches by using a survey and interviews to collect data (Creswell, 2009). In particular, Study 2 adopted an explanatory sequential mixed method approach (Creswell and Plano Clark, 2011) in which the exploratory quantitative phase (survey) is followed by the explanatory qualitative phase (interviews) with the objectives of:

a) exploring the agentic dimension of DL in middle management;

b) investigating the relationship between DL and identified variables;

A detailed presentation of the methodology and the research design will be presented in Chapter 5 of this Thesis.

1.6 Personal experience

My interest in exploring DL arose initially as a consequence of my professional experience and my direct involvement first as an HR manager with a start-up gaming company in Malta where I lived for 5 years (2011-2016) and then as a passionate researcher in the educational leadership field. Certainly, during my professional experience in the HR field, I became increasingly aware of the importance of leadership dynamics and the distribution of roles and responsibilities within an organization and how those can be associated to performance, innovation, commitment and the general morale of employees. Although I worked in the business sector, my main academic interest was related to the educational sector. When I was in Malta, I had the opportunity to collaborate with the Faculty of Education (University in Malta) and particularly with Professor Christopher Bezzina. After, I decided to start my Ph.D. journey at the University of Lincoln where I had the opportunity to join an international community of academics and practitioners

who helped me to find interesting comparisons between the business and the educational fields. In fact, my main goal was to move to on academia. Following a period of time in which my PhD progresses were a bit slow due a new career direction (a new career opportunity in Italy), in January 2017 I was granted both an Erasmus Fellowship at the School of Business and Social Science (Aarhus University) and a local fellowship for visiting doctoral students. I therefore decided to undertake a research stay in Denmark (1 year) where I had the opportunity to work as Research Assistant with Thomas Jønsson, professor of Organizational psychology who acted as advisor for the quantitative part of this dissertation. The research stay was beneficial since I attended intensive training courses in writing and research methods, and I took advantage of working with other experts in DL by studying the DLA (Distributed Leadership Agency) model which was adopted by that research group for a project supported by the Velux Foundations. The overall purpose of that interdisciplinary research study was to explore DL and employee involvement for the implementation of organizational change in a public hospital in Denmark. During my stay, I had the opportunity to elaborate on the Danish model to see the potentiality of transferability in the educational sector. This phase of my PhD journey helped me to operationalize the DL model and consequentially to better define the empirical part of this research.

I lived in Denmark until January 2018. At that time, I completed the quantitative data collection and I had the preliminary analysis. Following this, I was awarded a DORA Scholarship for 4 months to visit the School of Educational Sciences (Tallinn University, Estonia) where I had the opportunity to disseminate the initial findings of my research and to investigate the Distributed Leadership Agency model in teaching professions in the Estonian school context, translating the survey built for the Maltese sample of middle managers. Data collected in Estonia are not included in this thesis, but a brief description of the research project design will be included in the Conclusion chapter as an example of further development of my research, especially in terms of cross-cultural comparisons and of the transferability of the model.

1.7 Definitions of key terms

The key definitions or terms used in this research are defined below:

Distributed Leadership. a "fluid or emergent property" rather than a "fixed phenomenon" (Gronn, 2000, 24), "stretched over the work of a number of individuals where the leadership task is accomplished thought the interaction of multiple leaders" (Spillane et al., 2001, 20).

Middle manager in state school. Middle manager's role in state schools in Malta is formally prescribed by the Directorate for Quality and Standards in Education. Middle managers can be defined as individuals working in state primary and secondary schools, holding leadership and management responsibilities, and specifically: Head of Departments (Subject or Group of Subjects) in Primary or Secondary schools and Assistant Head of Schools

Middle manager in iGaming companies. In the present study the titles of these posts vary from company to company depending on their size and include, for example, Marketing Managers, IT Managers, Customer Service Managers, HR Managers, etc.

Structure: Structure consists of "emergent structural properties which exert "powers of constraint and enablement by shaping the situations in which people find themselves" (Archer, 2000, 307). Structure thus comprises the following elements: 1) institutional; 2) cultural; 3) social. Institutional, cultural and social structures provide at any one point in time the resources for agency.

Agency concerns the actions of people. The causal powers of agency are the powers "which ultimately enable people to reflect upon their social context, and to act reflexively towards it, either individually or collectively" (Archer, 2000, 308). These include capacities such as self-consciousness that enable people to evaluate their social context, envisage alternatives creatively and collaborate with others to bring about change.

Distributed Leadership Agency (DLA): "employees' and formal leaders' agency in DL is experienced as an active, engaged involvement in taking part in leadership activities" (Jønsson, et al., 2016, 910)

Public sector (state schools). Education in Malta is offered by 1) State Schools; 2) Non-state Schools. Non-state schools in Malta are either Church schools or Independent schools. In the present study, the focus is on the primary and secondary state schools.

Private sector (iGaming company). A Registered Company in Malta licensed by the MGA (Malta Gaming Authority).

1.8 Organization of the thesis

Following on from the introduction above (Chapter 1), in which I provided a general overview of the thesis in terms of the rationale for conducting the study, research aims, objectives and questions, below the rest of the dissertation is organised in other 10 chapters, described as follows.

The reader finds three initial chapters which contain a literature review, where I first provide an overview of previous research on DL (Chapter 2) and middle management in the public and private sectors (Chapter 3). Further, I investigate the DL model in the attempt to provide a better source of its theoretical development and consequentially of its methodological understanding (Chapter 4).

In chapter 5 I address at a general level different methodological issues, including the epistemological perspective, research design choices and strategies. In this sense, I explain the methodological design of this iterative mixed method research project.

This research project comprises two studies in sequence, Study 1 and Study 2.

The chapter 6 and 7 is dedicated to the presentation of Study 1. More specifically, in Chapter 6, I explain in details purposes, research approaches and data collection methods of Study 1 while in chapter 7 I report the findings of the documentary research together with the conceptual framework developed for Study 2.

The chapters 8 and 9 are dedicated to the presentation of Study 2. More specifically, in Chapter 8 I present the research approach, the design and the main findings of the quantitative strand of Study 2. Instead, Chapter 9 includes a presentation of the qualitative strand of Study 2 together with the main findings from the interviews.

Chapter 10 includes a discussion on the major findings to the research questions on Study 1 and Study 2 as a whole. Finally, Chapter 11, the conclusions, provides an overview of the study, including the contribution to knowledge and the implications of the study, together with its limitations, and recommendations for future research.

1.9 Conclusion

The main purpose of this chapter was to provide the necessary background and contextual information to facilitate understanding and interpretation of this study. This introductory chapter

also presented the aims, the objectives, and research questions. It also included rationales for the relatively extensive international and the limited local research on DL and middle management in both public and private sectors. In addition, this chapter also provided evidence for the significance of this study within the Maltese context, gave information about the research paradigm and design and the structure of this thesis.

In the next chapters, I provide an overview of previous research on DL and middle management in the public and private sectors. I also introduce the conceptual framework for the consequent empirical studies that comprise the focus of the research described in this thesis. More specifically in Chapter 2, I present a literature review of DL by introducing key ideas, research approaches and perspectives in both educational and business management literature. This section will help the reader become familiar with practical and theoretical issues relating to the DL field of study and to identify gaps in current knowledge. In Chapter 3, I contextualise DL within Middle management, the layer of management under investigation where I discuss middle manager's roles in relation to the DL model by highlighting their strategic contribution to public (schools) and private organizations. In Chapter 4, I investigate the DL model with the aim of providing a better source of its theoretical development and methodological understanding. In this sense, I discuss previous approaches to DL, placing my study in context and explaining my choice of theoretical framework. Overall, the initial challenge was to arrive at a clear working definition through an examination of the different models and theories of DL.

Chapter 2. Distributed Leadership in educational leadership and business management studies

2.1 Introduction

The aim of this interdisciplinary research project was to explore how Distributed Leadership (DL) is enacted in middle management through a comparison between the public and private sectors in Malta. In fact, DL is currently viewed as the dominant format for both schools (public sector) and commercial enterprises (private sector) - the organizational contexts under investigation. In this sense, DL has caught the attention of researchers and practitioners since it is being promoted at an international and at local Maltese level.

For this reason, the body of work I am going to present in this first chapter investigates key concepts, forms and models of DL as well as reasons for its widespread popularity in both business management and education leadership studies. In light of the wave of organizational changes and reforms in both sectors, I will present the most recent thinking and research evidence on DL by outlining the elusive nature of the model and the broadness of its conceptual and operational definition.

2.2 A brief contextual overview

State education systems over the last 30 or so years have been reformed through neoliberal policy agendas fraught with the pressure of accountability (OECD, 2010; Reid et al., 2010; Starr, 2014; Gunter et al., 2016; Smith, 2016). As a consequence, albeit with differences at national levels, there has been the dual emergence of the self-managing school and mandated accountability back to local and national forms of government (Daun, 2006; Smyth, 2011) with the aim of facilitating educational improvement, increasing student learning attainment and raising standards (e.g. Stoll and Kools, 2016). In addition, given the wave of changes resulting from an emphasis on performativity and standardization, there has been the growth of what Gronn (2003) termed *greedy work*, that is the intensification of tasks and a subsequent wider distribution of work and leadership responsibility across professional leaders in schools. As a result, this emerging trend had led to a call for personnel cooperation and leadership which is now shared at multiple levels to maximize school success and to contribute to school improvement (Harris, 2009; Obadara, 2013; Spillane and Coldren, 2015; Liu et al., 2018). For

this reason, according to Harris (2005) new distributed organizational models have been introduced to replace obsolete school structures and to fit better the requirement of learning in 21st century. For example, in several countries, DL is already featured in policy framework and, in some cases, it is being actively advocated (Harris, 2014; Whelan, 2009). In addition, the need for DL has been also sustained due to such complex and unpredictable challenges that no one school leader can manage them alone (Bezzina and Vella, 2013). This is also the case of Maltese schools where distributing and sharing leadership has also been a recommended model during these two decades (Cutajar and Bezzina, 2013). For instance, the seminal document *Tomorrow's Schools* (1995), followed by the *National Minimum Curriculum* in 1999, the document *For All Children to Succeed* (2005), the subsequent *Amendment to the Education Act* (2006) the document *Towards A Quality Education For All - The National Curriculum Framework* (2013) prescribed the importance of moving away from a top-down managerial model to a more consultative style of leadership.

In contrast, opponents to the DL model are cynical about advocating a default position of institutional autonomy and have portrayed this leadership distribution as a form of contrived collegiality or a managerial tool for distributing work and controlling staff (Marginson, 2010) since organizational leaders remain formally and legally accountable (Hatcher, 2012; Lumby, 2016; 2017). In effect, central accounts of DL literature have concluded, rather pessimistically, that the impact of DL remains questionable (Harris and DeFlaminis, 2016). In line with this assumption, by considering DL in the context of the extensive literature on post-bureaucratic organisations, recently Lumby (2017) critiques the assertion that DL offers a means of redistributing power, arguing that there is little evidence that this happens in any reliable way. Accordingly, DL may merely be a managerial outcome of school modernization reforms (Fitzgerald, 2007). Along the same line, with respect to the Maltese context, recent literature has criticized the notion of DL within the context of the local gradual decentralisation and increased accountability, showing how the policy discourse did not unfold in a participatory democratic manner in practice (Mifsud, 2015a; 2015b; 2016a; 2016b; 2017a; 2017b; 2017c). For example, as shown by Bezzina and Cutajar (2013), the devolution of authority to the colleges is being accompanied by centralised systems of human resources (i.e. deployment of staff), curriculum (i.e. design and development of subject areas), assessment (i.e. benchmarking

and standards), and quality assurance (i.e. external review). This conclusion concurs with what Ozga (2009) describes as "a hybrid position... [as schools] appear to be caught in a mixture of older mechanisms (centralization and bureaucracy) and new forms (heterogeneity and distributed control)" (160). In other words, the issue of power and control remains a central issue, with the centre identified as still determining college/school policies (Bezzina and Cutajar, 2013). Further, by adopting a Foucauldian theoretical framework to explore power relations surrounding DL in Malta, Mifsud's research showed a very detached bond within and across levels (Mifsud, 2015a) with a strong presence of State central control leading to reveal the coercive nature of the policy discourse within the infrastructure of globalized neoliberal governmentality (2016a).

For the purpose of clarity, I acknowledge that contemporary discourses of leadership have been inevitability plagued by ideological and political criticism (Lingard and Ozga, 2007). However, the approach I intend to take in this research is similar to that of Harris and DeFlaminis (2016): in fact, without downplaying the growing criticism of the DL theory (Lumby, 2016), this research deliberately moves away from claims, counter-claims and conjecture to focus upon the empirical definition and application of DL in both private and public sectors as a way that is research-informed and research-based. For this reason, one of the main purposes of this research was to provide empirical evidence about the nature, effects and outcomes of DL in middle management. In this sense, DL cannot be considered as a panacea or an esoteric approach to leadership (Harris, 2013) since it "much depends on how it is conceptualized, understood and enacted" (Harris and DeFlaminis, 2016, 142).

Within the widespread interest in DL, public reform programmes associated with New Public Management (NPM) have seen school organizations borrow management approaches from the private sector (Christensen and Laegreid, 2017). In fact, business management literature shows how in today's competitive business environments, private organisations have adopted DL models and team-based structures (Day et al., 2004; Hoch, 2013; Salas and Fiore, 2004) in order to respond ever more quickly and adaptively (Whittington and Mayer, 2002) to the rapidly changing technology and high level of occupational complexity (Higgs, 2003; Lüscher and Lewis, 2008). Business organizational structures including flatter structures, matrix structures and ever more widely linked network structures, are moving towards forms of leadership likely

to be fluid in terms of role rather than bureaucratic and trusting of the professional rather than controlling (Bottery, 2004). Also, ostensibly, it has become more difficult for any single individual to possess all the skills and abilities required to competently lead organizations today (O'Toole et al., 2002; Thorpe et al., 2008). In fact, in the knowledge economy "simple notions of top–down, command-and-control leadership, based on the idea that workers are merely interchangeable drones" (Pearce, 2007, 355) are no longer adequate. Indeed, Ancona et al. (2007) echo: "only when leaders come to see themselves as incomplete - as having both strengths and weaknesses - they will be able to make up for their missing skills by relying on others" (110). In a nutshell, there is ample support for the claim that ventures formed and developed as entrepreneurial teams demonstrate greater growth than individually led business (Francis and Sandberg, 2000; Harper, 2008; Thorpe et al., 2008).

In summary, as briefly outlined in this section, DL has emerged as an influential concept to meet the needs of most organisations (Bolden, 2011). In this way, DL represents the most promoted form of leadership practice in the first decades of the twenty-first century (Parker, 2015) and it has become a widely accepted and adopted model among researchers and practitioners in both educational and business fields of study. Hence, the interest in DL has led to a consequent growth in empirical work and, indeed, this research project is timely, given the above-mentioned challenges organizations facing today. However, differing conceptualizations of distributed forms of leadership may be problematic thus leading to confusion about its definition (Avolio et al., 2009). In fact, concepts are the basic building blocks of scientific knowledge or theoretical or methodological development (Botes, 2002). For this reason, in the following section, I will discuss definitions, conceptualizations, models and approaches to DL with the aim of clarifying the underlying understanding of DL, which is a necessary step prior to conducting effective research (Brundrett and Rhodes, 2014; Burton et al., 2014).

2.3 The 'definitional' issue in the DL field of study

As stated earlier, in education leadership and business management studies, trends towards standardisation and prescriptive practice, performativity and accountability, and the subsequent intensification of leaders have led to a movement away from simply focusing on solely individualistic person-centric approaches in traditional leadership theories (Avolio et al., 2009;

D' Innocenzo et al., 2016; Nicolaides et al., 2014; Wang et al., 2014) to an increased interest in new 'forms of management' (Pearce et al., 2010) and more systematic perspectives, whereby leadership is conceived as a collective social process emerging through the interactions of multiple actors (Uhl-Bien, 2006). Sergiovanni (2001) ascribes this shift to a disillusionment with the "superhero images of leadership" (55). In a similar vein, Fullan (2001) states that charismatic leadership can at most result in "episodic improvement" and eventually "frustrated or despondent dependency" (2). Implicit within this re-framing there are different concepts, like shared leadership (Pearce and Conger, 2003 for a review; D' Innocenzo et al., 2016; Drescher et al., 2014; Sunaguchi, 2016; Sweeney et al., 2018), collective leadership (e.g. Denis et al., 2001; Quick, 2017), co-leadership (Heenan and Bennis, 1999), collaborative leadership, and participative leadership, which according to the Leithwood et al.'s (2009) perspective can be incorporated in the "catch all descriptor" (Harris, 2013, 53) concept of DL - with some other authors, including Spillane, Gronn or Youngs (2012; 2014) - instead rejecting DL as a one-size-fits-all concept, arguing for its distinction from other forms of leadership.

Notwithstanding the popularity of the term, attempts to agree upon its meaning have been less than successful (Bennett et al., 2003b; Lakomski, 2008; Mayrowetz, 2008; Hairon and Goh, 2015; Harris and Spillane, 2008; Tian et al., 2016) with some scholars from business and education sectors claiming its formulations are too loosely employed (Hartley, 2007; Torrance, 2009) or uncritical (Youngs, 2009). Hence, DL remains an eternally contested (Grint, 2005) and free-floating concept (Youngs, 2014), considered to be multi-dimensional and beset with a growing prevalence of perceived overlapping definitions (Flessa, 2009; Ritchie and Woods, 2007). However, despite this conceptual confusion, there seems to be a clear agreement that at the core of this concept of DL there is the idea that leadership is not the preserve of an individual, but a fluid or emergent property rather than a "fixed phenomenon" (Spillane, 2000, 24), "stretched over the work of a number of individuals where the leadership task is accomplished thought the interaction of multiple leaders" (Spillane et al., 2001, 20). In fact, according to an earlier literature review (Bennett et al., 2003b), DL is based on three main premises:

1) leadership is an emergent property of a group or network of interacting individuals and it is seen as a concertive action or conjoint action (Gronn, 2000);

2) there is openness to the boundaries of leadership with multiple sources of guidance (Harris, 2004), as well as multiple leaders and followers (Timperley, 2005); and

3) varieties of expertise are distributed across the many, not the few.

DL is not simply something done by an individual to others (Bennett et al., 2003b) or simply the aggregate results of individual actions or "misguided delegation" (Harris, 2004, 20); in fact, while "delegation is one-way transaction where leaders tell a subordinate what to do" (Lowham, 2007, 71), in DL actors "synchronize their actions by having regard to their own plans, those of their peers and their sense of unit membership" (Gronn 2002, 431). Finally, by widening the perspective of leadership beyond that of the single person or a positional organizational role, a more complex image of how an organization is led by its incumbents is revealed (Gronn, 2002). In the literature, DL is described as the "leadership idea of the moment" (Harris, 2009, 11). In fact, it appears that DL is an idea whose time has come (Gronn, 2000; Hartley, 2007), an area of study in an "adolescent stage of development [...] experiencing a growth spurt that would do any teenager proud" (Leithwood et al., 2009, 269). To follow, as showed by Bolden (2011), DL appears to be the concept of preference within school leadership studies and DL research remains largely circumscribed to the educational context, including primary, secondary and higher education (Bolden et al., 2007; Bolden et al., 2009; Floyd and Fung, 2017; Jones et al., 2014; Jones et al., 2017; Leithwood et al., 2009; Spillane and Diamond, 2007; Spillane and Coldren, 2015; Wan et al., 2018) across a range of countries, such us, in the UK, (e.g. Woods and Roberts, 2016) in the USA (e.g. Diamond and Spillane, 2016), in Australia (Dinham et al., 2011), in the Scandinavian countries (e.g. Moos, 2010; Lahtero et al., 2017), in Hong Kong (e.g. Kwan and Li, 2015), or, with respect to this research context, in Malta (e.g. National Curriculum Framework, 2013).

Albeit in a different context, DL has been also studied within nursing and medicine, psychology, business, management and other areas of the social sciences (Bolden, 2011). For example, DL has been researched in various organizational contexts: e.g. health care and social care (e.g. Beirne, 2017; Buchanan et al., 2007; Chreim, 2015; Chreim and MacNaughton, 2016; Currie and Lockett, 2011; Fitzgerald et al., 2013), banking industry (Fragouli and Xristofilaki, 2015), sport organizations (Peachey et al., 2015), multinational organizations (Jain and Jeppesen, 2014) and small business (Cope et al., 2011).

However, research on distributed forms of leadership is still at its early stages (Spillane and Diamond, 2007) and Harris (2009) described this literature as being "theoretically rich, but empirically poor" (254). As a result, more evidence is necessary to assess the effect of more distributed patterns of leadership on educational and business outcomes and to examine differences between rhetoric and reality (Corrigan, 2013). In addition, different scholars (Harris et al., 2007; Harris, 2007; Harris and DeFlaminis, 2016; Tian et al., 2016) have ubiquitously called for studying DL in a "methodologically sound and theoretically driven way" (Hulpia et al., 2012, 1749). Likewise, the findings of a recent meta-analysis of research (Tian et al., 2016) conducted on the topic from 2002 to 2013, which furthered the review commissioned by the English National College for School Leadership in 2003 (a meta-analysis of studies published from 1996 to 2002), revealed concerns about the lack of a clear agreement of the DL construct, its conceptualization as well as its operationalization and application. These reviews identified a lack of empirical evidence on the practices, effects and implications of DL as well as competing and conflicting interpretations of the terms.

To date, although the phenomenon of DL has been wide-spread, its definition and application, remains controversial (Bolden, 2011; Tian et al., 2016). Thus, the limitation of the literature and the different conceptualizations of DL offer the opportunity to determine characteristics of DL that scholars agree upon and to conceptualize these characteristics in measurable ways. In fact, while DL scholarship has blossomed, theory has outpaced the empirical evidence. Hence, along with a need for improved theorization of the concept, there is a lack of attention of measurement issues and a failure to present a rationale for their use (Pearce and Conger, 2003).

In addition, as stated earlier, DL research has been focused mainly in the education sector (Bolden, 2011; Harris and DeFlaminis, 2016), while the relevance to other forms of organizational domains (i.e. comparative studies) remained a contested area, demanding discussion and empirical investigation. To this end, as suggested by Bolden (2011), further research is required in order to enhance the validity and utility of a distributed perspective more widely. Specifically, work that enables comparison of the relative desirability and/or appropriateness of the DL model in different contexts could be helpful in searching and clarifying differences and similarities in how leadership is accomplished. This suggested the need to understand how leadership might be distributed across differing forms of organization

(Harris, 2013), based on different structures and contexts (Edward, 2011). In addition, recent reviews on DL have tended to merge findings across public and private sectors, commercial and non-commercial settings, disregarding contextual differences in these distinctive domains (Sweeney et al., 2018). Failing to account for the differences in organizational context may have led researchers to produce inaccurate generalizations. In fact, "empirical findings highlighting differences between these organization types cannot be dismissed" (Rainey and Bozeman, 2000, 449). Further, as Locke (2003) points out "it should not be assumed that the requirements of leadership in different domains are the same" (282).

Given the above, contextual differences across different sectors should be recognized to reveal how DL may be enacted in different organizational contexts.

2.4 Distributed Leadership in the spotlight: a comparison among different approaches.

This section draws on literature reviews on DL research (Bennett et al., 2003b; Bolden, 2011; Thorpe et al., 2011; Tian et al., 2016; Woods et al., 2004) in order to illustrate how DL has been conceptualized in literature, which forms and models have been developed, and the strength and the weakness associated with different approaches.

Generally speaking, discussion of DL has applied a descriptive (e.g. Groon 2000; Spillane and Coldren, 2015) a normative (e.g. Hulpia et al., 2012; Leithwood et al., 2008), or a critical approach (e.g. Bolden, 2011; Jones, 2014; Youngs, 2009; 2012). Specifically, to justify and inform the approach taken in this study, I will focus on the descriptive and normative approaches where attention is given to the conceptualization and the empirical definition and operationalization of forms of DL. Other scholars (e.g. Lumby, 2016) have applied a more critical analysis, concluding, rather pessimistically, that the impact of DL remains questionable (Harris and DeFlaminis, 2016).

As stated earlier, this study deliberately moves away from claims, counter-claims and conjecture to explicitly take on the challenge of capturing DL methodologically while ensuring commensurability with theory. In any case, I am aware that any attempt at providing a definitive definition would fail to capture the complexity, and inherent paradoxes of the field.

2.4.1 A descriptive approach

A lineage of research of DL can be categorized under the descriptive paradigm (Tian et al., 2016) with the aim of expanding and deepening the understanding of leadership work. In fact, by focusing on describing and understanding leadership practice (Bolden, 2011), this approach presents DL as an "analytical framework through which one can assess and articulate the manner in which leadership is (and is not) distributed throughout organizations" (256). Within this perspective, the main literature reviews of DL (Bennett et al., 2003a; Thorpe et al., 2011; Tian et al., 2016; Woods et al., 2004) recognized the contribution that both James Spillane and Peter Gronn, working independently, offers to the DL theory. In fact, both scholars' merit is that they "present a distributed rather than an individual or heroic lens through which leadership practice can be studied and understood" (Youngs, 2012, 40-41).

Based on his experience in schools in the USA, James Spillane described DL as an emerging set of ideas that are "primarily concerned with the co-performance of leaders and the interdependencies that shape the leadership practice" (Spillane, 2006, 58). In the same way to Spillane, Gronn's theorizing should be used as a means to better understand leadership practice, rather than prescribe the distribution of leadership work.

Two models based on the theory of distributed cognition and activity theory (Spillane, 2006; Gronn, 2000) have been identified to have exerted profound influence on DL literature: Spillane's practice-centered model (2006) and Gronn's numerical-concertive model (2002) with its recent developments (2009; 2011; 2015; 2016; 2017).

Central to these views is the idea of:

1) socially distributed cognitions, meaning that cognitive processes can be understood as situated in and distributed across a concrete socio-technical system (Hutchins, 1995) and not only focusing on individual cognitions; and

2) activity theory (Engeström, 1999; Leont've, 1978; Vygotsky, 1978) which considers human activity as object-oriented, collective, and culturally mediated containing the interacting entities - the individual, the object and the community.

For the present discussion, it suffices to state that a holistic perspective on the study of organisational work, including the interlacement of purposeful activity with the wide range of social-cultural factors impacting together on activity, can better conceive leadership to be

grounded in the activity (more generally labelled as the 'leadership practice') rather than in a position or role. This is an argument that will be revisited at times throughout this dissertation. In his first conceptualization of DL based on the Australian social psychologist Cecil Gibb' work (1954, cited in Gronn, 2000), Gronn (2002), distinguishes two basic forms of DL:

1) the *additive (or numeric) form*, referring to an uncoordinated leadership pattern and dispersed tasks, among members across an organization;
2) the *holistic (or concertive) form* referring to managed collaborative patterns involving some or all leadership sources in the organization.

Such a view of concertive actions highlights a holistic way to construct DL, including members' actions and interaction of formal as well as informal leaders. In this sense, Gronn (2002) provides three forms of concertive action including:

1) *spontaneous collaboration*; anticipated through prior planning; or, unanticipated;
2) *intuitive working relationships* that emerge over time and are dependent on trust;
3) *institutionalized or regulated practices*.

All the above forms are characterized by what Gronn terms conjoint agency, that is "agents synchronize their actions by having regard to their own plans, those of their peers, and their sense of unit membership" (Gronn, 2002, 431).

The initial numerical-holistic model seems to broadly coincide structurally with the two forms of DL identified by Spillane and his colleagues (Spillane, 2006; Spillane and Diamond, 2007):

1) the *leader-plus aspect*, which acknowledges that leading and managing schools can involve multiple individuals, who are also not formally designed leaders.
2) the *leadership practice aspect* "foregrounds the practice of leading and managing [... and] frames it as a product of the interaction of school leaders, followers, and aspects of their situation" (Spillane and Diamond, 2007, 7).

From a distributed perspective, studying the actions of individuals or aggregating their actions is insufficient, while interactions are paramount in efforts to understand the leadership practice (Spillane et al., 2008). In this sense, the principle of interdependencies - and in particular, Thompson's classification of interdependencies (1967, cited in Spillane et al., 2004) reciprocal, pooled and sequential - also shaped Spillane's theorizing (in a similar manner of that Gibb did with Gronn) of a distributed perspective of leadership practice.

Following that, Spillane identified three DL patterns:

1) *collaborated distribution* that involves reciprocal interdependencies (multiple leaders jointly enact the same leadership practice in the same context);
2) *collective distribution* where multiple leaders perform separate but interdependent tasks in different contexts and in support of the same goal;
3) *coordinated distribution* of sequentially arranged leadership tasks.

In a further revision of the leadership concept, Gronn (2009; 2011; 2015; 2016; 2017) claims that the term 'hybrid' rather than 'distributed' might well reflect accurately the complexity of the reality. In fact, he argues for a revised unit of analysis of DL, referring to it as a *configuration*, in which both understandings of individual and collective leadership count. The hybridity for which Gronn is arguing "is a mixture, in which varying degrees of both tendencies (i.e. focused and distributed) co-exist, with the understanding that within the distributed segment of the mix there are, potentially, a range of plural formations" (Gronn, 2009, 389). The totality of such arrangements represents a "time, space-, context- and member-ship bound configuration of influence-based relationship" (381), confirming that leadership is not a fixed phenomenon.

To support this view, Gronn suggests "a shift from accounts of how leadership should be enacted (often associated with labels such as 'distributed', 'transformational', or 'authentic') to empirical accounts of how leadership is accomplished through the interactions of vertical, horizontal, emergent and other forms of social influence" (Bolden and Petrov, 2014, 409). In this sense, Gronn does not intend to find another type of leader, but practise demonstrates that not all leadership tasks have to be accomplished collectively (Gronn, 2009). Hence, the hybrid form of leadership considers different combinations of individual and collective forms of distributed leadership. By this extension, Gronn recognizes formal and informal, focused and dispersed leadership to co-exist and interact in leadership processes. For example, Ancona and Blackman (2010) found that within a distributed model/configuration there is still a place for a 'strong centralized leader', while according to another study undertaken by Bolden et al. (2009) in 12 UK higher education institutions (HE), some HE informants expressed a need for 'inspirational and visionary individuals' confirming the idea that distributed accounts of leadership have to seek ways to factoring in the influence of individuals. Referring to the indicative evidence of hybrid leadership found in the research of Spillane et al. (2007),

Leithwood et al. (2009) and Timperley (2005), Gronn shows the intermingling of both hierarchical and heterarchical modes of ordering responsibilities and relations, indicating a more accurate representation of diverse patterns of leadership practice. Recent research carried out in different organizational contexts, such as higher education (Bolden and Petrov, 2014) and hospitals (Chreim, 2015; Townsend, 2015) has been explored this more sophisticated view. For instance, Hansen and Villadsen (2010) found that managers in non-commercial organizations (public-sector managers) use more participative leadership, while managers in commercial organizations use more directive leadership. However, there is an apparent reluctance to move away from concentrated leadership in some commercial environments. For example, in the SME (small-medium enterprises) context, the individual heroic model resonates more with the typical development of an entrepreneur's leadership style (Kempster et al., 2010; Cope et al., 2011). Such tendencies towards individualistic leadership coexist with the adoption of shared approaches in commercial contexts. Hence, further research should try to empirically support Gronn's argument (2009; 2011; 2015; 2017) that leadership distribution is orchestrated and emergent.

Given the above premises, this research project subscribes to a view that considers spontaneous, emergent processes and non-fixed properties (Gronn, 2002; Spillane et al., 2004; Woods et al., 2004) that constitute a dynamic organizational entity in which leadership is distributed among the organisational members.

To sum up, by employing a non-normative and prescriptive approach, both scholars, Gronn and Spillane, offer an analytical frame which galvanizes attention towards leadership practice rather than "leaders or their roles, functions, routines, and structures" (Spillane, 2005, 144) and which also focuses on the interpersonal dynamic of DL, rather than more explicitly on different forms of DL (see Leithwood et al., 2009). Gronn and Spillane's descriptive approach is very fruitful for the framing of the concept offering a logical categorization of how leadership is distributed in practice. However, both views tend to assume that leadership is already distributed, and they do not investigate instead its effects and implications. The removal of effectiveness and influence from leadership means that there could be a tendency to overlook and downplay sources of leadership that exist beyond leadership practice. In addition, the empirical research of Spillane (2006) has a functional emphasis due to the little attention given to the local school

socio-cultural context and the wider context. In this sense, this shortcoming has contributed to the separation of DL from micro politics (Flessa, 2009). In addition, neither Gronn, nor Spillane suggests which form of leadership distribution are more effective or desirable than the others, or how particular configurations of DL contribute towards, or inhibit, organizational/school performance or other outcomes variables. This is the main characteristic of the other DL approach – the normative perspective - which I will illustrate in the following section.

2.4.2 A normative approach

Much of the literature available under the prescriptive normative paradigm in both business management research and school leadership studies seems to have mainly increased since the turn of the millennium (Bolden, 2011; Tian et al., 2016). These studies tried to identify and see associations between DL patterns, degree of distribution and other school improvement variables (generally measured in terms of student learning outcomes or teaching quality for research within school) or, in the case of business studies, which DL leadership practice can be prescribed to meet better current business needs.

In this sense, the normative approach is apparent in the MacBeath's one-dimensional developmental taxonomy of distribution (MacBeath, 2005). This DL model derived from a National College of School Leadership sponsored study conducted within schools in three English local authorities with the aim of exploring what DL looked like in practice (MacBeach, 2005). The project identified six DL categories and each stage of distribution developmentally flows onto the one that follows.

Typology of distribution	Description
formal leadership	leadership is intentionally delegated or devolved (i.e. through designed roles/job descriptions);
pragmatic distribution	leadership roles and responsibilities are negotiated and divided among actors
strategic distribution	new people are brought in to meet a particular leadership need (i.e. the planned appointment of an expert);
incremental distribution	people acquire greater responsibilities as they gain experience
opportunistic distribution	people willingly take on additional responsibilities over and above those typically required for their job in a relatively ad hoc manner;
cultural distributions	practicing leadership as a reflection of the school's culture, ethos and traditions

Table 2.1 MacBeath 's (2005) taxonomy of distribution.

MacBeath (2005) does emphasise that these categories are not mutually exclusive or fixed. He acknowledges a complexity associated with leadership distribution and explains, "it is rarely that simple, as schools evolve through different stages and exemplify different approaches at different times and in response to external events" (356).

Another of the most influential 'official' school-based categorizations of DL in England have been that of the Hay Group Education in 2004, which led to the development of the National College for School Leadership (NLCS) Distributed Leadership pack for schools. In the research sponsored by the NLCS, *The five pillars of distributed leadership in schools: An investigation into the advantages and disadvantages, causes and constraints of a more distributed form of leadership in schools*, they identified five dimensions of DL school climate, which can indicate the extent to which the conditions for DL to grow are in place. The researchers arranged these dimensions on a one-dimensional continuum as follows

Dimensions	Description
Instruct	initiatives and ideas come only from leaders at or near the top of a hierarchical organisational structure
Consult	staff have the opportunity for input, but decisions are still made at a distance from them by others near or at the top
Delegate	where staff take initiative, and make decisions within predetermined boundaries of responsibility and accountability
Facilitate	staff at all levels are able to initiate and champion ideas
Neglect	staff are forced to take initiative and responsibility due to a lack of direction at the top.

Table 2.2 Hay Education Group' dimensions of DL (2004).

At the time, DL was presented as a solution to the increasingly unattractive role of the principal, along with a hoped-for improvement in student achievement (Arrowsmith, 2007). However, the over-emphasis on decision-making limits the Hay Group's view to a rational and functional model that overlooks the social, cultural and political environment of a school (Youngs, 2012) In a manner reminiscent of the Hay Group, Hargreaves and Fink (2006) in their extensive research on leadership sustainability in North American secondary schools, expanded the 5-level distributed leadership continuum proposed by the Hay Group researchers and embedded the concept of a distributed continuum in the form of a thermometer bounded by the terms "too hot" and "too cold" (Hargreaves and Fink, 2006, 113) at each end:

- too hot anarchy
  - *assertive distribution;*
  - *emergent distribution;*
  - *guided distribution;*
  - *progressive delegation;*
  - *traditional delegation;*
  - *autocracy*;
- and too cold

Fig. 2.1 Hargreaves and Fink's (2006) thermometer of DL.

The three ‘cooler’ points on Hargreaves’ and Fink’s thermometer seem to be aligned to the *Instruct*, *Consult* and *Delegate* range of points on the Hay Group continuum. Further up the thermometer, guided distribution, in a manner similar to Gronn’s (2002) institutionalised or regulated practices, acknowledges that there can be intentional leadership distribution. The next point, emergent distribution is aligned to Gronn’s (2002) unanticipated spontaneous collaborative and intuitive working relations that emerge over time, while the assertive distribution is defined as having an activist orientation especially amongst teachers, who are “empowered” by formal leaders.

Hargreaves and Fink (2006) somewhat undo their acknowledgement that leadership is “already distributed” (136) by finally providing prescriptive guidance for organizational leaders in how to progress up the scale of the thermometer while avoiding anarchy. Hargreaves and Fink (2006) claim that “the line between autocracy and anarchy is a thin one” (135). Hence, the too cold base of the thermometer can simultaneously produce the too hot tip of the thermometer and vice versa.

In a similar way to the cited authors, by collecting data from 10 schools in the UK, Ritchie and Woods (2007) explain that the democratic and DL models are very similar in some ways, so that the DL construct as a whole school construct can be identified as:

1) embedded; 2) developing; or 3) emerging.

The embedded stage can be closely connected to the MacBeath et al.’s (2005) cultural distribution where hierarchy is played. In fact, “schools with ‘embedded DL’ were one where I had become of the way they do things” (Ritchie and Woods, 2007, 375). By contrast, schools deemed to be at the start of their DL journey are classified as ‘emerging’, while schools where DL where ‘developing’ were those in which the journey towards DL are becoming embedded within the school culture.

Rather than use a developmental continuum approach to categorize descriptions of DL practice like the authors previously indicated, Harris (2006) acknowledging the theoretical work of Gronn and Spillane, argues that there are also four normative dimensions to understanding DL as shown in the below Table:

Dimensions	Description
representational dimension	It provides recognition for lateral and cross-boundary collaboration as new forms of organizing emerge: thus, partnerships, networks and federations all imply less vertical/top-down leadership based on hierarchical positions.
illustrative dimension	It is a reflection of the requirement for allocation of tasks of responsibility to others by expanding leadership teams and sharing of responsibilities.
descriptive dimension	It is concerned with finding out what distributed leadership 'looks like'. This dimension is a challenge to those seeking a simple formula and programmes that verge on the idea of nominated leaders as distributors. Instead, the formula becomes 'seek and ye shall find', within departments, teams, groups, projects and learning programmes, such as action learning sets.
predictive dimension	This dimension concerns way to improve outcomes and enhance an organization's capacity for development and change.

Table 2.3 DL dimensions (Harris, 2006).

Within the same normative approach, Thorpe et al. (2011) identified four dimensions which provide a framework for DL:

Dimensions	Description
classical distributed leadership	In this distribution a top-down traditional hierarchical approach is planned
mis-planned distributed leadership	This distribution characterizes those organizations which intend to apply distributed leadership but the existing structures for this intent are not appropriate, or the individuals in these structures look at these movements with doubt and prefer to pursue their own goals in their own positions
emergent distributed leadership	In this distribution, spontaneous and informal configurations of leadership emerge yet are still aligned to organizational direction; and
chaotic distributed leadership distributed	Leadership may be occurring within some teams but in a haphazard manner with no benefit to the organization at a wider level

Table 2.4. DL dimensions (Thorpe et al., 2011)

In another manner, Leithwood et al. (2007) established a DL framework that was highly normative. By adopting the criterion of how certain forms of DL are more likely to contribute towards organizational productivity, the researchers identified four patterns of DL which are listed from the most to least preferable,

1) planful alignment
2) spontaneous alignment,
3) spontaneous misalignment,
4) anarchic misalignment

Specifically, planful and spontaneous alignment are most likely to contribute towards short-term organizational productivity. Planful alignment is most likely to contribute significantly more than other patterns of alignment towards long-term organizational productivity. Spontaneous misalignment and anarchic alignment are likely to have a negative effect on short and long-term organizational productivity (Bolden, 2011; Leithwood, et al., 2007).

As Bolden (2011) noted, the work by Leithwood and colleagues "gives some indication of the potential benefit of a carefully implemented approach to DL, as well as the dangers of a poorly conceived approach" (259). In this sense, this study indicates that DL per se is not necessarily beneficial or as Harris noted is inherently a "good or a bad thing" (Harris, 2013, 61), but how leadership is distributed is important since DL, as with any form of power, can be used, abused or misused (Youngs, 2009, Harris, 2013). However, although this note of caution is from a list of naïve prescriptions or checklists, research in the specific context of school has generally showed that there is increasing evidence of the relationship between DL, organizational improvement and student achievement (Heck and Hallinger, 2009; Harris, 2009; McBeth, 2008; Leithwood and Mascall, 2008; Leithwood et al., 2007, Leithwood et al., 2017; Liljenberg, 2015), between distributed forms of leadership and teacher satisfaction (Hulpia et al., 2009), teachers' organizational commitment (Hulpia et al., 2012; Ross et al., 2016), positive organisational change (Harris et al., 2007) and educational innovation (Rikkerink et al., 2016).

In the business sector, recent organizational psychological models promoting employee involvement in organizational leadership (EIOL) are built on theories focusing on organizational participation, shared leadership, and organizational democracy (Wegge et al., 2010). In this sense, Kempster et al. (2014) examine how DL can help to promote organizational change, while

many studies (Bolden, 2011; Fausing et al., 2015; Fitzgerald et al., 2013) indicated a positive relationship between DL and relevant dimensions of organizational performance. For example, research shows the positive impact of DL on team performance and team effectiveness (D' Innocenzo et al., 2016; Wang et al., 2014) or customer services (Carson et al., 2007).

Overall, the empirical evidence about DL effectiveness is encouraging but far from conclusive (Harris, 2008). In fact, it may not be rational to believe that any form of DL is inherently effective and inconsistent evidence on the impact of DL on organizational performance has been identified. For example, an empirical study by Mehra et al. (2006) fails to find support for a linear relationship between DL and team performance. Taken together, some patterns of leadership distribution seem more effective than others and different patterns of DL were associated with different organizational contexts (Leithwood et al., 2008) Hence, according to Bolden (2011), future research needs to understand configurations of DL and how these may be related to outcomes variables in different settings.

2.5 Conclusion

Most of studies included in this chapter have demonstrated the widespread interest of the DL model. However, attempts at defining DL may be problematic due to the overlapping meaning with other related concepts and the lack of empirical studies. In fact, though the DL general theoretical framework may be well investigated i.e. through normative and descriptive approaches, the field lacks clear concepts. Moreover, providing a distinct definition of DL is not a straightforward task and the various attempts to grasp the nature of DL through taxonomies or models have highlighted its complexity and problematic nature. Despite this conceptual confusion, a main feature of DL literature is that DL is opposed to the basic idea that leadership is a property of a solo leader. In this sense, DL generally describes leadership that is shared within, between and across the organizations (Harris and DeFlaminis, 2016). Furthermore, while most studies have been carried out in the educational sector and DL research abounds with qualitative case studies, there is also a need for more empirical work across different organizational contexts. In this sense, cross-sector comparisons may add to our understanding of the DL and offer an opportunity to investigate the DL phenomena. In addition, the current research investigated DL in middle management. In fact, current thinking in systems which

favour distributed educational leadership finds middle leadership indispensable (Bush, 2014). In this sense, there is the conviction that schools are more effective especially when the school leader is not the only leader but when different members of staff are willing to hold different roles of leadership and when power and authority are shared amongst different members of the organization, especially the middle tier (Harris, 2013; Harris and Jones, 2017). Also, in the business sector, this layer of management is described as a form of link between upper and lower levels in the organisation, and it plays a strategic role in strategy implementation and in improving operational performance (e.g. Van Rensburg et al., 2014). Given the above considerations, the international literature on the roles and duties of middle managers will be analysed in more details in the following chapter and it will be discussed in the relation to the DL model.

Chapter 3. Middle manager's roles, functions and Distributed leadership

3.1 Introduction

Much research has focused on the behaviour and the role of top leaders in organizations, while less effort has been invested in front-line and middle managers, despite recognition of their crucial role in organizational performance (Wooldridge et al., 2008; Marichal and Segers, 2012). Therefore, in this section, I will explore the contribution of middle management – the layer of management under investigation - and its strategic role within school and private organizations. In fact, within DL in schools (Harris, 2013; 2014; Hartley, 2016), there is a growing realization of the centrality of middle-level managers and, in particular, of assistant heads and deputy heads in implementing education reforms and in making a vital contribution to school improvement (Fullan, 2015). However, the literature on school leadership is criticized for apparently overlooking important functions of middle leadership (i.e. its contribution to strategy and staff development (Gunter, 2001) and its ambiguity (Blandford, 2006). In the same way, in business management studies, middle managers appear to be an under-represented group in research so far, although the job of this managerial category is complex due to the interconnectedness of their jobs with choices of actors inside and outside their organization (Raes et al., 2011).

By referring to educational and business management studies, in this chapter I will explore the literature for definitions on the roles and duties of middle managers as well as their relevance to the DL model respectively in both public and private sectors. In effect, middle managers maintain a central position in organizational hierarchies, and they can be considered as an important expression of DL. However, the purpose of this chapter is not to present a detailed literature review on middle managers and only those studies that contribute to knowledge about middle management and DL have been included.

3.2 Middle Management and Middle Leadership

A starting point for a consideration of the literature on middle management was to define and clarify the terms 'leadership' and 'management' which are frequently used interchangeably and are considered practically overlapping concepts. However, they are not the same thing since they have quite distinct meanings (Kotterman, 2006).

The relationship of management and leadership has been a set piece in the literature for decades now (Northouse, 2018; Daniëls et al., 2019). The trajectory of that debate moves through their essential differences between the two concepts (Zaleznik, 1977), their complementarity (Kotter, 1990), or their interdependence (Yukl and Lepsinger, 2005).

In both business and educational sectors, the assumption shared by most definitions is that 'leadership' is a process of influencing in which an individual exerts intentional influence over others to structure activities and relationships in a group or organisation (Yukl et al., 2002). In this sense, leadership can be understood as a process of influence based on clear values and beliefs leading to a vision for the organization (Bush and Glover, 2003).

This is to be distinguished from coordination activities that rely upon formalised control processes, which have more to do with management. 'Management' is about maintaining efficiently and effectively current organisational arrangements (Bush, 2007). Hence, management activity maintains, efficiently and effectively, current organizational arrangements and ways of doing business; it centers on maintenance. Leadership activity, in contrast, involves influencing others to achieve new desirable, ends; it frequently involves initiating changes designed to achieve existing or new goal (Spillane and Diamond, 2007).

Having acknowledged the differences between management and leadership in current literature, terminology, and the phenomenon under study, is particularly problematic in this space given the comparative nature of this study. In fact, to complicate things, this study uses sources from both business and educational sectors which have different traditions and schools of thoughts.

According to Locke (2003, 282): "It should not be assumed that the requirements of leadership and management in different domains are the same". In fact, in education, there has been a shift in terminology from 'middle managers' to 'middle leaders' since the early 2000s (De Nobile, 2018). Given, the dominant discourse about leadership (not management) and DL (Burton et al. 2014; Earley and Weindling, 2004) this shift reflects an apparent evolution of the roles individuals in these positions are asked to perform, from mainly mundane administrative tasks to increasingly dynamic strategic and staff development-oriented activities (Bennett et al., 2007a; De Nobile and Ridden, 2014). The term 'middle leaders' tries to capture this positioning, but also to highlight that these leaders practice their leading from 'among' their teaching colleagues. It is not the same construct as 'middle manager', which highlights more the

managerial rather than the leading dimension (Harris and Jones, 2017). A quick look at the contemporary educational leadership literature suggests that the more diverse set of middle leadership positions have emerged in the literature in more recent years e.g. co-ordinators, team leaders, network leaders, professional learning leaders (Harris and Jones, 2017). To date, however, the majority of empirical contributions using the term 'middle leadership' has been located in the educational sector (Harris et al., 2019)

Instead, in business management, while is it acknowledged the differences between the two terms, there is still a strong emphasis on management. Middle management is defined as a position in organizational hierarchies between the operating core and the apex which are is responsible for implementing senior management strategies, and exercise control over subordinates (Harding et al., 2014). In this sense, unlike the education sector, management journals refer to middle managers instead of middle leaders.

Given these premises, the concern raised here is that an overreliance on one sector as the principal source of conceptualization may be conceptually limiting this study.

To avoid confusion and to provide a common ground for the distinct sectors, for the sake of the present study with the term 'middle management' or 'middle manager' I refer to the actual job title of middle managers who can be identified by their location in the organizational hierarchy and in the organizational structure. In other words, I refer to the actual position of the professionals who are formally appointed to this position in the organizational structure. This also explains the title of the thesis "DL in middle management" that concerns how DL operate in this actual layer of management.

3.3 Middle Management and DL in education

There is a growing realization of the centrality of middle-level leaders in making a vital contribution to school improvement and implementing education reform (Harris and Jones, 2017; Shaked and Schechter, 2018). Contemporary middle leadership literature - which is far from being extensive- offers empirical accounts of middle leadership practises in schools across a range of different countries, by including a variety of roles, positions and perspectives (Bennett et al., 2007; Brown et al., 1999; Irvine and Brundrett, 2016; Kiat et al., 2016; Mercer and Ri,

2006; Rhodes et al., 2008; Thorpe and Bennett-Powell, 2014). With regards to the Maltese context, research on middle management in schools seems to be non-existent (Vella, 2015).

The definition of an educational middle managers is variable and largely related to the hierarchical organizational structure of schools; however, in general, "middle managers in schools constitute a layer of management between the senior management team and those at the chalk face" (Fleming, 2013, 2). In this sense, they can function as faculty leaders, key stage managers, heads of departments, teachers in charge of subjects, and team Leaders (Piggot-Irvine and Locke, 1999). In a study of school leaders in Australia and New Zealand, Cranston (2006) included deputy principals as middle managers. Others, however, have conceptualised deputies as part of the senior leadership group (Gurr and Drysdale, 2013). In any case, middle managers can be thought of as providing the bridge between the teaching staff and the executive staff within their school (White, 2000). According to Cardno (2005, 17) since they "work at the interface between teaching and managing the resources of teaching". In the UK, research found that the present middle leaders have a number of major formal and informal roles which include both management and pedagogical responsibilities (Muijs et al., 2013). Apart from the UK, middle managers in other countries like China are holding two roles, that of an administrator and of a teacher (Lin et al., 2011). Wong et al., (2010, 63) define middle leaders in Hong Kong "as teachers with formal administrative responsibilities", and in Australia, Gurr and Drysdale (2013) define them as leaders with "significant responsibility" (57).

Middle managers are key resources that promote school effectiveness (Brown and Rutherford, 1998). As Blandford (2006) suggests, the key function of middle managers is to maintain and to develop conditions that enable effective learning to take place. Within this scenario, middle managers' roles in the UK and in other countries have become increasingly more complex, varied, demanding (Briggs, 2003; Blandford, 2006; Fitzgerald et al., 2006), and intense (Dinham, 2007). Their tasks include but are not limited to: monitoring student achievement; evaluating programmes and plans; coordinating staff and programmes; monitoring student achievement; teaching designated classes; developing and implementing plans; appointing and appraising staff; developing staff, procedures and programmes; running meetings, communicating and monitoring procedures (Cardno, 1995). Although middle managers may have different roles and responsibilities in different countries i.e., in New Zealand (Bassett,

2016) in Malaysia (Javadi et al., 2017), in Australia, (Gurr and Drysdale, 2013), in Italy (Bufalino, 2018), just to name a few, it can be argued that they function in a similar manner and experience the same challenge to being in the middle.

In this sense, middle managers literally seem to be putting on different hats and although they might be leaders, they are, as Fitzgerald (2009) noted through a research project in three New Zealand secondary schools, also "led and managed by those who occupy a higher level in the hierarchy" (55). In fact, their role implies having direct contact with members of the senior leadership team (Mercer and Ri, 2006) but also being responsible for the work of other teachers (Middlewood and Lumby, 2007). As a consequence, middle managers are also viewed as "hybrid characters attempting to juggle multiple identities" (Thomas-Gregory, 2014, 620) while role conflict, role ambiguity and tensions are frequently observed characteristics of this duality in the work role (Bennett et al., 2003a; Geer, 2014; Han et al., 2014; Yulan et al., 2014; Wise, 2001). Apart from the increase in workload, middle managers have also to face a heavy teaching load (Dunham, 1995). This is not only the case in European countries but was also found in a case study with teachers and heads in Chinese secondary schools (Mercer and Ri, 2006).

An awareness of the importance of middle managers within a school's organizational structure is on the rise (White, 2000) and the influence of middle management positions needs to be considered, especially in relation to whole-school development. In fact, middle managers can play a vital role in whole school planning and decision-making (Brown et al., 1999). In this sense, Weller (2001) asserted that department heads, as middle leaders, have the potential to be the most influential people in a school's organizational structure.

It also appears that their contribution depends mostly on the support and facilitation of formal leaders (school principal) (Crowther and Boyne, 2016; Day et al., 2009: Day et al., 2016; Harris, 2013), the organizational school culture (Woods et al., 2004) and to the extent they are involved in the decision-making process (Muijs and Harris, 2006). Thus, such conditions include the redistribution of power and authority as well as the building of trust relationship (Hopkins and Jackson, 2003), since formal leaders should be considered as gate keepers by encouraging or discouraging others from leading. Further, Harris' study (2001) assumed that if middle managers are to be the co-producers of leadership, so principals need to provide empowerment and encouragement of teachers to become leaders and opportunities for continuous professional

development (Mujis and Harris, 2003). Also, Dinham' s (2007) study indicates that heads of departments can make a difference, but the important point is the support and the high expectations from the leaders of the school (particularly the principal), and the capacity and aptitude to be leaders.

However, the extent to which collegial and distributed management models can promote more effective teaching and learning has been questioned. In this sense, as indicated by Harris (2013), DL is not a friend or foe, but as it refers to the complex interplay of dynamics of power and authority it can be used or misused (Lumby, 2013) showing the dark side of leadership (Harris, 2014).

For example, Kirkham (2005, 160) suggests that collegiality is often an aspiration rather than a reality. In fact, formal managers could be of impediment when they tend to choose or encourage only those who support their particular agenda: this selective inauthentic attempt to distribute will prove to be counterproductive (Harris, 2013). Also, to distribute leadership does not mean adopting a laissez-fair approach, or abdicating to responsibilities: in effect, as pointed in a Belgian study, leaving teacher teams to work alone, without the principal's regular supervision may lead to low effectiveness (Hulpia et al., 2012). In the same vein, rather than DL, Youngs (2009) assume the existence of a "distributed pain" (7), where DL equates with work intensification. As Jarvis (2012) pointed out, the major issue is that collegiality is too often viewed as a model of leadership and management, rather than as a power relationship; in fact, true collegiality must occur within the context of an organization that is hierarchical and asymmetrical in its distribution of power (Busher, 2006). In Jarvis' research (2012) in the UK, the participating subject leaders, by lacking essential power, were mostly forced to work in situations that were not always susceptible of direction or control; thus, they were forced to mobilize whatever power resources were available to them to assert some measure of authority and influence.

Further, the current focus on DL seems unhelpful and may indeed be exacerbating the problems as people who do not want to be managers, nor who have the skills, attitudes or aptitudes to be leaders, are being forced into roles that have leadership as an expectation. For example, an analysis of middle managers' perceptions of leadership in further education in England (Gleeson and Knights, 2008) showed how some of them are reluctant to become leaders because they

wanted to preserve their autonomy to stay in touch with their subject, their students, their own pedagogic values, identities and family commitments. In another case, as Hammersley-Fletcher and Brundrett (2008) reported, many middle managers feel more secure within the structures of a hierarchical organization in which their individual roles are clearly delineated than they would in the 'free-for-all' of a fully collegial system.

3.4 Middle Management and DL in the private sector

There is no comprehensive and accepted definition of a middle manager (Ouakouak et al., 2014). For example, Floyd and Wooldridge (1994) define a middle manager as "the coordinator between daily activities of the units and the strategic activities of the hierarchy" (48). To Currie (2001) middle managers are those between the highest and lowest levels who, in the words of Floyd and Wooldridge (1997) "mediate, negotiate and interpret the connections between the organization's institutional (strategic) and technical (operational) levels" (466). In a similar vein, they are also defined as those positioned two or three levels below the CEO (Dutton and Ashford, 1993) and one level above the operational level (Huy, 2001), in the middle of the corporate hierarchy. Although there is no valid demarcation among 'low-level', 'middle-level' and 'top-level' management (Staehle and Schirmer, 1992), the reality is that many managers in today's large organizations are middle managers and they can include at least top managers, middle managers and operational managers (Hales, 2006). As key members of the organization, they act as mediator between the top layer of management and the rest of the work community (Mantere, 2008) forming also a point of intersection between their organization, customers, suppliers, and other stakeholders (Floyd and Wooldridge, 1997). However, the debatable role of the middle manager leads some scholars to not only foresees a decline, but also a devaluation of middle managers (Gratton, 2011). For example, new organizational changes such as downsizing, restructuring, cost-cutting are pointing to one demised, neglected and sometimes even accused group in the organization, namely middle management (Balogun, 2003). In the organisational process of delayering, middle management positions were targeted as redundant (McCann et al., 2008). In this view, they may represent a blockage between the organization's strategy and operations, rather an efficient linking function: "Middle managers are costly,

resistant to change, a block to communication both upwards and downward" (Scarbrough and Burrell, 1996, cited in Balogun, 2003, 70). However, the apparent durability of the middle management group suggests that they continue to play an important role in organizations and exercise significant influence.

Nevertheless, as far as many are concerned, middle managers are invisible; they barely exist (Osterman, 2009). Little is known about actual middle management practices (Rouleau, 2005), and this group has so far received limited attention in the Human Resources literature (Kuyvenhoven and Buss, 2011; Marichal and Segers, 2012). In addition, research on middle managers in medium-sized firms remaining scarce (Mair and Thurner, 2005).

As organizations have increasingly replaced their traditional hierarchical organizational structures with modular and decentralized configurations (Bass and Riggio, 2006), middle leaders play an increasing leadership role in implementing change programs (Kuyvenhoven and Buss, 2011; Ahearne et., 2014) and in strategy implementation (Salih and Doll, 2013), while their efforts in balancing both efficiency and adaptation deserve more attention (Farjoun, 2010). In the private sector literature, middle managers have been viewed as:

1) implementers of top- management defined strategic chances (e.g. O' Shannassy, 2003);
2) relationship managers in strategic change management (Floyd and Wooldridge, 1994; 1997) and;
3) key strategic actors in the emergence of the strategic change (e.g. Engle et al., 2017)

In the attempt to identify the different tasks that middle managers take on strategy implementation, Floyd and Wooldridge (1992) classify four middle manager roles: championing alternatives; synthesizing information; facilitating adaptability; implementing deliberate strategy, while Schilit (1987) also describes three characteristics of their involvement: exercising influence mainly in less risky issues; more involvement in implementation than in formulation; using rational argument to convince top managers of their views. By investigating the impact of middle management on company performance in the iGaming industry, Mollick (2012) found the middle managers are necessary to facilitate firm performance in creative, innovative, and knowledge-intensive industries.

Middle management is increasingly responsible at corporate level for the success of the company and for the well-being of their subordinates (Heames and Harvey, 2006). In fact, they

are accountable for achieving organizational goals, managing change, creating optimal working environments, ensuring smooth running of operations, building teams and motivating subordinates, and so on (Delmestri and Walgenbach, 2005; Floyd and Wooldridge, 1997; Huy, 2002; Zhang et al., 2008). In this sense, as organizations become flatter and more flexible, new leadership and development priorities arise in middle management from such a devolution of a broad range of responsibilities (Accenture 2007; Boston Consulting Group, 2010; Hales, 2006). Hence, the strength of leadership capability at the mid-level is a primary determinant of an organization's ability to execute its business strategy.

Within this context, the phenomenon of DL and its occurrence among middle-level managers is a crucial element since they deal with different layers of management. For example, the interaction between middle managers and the top management team is central to the effective strategy formulation and implementation and since it can lead to a better performance and higher organizational effectiveness (D' Innocenzo et al., 2014; Wang et al., 2014). However, researchers have remained notably silent on the actual nature of this interaction and how DL practises might look like in practice (Bolden, 2011).

Given their position in an organizational hierarchy, middle managers deal not only with top managers but also with employees who report to them. In this sense, since organizational practices are becoming increasingly employee and customer oriented (Ellinger et al., 2003), new non-positional, team-based, and empowering leadership models requires soft competencies for middle managers, such as coaching and developing employees. In effect, managers are expected to be coaches for their people (e.g. Bartlett and Goshal, 1997). For example, a study in Dutch organizations showed that because of a distributed model of leadership, middle managers experienced a major shift in responsibilities, with an increase in tasks that concern employees (Stoker, 2006).

From a psychological perspective, sharing organizational resources with employees and giving them real power though the use of participative management techniques, fosters development of self- efficacy at work (Conger and Kanungo, 1988). In effect, taking active part in leadership tasks can also be perceived as a job enrichment (i.e. higher responsibility) and job enlargement (i.e. more variation of job task). In addition, as showed by Jain and Jeppensen (2014) in the Indian work context, involving middle managers in DL practises is related to greater self-

efficacy, job satisfaction and innovative behaviour. This study showed also the importance of exploring the employee's attitude towards DL practices, and how it is related with implementation issues. The findings of this study are empirically consistent with other research undertaken in schools and hospitals (Muijs and Harris, 2006). In fact, Indian managers believe that DL practices can help in developing the attribute of taking initiatives, in improving efficiency and effectiveness of organizations, in promoting work commitment, accountability, and mutual respect among employees.

However, involving middle managers in DL practise could lead also to significant issues. For example, in another two-year study of middle management in 50 organizations across both the public and private sectors, Thomas and Dunkeley, (1999) showed, paradoxically, whilst middle managers report feelings of greater job satisfaction from increased empowerment over their roles, this was in tandem with working in intensified work regimes with increased pressured and stress. Among other things, their study highlighted the importance of the context in understanding middle managers' experiences. In fact, there were clear differences between the public and the private-sectors: while managers from both sectors reported feelings of greater job satisfaction from empowered work roles, those in the public sector were far more critical of the changes.

In addition, the paradox is that while the importance of middle managers has grown in recent years, so has their sense of personal insecurity. For example, according to a recent analysis (Zenger and Folkman, 2014) those 'stuck in the middle of everything' could best be described as the unhappiest among workers, while according to a 2012 UK study by business performance consultants Lane4, 91% of all the surveyed UK workers believe the majority of workplace stress is falling on middle management (Lane4, 2012).

In addition to personal characteristics, certain conditions also contribute for DL to occur. For example, findings of a UK study in healthcare organizations highlighted difficulties with accounts of leadership as something to be distributed across organizations; in fact, established institutional structures and norms may render this approach problematic (Martin and Waring, 2013).

Also, DL has a contextual meaning and managers need to take some precautions to implement it: i.e. the nature of business, the nature of task and other contextual factors etc. For example,

DL is likely to be alien in both concept and underlying belief of good or effective leadership, in particular at start-up level. As Ensley et al. (2006) emphasize, vertical leadership may be especially important during the early stage of the new venture as it is the entrepreneur who frames a vision, reflecting heroic notions of individualistic leadership. In the same vein, Vecchio (2003) states that for many people in small firms - the opportunity to interact with the top person in a firm represents a significant possibility to receive approval or affirmation from an "authority figure" (Vecchio, 2003, 316).

3.5 Conclusion

In this chapter I explored the international and the limited local literature for definitions on the roles and duties of middle managers from both public and private sectors. Leadership scholars considered this layer of management as central in the management of an educational institution or a private enterprise, in order to raise the standards of every organization. In fact, given that middle managers are described as a form of link between the upper and lower levels of an organizations, they are considered as key agents in delivering the strategic goals of the organization. Whilst the literature acknowledges the complex and demanding positions that middle managers occupy in both sectors, this particular layer of management operate in a hierarchical structure. In addition, middle managers literally seem to be putting on different hats. In fact, their role implies having direct contact with members of the senior leadership team (Mercer and Ri, 2006) but also having relationship with other colleagues, while leading and managing staff.

While DL is being promoted at international and at local Maltese level, middle management can be considered as a means of implementing this model in both public and private organizations. In such a context it is critical that there is a clear understanding of how DL is enacted and experienced by middle managers with the aim of gaining a fuller view of their roles and responsibilities, on which an organisation rely for its advancement. Hence, this current research has placed the middle managers at the core of DL in order to explore to what extent they are actively engaged and participate in organizational processes. In doing so, it will specifically explore middle managers' s DL forms of relationship with three different layers of management

with which a middle manager usually interacts within an organization (i.e. top managers, other middle managers, or other team members). This research also intends to show how middle managers experience their leadership practice from an individual perspective (i.e. How far middle managers are actively engaged in leadership process in both schools and iGaming companies? How is DL actually practiced by middle managers?). In this sense, the importance of the context in understanding middle managers' experiences is highlighted so that it may be valid to investigate whether middle in state schools differ from business managers in terms of DL.

Chapter 4. Conceptualizing and Defining Distributed Leadership in Middle Management

4.1 Introduction

Contested and vaguely defined concepts constitute a widespread issue in the fields of study of business management and education and, in general, in social sciences (Podsakoff et al., 2016). In this sense, as reported in the previous chapters, leadership scholars have acknowledged that the DL model is no exception (Bolden, 2011; Mayrowetz, 2008; Tian et al., 2016). For example, Harris and DeFlaminis (2016) pointed out that pioneers within the DL studies initially adopted the concept as an analytical framework rather than a set theory. Hence, conceptual debates and attempts at identifying, defining and describing dimensions have flourished, which have been termed the descriptive approach within the field of DL (e.g. Gronn, 2000). Other scholars have perceived and applied the framework as a set of practice forms that deliver desirable outcomes, to empirically investigate DL patterns that seems to exert positive impacts on school or business improvement. By trying to provide norms and prescriptions to guide practice (e.g. Harris, 2004; 2006; 2013; 2014; Leithwood et al., 2009), the latter group of researchers notably use mostly qualitative studies of practice in various contexts (Bolden, 2011).

However, both types of approaches rely on broad theoretical notions, rather than clear concepts. In fact, attempts to conceptualise DL or empirically outline its application have been mostly unsuccessful, while several literature reviews on DL (e.g. Bennett et al., 2003b; Woods et al., 2004; Bolden, 2011, Tian et al., 2016) have noticed a lack of a consensual definition of DL. As a consequence, in the absence of a solid theoretical foundation, the lack of empirical evidence of the effects of DL has been identified as a research gap in DL studies. Thus, along with clearer concepts and theoretical models, more precise methodological operationalisations are required, and I foresee such endeavours as the next stage of research on DL. The process of operationalization refers to specifying a set of operations or behaviours that can be measured, addressed or manipulated (Cohen et al., 2007) and it is critical for effective research.

In this chapter, I investigate the DL model in the attempt to provide a better source of its theoretical development and consequentially of its methodological understanding. Given this premise, I want to make an original contribution to the further development of concepts and

sub-concepts within the DL framework, in the attempt to specify central conceptual elements and dimensions of DL and thus to operationalize it in order to measure middle managers' DL in a comparative setting, i.e. the public and private sectors in Malta. To promote consistency in theoretical and methodological choices in DL, linking theory and method requires developing an intentional effort to match underlying assumptions and theoretical lenses to methodologies and to research design and implementation decisions (Fairhurst and Antonakis, 2012).

To this end, in the following sections, I will present the chosen structure - agency perspective and I will focus on essential theoretical DL leadership properties.

4.2 The agency- structure framework: DL as structure and agency

Different approaches are possible in the research and theorizations of DL. Though not pursued systematically within subsequent dominant DL research, pioneering scholars positioned DL explicitly within a structure-agency approach (Gronn, 2002; Woods et al., 2004; Tian et al., 2016). In this sense, following Tian et al.'s (2016) recent recommendation for future research, DL should be defined and studied in terms of leadership processes that comprises of both organizational (structural) and individual (agentic) aspects. In this sense, a coherent theoretical framework developed from a structure-agency perspective (Archer, 1995, 2000; 2003) synthetised with the concept of human agency and efficacy (Bandura, 1989; 2006) provides a strong theoretical alignment throughout the current research project. It has served as a theoretical lens to examine the phenomenon of DL in middle management.

Generally speaking, the agency-structure argument has been central across a range of social sciences, and in particular, in sociological studies (e.g. Giddens 1979; Sewell, 1992; Ritzer and Stepnisky, 2017). This debate has led to the development of different theoretical perspectives, either assuming supremacy of the structure (e.g., Parsons, 1937; 1951; Althusser, 2005) or the agency (Auberon, 1908; Berger and Luckmann, 1966), or to emphasize dialectic and relational accounts to structure and agency (see for example Giddens, 1979). The aim of this section is not to outline the duality of the structure and agency debate. Hence, I will limit my discussion to the social interplay between the structural processes, *vis-a vis* the individual agentic dimensions, as a mean to provide a framework within which to explain DL. More specifically, the interplay

between context and activity, as the driving force behind the DL perspective was investigated from the structure - agency perspective rooted in Archer's analytic dualism approach (1995; 2000; 2003).

Scholars such as Berger, Giddens and Bourdieu have made attempts to overcome the dualism between structure and agency; however, they have been criticized for conflating the two dimensions, thus losing the distinctiveness of each and the relationship between them (Reed, 1997; Woods, 2000). In contrast, Archer rebuffs the theorem of the duality of agency and structure, and instead of diminishing the differences between both, she acknowledges that structure and agency are capable of independent variation, as each is constituted by emergent properties that have relative autonomy from one another, and therefore are able to "exert independent causal influence in their own right" (Archer, 1995, 14). In the leadership field, this theoretical articulation can be linked to Gronn's acknowledgement that any individual or structural view of leadership rests on a false ontological dualism, since the relationship between structure and agency "is always one of interplay through time: each element is analytically distinct from, but is ontologically intertwined with, the other" (Gronn, 2000, 318). Hence, in Archer's (1995; 2002) critical realist, morphogenetic approach, the dualism is to be understood as an analytic dualism, which means that in the real world, structure and agency are ontologically connected in a reciprocal, dynamical causal interplay.

4.2.1 Structure

For purpose of clarity, I define structure, drawing on Woods' (2000; 2004) formulation in light of Archer (1995), as emergent properties which exert "powers of constraint and enablement by shaping the situations in which people find themselves" (Archer, 2000, 307). Similarly, according to Spillane et al. (2004) structure refers to the various elements, which individuals must contend with when forming action. In particular, according to Woods et al. (2000), structure is thus comprised of the following elements:

Element of structure	Definition
Institutional	duties of roles, distribution of power and resources
Cultural	systems and patterns of knowledge, ideas and values);
Social	patterns of relationships and interactions, along with the climate of these

Table 4.1 Elements of structure (Woods et al., 2000)

Structures are the product of prior agency and the condition of current agency, the latter in turn possibly modifying structural properties, which then form the conditions for future agency.

From different viewpoints, both Bandura (2000; 2006) and Archer (2003) inquire into the dynamic, reciprocal developments of agency and social structure. In both views, real reflective and intentional activity with intrinsic real properties of the natural, practical and social world mediates social structure and person.

4.2.2 Agency

Agency concerns the action of the individual within the context of (and, in fact, through) structure. This implies self-consciousness, which enables "people to reflect upon their social context, and to act reflexively towards it" (Archer, 2000, 308), as well as the ability to envisage alternatives creatively, and to collaborate with others to bring about change. In effect, agency emerges from active, self-reflective practice intentionally aimed towards self-prioritized motives. An agentic property is to prioritize motives and roles, balance and decide upon goals and values to pursue. In this sense, agents have the ability to recognize and apply emotions as reflective feedback from the real-world interaction about the effects of practice.

From a psychological perspective, in 1989 Bandura defined agency as "the capacity to exercise control over one's own thought processes, motivation, and action" (1175). In this sense, agents are active, reflexive and creative and have powers to self-monitor and mediate social and cultural structures, which results and shapes a temporal, dialectical development.

More specifically, Bandura (2006) assumes a triadic reciprocal causation model in structure-agency:

1) the environment (structure), which provides conditions and resources;

2) intrapersonal phenomena such as beliefs, motives and capacities (agent), and

3) behavior (actions).

The term causation is used to mean functional dependence between events. In this model of reciprocal causality, internal personal factors in the form of cognitive, affective and biological events; behavioral patterns; and environmental events all operate as interacting determinants that influence one another bi-directionally.

The agent chooses and acts towards realizing his or her intentions, seizes structural opportunities and avoids structural hindrances, and by the action, he or she reinforces or changes the environmental structure. In this way, the three elements affect each other over time. Furthermore, the amount of agentic power a person has depends of the employment of agentic resources in the specific behaviors *vis-a-vis* the constraints and opportunities of the structure. Agentic resources involve human properties such as proactivity, competencies, self-influence and self-regulatory skills, and efficacy cognitions. In Bandura's theory, agency can be exercised individually, in a collective or by proxy via competent and powerful others. As such, Bandura identified personal agency as foundational to engagement (e.g., Bandura, 1989, 2000, 2006; Schunk, 2008). Individuals who perceive themselves as having a meaningful voice or role in an activity are more likely to participate. In the same vein, Deci and Ryan (2000) conceive of agency in terms of self-determination and emphasize autonomy for shaping one's own intentions. In this sense, agency is related to an active, sentient state of mind that may be described as psychologically engaged, committed, or involved.

This assumption represents one the main grounds for the DL agency (Jønsson et al., 2016) approach, which I will briefly elaborate on in the following sections, and which represents, from an agentic perspective, one of the main contributions to the operationalization of DL with regard to middle management.

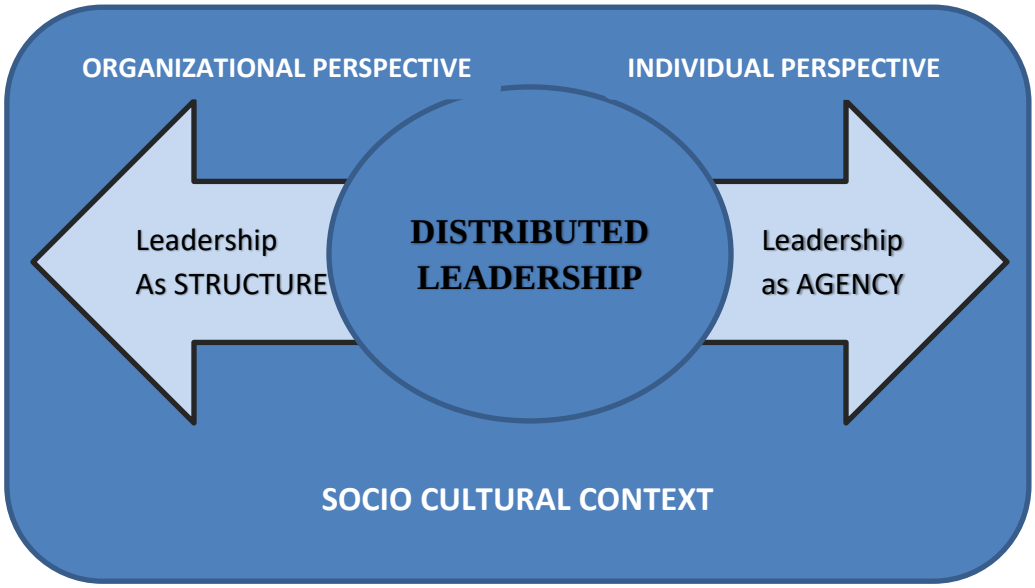

Fig. 4.1 DL as structure and agency

Within a broader perspective, by applying this analytical approach, DL can be therefore seen as the complex interplay that bridges agency and structure (Gronn, 2002). In fact, as suggested by Woods et al. (2004), it should be understood both in relation to structural indicators and evidence of agency, given "their interplay requires them to be understood in combination" (450) and that in practice, these two dimensions would often interact. In addition, throughout the DL process, the socio-cultural context of the organisation largely determines the creation and distribution of resources as well as regulates the socio-cultural boundaries within which individuals can exercise their agency.

Given this theoretical premise, I argue that the essential core of DL is enshrined in the duality of structure and agency. Furthermore, considering the different contextual differences between the public and private sectors (the research contexts of this study) I have also chosen the structure-agency analytic dualism as a theoretical lens that recognizes the complementarity of the individuals, i.e. human agents (middle managers from both sectors) and the contextual factors i.e. structure within which they are enacted to engage in DL. Applied to DL, structure designates all existing environmental constraints, resources, values for the agent (middle manager), who participates in leadership functions with (reciprocal) influence. Thus, DL agency

refers to a person's capacities for and experiences with actions intended towards leading others to act towards common, organizational goals.

In the following sections, in order to have a better understanding of the whole research project, I will elaborate on DL agency in middle management by specifying central and conceptual elements of DL which are repeatedly mentioned throughout the thesis. Specifically, by establishing the reciprocal influence as a defining feature of DL, I will then point out theoretical elements of

- DL agency;
- DL configurations with specific reference to middle management;
- DL functions in middle management;
- DLA (Distributed Leadership Agency).

4.3 Distributed Leadership and influence

As Lumby (2013) and others (e.g. Bolden, 2011) before her notes, processes of power and influence in DL have mainly been outside the attention of DL researchers. Given that in the early conceptual framework Gronn defines influence at the core of leadership *per se* (2000; 2002), the tendency to neglect influence as an inherent part of DL is unfortunate. Early in the history of DL, Gronn (2000) explicitly treats DL and influence as the same, conflated concept, basing much of the concept of DL on mechanisms of social influence. Another group of seminal DL researchers also noticed that influence is a significant aspect of leadership relations, an element that is extended in DL (Spillane et al., 2004) and in a more recent article, Ho et al. (2015) explicitly mentions social influence as an element within the DL activity system. In this sense, the most elaborate theoretical development is only recent. Woods (2016) meets the critique of a lack of emphasis on power in DL and he furthers the power/influence perspective on DL by applying a Weberian approach to social authority in a powerful theoretical analysis of DL. Woods' (2016) approach is in line with Gronn's (2002) original view of leadership as a voluntarily ascribed status of influence to individuals, groups or organizational units. Woods draws on the distinction between domination/'power over' and production/ 'power to' but elaborates the latter to include power 'though and with others.' While the former provides a lens

suitable for explaining tensions and struggles in DL practice, it is antithetic to the theoretical conception of leadership as a shared property. Moreover, authority through and with others resonates very well with the original theory outlined by Gronn (2000; 2002). In these works, he stresses that reciprocally influential processes are at the core of DL practice. In fact, processes of reciprocal influence amongst members initiate and organize individuals work efforts into a well-orchestrated and conjoint action (Gronn, 2000). Also, processes of reciprocal influence facilitate each person's formation of and commitments to the collective goal of an action and that the individual efforts are synergistically coordinated. Influence processes emerge, rotate, vanish or institutionalize into a more fixed patterns of distributed formal or informal leaders (Gronn, 2000; 2002).

By implication, reciprocal influence is a defining element of DL, and concepts and operationalisations should therefore include reciprocal influence.

4.4 Distributed Leadership configurations and Middle management

A primary point in the literature is that DL is opposed to the basic idea that leadership is merely a property of an individual. In this sense, it is a "fluid or emergent property" rather than a "fixed phenomenon" (Gronn, 2000, 24), "stretched over the work of a number of individuals where the leadership task is accomplished thought the interaction of multiple leaders" (Spillane et al., 2001, 20). For leadership to be distributed in this way, it must be a property of a group or dyad of cooperating persons organized into a division of labor (for example, an organizational unit or a department). As such, DL operates through relations between people or groups (Gronn, 2000; 2002; 2008a; 2008b). Specifically, by framing leadership as a process of social influence (Yukl et al., 2002), Gronn's concept of leadership configuration might be considered as a representational vehicle comprising "a mixture of various focused and holistically distributed elements" (Gronn, 2010, 424). In fact, Gronn (2009) advocates for extending the concept of DL by explicitly including formal leaders into DL units, and thereby viewing configurations of DL as 'hybrid forms'. Gronn (2008a) reviews DL studies and finds that formal leaders exerting formal top-down influence, and peers exerting interpersonal influence form prevalent and typical DL relationships. By introducing the concept of hybrid leadership, Gronn (2008a)

emphasizes that formal leaders can- and often will join collectives exerting DL, hence hybridizing formal and informal (employee) leaders in a collaboration about leadership functions. By this extension, Gronn (2009) recognizes that in real life, formal and informal, focused and dispersed leadership co-exist and interact in DL leadership processes. With these notions, formal leaders and their interactions with other organizational agents become a central focus of inquiry in DL literature.

By implication, middle management - the layer of management under investigation - takes a position of theoretical and practical interest for understanding hybrids of DL, because middle managers are in the 'middle' of leadership processes with direct interaction with employees, managers at the same level and a superior manager. In this sense, middle managers may be regarded as "agents of control, subjects of control, objects of resistance and resisters to those very controls" (Harding et al., 2014) since they deal with different sources of influences (different layers of management), thus configuring different levels of leadership distribution.

4.5 Leadership functions in Middle Management

Following Gibb (1954), Gronn (2000) construes leadership as a group function, which may vary on a continuum between focused and distributed. From this angle, DL denotes a function that multiple persons fill to enable a collective to perform a concertive action. Most DL literature is not clear about what specific functions leadership serve, though Gronn (2000; 2010) mentions that leadership is generally understood as to initiate and coordinate individual efforts within the acting collective. However, Jønsson et al. (2016) elaborate the notions of leadership functions by applying Yukl et al.'s (2002) analysis of leadership functions to the DL framework. In fact, Yukl et al. (2012) provides a parsimonious and meaningful conceptual framework that includes most of the specific behaviors found to be relevant for effective leadership. Drawing on findings from prior leadership research, the authors identified three broadly-defined categories, namely meta- categories. Each category includes specific behaviour dimensions that are observable by others and may be potentially applicable to all types of leaders (formal and informal) within an organization, namely 1) leading tasks; 2) relations; and 3) change in organizations.

Task leadership encompasses initiating, planning, allocating responsibilities and monitoring the progress of the work and in general making sure that the collective performs their tasks efficiently. Within DL literature, task performance is a classic motive and argument for enhancing DL practice (Harris, 2004; Mayrowetz, 2008).

The second meta category includes relation-oriented leadership functions and deals with the human resource side of work. In fact, relation-oriented leadership functions entail care for the well-being and growth of the human beings who inhabit the organization. The purpose of relation-oriented leadership is to support others and enabling skill development to strengthen human capital within an organization. This forms a prevalent stream of DL research, which Mayrowetz (2008) denotes as DL as human capacity building.

The third category deals with change and encompasses monitoring the environment as well as stimulation and the support of innovation. The three leadership categories have a distributable nature because they represent different functions that can be distributed amongst several persons (Jønsson et al., 2016). DL in organizational change has also been a prevalent theme within DL literature (Buchanan et., 2007; Harris et al., 2007; Chreim et al., 2010; Currie and Lockett, 2011; Spillane and Coldren, 2015). For example, with respect to the school context, Leithwood et al. (2007) note that DL functions includes setting a direction by envisioning change and changing school culture and structure.

For the present purpose, based on the above-mentioned analysis and a review of literature on middle managers' roles in both sectors, applying Yukl et al.'s (2002) categorization, conceptualization and methodological operationalization should treat DL in middle management as being comprised of three main categories of leadership functions, namely tasks, people and change leadership as follows:

Meta-category	Primary objective	Leadership behaviors
Task	High efficiency in the use of resources and personnel, and high reliability of operations, products, and services	(1) short term planning, (2) clarifying responsibilities and performance objectives, (3) monitoring operations and performance.
Relation	Strong commitment to the unit and its mission, and a high level of mutual trust and cooperation among members.	(1) supporting, (2) developing, (3) recognizing, (4) consulting, and (5) empowering.
Change	Major innovative improvements (in processes, products, or services), and adaptation to external changes.	(1) external monitoring, (2) envisioning change, (3) encouraging innovative thinking, and (4) taking personal risks to implement change.

Table 4.2 Meta categories of leadership functions (Yukl et al., 2002)

4.6 Distributed Leadership Agency (DLA)

In the structure-agency duality model, individuals' agency is a central element (Tian et. al, 2016) and the exercise of agency in the present research project takes place at both individual and collective levels. As mentioned earlier, Woods et al. (2004) drew on the connection between agency and DL in their structure-agency model, by claiming that institutional, cultural, and social structures could transform into resources for agency. In return, agency, in many ways, also affects and alters structures (Woods et al., 2004). Hence, the release of agency will be viewed as realizable through its incarnation as a dialogic structure based on interpersonal interactions and sociality.

Following this line of reasoning, I regard agency as one pivotal element to theorise DL for middle managers. Moreover, the timeliness of the present study is underlined by a meta-analysis by Tian et al. (2016) who suggested that DL field lacks important research on "leadership from the viewpoint of the individual as an agency" (159). Drawing on Jønsson et al. 's (2016; 2017)

research on DL in the health context, I define Distributed Leadership Agency (DLA) as a construct that is theoretically based on the conception of DL applying an activity theory approach (Groon, 2002). In particular, DLA refers to the degree to which middle managers individually experience being actively engaged in leadership activities within 1) organizational change, 2) managing tasks and 3) strengthening social relations at work (Jønsson et al., 2016, applying Yukl et al.' s (2002) three meta-categories of leadership functions). In this sense, DLA refers to a person's capacities for, and experiences with, actions intended toward leading others to act toward common, organizational goals (within tasks, relation and change functions). This definition encompasses that all organizational members - with and without formal leadership function - can execute leadership tasks and it focusses on the perspective of the individual as an agency. In other words, DLA represents an approach to leadership in which leadership functions are distributed to all members who are willing to undertake such tasks and responsibilities, individually or collectively. However, the original Jønsson's research (2016) was developed in the health sector (not in the educational or in a comparative setting) with employees (not middle managers with formal leadership positions) and in another national context (Denmark) in which culture and labour market tradition incorporate participative value (see Hofstede, 2001)

4.7 Applying the structural-agentic framework to DL in Middle Management

By applying the structure-agency duality model of DL to middle management, I argue that from a structural perspective, DL refers to 'distributedness' of roles and influence across the organizational structure. From this viewpoint, Gronn's (2008a, 2008b; 2009; 2016; 2017) descriptions of hybrids of leadership, and collective leadership configurations could also be an example of structural concepts. In fact, with the concept of hybrid leadership, Gronn (2008a) emphasizes that formal leaders can and often will join collectives exerting DL, hence hybridizing formal and informal (employee) leaders as well as professional and managerial expertise. In this sense, leadership configurations designate particular relational constellations of a collective DL structure. As indicated earlier, Gronn (2008a; 2008b; 2017) reviews studies and finds formal leaders exerting formal top-down influence and peers exerting interpersonal influence form typical DL relationships. Hence, DL and influence processes may take both

vertical (i.e. upwards and downwards) and horizontal organizational directions. By conceptualizing hybrid leadership and distinguishing between different constellations, these later theoretical developments provide a conceptual lens for acknowledging the *de facto* working agreements, processes and different level of relationships form DL practice. This is an insight that includes and transcends processes prescribed by a formal organizational structure. In addition, drawing on Wood et al.'s (2004) definition of structure, I acknowledge that a structure may include myriads of possible actions determining features, and that with respect to DL, there can be many different structural constraints and resources. In particular, with respect to the Maltese context it would be worthwhile to explore values, cultural and relational elements together with forms and formats of DL that middle managers have adopted in both sectors.

In line with this structural-agentic distinction (Archer, 1995; 2000), Tian et al.'s (2016) recent meta-analysis of DL studies shows that leadership as a resource (the structural view) from an organizational perspective have dominated studies on DL (Leithwood et al., 2007; Murphy et al., 2009; Woods et al., 2004) while the agentic perspective is missing. It must be recognized that the individual agency is "a vital presupposition for the ability to have ownership, empowerment, self-efficacy, and well-being in the organization" (Tian et al., 2016, 157). In fact, this may help create ideal circumstances for DL to be realized in schools and private organizations (the research context of study).

With respect to the agentic dimension, I have chosen to conduct an analytical reduction and focus on middle manager's DL configurations with:

1) direct managers (designating upward distributed leadership and reciprocal influence processes);

2) peer managers or colleagues of similar status (horizontal processes) and;

3) employees who report to them (downward processes).

A reason behind this choice is that these configurations may be the most prevalent relationships that allows a middle manager to act formally or informally as a leader within a relationship with another person or a group. This concept departs from Gronn' descriptions of leadership configurations (2008a; 2008b; 2011; 2017), i.e. constellations of people between DL-participating persons in leading specific collective actions. In other words, the more a middle manager should be involved in leadership functions, such as tasks, relations or change leadership

and reciprocally sharing influence, the more could the person can act intentionally and goal-oriented, thus shaping the formal and informal structural elements of a workplace. In fact, according to the structure- agency theoretical notions, structural properties reciprocally shape agentic properties.

By implication, I operationalize DLA as an individual's sum of involvements in DL configurations. The difference between DL configurations and DLA is that DL configurations denotes distribution of leadership functions and reciprocal influence, and as such, I must comprehend DL configurations at relational and/or collective levels of analyses. In contrast to this, DLA belongs to an individual level of analysis as the experiential impact of the totality of leadership actions within leadership configurations. Subscribing to Bandura's (2001, 2006) triadic reciprocal determinist theory, concrete DL actions are founded upon and reinforce or change the DL agent and structural DL configurations. The DL agent develops as an agent by successful DL actions, and the resulting psychological state of DLA provide the person's basis of future actions constrained and promoted by the structure.

To summarise, for the purposes of measurement and operationalization, middle managers' DL relationships will be measured as a middle manager's participation in task, people and change leadership in a reciprocal influence with his or her manager, peers and employees. I will also argue that different configurations (Gronn, 2008a; 2008b) of structure and agency enable (or constrain) influence on the way in which DL is enacted. In the same way, I can also argue that employee participation in leadership responsibilities is not a prescriptive task and cannot be forced upon employees, and the leadership distribution, to a large extent, depends on the employee's own initiative and culture of the workplace (Jønsson, et al., 2016). Finally, agential evidence includes different aspects to do with people as social actors responding to, utilizing and shaping these structural properties (Woods et al., 2004).

4.8 Conclusion

As I have shown in these chapters, leadership researchers have constructed different research frameworks to define and explain the phenomenon of DL. In fact, scholars have either applied

a descriptive or a normative approach to the study of leadership. Moreover, the problematic nature of DL has been discussed in relation to different typologies, models, forms and formats. Whereas leading theorists (Gronn, 2008; 2017; Spillane et al., 2007) construe DL predominantly as a frame of analysis, other scholars take a more practical or applied view. In both cases, there is little agreement on the meaning of the term, and very few empirical studies of DL in action in both sectors. To fill this gap, according to recent literature. (Crawford, 2012; Hatcher, 2005; Mayrowetz, 2008; Tian et al., 2016) I have chosen the structure-agency perspective rooted in Archer's analytic dualism approach (1995; 2000) as the theoretical lens through which DL can be studied and understood. Following this approach, structure and agency can be analyzed individually but not comprehended separately. This perspective provides a strong methodological alignment throughout the research process and it serves to operationalize DL in middle management. In this sense, with respect to middle management, I have explored mostly the international literature for definitions on the roles and duties of middle leaders, by highlighting how middle leadership is considered indispensable for the implementation of DL.

Following this structure-agency approach and given a lack of a clear definition of DL, from this literature review, emerged some fundamental research questions related to my study in order to improve the foundation for new theoretical developments about DL in middle management (i.e. the operationalization of the DLA):

1) from a structural perspective: which forms, values, rationales and formats of DL have schools and iGaming companies adopted in Malta and are there any difference or similarities in both organizational contexts (schools and private iGaming companies)?;

2) from an agentic perspective, are there differences/similarities in DLA between middle managers in both public and private sectors and do these differences/similarities relate differently with outcome variables?

The above two core points which have emerged out of a review of the literature on this topic informed the following Research questions according to the structural and agentic distinction of DL:

Structural dimension

1) What are the structural manifestations of DL in state schools and private iGaming enterprises in Malta? Are there any difference/similarities?

Agentic dimension

2) How do middle managers from both the public and private sectors enact DLA (Distributed Leadership Agency)?

3) How does DLA relate to outcome variables (performance, innovation, commitment and job satisfaction)? Are there differences in DLA in middle managers from the public and private sectors?

Chapter 5. Researching Distributed Leadership in Middle Management: methodological choices and issues

Two roads diverged in a wood, and ... I took the one less travelled by, and that has made all the difference.' *Robert Frost (1916)*

5.1 Introduction

This study used a mixed method design and encompassed two sub-studies with the aim of exploring the structural dimension (Study 1) and the agentic dimension of DL (Study 2) in middle management in Malta. In this chapter, I introduce the research project as whole. More specifically, I examine the different methodological issues and the theoretical and philosophical position that underpinned and influenced the research design choices and strategies.

First, I explain the arguments around research paradigms and the paradigm of this research, by problematizing the notion of 'paradigm' (Paragraph 5.2). Next, I continue with a discussion of the epistemological perspective of my research with a focus on my choice of the 'dialectical pluralism' (Paragraph 5.3). Then, I provide a justification for using mixed method research (Paragraph 5.4) and a description of its core characteristics (Paragraph 5.5.). Finally, I discuss validity, reliability and ethical issues related to the two studies as a whole.

5.2 In search of the Philosophical underpinning

The "paradigmatic foundations" (Teddle and Tashakkori, 2003, 4) of reality are critical to explain how researchers construe the shape of the social world and consequently how they acquire, interpret and communicate knowledge relating to that reality (Cohen et al., 2000; Morrison, 2007). It is therefore important to engage in discussions about what characterizes or can be considered a paradigm. In this study, I conceptualize 'paradigms' based on Morgan 's (2007) definition: ''systems of beliefs and practices that influence how researchers select both the questions they study and methods that they use to study them'' (49). The term paradigm gained its popularity thanks to Thomas Kuhn's landmark book, *The Structure of Scientific Revolutions* (1962/ 1996). However, since then social scientists talk about 'paradigms' and

mean entirely different things (Patton 1982; Schwandt, 1989). In effect, by sorting out the multiple meanings and uses of the word 'paradigm', Morgan (2007) identified four versions of the paradigm concepts, which are distinguished according to their level of generality of that belief system: 1) paradigms as worldviews; 2) paradigm as epistemological stances; 3) paradigms as shared beliefs among members of a specialty area; 4) paradigms as model examples of research. In all the cases, these are treated as shared belief systems that influence the kinds of knowledge the researchers seek and how they interpret the evidence they collect.

Freshwater and Cahill (2013) argue for conceptualizing paradigms not as static perspectives but as 'constructed entities' that are more fluid (see Morgan, 2007). In fact, the term paradigm is not a singular concept with full agreement on definition, and there never will be a single correct definition of paradigm that 'carves nature at its joints'. A key point is here that researchers define paradigms differently and use the term in multiple way (Johnson, 2011).

According to Shannon-Baker (2016), I still argue that the conscious use of paradigms can offer a framework for researchers to help guide their decisions during the inquiry process. However, paradigms should not be seen as exclusive tools (Biesta, 2010) or unchanging entities, which restrict all aspects of the research process. Instead, paradigms can help frame one's approach to a research problem and offer suggestions for how to address it given certain beliefs about the world. Thus, I see paradigms as a guide that the researcher can use to ground their research (Shannon- Baker, 2016).

I deliberately do not intend to engage with the typical and recurrent discussions relating to the 'paradigm wars' in social research (Gage, 1989; Teddlie and Tashakkori, 2003) and that, in the worst scenario, have contended that "accommodation between paradigms is impossible" (Guba, 1990, 81) (i.e. *the incompatibility thesis*, Howe, 1988; Greene, 2007; Mertens, 2012; Onwuegbuzie et al., 2009).

Traditionally, quantitative purists believe that social observations should be treated as entities in much the same way that physical scientists treat physical phenomena. Quantitative purists maintain that social science inquiry should be objective. Instead, qualitative purists (also called constructivists and interpretivists) reject what they call positivism. They argue for the superiority of constructivism, idealism, relativism, humanism, hermeneutics, and, sometimes, postmodernism, contending that multiple-constructed realities abound and that time- and

context-free generalizations are neither desirable nor possible (Cohen et al., 2007). The notion of a paradigm war involving fundamental incompatibilities between quantitative (QUAN) and qualitative (QUAL) paradigms (Reichhardt and Rallis, 1994; Denzin, 2010).

Rather than see myself in the lineage of some *-ism* perspectives, I want to point out the elusive nature of 'conceptualizing the concept of paradigms', in other words, of what constitutes a paradigm (Freshwater and Cahill, 2013). In light of this, my approach is not honouring one paradigm as better than another, or, on the other hand, taking an 'a paradigmatic' approach. Rather, I would like to grant myself a greater degree of plurality in considerations of what constitutes paradigms. In this sense, the ontology that informs this work is founded in an orientation that views reality as being multiple, ambiguous and variable (O' Leary, 2004). In general, the stand taken here is similar to Shannon Baker's perspective (2016) who approaches the issue asking, "not whether paradigms are useful but how paradigm can be intentionally used" (321). In this sense, paradigms should not be considered as Kantian categorical imperatives that I must always follow, despite any natural desires or inclinations I may have to the contrary. In fact, humans have a tendency to attempt to simplify concepts such as paradigms as a way to deal with societal complexities. Labels and categories may be appropriate tools to facilitate communication, but when categories that are used for grouping are conceived as rigid and lawlike, they have a tendency to promote an either or stance (Christ, 2013).

This approach will allow me to engage with difference through "the possibility of mixing at multiple levels (methods, methodologies, and paradigms)" (Molina et al., 2017, 180). In effect, in the face of past calls for each researcher to operate within a single paradigm, it turns out that some researchers/practitioners find many positive features in more than one paradigm, by adopting a 'multi-paradigmatic perspective' (Johnson, 2017).

Hence, I posit myself within that group of researchers that see the world with more pragmatic and ecumenical eyes, since multiple lenses are needed to attain more valid, adequate, in-depth knowledge of the phenomena we study (Maxwell, 2011). In this sense, it is assumed that reality and social phenomena can be observed both objectively and subjectively, resulting in different yet valid insights of reality (Klingner and Boardman, 2011). This approach follows Johnson and Gray (2010)'s position who characterize what they consider the mixed methods position on this

issue as ontological pluralism or multiple realism, which "fully acknowledges the 'realities' discussed in mixed method research ... rejects singular reductionisms and dogmatisms" (72)

In addition, within an increased acknowledgment that lines between epistemologies have been blurred with some scholars questioning if the term 'paradigm' could be a useful concept, (i.e. Johnson, 2011), I still argue that the paradigm (or philosophical perspectives) offers a framework to guide the research inquiry and the research design (Mertens, 2012; Shannon-Baker, 2016).

With respect to leadership studies, this debate has some significance because it often cuts across different paradigms. For example, leadership research has been strongly dominated by positivistic/neo-positivistic assumptions together with an emphasis on rules and procedures for the securing of objectivity in practice and results (Alvesson, 1996). In addition, quantitative methods are dominant in management studies and has been a reasonably unquestioned approach for exploring social and behavioural sciences since the twentieth century (Jogulu and Pansiri, 2011). Without rejecting this perspective completely, I would like to preserve myself from the tendency to reify the concept of leadership, by complementing this presumed objectivistic approach with another perspective that can influence my epistemological and ontological position. My intention here is also to avoid the marginalization of the social that can arise from an excessive focus on the individual (Archer, 1996). This perspective could have therefore as a corollary to subvert what might be termed as 'normative leadership advocacy' and the longstanding tradition of adjectivism (as 'strategic', 'servant', 'authentic', 'visionary', 'charismatic') which can be conceived within traits theories and positivist approaches. In the same vein, I share with other anti-positivists the view that multiple interpretations of events and different concepts and classificatory schemes can be used to describe the leadership phenomenon.

Overall, I do not aim to solve the metaphysical, epistemological, axiological (e.g., ethical, normative), and methodological differences between the purist positions, rather, as I showed above, I want to critically engage with each position, taking a dialectical approach so that differences and similarities between philosophical perspectives (paradigms) can be represented and honoured. To support this view, in the case of mixed methods designs, Greene and Caracelli (1997, 2003) and Greene and Hall (2010) stated that researchers can use multiple paradigms to

explore differences throughout the social world and obtain better a understanding of the inherent complexities and multi-faces of human phenomena.

5.3 A dialectical approach to paradigms

To deal with this problem a range of alternative approaches have been developed (Tashakkori and Teddlie, 2003; Creswell and Plano Clark, 2007). These approaches can be classified into three basic categories: a- paradigmatic stance, multiple paradigm approach and the single paradigm approach. The first of these simply ignores paradigmatic issues altogether; the second asserts that alternative paradigms are not incompatible and can be used in the one research project and the third claims that both quantitative and qualitative research can be accommodated under a single paradigm (Hall, 2013). In this sense, there has been much debate about the role of paradigms in mixed methods research. As indicated earlier, in the face of past calls for each researcher to operate within a single paradigm, it turns out that some researchers/practitioners find many positive features in more than one paradigm. (Johnson, 2017). Although a typological approach of mixed-methods research could help researchers select a particular design for their study (Teddlie and Tashakkori, 2003), mixed-methods studies have a far greater diversity than any single typology can actually capture (Greene and Caracelli, 1997; Tashakkori and Teddlie, 2003). In particular, the existence of more than two paradigms (e.g., positivist, critical realist, postpositivist), the diversity of qualitative and quantitative approaches that one can employ, the wide range of purposes of mixed-methods research, and differences with respect to time orientation have made actually using a mixed-methods design far more complicated than simply fitting it in a typology framework (Maxwell and Loomis, 2003). Consistent with Maxwell and Loomis (2003), I believe that one can use a more flexible approach to mixed-methods research designs to address the limitations of the typology approach.

From an epistemological perspective, one can conduct mixed-methods research using a single paradigm or multiple paradigms. A single paradigm perspective proposes that one can accommodate both quantitative and qualitative research under the same paradigm (e.g., positivist, realist) (Tashakkori and Teddlie, 1998). A multiple paradigm perspective claims that alternative paradigms are compatible and can be used in one research project (Teddlie and Tashakkori, 2003). Greene (2007) has repeatedly voiced the opinion that there is value in

recognizing various philosophical perspectives including pragmatism but advocates for a dialectical approach opening dialogue about alternative paradigmatic stances when conducting mixed methods research.

Given these premises, I would like to take the recent challenge suggested by Given (2017): "as a qualitative research there is one other significant step that we - and other, non-qualitative researchers—need to take. We need to stop using the term mixed method study and start talking about the design of a 'mixed paradigm' study'. I use a range of qualitative methodologies and methods in my interdisciplinary research, but I also incorporate quantitative designs, where appropriate. In doing so, I know that I am embracing different paradigms and I understand the limitation and benefits of that decision which allows me to articulate a way to listen to multiple paradigms" (2). This view seems to align with the so-called *dialectical pluralism*, (Johnson, 2017)

Mixed method research is traditionally defined as requiring (necessarily) the use of both qualitative and quantitative methods or data. The 'traditional' definition, however, if taken in a rigid and reductionist manner, may serve to exclude some important researchers and practitioners. I envision, therefore, a mixed method research and inquiry that includes 'multiple and mixed' research projects that facilitate and reside at the intersections of multiple methods, purposes, kinds of data, and levels of analysis, and in other words, a range of paradigms (Hesse-Bibber and Johnson, 2013).

Following that, instead of conceptualizing another 'paradigm or perspective entirely, dialectics argues for using two or more paradigms together. According to Greene and Hall (2010), a dialectic perspective brings together two or more paradigms in ''respectful dialogue'' with one another throughout the research process (124). Finally, what makes dialectical pluralism different is that it recommends that one concurrently and equally value multiple perspectives and paradigms. (Greene, 2007; Greene 2008; Johnson, 2017).

To adopt a dialectical position required researchers to reach out across their own "methods comfort zone" to think outside their normal everyday methods routine. Instead, this intellectual process consists of interacting with multiple epistemologies and consequently it requires epistemological listening (i.e., dialogue with multiple epistemologies). As Johnson (2017) points out "this broad dialecticism will enable people to continually interact with different

ontologies, epistemologies, ethical principles/systems, disciplines, methodologies, and methods in order to produce useful wholes" (158). As a result, the kinds of knowledge produced will often be broader, deeper, more complex, and holistic yet multifaceted. As a result, one of the methodological principles that this study will follow is: "Researchers and stakeholders should dialectically listen and consider multiple methodological concepts, issues, inquiry logics, and particular research methods and construct the appropriate mix for each research study" (Johnson, 2017, 167).

In terms of the research process, the dialectic perspective believes that the methods used should depend on the study at hand. In this sense, I follow Shannon- Baker (2016)'suggestions according to which the researchers should collect, analyze, and report data in ways that promotes dialogue, particularly between the quantitative and qualitative data sets (Greene and Hall, 2010). For example, in the Discussion Chapter I present comparative data by bringing together both the qualitative and quantitative strands (Creswell and Plano Clark, 2011).

5.4 Research design: the rationale

Harris and DeFlaminis (2016) notice that DL pioneers initially used the concept as an analytical framework, rather than a set theory. As a result, conceptual debates and attempts at identifying defining dimensions have flourished, which have been termed the descriptive approach within the field of DL. Other scholars have perceived and applied the framework as a set of forms of practices that delivers desirable outcomes, notably efficiency (typically student learning in schools) combined with a democratic ethos. This latter approach has been termed normative, and it is typically recommended for future research in the field (Bolden, 2011; Mayrowetz, 2008). Both types of approaches rely on broad theoretical notions, rather than clear concepts and explanatory models. As emerged from the literature reported in the previous chapters, the DL field of study needs to proceed in developing clearer concepts and theoretical models, hence affording more precise methodological operationalisations. I comprehend such endeavour to be the next stage of research on DL, to which I am contributing. In terms of research methods, the DL field is ripe with and by far dominated by qualitative case research (Bolden, 2011; Harris and DeFlaminis, 2016) and has only scarcely been approached using quantitative methods.

Hence, based on my earlier stated pluralist viewpoint, according to which, different ways of investigating a phenomenon will provide a better source of theoretical development, I intend to contribute to the field of DL by exploring respectively its structural and an agentic dimension. In fact, taking a non-purist position allows me to mix and match design components that offer the best chance of answering my specific research questions. (Johnson and Onwuegbuzie, 2004). My position is similar to Greene's (2007) approach according to whom "to mix methods in social inquiry is to set a large table, to invite diverse ways of thinking and valuing to have a seat at the table, and to dialogue across such differences respectfully and generatively toward deeper and enhanced understanding (14). In effect, the very nature of leadership as a complex, multi-level, and socially constructed process (Dinh et al., 2014; Fairhurst and Grant, 2010) requires research approaches able to embrace this complexity (Stentz et al., 2012). For example, Bass and Bass (2008) argues that methodological and substantive issues in leadership research are likely to broaden by presenting the possibility of a new paradigm for leadership that combines the use of both objectivist and subjectivist views toward better understanding of leadership as a complex phenomenon.

In line with a dialectical approach to the paradigm discussion, I accept the standpoint of different research paradigms since this research project aspires to maintain congruence between philosophical assumptions and choice of method(s). Hence in the following sections I will present each distinct paradigm as my theoretical perspective of looking at the world (Lincoln and Guba, 2000) which are suitable for this mixed method design.

This perspective makes possible a strong methodological alignment with my coherent theoretical framework developed from the structure-agency dualism perspective (Archer, 1995; 2000) in DL and the concept of human agency. In fact, distribution of leadership in the private and public sectors may appear in different forms and patterns (Woods et al., 2004; Mayrowetz, 2008) which constitute the structure in which agency displays.

The phenomenon of DL is neither entirely objective, nor entirely subjective, but concurrently objective and subjective. On the one hand, there are objective realities of DL discerned by the middle managers both in schools and in private enterprises, which are shaped by, for instance, school/company organizational structures, educational/company policies, social expectations and cultural norms. On the other hand, such objective realities also constantly shape middle

managers' subjective perceptions and experience of DL. This assumption has led me to view DL and the research subjects (i.e. middle managers in schools and iGaming companies) as inseparable and non-dualistic (Marton, 2000). Thus, framed by the structure agency perspective, this research needed a comprehensive view and more data about how DL can be applied in middle management than either the qualitative or the quantitative approach. For this reason, given the exploratory nature of the project and to address the research questions which emerged after carrying out the literature review, a mixed study design had been chosen (Creswell, 2009; Creswell et al., 2007; Mertens, 2014; Morse, 2016). In fact, the central premise in this research design is that the use of quantitative and qualitative approaches in combination provides a better understanding of research problems than either approach alone (Crewsell et al., 2007). Creswell and Plano Clark (2007) offered a definition of mixed methods research which they saw as (emphasis is added):

> "a research design with philosophical assumptions as well as methods of inquiry. As a *methodology*, it involves philosophical assumptions that guide the direction of the collection and analysis and the mixture of qualitative and quantitative approaches in many phases of the research process. As a *method*, it focuses on collecting, analyzing, and mixing both quantitative and qualitative data in a single study or series of studies. Its central premise is that the use of quantitative and qualitative approaches, in combination, provides a better understanding of research problems than either approach alone" (Creswell and Plano Clark 2007, 5).

This definition emphasizes that the philosophical assumptions of this research project are informing and supporting the development of mixed methods.

More specifically, I have identified four reasons for choosing a mixed method design over traditional research designs:

1) The exploratory purpose of this research and the identified research questions required a combination of qualitative and quantitative approach to overcome some of the inadequacies of the earlier DL research, by far dominated by qualitative research. In addition, this combination has contributed to define a clearer theoretical and empirical DL framework, thus providing stronger evidence for a conclusion and corroboration of findings.
2) Following the analytical distinction of the structure-agency model, research questions in this research project required:

2.1. the investigation of the structural element of DL in middle management together with a clearer theoretical framework on DL (Study 1, qualitative phase)

2.2 the empirical investigation of the agentic dimension in DL through a sequential explanatory mixed methods design (see further details in the following section) in which the exploratory quantitative phase is followed by the explanatory qualitative phase, followed by the integration of the two findings (Study 2, quantitative and qualitative phase).

In fact, my aim was to collect multiple data using different strategies, approaches, and methods in such a way that the resulting mixture is most likely to result in complementary strengths and no overlapping weaknesses (Johnson and Onwuegbuzie, 2004). In this sense, findings can be broader and more comprehensive because the researcher is not focused on a single approach.

3) There are insufficient studies available in the current literature in terms of the agentic perspective of DL (Tian et al., 2016). Hence, with respect to Study 2 a combination of qualitative and quantitative methods enabled me to obtain a detailed understanding of the phenomena to enhance the validity of the findings (Greene, 2007). In fact, mixed methods provide a "more complete picture by noting trends and generalizations as well as in-depth knowledge of participants' perspectives" (Creswell and Plano, 2007, 33)
4) Mixed methods advocate the use of both inductive and deductive research logics which represent a strength point in itself. Having an inductive-deductive cycle enabled me to equally undertake theory generation and hypothesis testing in a single research project without compromising one for the other (Jogulu and Pansiri, 2011).

Furthermore, to achieve these objectives, this mixed study design included a comparative strategy between the two different organizational contexts, that is the different research contexts of study. In fact, I investigated DL elements by comparing findings from the traditionally investigated DL context of school organizations with a maximal diverse context, namely iGaming companies. The rationale of this research design strategy is that if I can apply the structure-agency framework to investigate the DL phenomena in both public (schools) and a maximally different organizational context (iGaming companies), this model and its methodological implications (operationalization) can be applied in many other contexts, thus adding to the generalizability of the study. This falsification inspired strategy was inspired by

rationales described in Flyvbjerg's (2006) critical case sampling strategy. In fact, critical case sampling involves selecting a small number of important cases to "yield the most information and have the greatest impact on the development of knowledge" (Patton, 2015, 276). In this case, I have investigated rationales and relationships with variables existing in case study organizations i.e. state schools as well as iGaming private companies.

5.5 The Mixed method design and its characteristics

Before discussing and inspecting more closely each distinct phase of the research, it is useful to consider several aspects that have influenced the design of procedures for this study. In line with the mixed method literature, several aspects have been addressed in this research study, as follows): a) Typology; b) Timing; 2) Weighting; 3) Mixing type; 4) Theoretical perspective (Creswell, 2009; Creswell, et al., 2003; Tashakkori and Teddlie, 1998; Teddlie and Tashakkori, 2009).

Typology. Single or multiplies studies. Mixed methods studies may involve collecting and analysing qualitative and quantitative data within a single study or within multiple studies in a program of inquiry. In this case, by using the analytical distinction of structure and agency, this research project compromised of two studies to gain a better understanding of the structural and agentic dimensions of DL in Middle management. Each project is reported separately as a distinct study, but overall, they both intend to address the general aims of the research.

DISTRIBUTED LEADERSHIP IN MIDDLE MANAGEMENT	
STRUCTURAL DIMENSION	AGENTIC DIMENSION
Study 1 - qualitative empirical phase	Study 2- mixed method study (quantitative followed by qualitative)
The objectives of this study are: a) to explore structural elements of DL in middle management in Malta b) to develop a framework for further the empirical investigation of the agentic dimension c) to guide research instruments development. In effect, once gained (deeper) greater insights from qualitative documentary research and from a further literature review, DL variables and other constructs have been determined to develop the theoretical framework for the Study 2;	In Study 2, the theoretical framework identified in Study 1, guided the design of the empirical study (Study 2) which used follow-up explanations variant of the explanatory sequential design of mixed methods (Creswell and Plano Clark, 2011) in which the exploratory quantitative phase (survey) is followed by the explanatory qualitative phase by qualitative methods (interviews) with the aim of; a) exploring the agentic dimension of DL in middle management b) investigating the relationship between DL and identified variables

Table 5.1 The overall structure of the project

Timing refers to the collection or generation of data sets in either a sequential or a concurrent format. In this research project, each stage of data collection and analysis informed the subsequent phase, guiding its design and execution.

TIMEFRAME	STUDY
May- December 2016	Documentary research (Study1)
February – September 2017	Survey research (Study 2)
November – February 2018	Interview (Study 2)

Table 5.2 General timeline of the research

Weighting of the design concerns the relationship between quantitative and qualitative elements of the study where priority must be determined. Since both structural and agentic dimensions have been analytically studied, the approach taken in this work is one of almost equal weighting or equal status (Creswell, 2009; Tashakkori and Teddlie, 1998) since the overall approach adopted a combined inductive-deductive approach in which the researcher is involved in a back-and-forth process of induction (from observation to hypothesis) and deduction (from hypothesis to implications) (Mouly 1978; Cohen et al., 2007). For example, deductive thinking has been incorporated to a large extent in the application of the operational DL model and in the explanations of the findings of the quantitative phase of Study 2. Other scholars (Johnson et al., 2007; Tashakkori and Teddlie, 1998), maintain than an equal weighting of the two orientations is possible when no one method or worldview is seen to predominate or to be superior. This is in line with the dialectical approach to the paradigm discussion which brings together two or more paradigms in "respectful dialogue" (Greene and Hall, 2010, 124) with one other throughout the whole research project. Generally speaking, two of the most common paradigms are positivism/postpositivism and constructivism (Johnson and Onwuegbuzie, 2004). For clarification, Gall et al. (2007) employed the terms quantitative and qualitative research to refer to positivism/postpositivism and constructivism paradigms, respectively, which are commonly used in educational research.

In this study, I adopted a constructivism approach (i.e. thematic analysis of documents in Study 1, or in the interview stage of Study 2) since the central endeavour in the context of the constructivism paradigm is to understand the subjective world of human experience (Cohen et

al., 2007). In fact, the way in which different social realities are translated into forms accessible to others is through the medium of language, through discursive events and practices. Constructivist research focuses on the meanings embedded in textual accounts and document analysis is a form of qualitative research in which documents are interpreted by the researcher to give voice and meaning around a topic (Bowen, 2009). The analysis of the documentary data is an interpretive act rather than a scientific one. It involves sense making of everyday life and experiences through hermeneutics, whereby generating "rich and compelling interpretations is a key to producing more rigorous forms of knowledge" (Kincheloe 2008, 21).

For Study 2, Creswell and Plano Clark (2011) supported the stance of multiple paradigms in mixed methods, as researchers typically begin from a post-positivism perspective in the exploratory quantitative phase (survey), then shift to a constructivist perspective in the explanatory qualitative phase (interviews). According to the postpositivist approach, the social world exists externally and can be measured through objective methods (Cohen et al., 2007). i.e., the survey of Study 1. The quantitative research method is therefore a useful method to discover and investigate the relationships between variables and to test hypotheses (Gall et al, 2007). The qualitative strand of Study 2 whose research goal is to get at lived experience from participants is coherent with the constructivism paradigm that assumes that reality is a mental construct of which many can exist and which can be incompatible and conflicting (Creswell, 2009, Upadhyay, 2012). The constructs are self-reflexive and what there is can be verbally articulated (Heron and Reason, 1997). Creswell (2009) observes that instead of starting with a theory (as in post positivism), inquirers generate a pattern that ascribes meaning. i.e. in this case, the goal of contextualising the meaning of the quantitative findings.

Mixing. There are two different questions here: "When does a researcher mix in a mixed methods study? And how does mixing occur?" (Creswell, 2009, 207). The first question is easy to answer because the mixing of the data occurs at the end of the project when results from the qualitative and quantitative data are analysed and interpreted (see the Discussion chapter). In fact, in the interpretation stage, all findings are gathered in order to draw "conclusions or inferences that reflect what was learned from the combination of results from the two strands of

the study, such as by comparing and synthesizing the results in a discussion (Creswell and Plano Clark, 2011, 67).

Instead, *how* the data are mixed has received considerable recent attention (Creswell and Plano Clark, 2007). In fact, by mixing the datasets, the researcher provides a better understanding of the problem than if either data set had been used alone. Generally, according to Creswell (2009) there are three ways in which mixing occurs: 1) merging or converging the two datasets by bringing them together; 2) connecting the two datasets by having one build on the other, 3) or embedding one dataset within the other so that one type of data provides a supportive role for the other dataset. In this research project, data generate from the first study could stand alone given the structure- agency approach which consider structure and agency as analytical distinct. In this research project, findings of Study 1 (the structural dimension of DL) are connected to the findings of the Study 2 (the agentic dimension of DL). More specifically, in Study 2, the mixing of the data consists of integrating the two data sets. The qualitative data can be used to assess the validity of quantitative findings. In fact, my aim was to collect quantitative data (surveys) and have another form of data from interviews which provide an expanded understanding of the quantitative data.

Theoretical perspective. Some researchers have a very explicit *theoretical* or *ideological perspective* guiding and shaping their research design (Creswell et al., 2003). This is not the case here due to the eclectic approach focusing on the iterative, generative process which is open to new theories serving both as explanatory devices and as guidelines for designing the next sub-study.

Table 5.3 provides a summary of the five issues that have been considered for the research design process. The choices I made in relation to this project are marked in bold.

Fundamental assumptions of the research design	Characteristics
Typology	***Multiple***
Timing/Implementation	***Sequential*** data collection
Weighting/priority:	Overall research design: ***equal priority*** Study 2**:** ***quantitative priority***
Mixing – stage	***Analysis or interpretation***
Mixing – type	***Connecting, integrating***
Theoretical perspective	***Implicit***

Tab. 5.3 Research design characteristics

5.6 The research design

There are several types of mixed methods identified in the literature (Creswell et al., 2003; Creswell, 2009; Tashakkori and Teddlie, 1998; 2003) namely convergent parallel design, the explanatory sequential designs, the exploratory sequential design, the embedded design, the transformative design and the multiphase design (Creswell and Plano Clark, 2011).

The overall research design for this study contains three phases in sequence. Study 1 is a qualitative documentary phase. Study 2 adopted one of Creswell and Plano Clark's (2011) explanatory sequential design of mixed methods called the follow-up explanations variant, in which a quantitative approach (survey), is first used to discover the quantitative relationship and then a qualitative approach (interviews) is adopted to obtain in-depth understanding to establish explanations, as illustrated in Figure 5.1. In this design, the quantitative and qualitative approaches in different phases are complementary and are executed in that order, as the explanation in the qualitative phase depends on the findings from the quantitative phase, thereby enhancing the validity and reliability of the study (Ivankova et al., 2006; Creswell, 2009).

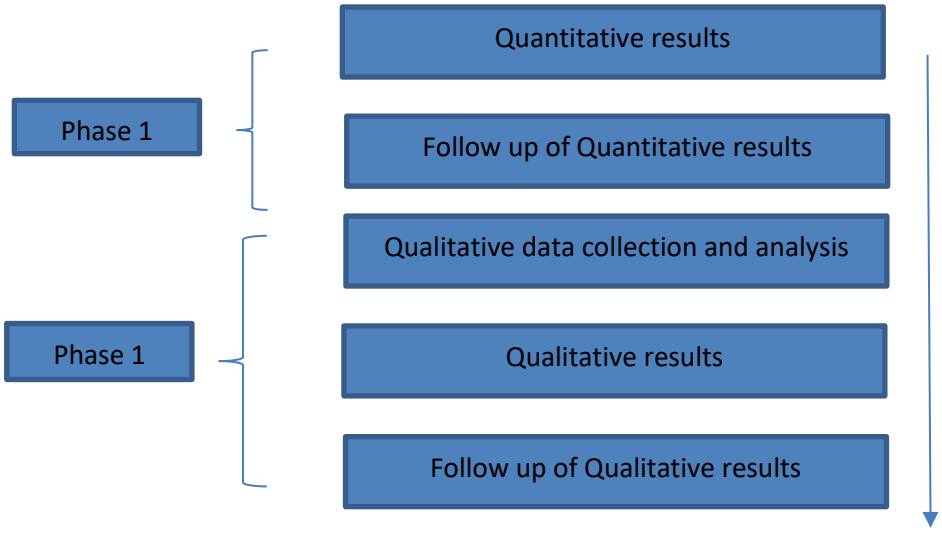

Fig. 5.1 Creswell and Plano Clark's (2011) follow-up explanations variant of the explanatory sequential design of nixed methods.

Looking at the overall research design, an examination of the characteristics outlined in Table 5.3. has helped inform the choice of a variety of the sequential design combing the explanatory and the exploratory approach, i.e. the iterative sequential design (Teddlie and Tashakkori, 2009) as the research design best suited for the entire research project.

Originally, at a more general level, the design of Study 1 and Study 2 taken together was intended to be a more 'purer' sequential explanatory design in which the initial qualitative phase, the structural dimension of DL, would be followed by another sequential mixed design with the two-respective quantitative and qualitative strands (surveys followed by interviews) to explore the agentic perspective of DL. However, after careful examination of the characteristics and the related literature (Teddlie and Tashakkori, 2009) I decided to denote this research design as an 'iterative sequential project'. In fact, depending on the situation, however, mixed methods studies can be designed to have more than two phases. This flexibility in the number of phases or strands allow mixed method researchers to design a variety of iterative sequential designs. This design is slightly more complex than the basic design mentioned above as it contains more than two phases, but it also facilitates a research process which can include the two dimensions, the structural and agentic dimension of DL. Figure 5.2. depicts a generic model of the iterative sequential design

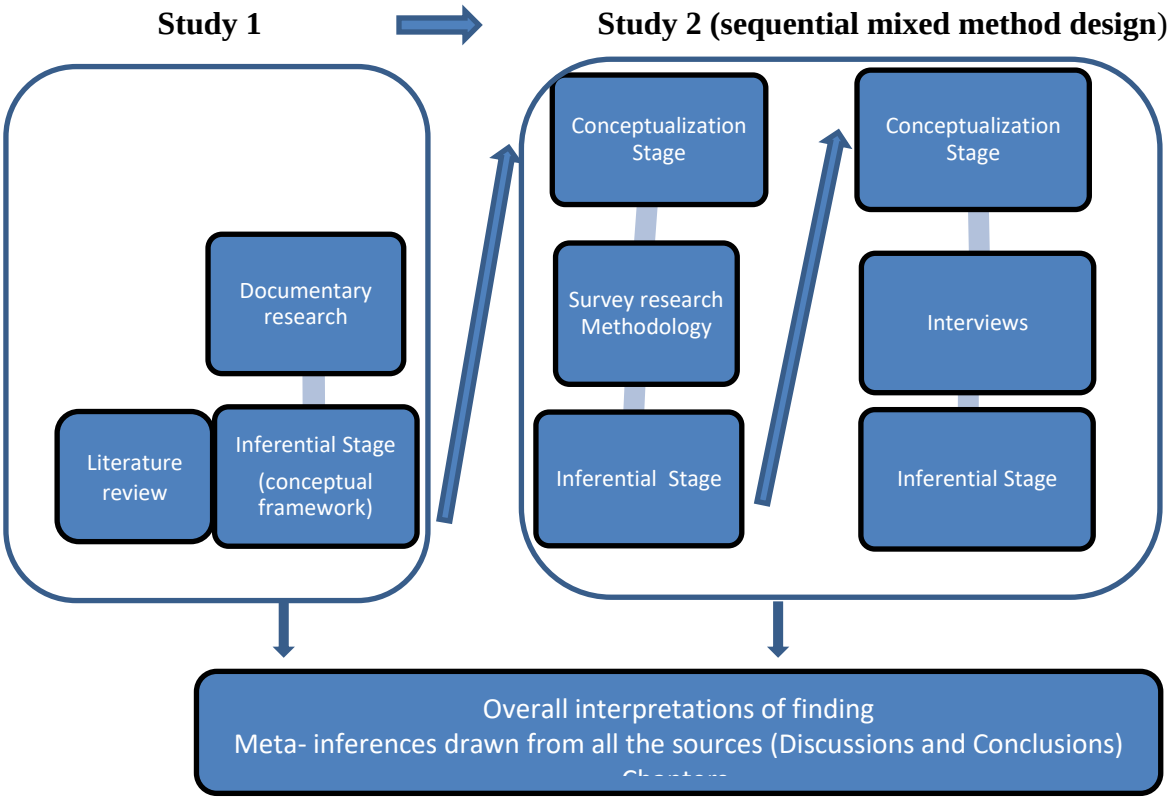

Fig. 5.2 The iterative sequential design. Adapted from Teddlie and Tashakkori (2009)

Figure 5.2 is a generic model of the iterative sequential design and illustrates the main principle which holds that one stage informs the next. The figure shows that Study 1 is qualitative (structural dimension of DL), that Study 2 is both quantitative and qualitative (agentic dimension of DL) and that the meta-inference is based on a synthesis of both quantitative and qualitative nature. In literature, these kinds of designs are described as "those in which mixing of qualitative and quantitative methods occurs in a dynamic, changing or evolving manner over the course of the research project or program, such that findings at one stage influence decision about methods at parallel or subsequent stages" (Nastasi et al., 2010, 47)

In Figure 5.2, it is depicted how each of the two studies included an inferential stage which can work in isolation, but at the same time they contribute to the illumination of the overall problematic investigated, the meta-inference, i.e. the structure-agency model of DL.

5.7 Validity, reliability, and trustworthiness of the entire research project

In this section, I address, at a more general level, validity, reliability, and trustworthiness of the entire research project (Study 1 together with Study 2) which deals with the consistency of the findings of the study and its replication. When examining the whole research project in this section, I assessed the validity, reliability and trustworthiness of this mixed-methods research according to a comprehensive methods-centric perspective (Kvale, 1996). In this sense, the validity of the mixed-methods research was viewed as how well the selected methods fitted together to answer the research questions (Hesse-Biber, 2010; Kvale, 1996). Furthermore, following the linkage of problem and methods, the reliability and trustworthiness were measured by whether Study 1 and Study 2 yielded answers that supported each other (Hesse-Biber, 2010). More specifically validity, reliability and trustworthiness of the entire research project was checked according to the three criteria suggested by Kvale (1996):

1) *The quality of craftsmanship* is assessed in relation to the logic of the whole research process and the coherence of different studies (Study 1 and Study 2). The present research project was divided into two studies according to the structure agency model. The theoretical and empirical phase of the research was conducted first to serve the second empirical phase of the research. More specifically, key finding of Study 1 was transformed into a research framework for Study 2. Thus, the structure-agency model connected both studies to form a coherent entity.

2) *The quality of communication* refers to how the researcher presents the findings in relation to each other and to earlier findings (Kvale, 1996). In the present study, this was enhanced by constructing a platform on which various viewpoints of DL were presented and debated. The first platform was the documentary research (Study 1), in which findings of documentary data were deepened thought a literature review of the identified variables and their relationship with DL. Earlier DL studies were critically compared and contrasted to map the theoretical development and empirical evidence of DL. The second platform was the structure of this thesis. I have chosen to divide this thesis into 11 Chapters while in the Discussion chapter, Study 1 and

Study 2 were synthesised and discussed as a whole. In fact, the key findings of Study 1 and Study 2 were put side by side to construct a clearer picture of how DL was practised in both sectors in Malta. These key findings are also discussed in relation to the most recent DL literature to reveal whether the present research confirmed, contradicted, or supplemented the earlier studies.

3) *Pragmatic validity* refers to whether the research questions are compatible with the values and traditions of the research context (Kvale, 1996). This was realised by piloting the survey which were adapted and modified for both sectors modifying also the demographics portion of the survey to meet the realities of both sectors. Also, in the semi-structured interviews, I asked follow-up questions to further probe into the context specific phenomena described by middle managers. Additionally, pragmatic validity also checks whether the research findings can contribute to a wider social context. In response to this requirement, the theoretical and practical implications of the research are included in the Conclusion chapter. Similarly, the advantages and limitations of the studies are underlined in the Discussion Chapter to draw attention from policy makers, educational and business administrators, researchers, and practitioners who may intend to use the findings of the present research project.

In addition to Kyle' s criteria, Denzin (2017) refers to triangulation as combining two or more sources and the examination of phenomena. Using triangulation in this study therefore helped to strengthen the research rigour and to increase validity, reducing possible bias and limitation, generating new knowledge (Denzin, 2017; Lincoln and Guba, 1985). In fact, my objective was to compare and contrast findings, looking for contradictions, convergence and complementariness increasing understanding of the phenomena (Robinson et al., 2016). Triangulation helped me to provide meaning gaining broader and more precise understanding than by using different sources of data (Denzin, 2017; Wald, 2014).

5.8 Ethical issues

The ethical aspects of this study have been approved by the University Committee of University of Lincoln. In this sense, this research project respected the ethics requirement of Malta's Data Protection Act (2012), the guidance from the University of Lincoln's Ethics Committee (2011)

and that of the British Educational Research Association (BERA) (2014). This research involved me gathering data from participants from surveys and interviews. All the raised issues of obtaining informed consent, allowing participants the right to withdraw, maintaining their anonymity, risk management and data security are briefly discussed below.

Informed Consent. Data and results obtained from the research have been used in the way for which consent has been given. Participants in the study were all middle managers working in schools and private enterprises, who were able to give informed consent personally. Informed consent is an important issue and concerns the identification and protection of the human subject from the potential risk of physical or psychological harm. Acknowledging the dignity and the autonomy of individuals, I provided middle managers with information on the research in the first page of the online survey, with participants required to check a box to indicate consent before accessing the survey. The aim was to clarify the nature of the research and the responsibilities of each party. In case of interviews, a signed record of consent has been obtained.

Right to withdraw. In the case of surveys, the information sheet provided for each participant explained that their participation was voluntary and that they could withdraw at any time without being required to give reasons for leaving. I have also informed participants that they were free to choose not to answer any individual question without giving reason. In case of interviews, participants were informed of their right to decline the use of audio-media and use of direct quotations from transcripts in any published documents. Specific permission was presented in the information sheet and orally before they sign the consent form.

Risk Management. In order to explore DL in middle management, the focus of the study was also to explore participants' personal experiences in the context of DL. Therefore, there did not appear to be any foreseeable adverse effects, risks or hazards for research participants. There were no discomforts that may be associated with the carrying out of the survey and interviews. In addition, senior and top managers were not informed of the views of any of individuals or groups, except as anonymised and categorized. In addition, participants weren't offered or received incentives for participating in the study.

Anonymity and Confidentiality. I abide by the provisions of Chapter 440 of the *Data Protection Act*, 2002 in Malta and the *University of Lincoln Data Protection Policy*. Data and results

obtained from the research was used in the way for which consent has been given. No information identifying the participants was generated and the data was fully anonymised in the writing of the study.

Specifically:

1) Survey. Data were collected thought the on-line software Qualtrics. Online surveys are increasingly used in educational research, yet little attention has focused on anonymity and confidentiality issues associated with their use in educational setting (Roberts and Allen, 2015). For example, the automatic collection of Internet Protocol (IP) addresses and even geolocation data by most many commercial online survey hosting sites can threaten the anonymity and privacy of respondents. In fact, an IP address is assigned to a computer or mobile device each time it connects to the Internet, providing contextual information While the legal status of IP addresses as personally identifiable information varies across countries, they should be treated in online survey research as potential identifiers. To address this issue, in this study IP addresses have been stripped from the dataset, before saving the data file to my computer (Benfield and Szlemko, 2006). In addition, participants who were willing to undertake a follow up interview wrote their email address on their form as an optional part. I kept all data gained from the surveys confidential, while all data were presented in an aggregate form.

2) Interviews. Interviews were audio recorded, with participants' permission. These recordings were analysed, and the analysis stored using only a coded reference that allows data to be linked with the survey responses. Code references were used in the presentation of the data. I was the only person to have access to the data generated by the study. In addition, my supervisor could see the data, in order to guide me in analysis, but only when all links that could identify individual participants have been removed.

Security and Data collection. Data was stored in a password protected computer and not transferred to other settings without adequate protection. The analysis took place in a private study area. In fact, my role was controlling and acting as custodian for the data generated by the study, especially any audio recordings were transcribed and anonymised as soon as possible after the interviews and any hard copies kept secure using lockable drawers. On completion of the project, data will be retained for 5 years in accordance with University's Data Protection Policy.

5.9 Conclusion

This chapter illuminated the methodology adopted to investigate DL in middle management applying the structure-agency framework. More specifically, the rationale behind this research design has been emphasized together with the pluralist philosophical perspective in relation to ontological and epistemological issues. In addition, this chapter discussed the research design chosen and the iterative sequential approach was found to be appropriate for the current research, based on the adopted research paradigm. Methodologically, it supports the study being a contextually situated exploration of DL forms in middle management which requires a multi-level approach to research (Yammarino and Dansereau, 2008). Also, validity of the study as whole has been discussed together with the main addressed ethical issues. In the following chapter I will describe in more details Study 1 and Study 2.

STUDY 1

Chapter 6. The structural dimension of DL.

6.1 Introduction

As stated in the previous chapter, the overall research project comprised of two studies (Study 1 and Study 2) with the aim of exploring the structural and the agentic dimensions of DL in Malta (Wood et al., 2004). Based on the structural-agency framework, in this chapter, I specifically focus on the structural dimension of DL. In fact, this study aimed at exploring DL values, rationales and norms characterizing the two organizational sectors (public and private) with specific reference to middle management.

To this end, in this chapter I justify and present the employed research methods by providing a description of the adopted methods used, the data collection procedures and data analysis strategies. The findings and the results of Study 1 are presented in Chapter 7. These have been organized in themes and informed the DL conceptual model as well as the research instruments of Study 2

6.2 A documentary research. Purposes of Study 1

The primary aim of Study 1 was to explore the structural dimension of DL in both sectors through qualitative documentary research. In fact, I found limited evidence informing DL from a structural viewpoint in Malta. To this end, I wanted to explore values, forms and formats of DL in both state schools and private iGaming companies with the aim of obtaining a more comprehensive view on how the DL structural dimension was espoused. This has supported the need for explorative qualitative work aimed at describing unknown or inarticulate phenomena, and to identify important dimensions in unique contextual settings (Patton, 2015; Creswell et al., 2004). In effect, exploratory research has the goal of clarifying concepts, gathering explanations, gaining insight, eliminating impractical ideas and forming and developing hypothesis, although it does not seek to test them (Stebbins, 2001).

Together with an exploration of the structural dimension of DL in both sectors, another purpose of Study 1 was to provide a theoretical and contextual base in order to conceptualize and operationalise DL agency in middle management. Study 1 was therefore designed with the aim

of identifying themes and topics which then have been 'translated' into dependent and independent variables.

In fact, key findings of Study 1 guided the creation of measures to operationalize key concepts of DL in middle management as well as design the two research instruments: a quantitative survey followed by semi-structured interview questions. The development of the conceptual model for the agentic dimensions of DL (Study 2) was also built on documentary findings and on a review of literature of the identified dimensions. The review of the literature is here regarded as a preparatory stage to gathering data and serves to acquaint me with previous research on the DL topic and relationship between DL and outcomes (Travers, 1969). It thus enabled me to place the work in context and to operationalize the study of dimensions of DL in middle management.

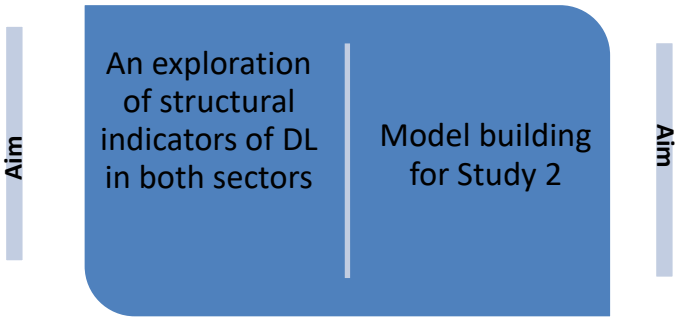

Fig. 6.1 Purposes of Study 1

To address the first RQ (*What are the structural manifestations of DL in state schools and private iGaming enterprises in Malta? Are there any difference/similarities?)* I needed to investigate structural indicators of DL in Malta and the documentary research method has been chosen as data collection strategy for two purposes:

1) the focus of the qualitative phase was on the structural properties of DL in general, in relation to middle management. The notion of leadership as distributed practices has been claimed to display the cultural, relational and contextual nature of leadership processes (Raelin, 2011).

Hence, qualitative methods can be helpful in identifying elements that can influence DL i.e. organizational culture, values and team-based values.

2) for researchers in the field of educational leadership, documentary research may inform other data collection methods (Fitzerald, 2006). Documents can be used at times as evidence within a larger evidential-based or as the subject of the research in their own right (Brundrett and Rhodes, 2013). In this study, another use of the documents was the creation of a critical literature review to provide a background to Study 2 and more specifically to guide the formulation of the theoretical framework and the design of the two research instruments (survey and interviews). This stage is here regarded as a preparatory phase to Study 2 and serves to place my work in context and to operationalize dimensions of DL in middle management (Travers, 1969).

Doing documentary research is much more than recording facts. It is a reflexive process in which researchers confront the "underpinnings of social inquiry" (Coles, 1997, 6). Documents are useful in rendering more visible the phenomena under study (Prior 2003, 87).

In this sense, a wide variety of written materials has served as a valuable source of data in this project.

Generally speaking, documents include but are not limited to institutional documents (programmatic, or organizational records), personal documents, and public historical documents (Fitzgerald, 2006; McCulloch, 2004; Patton, 2015). Documentary analysis is more frequently utilized alongside other methods (Rapley, 2008). In this research project, documentary research – which is classified by Lincoln and Guba (1985) as an "unobtrusive' method" (199) provided a theoretical and conceptual framework to gain a better understanding and interpretation of the research problem.

Since the aim of Study 1 was to explore the structural dimension of DL, in the table below I have synthetized the structural elements under investigation in this project. By drawing on the Wood's (2000) definition of structure in light of Archer (1995), I have included different data sources and the types of analysed documents.

Elements of structure	Definition	Documentary sources
institutional element	It concerns with organizational features of schools and iGaming companies in Malta, i.e. distribution of internal institutional resources and responsibilities, that is duties of middle management roles in both sectors, working arrangements; organizational structuring of leadership	Job posts/Job descriptions
Cultural dimension	It concerns with systems and patterns of ideas, values and norms on DL that encourages collaboration, openness, trust and how these are espoused in different organizations in both sectors.	Mission statements; About us" pages. Policy documents (school sector); company report (iGaming sector).
Social dimension	It concerns with patterns of relationships and interactions and the 'climate' of these, which cross formal hierarchies, and high-trust relationship	Job descriptions; Organizational charts

Table 6. 1 Structural manifestation of DL and documentary sources

In the following section, in order to address the first RQ and identify leadership functions as well as distribution of middle managers' roles, I analytically describe data collection procedures and strategies of analysis for each source sources of data. By combining "pieces" of different documentary data, the main goal of Study 1 was to build a model which forms the base for the sequential mixed method research (Study 2) and for the development of the research instruments. More specifically, three different documentary "pieces" have been taken into consideration and examined respectively in the following sections:

- Official School and companies' documents
- Mission statements;
- Job Post/Job Descriptions.

6.3 Documentation

In *The Discovery of Grounded Theory*, Glaser and Strauss (1967) recommended that documents should be treated as informants or interviewees. Documents exist as a mute, inert, non-reactive, isolated source of evidence that is particularly well suited to styles of unobtrusive research (Lee, 2000). All these are, intentionally or unintentionally, capable of transmitting a first-hand account of an event or topic and are therefore considered as sources of primary data. Further, like non-participant or indirect observation, there is little or no reactivity on the part of the writer, particularly if the document was not written with the intention of being research data (Cohen et al., 2007). In Study, 1 documentary research provided me with information about the context and culture of schools and iGaming companies, the opportunity to read between the lines and the opportunity to access information which was difficult to gain through an interview (Fitzgerald, 2006).

6.3.1 Data collection

State schools and iGaming companies publish a wide range of plans, media releases, official documents, reports which are usually readily available, and are therefore inexpensive to collect (Appleton and Cowley, 1997). These documents are important indicators of value systems operating within educational institutions and business organizations in Malta (Hatch, 2002). In particular, this study is based on an analysis of the following documents that were considered to be significant for the purpose of the study and because they explicitly describe how schools and iGaming companies declare and express their DL value. Documents were therefore purposively sampled (Hatch, 2002).

With respect to the schools, all the selected documents were published by the Ministry of Education and are available in the official website. Instead, with regards to the iGaming sector the selected documents were published in the MGA's website and publicly available on the MGA's website. The following documents has been selected

Schools:

- *'Tomorrow's Schools: Developing Effective Learning Cultures' Ministry of Education and Human Resources, 1995*

- *Creating the Future Together. National Minimum Curriculum (Ministry of Education Youth and Employment, 1999).*
- *A National Curriculum Framework for All (Ministry of education and employment, 2012)*
- *For All Children to Succeed: A New Network Organisation for Quality Education in Malta (Ministry of Education Youth and Employment, 2005*)
- *Amendment to the Education Act of 2006*

Gaming sector:

- *MGA Annual Report 2018*
- *MGA Annual Report 2017*
- *Remote Gaming Publications*
- *Gaming Malta 2018 report*
- *Gaming Malta 2017 report*

6.3.2 Data analysis

Data analysis was performed in two stages:

1) Organization of data;

2) engaging with the analysis, including doing the analysis.

Organization of data. To optimise the analysis in this project, all the identified documents have been clustered into two groups (for the business and educational sectors) through the employment of NVivo12 software. NVivo12 is a qualitative data analysis software package that helps researchers to organize and analyse non-numerical data, allowing to sort and arrange information, examine relationship in the data, create codes, link codes together as nodes and develop the connection digitally with the documents. I used NCapture, a NVivo tool which allowed me to gather and collect web data (such us webpages, social medial contents and online PDFs) and then import them into NVivo as PDF sources. NVivo helped me to see whether there was any difference/similarity in views regarding DL between the school and the iGaming sectors as well differences in middle leadership responsibilities.

Analysis of data. There is no standardised method of analysis for documentary data (Creswell, 2007). In this study, thematic analysis was employed for analysis of documents. Thematic

analysis has been poorly branded, yet widely used in qualitative research (Braun and Clarke, 2006; Maguire and Delahunt, 2017; Nowell et al., 2017). It a method for identifying, analysing, organizing, describing and reporting themes through systematic identification of core elements of written communication (Braun and Clarke, 2006). Through its theoretical freedom, thematic analysis is useful for summarizing key features of a large data set, as it forces the researcher to take a well-structured approach to handling data, helping to produce a clear and organized final report (King, 2004). In addition, Guest et al. (2012, 11) indicated that "a thematic analysis is still the most useful in capturing the complexities of meaning within a textual data set". A rigorous thematic analysis can produce trustworthy and insightful findings (Braun and Clarke, 2006); however, there is no clear agreement about how researchers can rigorously apply the method. The current study adopted Braun and Clarke's (2006) model for thematic analysis; in this model they suggested six steps for completing thematic analysis.

Step 1	Become familiar with the data
Step 2	Generate initial codes
Step 3	Search for themes
Step 4	Review themes
Step 5	Define themes
Step 6	Write-up

Table 6. 2. Braun and Clarke's six-phase framework for doing a thematic analysis (2006).

Braun and Clarke (2006) pointed out that it is ideal to read through the entire data set at least once before coding, as ideas and identification of possible patterns are shaped as reading through. After, codes can be organized in categories. This study aimed at:

1) examining documents in the attempt to identify patterns of difference or similarities of the structural dimension of DL within these documents;

2) informing the design and the development of the instrument. Key findings and identified dimensions were then translated into quantitative variables that is, the concepts must be operationalized (Morgan, 2015).

6.4 Exploring mission statements: a DL structural perspective

Mission statements have traditionally been defined as a written declaration that communicates the purpose of an organisation (Bart and Hupfer, 2004; Macedo et. al., 2016) and as a strategic tool that emphasize an organization's uniqueness and identity. According to Campbell et al. (2001) two perspectives or schools of thought explaining the role of a mission statement can be recognized: the strategic (e.g. Atrill et al., 2005) and the cultural one. While the first perspective links mission statements to business objectives, i.e. organizational performance (Dermol, 2012; King et al., 2012) and, in the case of schools, to school and classroom performance (Leonard and Huang, 2014), the second one – which is more suitable for the purpose of this research - defines the mission as a statement that encompasses an organization's philosophy, identity, and values giving the meaning to its goals, norms, decisions, actions, and every day behaviour (Bartkus and Glassman, 2008; Hirota et al., 2010; Salem Khalifa, 2012).

With respect to the private sector, previous studies have found that these statements and the elements within them are valuable and can express corporate personality (Chun and Davies, 2001; Ingenhoff and Fuhrer, 2010; Spear, 2017), by conveying who, or what an organisation is, and what it represents (Chun and Davies, 2001). With regards to schools, Stemler and Bebell (2012) suggest that "mission statement can serve to represent the core philosophy and working ethos of a school and that a shared mission may be a necessary prerequisite for an effective and highly functioning school" (11).

From a structural perspective, mission statements portray an overview of how various organizations represent themselves (Morphew and Hartely, 2006), thus representing the social, cultural, and political environment that encompasses schools and companies (Harris, 2009; Gronn, 2009; Spillane et al., 2004; Woods et al., 2004). While the structural perspective is considered here as a means of illuminating the concept of DL, mission statements can designate the cultural and institutional elements characterizing the notion of 'structure', according to the definition by Woods et al. (2000), that is. emergent proprieties, which individuals must contend with when forming action. If DL is perceived as a valued model and/or it helps to differentiate one school/company from another, it is likely that it would be reflected on a school's or company mission statements. However, I do not assume that the mission statement is the only indicator of a school or companies' cultural value. In fact, other practitioners and scholars see the mission

statement glass as half-empty since language in them could be intended to evoke an all-purpose purpose (i.e. Delucchi, 1997). However, mission statements can be considered as "an accessible and meaningful window for further exploration of the purpose of the organization" (Stemler and Bebell, 2012, 23).

Given this premise, the goal of Study 1 was to see which forms and values of DL schools and iGaming companies declared and expressed in their mission statements and specifically to determine whether mission statements indicated a strong focus on DL themes, by identifying potential differences between institutional types. Finally, this study shows how DL values are professed and espoused and consequentially may influence the organizational culture in both organizational contexts.

6.4.1. Data collection

Business sector. The iGaming population was determined with reference to a publicly accessible list of all the licensed operators on the MGA (Malta Gaming Authority)' website (www.mga.org.mt). The MGA list is a suitable population which enabled the study to gain a broader understanding of values and mission statements in relation to the DL. Furthermore, licenced operators in the list have met the obligations prescribed by law and policy and these are grouped according to the four License Classes established by the Remote Gaming Regulation. Thus, one company can have different Classes and can be detailed more than once in the list. I have therefore produced a random sample of iGaming companies. Each company was selected if they met the requirement of having an informative 'About US page'. If the company had not met this requirement, then the next iGaming company on the list has been selected, and so on until an iGaming company with this requirement has been identified. This will continue until 40 iGaming companies have been identified. My online search took place in May – June 2016.

Educational sector. The sample population has been identified with reference to the Ministry of Education website which holds a list of all respective schools for each College. In this case, a random sample of 4 schools for each college (10 Colleges in Malta) was identified. Between

May and June 2016, I therefore acquired 40 mission statements. First, I visited the websites of all 40 schools to see if a mission statement was found there. This led me to a statement or to another document in which I could identify the mission statement (i.e. The School Development Plan or other internal school documents). Whereas schools didn't have an informative website or an informative 'About US' page, they were contacted via email to ask them to send me this information until a total of 40 schools and consequentially mission statements have been reached.

6.4.2 Data analysis

After reviewing all the collected mission statements or equivalents (from this point forward, I'll refer to all of the documents collected as *mission statements*), I noticed that many had values statements embedded or appended, and others referred to a values statement for additional information about the company/school' s mission. It did not seem consistent, then, for me to analyse some mission statements that included values statements, but to exclude other values statements just because they were not a part of the mission statements proper. In this sense, some schools or companies did not report a clear distinction between values or mission statements. I decided, therefore, to include any values statement that was found in close proximity to a mission statement, was referenced in a mission statement, or was linked to a mission statement. Next, web pages were captured and imported into NVivo12 as PDF sources with NCapture. It is important to note that there was, among the mission statements I reviewed, a surprising variety.

The content of all 80 of the collected mission statements (40 for each sector) was analyzed in order to identify DL themes and topics. Si A coding of ''1'' was allocated to all the statements for each DL values or themes that was judged as being present in the mission statement, and a coding of ''0'' was assigned if not present. The DL element was considered only once for each mission statement. In NVivo 12, Text Search queries allow researcher to find all occurrences of a word, phrase, or concept in the project. Words like 'team'; 'sharing'; 'distributed' 'group' were searched. The analysis of these mission statements sometimes focused on significant single words, as well as phrases.

6.5 Exploring middle management functions through job adverts

There is a long history of studies which collect and analyse job advertisements in different research sectors (Harper, 2012) with Starr (2004) describing it as a 'time-honoured methodology'. The method of analysing job adverts is attractive because the data are easily accessible (Pefanis and Harich, 2010), organic and naturalistic. However, Croneis and Henderson (2000) point out that some jobs may not advertised externally, which means there is some data which may be unavailable for analysis. In addition, the quality of writing in job adverts is unpredictable and variable. In fact, job adverts can be ambiguous, making them resistant to accurate analysis, and challenging to code. Whenever possible, it is better to collect observational data as the information it carries is more objective. However, an assumption of this study is that job adverts should partly reflect the industry real situation. In fact, job analysis data is perhaps the most widely gathered type of organizational information for developing human resource (HR) management systems. It forms the foundation upon which many important HR management systems are built (Butler and Harvey, 1988). However, it is important not to get confused between job descriptions and person specifications/profile. Although the latter is also a product of job analysis, it basically refers to a statement of the skills, knowledge and other attributed needed for effective performance in the job. A job description makes clear duties and responsibilities a middle manager is expected to perform (Arthur, 2008). Hence, the purpose of this study is to identify the leadership functions of middle managers via a job announcement analysis.

6.5.1 Data collection

Business Sector. A convenience sample of job adverts for iGaming companies advertised in Malta on Indeed.com and LinkedIn was selected. Selecting appropriate job databases is an important process of the research because many employers and job seekers use popular databases. For example, Aguinis et al. (2005) or Kang and Ritzhaupt (2015) utilized a similar methodological approach in selecting popular online databases for their job announcement research. In this study, Indeed.com was used because it is an aggregator of job postings from many organization websites and job boards. In addition, LinkedIn is a large, online professional

network that many iGaming companies in Malta also use for recruitment. Job announcement for middle managers were collected from October to December 2016. The three-month sampling period was chosen specifically to cover much of the typical hiring cycling. I have decided to keep the scope of the title search very precise. In fact, only position announcements that included the word 'Manager' or 'Supervisor' or 'Coordinator' or 'Head' were selected. To this end, my previous job position as a HR Manager in the sector facilitated the identification of the job positions. Only job adverts referring to an institution's website of a licensed iGaming company were identified and collected. The licensed companies could be easily identified through a list provided by the Maltese Gaming Authority and publicly available on the institution's website, while the other job ads posted by recruitment agencies were excluded from the final data set of job adverts because the details of the iGaming company could not be identified. A total of 130 job announcements had originally been collected from the two different job search databases. However, unnecessary, repetitive, or data were removed so that the final 80 relevant job announcements were selected for the job announcement analysis. The format of job ads was consistent across organizations, generally being split into sections containing information on: the organisation, the organisational unit, the role (including a position description statement and/or list of duties) and often a statement about the organisation's approach.

Educational sector. Given the different organizational context, the sample selection and data collection procedure were straightforward. In fact, job descriptions for middle managers were publicly available and stated in the *Job Description Handbook for grades and positions within the Directorate for Quality and Standards and the Directorate for Educational Services*. In this sense, the description of duties and responsibilities of middle managers were officially the same in all the Maltese schools, whereas those in the iGaming sector may vary from one organization to another. In total one unique job description for the Head of Subject and one for the Assistant Head for were respectively identified (Appendix 3).

6.5.2 Data analysis

Job Posting were captured and imported into NVivo12 as PDF sources with NCapture. Specifically, the 80 job announcements from the iGaming companies and the two from state schools were first open coded and categorized under the identified common themes within the

collected job descriptions. There are no standard rules for coding data; however, in this case, the process of coding has been generally practiced as a deductive process. In fact, in order to identify leadership roles and responsibilities, I used the Yukl et al.'s (2002) three meta categories of leadership functions (change, task, and relation-oriented behaviour) as guide. As found in the literature, Yukl et al. 's (2002) model is a comprehensive representation of leadership functions, encompassing a diverse range of leadership functions. Hence, the text of each job advert was coded using the three meta categories. For each job description, duties and responsibilities were grouped based on the three categories. The purpose of the analysis was to identify any similar patterns of word or phrase in the job descriptions.

6.6 Trustworthiness in documentary research

While researchers discuss reliability in qualitative research here, the suitability of the term for qualitative research is contested (Cohen et al., 2007). Trustworthiness is where researchers can persuade themselves and readers that their research findings are worthy of attention (Lincon and Guba, 1985). Lincon and Guba redefined the concept of trustworthiness by introducing the criteria of credibility, transferability, dependability and confirmability to parallel the conventional quantitative assessment of validity and reliability (Nowell et al., 2017). In addition, with respect to the documentary research method, the researcher must assess and analyse the documents themselves before extracting contents. Scott (1990) has formulated quality control criteria for handling documentary sources which have been addressed with attention to authenticity, credibility, representativeness and meaning. Given these premises, I have chosen to integrate the latter criteria with those of Lincoln and Guba (1985), arguing that these trustworthiness criteria are pragmatic choices concerned about the acceptability and usefulness of this research. These criteria will be briefly defined and then interwoven throughout a description of how I attempted to conduct trustworthy documentary research.

Authenticity. The researcher has a duty and a responsibility to ensure that the document is genuine and has integrity. To this end, only contents in official company websites of licensed operators as well as official school websites were considered as source of data. For example, in the case of policy documents I carefully checked the authorship of the documents while only job descriptions written in official websites were considered for analysis.

Credibility. According to Scott (1990), the question of credibility should concern the extent to which an observer is sincere in the choice of a point of view and in the attempt to record an accurate account from that chosen standpoint. To address this issue and to prevent any form of distortion, a list of all the consulted documents are provided throughout the thesis along with the original sources and links.

In addition, I consulted with my supervisors for a debriefing to provide an external check on the research process, which may therefore increase credibility.

Dependability. To establish dependability in qualitative research, researchers should provide the reader with a detailed explanation of the procedure for collecting and interpreting the data (Lodico et al., 2006). In this study, I have described in detail the kind of documents used and I explained the procedure for data collections and strategies of analysis.

Representativeness. A single document may not be representative of its type (Denscombe, 2003).

Transferability. Transferability refers to the generalizability of inquiry. I am aware that I am responsible for providing descriptions, so that those who seek to transfer the findings to their own site can judge transferability (Lincoln and Guba, 1985). The study was conducted on a sample of Maltese organizations of specific sectors and the results can therefore reflect the specific organizational culture, so may not apply to other sectors.

Meaning refers to whether the evidence is clear and comprehensible. Another important point to be considered in the use of documentary sources is how to decide which inference to make from a document about matters other than the truth of its factual assertions (Platt, 1981). In fact, I kept in mind that documents could have been subjective, inaccurate and biased (Samuel, 1994). To this end, I augmented documentary data by informal conversation with a few key Maltese informants (e.g. union representatives, university professors, governmental officials, teachers or managers) since they are familiar with and or knowledgeable about the Maltese contexts, especially in relation to the education system and the school sector. This helped me to contextualize the meaning of what was written through the perceptions of these key informants, something that I could not deduce or easily infer from official Maltese documents, given my Italian nationality and since I was not fully aware of the historical and cultural tradition of the education system.

Confirmability. Shenton (2004) argued that confirmability in qualitative research refers to establishing objectivity. As mentioned above, the current study on its own does not aim to provide an objective view, or to offer final and conclusive solutions, but to inform the contextual and theoretical base to be adopted in Study 2 and to provide an overview of the structural element of Dl in both sectors, following an explorative purpose.

6.7 Conclusion

This chapter provided a description of the research methods and methods used In Study 1, which is a qualitative documentary study. More specifically, this chapters provide an account of the types of selected documentary data, data collection, sampling method, as well as the data analysis that was carried out. The chapter also included discussion of the issues of trustworthiness involved in this type of research. The next chapter will go on to present the findings from the research.

Chapter 7. Distributed Leadership in Middle management: Documentary findings and Model building

7.1 Introduction

The previous chapter discussed the practical elements and procedures of the documentary research. In particular, Study 1 used three different sources of data from both sectors i.e. mission statements, middle management job descriptions together with other official document, with the aim of exploring the structural dimension of DL and of building the conceptual framework for Study 2.

This chapter presents the research findings of Study 1 and more specifically it describes the conceptual framework which was built on the documentary findings.

7.2 Conceptual DL model

Miles and Huberman (1994) defined a conceptual framework as a visual or written product, one that "explains, either graphically or in narrative form, the main things to be studied- the key factors, concepts, or variables- and the presumed relationships among them" (18). For this reason, the conceptual framework - the system of concepts, assumptions, expectations, beliefs, and theories that supports and informs this research is a key part of the research design However, it is clear from the literature review that the concept of DL is difficult to define and measure and that several ways of conceptualizing it are possible. However, by making certain choices in conceptualizing and measuring DL more explicitly, I clarified the conceptual framework for this study using three sources of data: 1) an analysis of the key findings of the documentary research; 2) a review of the DL literature with reference to the identified dimensions; 3) information from official documents. Results of the documentary analysis are embedded in the conceptual framework and are presented as part of the model.

To identify and analyse the main research domain blocks of this conceptual framework, the following section presents each identified dimension, according to the analytical distinction between the structural and the agentic dimensions. Each dimension is reviewed with specific reference to the educational and business sectors. More specifically, from an agentic perspective

this model can permit an empirical investigation and the development of the research instruments for Study 2.

It is also important to note that although each dimension it is presented *analytically* in two different forms i.e. the structural and agentic, the variables must be viewed in its entirely, as a process that accounts for both organizational and individual perspectives. In fact, structure and agency are ontologically connected in a reciprocal, dynamical causal interplay.

The conceptual framework for both sectors is graphically represented in the following Figure 7.1.

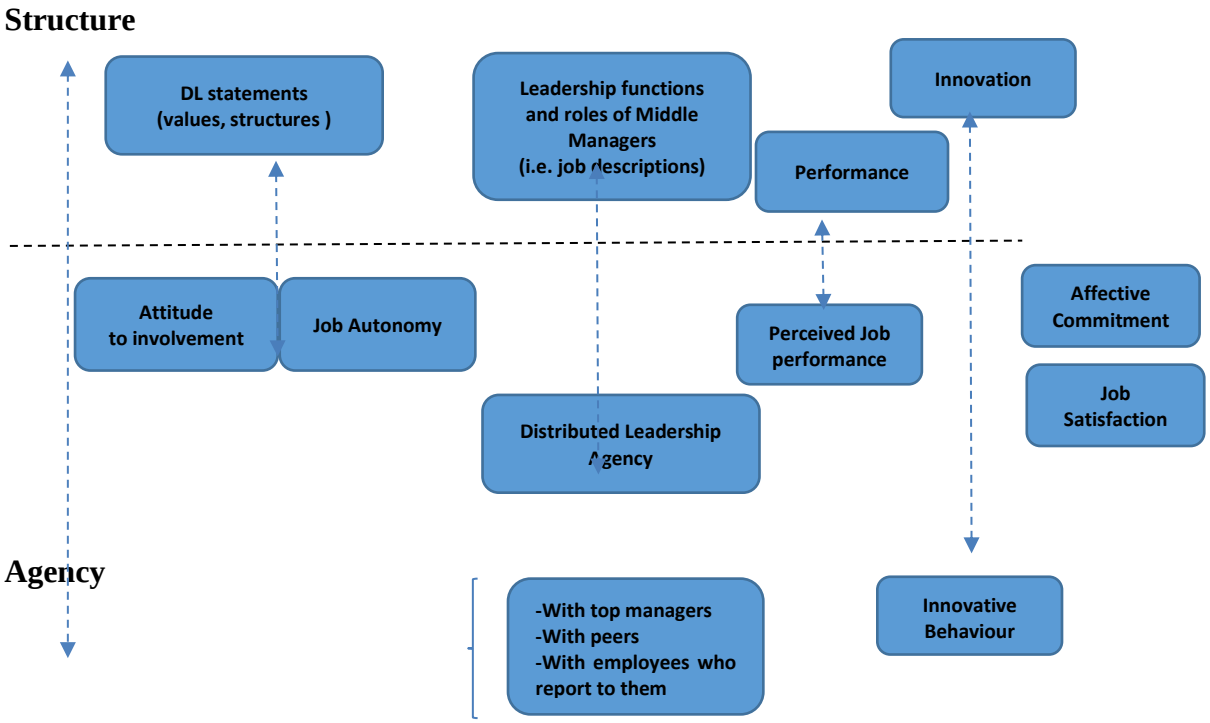

Fig. 7.1 DL Conceptual model

7.2.1 DL values and statements

All of the schools and companies' documents, mission and values statements, educational policy were positive towards DL values, approaches and autonomy.

With regards to the results of the mission statements an examination of the most common DL elements reveals some intriguing patterns. I ultimately identified 34 distinct DL elements across all statements. Some organizations used very few elements, and some used many. No two organisations had precisely the same configuration of elements. In the following Table 7.1, DL elements seemed to be more evident and expressed in the mission statements of the Gaming companies than in state school.

	IGaming	Schools
Presence of DL elements in mission statements.	N= 30	4

Table 7.2 DL components

In the following section, I explain why and to what extend DL values are promoted in both sectors.

Education. In Maltese state schools, the publication *For All Children to Succeed* (2005) set out proposals for reorganisation to promote decentralisation and increase collaboration among schools to ensure that the individual needs of learners were catered for. The policy document fosters a strong belief in 'shared or co-leadership', which is important for the distribution of the leadership function across more than one school location, thus offering the potential of generating 'healthy dialogue and debate' while fostering a 'satisfying and fruitful team spirit'. According to the document, one of the achievements made was "the taste of decentralization experienced in recent years within the State-run sector. This has led to a correlative increase in autonomy, identity and style by individual schools" (For all Children to Succeed, FACT, 2005, 25). While advocating DL, FACT justifies the need for senior leaders – 'Distributed leadership only thrives where there is effective senior leadership' (FACT, 2005, 39). In addition, in terms of DL structure, Article 57 of the Education Act (2006) makes provision for a certain degree of autonomy for the colleges, stating that, The Minister and the Directorates promote the application of the principle of subsidiarity in the management and administration of the Colleges, within a framework of decentralization and autonomy of the educational operation and services given by the Colleges and their schools according to the priorities, targets and

national strategies adopted by the Government. (Education Act, 2006, art. 57, 1). Within this scenario, Maltese schools seem to favour a DL model which is not only constantly promoted by the Maltese education authorities, but it is also testified by the values expressed in their mission statements. In this sense, an effective mission statement should explain the values and philosophy of the school and the core competencies that will help them achieve their mission. Here are some exact from the mission statements

"At Gzira primary school we aim to work together as a team, respect equally every member of our community and strive to enable our children to achieve their full potential for life";

"To provide an inclusive education rallying all possible support from parents, the community, multi-disciplinary teams and outside agencies to help children in their learning process. To develop a professional and proactive team leading to an efficient and effective school, ensuring on-going staff development and evaluation of the school's development plans and performance."

"DL makes the institutions more democratic and fostered a sense of community spirit through team building and team work."

Business sector. In the DL leadership literature, scholars generally emphasize organizational culture and organizational structure as the main drivers for the development of DL (Leithwood et al., 2007; Woods et al., 2004). With specific reference to the iGaming sector, organizational culture plays an important role. In fact, most gaming firms have a start-up feel, with a well-developed social culture: they work to support their employees as best they can by offering unique working environments and focusing on each employee's personal development. Through these efforts, such companies have created a culture which is based on a balance of entertainment and responsibility which has proven to reduce stress levels on the job in order to execute tasks and duties. As expressed in various company websites, such cultures are set to create a positive way of life when at work, and revolve around perks which are offered at the workplace, such as healthy food and beverages for all employees, inclusive breakfast on selected days of the week, out-of-office social events, Friday evening post-office hours' drinks, gym membership and lounge areas to unwind and socialise, all within state-of-the-art office areas. The clear goal is to induce a lifestyle which helps employees interact and feel a sense of community within the company. Also, in terms of organizational structure the flatten

organizational configuration reflects the need to better serve the customers and to satisfy their fast-evolving needs, optimize its operations, enhance the offering of top-quality and innovative products and services, and increase shareholder value. Here are some examples from the iGaming mission statements:

"Passion for better gaming ensures we achieve great things together, both inside the office and out. Our core values are the foundation for our culture where we want to avoid bureaucracy and stiff hierarchical behaviors"

"At Betsson, we have the right balance between working professionally and having fun. I also like the feeling of being appreciated"

"We are convinced that we become stronger and more competitive as a company by employing people with different backgrounds and experiences, and from different cultures"

7.2.2 Job Autonomy and Attitude to involvement

As indicated earlier, structure is a condition of action, and DL is here seen as middle managers, who respond to, utilize and shape structural resources, culture and social relations in organizations (Woods et. al, 2004).

While the emergence of DL in state schools and private iGaming companies has been acknowledged from a structural perspective, the understanding of the employee attitudes (here: middle managers) to the distribution of organizational influence and leadership need to be taken into account. Organizations may face more challenges in implementing DL due to the lack of motivation among the employees to participate in leadership activities (Jain and Jeppensen, 2014). In this sense, middle managers will be more likely to act if they are positive towards DL, and if there is a subjective norm that supports this attitude. In this sense, a positive attitude to employee involvement may stimulate more DL. In fact, being willing to initiate an active involvement in leadership tasks may require both a belief in the value of employee participation and a successful agency that will reinforce such a positive stance towards it. Overall, *Attitude to employee involvement* is a generalized evaluation that involving employees is 'a good thing'. Strauss (1998) provides an overview of different arguments for involving employees in organizational decision-making. Among the reasons are that employee involvement may lead to improved performance, better leader-employee cooperation and increased well-being.

Though middle managers' attitude to employee involvement can stem from successful practices (Fenton-O'Creevy, 2001), In this sense, *Attitude to involvement* may be antecedent for and consequences of participating in leadership activities.

In addition, from an individual perspective, *Job Autonomy* can be designated as influence to decide how to perform and organize one's job tasks. Hackman and Oldham (1975) define autonomy as the "degree to which the job provides substantial freedom, independence, and discretion to the employee in scheduling the work and in determining the procedures to be used in carrying it out (162). A middle manager may have a large degree of freedom to choose how to perform his or her own job tasks, notably if little interference exists from other leaders. However, since participating in leading processes at the workplace will theoretically also shape discretion over one's own work behavior and work arrangements, it would typically have an impact on how much autonomy a middle manager has. The way tasks, people and change are led in a workplace, may most likely provide boundaries for the freedom to do a job. In this sense, leadership processes are particularly important to middle managers, because leadership is central to their formal role description. Vice versa, autonomy may provide a resource and an affordance to engage in DL. When freedom in the job is high, spontaneous actions required to be led may more likely emerge to deal with unforeseen problems and issues. At a more general level of reasoning, autonomy is inherently a resource to agency because autonomy allows for transcending structural determinants (i.e. Archer, 2002; Bandura, 2006). Some empirical support exists for the notion that autonomy and DL is related. In a qualitative case study of DL within health care organizations, Fitzgerald et al. (2013) identify autonomy as a prerequisite for successful DL. Jønsson et al. (2016) found a significant correlation between hospital employees' DLA and autonomy, and Unterrainer et al. (2017) found autonomy to be an antecedent to DLA amongst Danish municipality employees seven months later.

7.2.3 Distributed leadership roles.

As emerged in the literature review, the role of middle managers has become complex (Briggs, 2003), messy (Fitzgerald et al., 2006), intense (Dinham, 2007) and can vary according to various organizations. With respect to the iGaming sector, the job adverts revealed a variety of job positions, showing a constantly growing industry. Being a digital environment, there is a

constant need for experts of all levels who can occupy management roles. Certainly, the duties and responsibilities of middle managers vary depending on the size, culture and stage of development of the company. Table 7.3 shows a variety of positions within the industry which are organized according to the different organizational sectors

Sector	Job Title
Sales/ Business Development Marketing	Senior Account Manager; Sales Managers (3); Head of Gaming Accounts; Gaming VIP Account Manager - German Speaking; Head VIP Account; Global Account Manager Business Developer Manager; Team Lead Performance Marketing; Social Media Manager; Affiliate Manager; Chief Marketing Officer Head of Acquisition; VIP Team Lead; Marketing Manager; Social Media Manager; Communication Manager; SEO Manager; Head of Channel Marketing; Head of Marketing; Paid Search Manager; Social media coordinator (2)
Product	Poker Product Manager; Casino Manager Sportsbooks Coordinator; Karamba Product Manager; Game Managers Head of Sportsbooks; Chief Product Officer
Administration	Head of Account Management; Payments Product Manager Payment& Fraud Manager (2); Payment Relationship Manager; Finance Manager (3); Head of AML (Anti Money Laundering); Bank Payment Manager; Compliance Manager (2); AML Compliance Manager; Head of Compliance Legal Manager; Quality & Training Coordinator
Human resources	Recruitment Management; Training & Development Manager (2); Training Manager; HR Manager (2); Global HR Project Coordinator; Group Reward Manager
Information technology	IT project manager (6); Head of Technology (2) Software Project manager; Chief Technology Officer Front end product Manager; Development Manager
Project Management	Project Manager (4) Business Transformation Project Manager
Customer Service	Senior Customer Manager (2); Customer Service Manager (6) German Customer Service Team Leader; Customer Support Service Team Leadership; Head of Customer Operations; Customer service coordinator; Customer Service Coordinator Assistant

Table 7.3 Job titles (Middle Managers)

With regards to schools, middle managers have a fixed job description as reported in the Appendix 5.

For both sectors, the different leadership roles and duties were categorized according the three meta-categories. i.e. task- oriented functions; relationship-oriented functions and change-oriented functions and presented in Table 7.4.

Task oriented functions	*"Responsible for end-to-end project management throughout the life cycle of a software/system development project/ program"* *"Track project milestones and deliverable throughout project lifecycle"* *"Maximize team effectiveness"* *"Ensure project execution is in line with project & authorities' guidelines and directives; determine, allocate, and direct all project resources in accordance with these guidelines and directives"* *"Leading and managing the product roadmap"* *"Oversee the collation and analysis of reports on a wide range of qualitative and statistical data relating to performance of the teams"* *"Delivery of the developments and enhancements, especially after releases"* *"Monitoring competitor activity – product functionality and promotions* *"Optimisation of rake on cash tables and fees on tournaments"* *"Work in partnership with peers and direct reports to carry out continual review of effectiveness of strategic plan in delivery of the level of service required by the Group"* *"Liaise with our creative agency to manage distribution and optimization of our creatives"* *"End-to-end project management by managing budgets and projects' schedules, and overseeing their execution"* *"Set goals, objectives and priorities; assign and review work, resolve conflict"* *"Daily management and optimisation of paid search campaigns across social media platforms"* *"Analyse and optimize. Use all analytical tools to manage and improve campaign performance"* *"Setting clear team goals and deadlines, delegating tasks and being the main contact point for all team members"* *"Measuring and reporting. Create a performance culture, through clear KPIs, performance reviews and pro-active improvements."* *"Use established methods, processes and tools"* *"Deliver problem solving and trouble-shooting solutions in response to software and process issues"* *"Analysing and reporting on the delivery as well as post-campaign analysis, developing and strategizing the segmentation and circulation plan are also key tactics for managing the campaigns".* *"Ensure that deliveries from the production teams are met with high quality"*

	"Establish and maintain key strategic and tactical plans for the existing business" *"Run policies, procedures, and operational metrics efforts"* *"Establishing and responsible for business analytics and business intelligence functions"* *Ensure the smooth daily operations of the Casino business.*
Relationship Oriented functions	*"Bring an inspiring style of leadership and energy that motivates and aligns the team through clear vision, feedback and recognition".* *"lead the individual development of the people operations circle members to grow alongside the business whilst having a once in a lifetime career experience"* *"Keep a holistic view over the whole organisation, providing context to the sports team to operate effectively"* *"Discover training needs and provide coaching"* *"Encourage creativity and risk-taking"* *"Develop career and succession planning within reporting lines in addition to conducting regular one-on-one meeting"* *"Act proactively to ensure effective collaboration".* *"Leadership of interdisciplinary and international project teams"* *"Build the ideal environment for collaboration, knowledge sharing and alignment"* *"Guide the team throughout the creation of a marketing vision and strategy"* *"Foster and scale an agile environment with decentralised decision-making processes"* *"Coach, grow and lead the Casumo marketing team with individual development plans"*
Change oriented functions	*"Lead and ensure the success of departmental and company change management initiatives"* *"Set and meet stakeholder expectations, identify new opportunities and streamline processes"* *"Introducing new acquisition channels as the opportunity arises".* *"come up with creative and hard-hitting Casino campaigns which actively engage customers"* *"Understand the landscape, the rules and how to break them"* *"Be driven and motivated to create a new experience, and to disrupt"* *"Look at what is going on in the Games industry by talking to customers, visiting expos and follow media to ensure we are ahead of the game industry spearhead innovations that marry people -oriented matters with agile tech, creating self-servicing solutions"*

Tab. 7.4 Leadership functions

7.2.4 DLA (Distributed Leadership Agency) and DL configuration

This concept has been extensively covered in the literature review. Here it suffices to remember that DLA is defined as the degree to which all middle managers individually experience being actively engaged in leadership activities within organizational change, managing tasks and strengthening social relations at work (Jønsson et al., 2016) applying Yukl et al.'s (2002) meta-categories of leadership functions. In addition, by combining Jønsson et al.' s (2016) definition with Groon's notion of configuration, DLA may appear at various levels of an organization to flourish both vertically between levels and horizontally within the same level. In fact, with specific reference to middle managers in both sectors, DLA also encompasses interactions both among and between leader(s) and employees. For example, in a state Maltese school a Head of Department or an assistant head deal with his/her school managers, with the teaching staff as well as with other middle managers. In the business sectors, a middle manager deals with his/ her CEO or top manager, with his/her team members who report to him/her as well as other middle managers in the company.

7.2.5 Performance

Structure. The policy document FACT (For All Children to Succeed) addresses the issue of the governance of the education system and of the autonomy and decentralization of State schools. The main reason behind this transformation seems to be the efficiency of the system; in fact, as the former Ministry of Education pointed out "we expect standards to be raised; we expect the quality of education to heighten… Thus, the importance and centrality of a clear focus on student learning is the core principle of School Networks" (FACT, XIII).

Likewise, the analysis of the iGaming companies mission statements reveals a customer-focused approach (i.e. "providing the best customer experience in the industry" or "exceeding clients expectations using best-in-class technology" or "creates fun and exciting experiences for our customers, employees and partners"; "through top quality entertainment, a personalized approach, and excellent customer service"). The private sector generally features competition

between different firms to supply the same markets, while state schools are typically the primary supplier of services and are not competing in order to maximise profits.

Agency. One of the main objectives of research in the field of school or business management is to enhance the performance of both employees and the organizations. School leadership research showed that the potential benefits of higher degrees of DL include successful improved organizational performance (i.e. student learning) (Harris, 2008; Harris, 2014; Leithwood and Mascall, 2008). In fact, when leadership is widely distributed and brought closer to the site of learning, it has a greater influence on schools and students (Day et al., 2007). However, DL for efficiency and effectiveness has been contested. While some advantages and benefits have been outlined, there are also risks that DL will not add to school improvement. i.e. when for example "distributing leadership is a risky business and may result in the distribution of incompetence" Timperley (2005, 417).

In the business sector, the more leadership is distributed across the members of a team the better the team's performance (i.e. Han et. al., 2018). Researchers have also explored the impact of sharing power with employees and how empowering leadership contribute to increase the performance of an individual employee at the work place e.g. Southwest Airlines (e.g., Kirkman and Rosen, 1997). However, performance has been defined operationally in different ways. For example, Campbell et al. (1993; 1996) define work performance as employee-controlled behavior that is relevant to organizational goals. Inherent in this definition are two characteristics: first, performance is multidimensional, that is, there are no single performance variables, but different types of work behavior relevant to organizations in most contexts; second, performance is a behavior and not necessary results. Organ and his colleagues (Organ, 1988; Organ and Ryan, 1995) have extended the concept of job performance to citizenship behavior. Similarly, middle manager's participation in leadership behavior (e.g. DL) should also be considered as an important element of their work performance. So, leadership tasks should be spread or distributed among the members in the organization to mitigate the risk due to the dependency on one or few leaders. Briefly, subscribing to an agentic perspective, I do not intend take in consideration objective outcomes for performance (i.e. KPIs or others economic indicators in the business sectors or student's academic performance in schools) and I

acknowledge that performance is a multidimensional construct. For this study therefore, performance is conceptualized as a subjective level and as the middle manager's perception of the performance of their organization.

7.2.6 Innovation

Structure. For organizations that compete in the turbulent and ever-changing environment of today, being able to adapt and adjust is crucial for effectiveness and survivability (Goyal and Akhilesh, 2007). Therefore, innovation becomes a critical mechanism for ensuring continuous growth and viability. With particular reference to the iGaming sector, the value of innovation is evident in almost all the analyzed mission statements, showing how the need to constantly reinvent itself to remain attractive to customers became a core value for the industry. Innovation is often motivated by the need to maintain or increase market share, and one of the most substantiated results in the innovation literature relates success in innovation to understanding of end user requirements. Below are excerpts from the mission statements of private iGaming companies.

We innovate, we reinvent, and we keep moving so that we continue to delight our customers (Betsson Group)

Foresight, innovation, fresh thinking, organic growth and creation of value are principles guiding ... (Cherry Group)

At Gaming Innovation Group, we make insanely great tech products through the entire value chain in the iGaming industry (Gaming Innovation Group)

To lead and transform online gaming by creating the most innovative, disruptive and entertaining experiences to anyone (Leisure Group)

His leadership and experience make SKS365 Group modern, innovative, fast, highly competitive and therefore often pioneering the industry developments in its markets (SKS356.com)

We're one of the IT world's most vibrant and progressive workplaces (Binary.com)

Working at Hero Gaming is to be part of a journey where we revolutionize an industry. We believe we can only do this with being able to quickly implement creative ideas (Hero Gaming)

We foster an environment where initiative and innovation are rewarded. We combine our skill and experience with novel thinking to spot new trends and tools to improve our customers' experiences. We regard failure as a stepping stone to success. We listen, we learn and we adapt (Kindred plc)

Innovative spirit. Never standing still and always looking for the next big thing for our players to enjoy. From backend developers to frontend designers, Mr Green leads an all-star team of tech wizards and product pioneers who dream big and dare to fail (Mr Green)

All employees are encouraged to constantly include their viewpoints, which will help driving innovation and growth (Tipico)

LeoVegas is leading the way into the mobile future. We will always strive to deliver a gaming experience, which takes the customer to a totally new WOW-factor level! At the heart of LeoVegas is an innovation lead - not only in our product and technology but also in marketing and all operations (LeoVegas).

With respects to state schools, usually, it is often assumed that public sector is necessarily less innovative than the private sector, lacking the spur provided by market competition (e.g. Tan, 2004), but this is an assertion that needs to be examined carefully since the innovation literature is large and diverse. In case of the mission statement of Maltese schools the value of innovation seems to be less evident than in the private sector. The concept of innovation was not present with the same frequency of the private sector. In this sense, missions' statements were concerned with the major purposes of schooling which were to foster citizenship, personal growth, intellectual development, vocational training, enculturation, ethical development, and the promotion of well-being, echoing that the main purposes are far broader than just cognitive or academic development but also include civic development, emotional development, and vocational preparation.

Agency. Innovation depends on employees and managers who are able and willing to spot issues and create solutions and new ideas, make sure they have the support and resources they need to be realized, and see them through from the drawing board to full implementation (Janssen, 2000; Scott and Bruce, 1994). Employees' innovative behavior is broadly claimed to be essential for competitiveness of organizations (Amabile et al., 1996; West and Farr, 1989; 1990), and "thus

the study of what motivates or enables individual innovative behavior is critical" (Scott and Bruce, 1994, 580).

Drawing on West and Farr (1989, 1990) and Scott and Bruce (1994) innovative behavior is defined as the intentional generation/adaption, promotion and implementation of ideas new to and beneficial for the implicated. This definition separates innovative behavior from creativity, as the innovative idea is not required to be completely novel so long as it is new to the unit of adoption - e.g. the department implementing it, and because the focus of innovative behavior is as much on the implementation as on the generation of the idea (Anderson et al., 2014). The definition furthermore restricts innovative behavior to intentional efforts with the purpose of achieving a beneficial outcome. Finally, the implemented innovation can take different forms. It can affect either teaching and learning practice at schools or work process or the end product, it can be radical (fundamental changes) or incremental (small and continuous changes), and it can be technical (tools and technology) or administrative (social structures and human resources) (Gopalakrishnan and Damanpour, 1997).

Cox, Pearce and Perry (2003) propose that one of the ways lateral influence processes may benefit innovation is because the employees often have more expert knowledge within the domain of their idea than do their supervisor. In sum, DLA may constitute a role that relates positively with employees' innovative behavior.

7.2.7 Affective Organizational Commitment and Job Satisfaction

In a few studies, researchers have also found that quality of the supportive leadership, cooperation within the leadership team, and participative decision making (Hulpia et al., 2011; Hulpia and Devos, 2009) is related to teacher's organizational commitment.

Job satisfaction and organizational commitment are among the most investigated attitudes to job and organization, respectively. The former is defined as an attitudinal evaluative judgment of one's job or job experiences (Weiss, 2002), as well as the feelings and emotions based on these evaluations and experiences with work (Price, 2001). The latter, organizational commitment refers to a "psychological state that binds the individual to the organizations" (Allen and Meyer, 1990, 14). Affective commitment is an individual's involvement and

identification with the organization and compared with the two other dimensions of commitment (i.e. continuance and normative commitment) it is the commitment dimension with the strongest relationship with other, attractive variables (Meyer et al., 2002). In this sense, it is connected to an increased dedication to attaining organizational goals, which is closely related to organizational effectiveness (Dee et al., 2006). Job satisfaction and affective commitment are important to both middle managers and employees. Empirical results show a direct relationship between leaders' job dissatisfaction and their absenteeism, turnover, organizational inefficiency and counterproductive behavior. Satisfaction may also influence their relationship with their superior manager, as well as with their employees who are part of their staff (Dormann and Zapf, 2001). Affective commitment is generally negatively related with staff turnover and absenteeism and is positively related with job effort and job performance (Meyer et al., 2002). Theoretically, human agency encompasses an active and engaged relationship with the person's environment (Bandura, 2006). This is clear from the agentic process of intentional acting, which bears a motivational and volitional element. Self-Determination Theory emphasizes this aspect, and conceives of agency in terms of self-determination, i.e., to act autonomously and competently toward self-determined goals (Deci and Ryan, 2000). According to the theory, the latter results in intrinsic motivation, which is both satisfying and engaging. As a result, agency is theoretically associated with an active, sentient state of mind, which we may describe as being psychologically engaged, committed or involved. Based on these theoretical assumptions, I suppose that being more actively engaged in leadership functions may be related to a more affective commitment and job satisfaction. Though empirical studies of middle managers' leadership and attitudes are scarce, one study showed that participative decision-making is positively related with organizational commitment among middle managers in schools (Hulpia et al., 2009). Furthermore, in a study of nurse middle managers, structural empowerment, which may stimulate DLA, was positively related with a middle manager's job satisfaction (Patrick and Laschinger, 2005).

7.3 Conclusion

This chapter describes an initial model of DL (Figure 7.1) in middle management in both schools and iGaming companies arising from documentary data and a review of the relevant literature.

More specifically, I identified some conceptual categories, supporting the choice made regarding them with respect to the specific Maltese context. It has been noted that theory gathered together all the isolated bits of empirical data into a coherent conceptual framework of wider applicability. However, the model is not intended to represent middle management and DL as a 'one size fits all' set of variables and components applicable to all contexts. In fact, this conceptual model is not meant to be the definitive representation of how DL operates in middle management at schools and companies. Rather, it is offered as a model that could be operationalised to guide further empirical research and in this case the exploration of the agentic dimensions (Eacott, 2015; Gurr 2015; Heck and Hallinger, 2005). In fact, while recognising the danger of theoretical models as interpretations of leadership, it can be useful as starting point for understanding and for guiding empirical research on the agentic dimension. (Study 2) which will be tested and explored in the following Chapters.

STUDY 2

Chapter 8. Exploring Distributed Leadership in Middle Management: the quantitative strand

8.1 Introduction

In Chapter 5, I presented the research methodology and the theoretical underpinnings of the adopted methodological approach along with the rationale/justification behind it. Instead, based upon the previous conceptual model (Chapter 7), in this chapter I intend to supplement the DL field of study by investigating the agentic dimension of DL. In fact, the quantitative strand of this mixed method study (Study 2) aims to develop clear DL key concepts and validate a questionnaire scale to measure these concepts in relation to the identified outcome variables. Hence, this study aims to validate measures of middle managers' DL relations with superior manager, peers, and employees in reference, as well as their DL agency.

More specifically, key findings of Study 1 guided the development of a conceptual framework for Study 2, acting also as an anchor for the specific research project. In this sense, conceptual frameworks are "the current version of the researcher's map of the territory being investigated" (Miles et al., 2014, 20). In this study, the conceptual framework went further than Miles et al.'s (2014) definition, in that it synthesized findings from the literature review and from the documentary data. In fact, it guided the selection of variables for the quantitative phase (survey) and the creation of the interview protocol in the qualitative phase.

With respect to the quantitative strand of Study 1 in this chapter I describe and present the empirical techniques applied and, more specifically, details about the research setting and participants, data collection procedures for both sectors and employed instruments. Also, I present the strategies of data analysis and the quantitative findings of this phase. The results of the data analysis are arranged according to hypotheses and presented without discussion, while in the Discussion Chapter of this dissertation results are interpreted considering the research aims. The quantitative part of this thesis was mainly developed during my research stay (1-year) at Aarhus University in Denmark, where I had the opportunity to work with Thomas Jønsson, professor of Work and Organizational acted, who acted as my research advisor. I consulted him and my supervisors for the measurement of DLA in middle management and for data analysis procedures.

8.2 The quantitative strand

Quantitative research methods are useful to discover and investigate the relationships between variables and to test hypotheses (Gall et al., 2007). As stated earlier, DL research remains at either at a conceptual or descriptive level and mostly stems from qualitative case studies of educational institutions (Bolden, 2011). In effect, by adopting the structure - agency analytical model, conceptualizing DL as agency is seen as another side of the same coin. Notably, Tian et al. (2016) argue that compared to the structural dimension, the agentic dimension is considerably understudied i.e. how various members of the organisation pursue personal values and goals in distributed leadership (Tian et al., 2016). In this sense, an important reason for conducting the present study is grounded in the fact that quantitative research is needed to further the predominantly qualitative research of the extant literature. A necessary and requested step forward here is to develop sound measurement instruments that can assess the phenomenon of DL among organizational members, notably for middle managers (Yammarino et al., 2012).

Generally speaking, quantitative analysis has the power to translate the collected data on a phenomenon into quantifiable numbers to facilitate statistical analysis (Muijs, 2004). A quantitative approach basically provides a wealth of facts about phenomena and involves statistical analysis" (Ticehurst and Veal 2000, 20). Among several methodologies, survey research was considered the most appropriate for this project. In fact, this study utilized a quantitative correlational approach to answer the research questions through cross sectional survey data. A cross-sectional study is one that produces a 'snapshot' of a population (in this case, middle managers) at a particular point in time (Cohen et al., 2007). Furthermore, the opportunity to explore cross- sector comparisons gave unique possibilities for combining analyses of variations within dependent and independent variables, thus improving the foundation for new theoretical developments about the DL construct and its operalitation.

8.3 Population of the study

The target population of this study was middle managers from both state schools and iGaming companies. Data was collected using two online surveys, one for the schools and the other for the iGaming sector.

The research setting.

Today, Malta has a tripartite system of state, church and independent schools. Hence, non-state schools in Malta are either Church schools or independent schools. Since the focus of this study is to explore DL in the public sector, a comprehensive list of all the state schools (primary, secondary and middle schools) was obtained thought the official website of the Ministry of Education. As explained in the Introduction, public schools in the Maltese islands are organized in 10 Colleges: 'College' is the legal term chosen to denote the network of schools (n= 10) and the College Principal is the designed educational leader of the College as a whole, while the head of school manages the local school. From the list of Colleges presented below, Mikiel Anton Vassalli College was excluded, since this College caters for the post-secondary sector and not compulsory education in Malta (the focus of this study).

College	Typology of school	N
St. Margaret College	**Primary schools**	
	Cospicua Primary School; Kalkara Primary School; Senglea Primary School; Vittoriosa Primary School; Xghajra Primary School; Zabbar Primary School A; Zabbar Primary School B,	7
	Secondary schools	
	Cospicua Middle School; Verdala Secondary School	2
	Primary schools	
Maria Regina College	Gharghur Primary School; Mellieha Primary School; Mosta Primary School A; Mosta Primary School B Naxxar Primary School; St Paul's Bay Primary School	6
	Secondary schools	
	Mosta Secondary School Mosta Zokrija Secondary School; Naxxar Middle School	9
St. Benedict College	**Primary schools**	
	B'Bugia Primary School; Ghaxaq Primary School; Gudja Primary School; Kirkop Primary School; Mqabba Primary School; Qrendi Primary School; Safi Primary School; Zurrieq Primary School	8
	Secondary School	
	Triq San Gwann; L/O Kirkop; Kirkop Middle School	3
St. Nicholas College	**Primary School**	
	Attard Primary School; Bahrija Primary School; Dingli Primary School; Mgarr Primary School Mtarfa Primary School; Rabat Primary School	6
	Secondary Schools	
	Rabat Middle School; Boys' Secondary School	2
St. Ġorġ Preca College	**Primary School**	
	Floriana Primary School; Hamrun Primary School GP; Hamrun Primary School SS; Marsa Primary School; Paola Primary School A; Paola Primary School B; Pieta Primary School; Valletta Primary School	8
	Secondary School	
	Hamrun Secondary School; Blata l-Bajda Middle School	2
St. Theresa College	**Primary School**	
	B'Kara Primary School; Lija Primary School¸ Msida Primary School¸ St Venera Primary School	4
	Secondary School	
	Secondary School; Middle School; Boys' Secondary School	3
St. Ignatius College	**Primary School**	
	Luqa Primary School; Qormi (SG) Primary School; Qormi (SS) Primary School; Siggiewi Primary School; Zebbug Primary School	5
	Secondary School	
	Handaq Middle School (ex Handaq Girls' Secondary School); Handaq Secondary School (ex-Boys Secondary School)	2
St. Thomas More College	**Primary school**	
	Fgura Primary School A; Fgura Primary School B; M' Scala Primary School; M'Xlokk Primary School Tarxien Primary School; Zejtun Primary School A; Zejtun Primary School B	7
	Secondary School	
	St Lucia Secondary School; Hamrun Boys' Secondary School; Tarxien Middle School; Zejtun Secondary School	4
St. Clare College	**Primary School**	
	Gzira Primary School; Pembroke Primary School San Gwann Primary School; Sliema Primary School; St Julians Primary School	5
	Secondary School	
	Secondary School, Pembroke; Sliema Boys' Secondary School	2
Gozo College	**Primary School**	
	Kercem Primary School; Ghajnsielem Primary School; Gharb Primary School; Nadur Primary School Qala Primary School; San Lawrenz Primary School; Sannat Primary School & Special Unit; Victoria Primary School; Xaghra Primary School; Zebbug Primary School	10
	Secondary School	
	Boys' Secondary School; Middle School, Victoria	2

Tab 8.1 State Maltese schools. Source: Ministry of Education

Definition of middle managers

Educational sector. Based upon the Job Description Handbook for grades and positions within The Directorate for Quality and Standards and the Directorate for Educational Services (2007), middle managers can be defined as individuals working in state primary and secondary schools, holding leadership and management responsibilities, and specifically:

- *Head of Departments (Subject or Group of Subjects*) in primary or secondary schools: who are expected to work together with the College and School educational leadership to ensure high standards of teaching and learning practices and processes. They actively assist the Head of School in ensuring the good professional practice, standards by coordinating the teaching and learning of the subject/s for which one is responsible;
- *Assistant Head of School* who assists and deputises for the Head of School in the efficient and effective management and control of the human, physical and financial resources of the school, and offer professional leadership in the implementation and development of the National Curriculum Framework.

A detailed job description for both positions is reported in Appendix 5.

Business sector. Based upon a review of the literature and following the analysis of job descriptions in the iGaming sector, middle managers are broadly defined as professionals working between an organization's first-level and top-level managers. Their responsibilities include translating organizational goals and strategy into concrete actions; setting goals for departments and divisions in order to materialize the vision of the organization. Also, maintaining worker productivity and employee satisfaction is a large responsibility for middle managers. The titles of these posts vary from company to company depending on their size and include Marketing Managers, IT Managers, Customer Service Managers, HR Managers, Product Managers etc.

Research population in schools. In March 2016 I consulted the Directorate for Research, Lifelong Learning and Employability to identify the population for this research. In total, 455

middle managers (Heads of Department and Assistant Heads) working across all the Maltese state schools (Malta and Gozo) have been identified as the entire research population for this study (Cohen at al., 2007).

Head of Department Primary and Secondary school	158
Assistant Head Primary School	159
Assistant Head Secondary School	138
Total	455

Table. 8.2 Heads of Department and Assistant Heads
(The Directorate for Research, Lifelong Learning and Employability, 2016)

Research Population in the business sector. In March 2016 I consulted Job Plus (The Employment and Training Corporation, the unit of the Ministry for Education and Employment) for the provision of employment statistical data relating to the remote gaming industry. Both NSO (National Statistic Office) and Job Plus use statistical classification of economic activities in line with the European Union/Eurostat guidelines. I was after middle managers working in remote gaming companies (Class 1, 2, 2) classified under the code 'NACE 92': at industry level, in Malta, gambling and betting activities (coded under 'NACE 92') comprise: land-based casinos, gaming parlours, remote gaming companies (Class 1, 2 and 3), lotto receivers and Maltco Lotteries Ltd. After obtaining a formal approval, the Job Plus Unit has provided me the following figures, as shown in the Table below.

Year	(Number of Managers (Nace 92)*
2004	94
2005	127
2006	219
2007	298
2008	357
2009	440
2010	496
2011	542
2012	614
2013	581
2014	623
2015	859
2016	**1029**

Table.8.3 Number of managers in the iGaming industry classified under NACE 92 on a yearly basis from 2004 till 2016

*Managers included are those within ISCO code 1 as per International Standard Classification of Occupations (ISCO) and the period requested was from 2004 (the year of establishment of the MGA - Malta Gaming Authority) to 2016.

In total, 1029 managers were identified as the research population.

8.4 Sampling and data collection procedure

The sample frame in this study included all middle managers working in state schools and iGaming companies in Malta who were targeted with an online survey. For some research initiatives, researchers are able to administer their survey to every member of the group of interest, called the target population (Ross, 2005). In this case, the sampling method was comprehensive, that is, invitations were sent to all middle managers using a sampling which led to greater breadth of information from a larger number of units selected to be representative of the population (Patton, 2015). In the following sections, I detail the data collection procedures for the respective sectors. These strategies were different due to the different organizational contexts (schools and iGaming enterprises).

Education sector

After obtained the necessary authorization from the Directorate for Quality and Standards in Education (see Appendix 4), in February 2017 I emailed a letter to the ten College principals to explain the purpose of the research and to seek their endorsement. All the e-mail addresses of respective schools and Colleges were available on the Ministry of education' repository website. In a dated but actual book, Scatz (1966) consider that is real economy going to the very top of the organization to access the sample population, particularly where the structure is clearly hierarchical. In this study, College Principals represent the top layer of management in the Maltese organizational structure.

Following my e-mails, the College principals found no object to my request and they sent an internal communication to the schools of their Colleges to invite them to participate in the research project. Next, I emailed a letter to the heads of schools of the 10 Colleges (n= 91) to request the e-mail addresses of their middle managers (Assistant Heads and Heads of Department). In my email communication, I briefly presented my research project, assuring confidentiality and voluntary nature of participation. I also asked them to encourage their staff to participate in this research.

After one week from my email, in case of no answers, I have sent an email reminder. In fact, Bailey (2008) showed that follow up can be both by email and by telephone. In addition, a second follow-up has been taken two weeks after the first follow- up. Finally, I made a phone or personal contact with the heads of school who hadn't yet replied to my request. In fact, similarly to Wolf et al., (2016), I experienced that a personal phone call could help to increase response rates, since trusting relationship are more difficult to build via email. In total, I managed to obtain 160 e-mail addresses while 7 heads of schools refused to participate in this research.

Participants (middle managers) were required to complete an online survey. Hence, in April 2017, I sent a personal e-mail to 160 middle managers explaining the purpose of the study and indicating the URL to enable the survey to be completed online. In writing my email, I included recipient' name to enhance the feeling of personalization, being aware that such a practice can have a good impact on the response rates (Cooper and Schindler, 2014; Wolf et al., 2016). Emails were sent to all respondents reminding them to complete the survey before the dateline

which was set after two weeks of the first sending. In case of no responds, I sent reminders to participants but always showing respect for the free will of participants, and not appear too aggressive or become a burden to them (Schirmer, 2009).

25 heads of school refused to share the email addresses of their middle managers. In this case, I sent them the link to the survey with the invitation to distribute it amongst their middle managers. I sent a reminder to them after two weeks of the first sending to assure the widest participation of their middle managers.

Data were collected from April 2017 to September 2017.

Business sector

Given the different organizational setting, I have followed a different procedure for the iGaming sector.

Initial recruitment strategy

The initial strategy to achieve the targeted sample (middle managers) began with following the same sampling procedure for the educational sector. A list of all the iGaming companies and their respective institutional email addresses were obtained from the MGA (Malta Gaming Authority). After, I randomly contacted CEOs or senior managers of all iGaming licensed companies via email to discuss project feasibility and recruitment of targeted respondents. Responses from CEOs and/or HR representatives/senior Managers indicated they could not participate for various reasons including, the desire to avoid accusations of favouritism to other researchers, privacy issues and lack of time etc. Many email messages sent to institutional company address were not returned. In addition, I sought the endorsement of MGA by requesting to distribute the survey amongst their licensees. However, after discussing my request internally, I was advised that MGA was not able to assist me due the considerable numbers of similar received requests.

Thus, the recruitment strategy needed to be adjusted to reach the target population. Given my previous employment as an HR Manager in the sector, I have thus decided to adopt a snowball recruitment procedure (Browne, 2005, Cohen et al., 2007) by contacting managers and iGaming professionals to help me in identifying potential subjects. In fact, when I worked in Malta, I was

part of an HR iGaming community, an informal group of HR professionals (recruiters, HR Managers, HR professional consultants) working in the iGaming sector. In addition, given my familiarity with this sector, I benefited from a broad network of people working in various professional roles, who then acted as 'ambassadors' to recruit managers to participate in study. According to Gall et al. (2007), using a snowball procedure is appropriate for well-situated individuals to identify other appropriate individuals from their own network. If the 'ambassadors' were middle managers, I emailed them the URL to enable them to complete the survey. In case 'ambassadors' were professionals with no managerial responsibility, I sought their support to recruit participants by requiring contact details/ or email addresses of middle managers in the sector. In this case, before contacting them, I asked 'ambassadors' to inform these contacts in advance. Finally, after obtaining the email addresses, I sent them the link to the survey.

Along with this procedure, as suggested by Stokes et al. (2019), I also managed to reach 60 middle managers via LinkedIn, a social network for professionals in the sector. In all cases, I explained to the participants the importance of truthful answers for scientific research and ensured confidentiality by guaranteeing that only the researcher would see individual answers. I have used the same follow- up procedures for middle managers in schools, sending an email reminder after two weeks. In total 180 emails and links to the survey were sent.

8.5 Instrument

A major feature of this work was the creation of two online surveys targeted to middle managers through Qualtrics (www.qualtrics.com): one for the schools and the other for the iGaming companies. Qualtrics is an online survey tool which allows researchers to construct a survey, distributed it to respondents and to report on results.

This study capitalizes on the advantages of the self-administered online survey as it has more effective deployment while being able to receive faster responses from middle managers (Carbonaro and Bainbridge, 2000; Ticehurst and Veal, 2000; Wright, 2005). In fact, an online survey is a practical and affordable technique for data collection from a sample of middle managers which allows statistical analysis of the results (Cohen et al., 2007; Creswell, 2009). Online surveys are less expensive and costly than paper-based surveys, and they guarantee a

rather short time frame for the collection of the responses (Kumar, 2005). In addition, they offer greater anonymity as there is no face-to-face interaction between participants and researcher (Kumar, 2005). In this study, middle managers were busy professionals and it could sometimes be hard to get access to them. In this sense, the online survey allowed me to access participants in an easier manner than traditional survey (Jackson 1993).

Based on the key findings of Study 1, I created an online survey which used validated instruments and a newly developed measure for DLA (Distributed Leadership Agency). Both versions of the survey consisted of 50 questions respectively and they were composed by both previously measures and a newly developed DLA scale. In both cases, the surveys were provided with an opening statement indicating the purpose and importance of the research and explaining how the gathered confidential data were used, thanking respondents for participating in this research. Both surveys ended with a final section requesting some demographic characteristics.

8.6 Pilot study

Pilot studies are often recommended to address a variety of issues, including preliminary scale or instrument development (Bryman and Bell, 2015; Stopher, 2012). Also, Gall et al. (2007) highlight the importance of pilot-testing surveys to enhance validity and reliability of the research instruments. For this reason, before the final form of the survey is constructed, I have conducted a pilot study to detect weaknesses in design and instrumentation (Cooper and Schindler, 2014). In fact, a pilot study has several functions, principally to increase the reliability, validity and practicability of the questionnaire (Oppenheim 2000); to check the clarity of the questionnaire items, instructions and layout; to gain feedback on the validity of the questionnaire items and the operationalization of the constructs. Hence, the surveys were piloted face to face with a set of 20 subject experts, 4 eminent academics who have undertaken prominent research in the leadership field and to 16 middle managers from both sectors. The two surveys were distributed electronically, by using Qualtrics. At the same time, I asked for feedback after the completion of the surveys which enabled me to understand how easy or difficult the questionnaire was to complete (Fogelman and Comber, 2006) and to verify whether the participants had comprehended the style and the wording of the questions. The steps used to

pilot the surveys on this small group of participants are listed in the table below, following Peat et al.' (2002) recommendations.

Pilot study procedures to improve the questionnaire
administer the questionnaire to pilot subjects in exactly the same way as it will be administered in the main study
ask the subjects for feedback to identify ambiguities and difficult questions
Check the time taken to complete the questionnaire and decide whether it is reasonable
discard all unnecessary, difficult or ambiguous questions
assess whether each question gives an adequate range of responses
establish that replies can be interpreted in terms of the information that is required
check that all questions are answered
re-word or re-scale any questions that are not answered as expected
Shorten and revise

Table 8.4 Peat et al.' (2002) recommendations for pilot survey study

After pilot-testing the surveys and receiving feedback from academics and managers, necessary changes were made to the surveys.

8.7 Measures

As indicate earlier the online survey used validated instruments and a newly developed measure for DLA (Distributed Leadership Agency). In the following section, I detail each used data-collection instrument. The relevant information pertaining to each instrument have included (a) the source or developers of the instrument, (b) validity and reliability information, and (c) other salient information (e.g., number of items in each scale, subscales). The measure for Distributed Leadership Agency (DLA) was developed in the context of this study, as no suitable measure was available in the literature.

Attitude to involvement (AI). Attitude to involvement was measured by three items from Jønsson et al. (2016), which focused on the respondent's general belief in positive effects of involving employees in decision-making. The effects comprise of improved organization productivity, leader-employee relations, and employee well-being. The items are:

Q1) Involvement in the organization's decision making is important for the employees' well-being;
Q2) The productivity of the organization is improved if the employees are involved on the organization's decision making;
Q3) Involvement of the employees in the organization's decision-making results in better cooperation

Respondents indicate how strongly they agree or disagree on a five-point Likert-type scale, ranging from 1= “Strongly disagree” to 5= “Strongly Agree”. The Cronbach’s Alpha was 0.90 (Jønsson et al., 2016).

Autonomy (A). This measure was developed by drawing on *Experienced influence* scale in Jeppesen et al. (2011) who asked research participants ‘*How much influence do you experience that you have on. ?*’. The scale measures perceived influence on performing and organizing job tasks. The issues close to the employee’s environment (e.g. how to perform the daily work, organizing the daily work and the working time) constituted the variables that express experienced influence on proximal-level issues (Cronbach’s alpha = 0.82). The pilot study improved the wording of the following questions.

Q22) How much influence do you have on how your daily work is carried out?
Q23) How much influence do you have on how your daily work tasks are organised?
Q24) How much influence do you have on how your working day is organised and scheduled?

Distributed Leadership Agency (DLA) scale. Instrument development and existing DL scales.

With respect to the agentic dimension of DL, the current literature did not provide an adequate quantitative instrument that measures middle managers’ active involvement in leadership tasks (DLA) while the few available scales for DL (Leithwood et al., 2007; Mayrotez, 2008; Hulpia et al., 2009; Heck and Hallinger, 2009) did not focus on an agentic perspective.

Given these premises, based on the literature review on the DL models, I reviewed some instruments that survey the distribution of employees’ active participation in leadership tasks but unfortunately the few extant scales failed to meet this end. For example, Leithwood et al. (2007) measured their 2×2 model of DL. The four DL patterns were operationalized with a single item tapping into whether a school organization is characterized by DL in the shapes of a planful or spontaneous alignment, or a spontaneous or anarchic misalignment. Neither scale focused on leadership tasks and activities nor on any agentic involvement in these. This is in discord with with Mayrowetz’s (2008) recommendations to investigate DL on an activity theory

basis, while Heck and Hallinger (2009) did consider an activity approach, as they applied existing items post hoc from an already existing survey. The items asked to what extent the school leadership improved by empowering students and staff and complied with school governance and resource management and development. These school leadership tasks were specific to schools, and therefore not applicable to other organizational contexts. Hulpia et al. (2009) provide a DL measure based on three dimensions: 1) quality and distribution of leadership functions within the leadership team; 2) cooperation within the leadership team; 3) participative school decision- making by teachers. The first dimension includes an agentic perspective by asking for the distribution of two leadership functions: supportive and supervisory leadership functions. However, I assume that leadership tasks comprehend more than these two functions, and by only asking for the distribution within the leadership team, emergent bottom-up leadership forms are not considered. Thus, reviewing the few extant scales that measure DL, it was my conviction that they lack theoretical validity in terms of specific leadership activities and agentic perspective, which are the theoretical basis for my concept of DL. Moreover, reliability can be compromised in the use of scales applying single items.

To the best of my knowledge, the only instrument found in DL literature was Jønsson et al.' (2016) DLA scale that can measure DL as employees' active participation in DL tasks. However, this reliable instrument was validated and developed in the health sector with employees (not middle managers) and in another national context (Denmark) in which culture (e.g. power distance) and labor market traditions incorporate participative and democratic values.

Given the above considerations, I followed a well-established procedure to develop a reliable and valid measure of DLA. In fact, the key to successful item generation is the development of a well- articulated theoretical foundation that would indicate the content domain for the new measure (Cohen et al., 2007). To this end, based on the previous mentioned theoretical analysis for the three broad dimensions (organizational change, relation and task) of DL, I generated items based upon Jønsson et al. (2016) DLA scale. Each leadership category includes specific behavior components that must be observable by others and must be potentially applicable to all types of leaders within an organization. Jønsson et al. (2016) developed a scale with 11 items that measures the degree to which organizational members experience being actively involved

in leadership activities within organizational change (change), managing tasks (task) and strengthening social relations at work (relation). Jønsson et al. (2016) could not empirically confirm the theoretically derived three-factor structure because the dimensions correlated too highly with each other, hence consequently suggesting computing one overall factor. As such, the results revealed a unidimensional measure with good model fits and high internal consistency.

In addition, since the purpose of this study was to explore the leadership configurations that emerge when different interactants enter the leadership space, I combine Jønsson's (2016) approach with Gronn' s concept of leadership configurations (2009; 2017) to map the different leadership configurations and the interplay of different sources of leadership influences. This approach is best suited for middle management, since being in the 'middle', middle managers in both state schools and private iGaming companies deal with different sources of influences, configuring different levels of leadership interactions as detailed below.

Level of interactions of middle managers	**School**	**Private**
1) Top managers	Head of school	CEO, or other top managers
2) Peers	Colleagues of similar status, Assistant Head or Heads of Department	Colleagues of similar status
3) Employees who report to them	Members of the schools (teachers and other staff)	Member of the team

Table 8.5 Levels of interaction of middle managers

According to the developed theoretical assumptions, which are represented in Fig 8.1, middle managers distribute leadership and participate in leadership functions with a reciprocal influence in upward (with a superior manager), peer (with peer middle managers) and downward (with employees) relationship. Hence, items were developed for the respective DL configurations (Upward, Peer, Downwards) forming respectively theoretically three dimensions, notably 1) DLA upward, 2) DLA peer; and 3) DLA downward. More specifically, for each dimension, I generated respectively three items for the three leadership meta- category (organizational change, relation, and task) and the levels of influence with two items influencing directions to form a reciprocal influence in each relationship between the middle manager and the

configurational reference (upward with a superior manager, peer with other managers of similar status, and downward with employees).

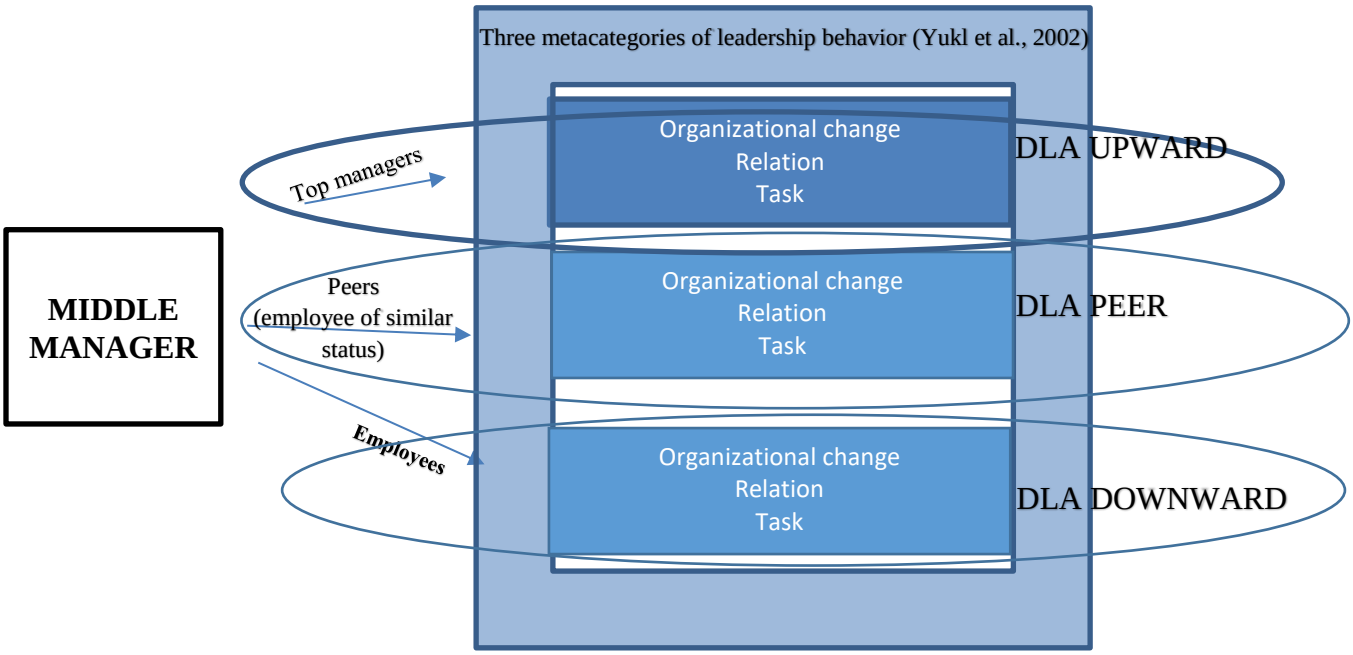

Fig. 8.1 Levels of Leadership configurations

In total, 15 items were developed, 5 for each DL configuration (DLA Upward items: Q4, Q5, Q6, Q7, Q8; DLA Peer items: Q9, Q10, Q11, Q12, Q13: DLA Downward items Q14, Q15, Q16, Q17, Q18)

During the pilot study, I then invited 20 subject experts, to ensure the adequacy of the content domain of the three new dimensions (content validity). The 4 academics (2 experts in education and 2 in business) were active researchers and lecturers on leadership topics; the 16 professionals commented from a middle managers' point of view. I gave participants newly development items of the dimensions and asked them to recall behavioral examples or definition of the three meta-categories. Further, their feedback enabled me to see how easy or difficult the questionnaire was to complete (Fogelman and Comber, 2006). In fact, my purpose was to verify whether the participants had comprehended the style the length, the scale and the format of the questionnaire. At the end of this process and thanks to their feedback, I decided to make some changes to the presentation of the instrument, including more statements related to the topic, to

present questions in a clearer manner. For example, based on the process results, I adjusted the introduction to the scale to ensure that the respondents would comprehend the items correctly. It reads: "In this section, we are interested to know how leadership responsibilities and tasks are distributed between your direct manager (i.e. the head of school or CEO), other middle managers (other middle managers) or employees who report to you (i.e. teaching staff or team staff). Based on your experience as a middle manager in your organization, please answer the following questions". The final version of the DLA measure for middle managers is included in the Appendix 5. Sample items for one level of configuration (DLA Upward) are:

Final version for schools

	Leadership functions	**Items**
DLA UPWARD ITEMS	*Organizational change – Head of school*	Q4) How actively engaged are you in collaborating with your manager (i.e. head of school) on managing changes? (e.g. changing teaching/learning practise and processes...)
	Task – Head of school	Q5) How actively engaged are you in collaborating with your manager on ensuring that tasks are organised and carried out in an efficient manner?
	Relation- Head of school	Q6) How actively engaged are you in collaborating with your manager on ensuring there are good conditions for employees' development and well-being? (e.g. providing recognition, training opportunities, creating a nice workplace...)?
	Influence	Q7) How influential are you in this collaboration?
	Influence	Q8) How influential is your manager in this collaboration?

Final version for companies

	Organizational change	Items
DLA UPWARD ITEMS	*Organizational change – Top manager*	Q4) How actively engaged are you in collaborating with your manager on managing changes? (e.g. changing organisational processes, products, and/or services...)
	Organizational change – Top manager	Q5) How actively engaged are you in collaborating with your manager on ensuring that tasks are organised and carried out in an efficient manner?
	Organizational change Top manager	Q6) How actively engaged are you in collaborating with your manager on ensuring there are good conditions for employees' development and well-being? (e.g. providing recognition, training opportunities, creating a nice workplace...)?
	Influence	Q7) How influential are you in this collaboration?
	Influence	Q8) How influential is your manager in this collaboration?

The answer format ranged from "1 = not at all" to "5 = "Extremely".

Innovative behaviour (IB). Innovative behavior is a self-reported measure based on a construct by Janssen (2001, 2004) and Scott and Bruce (1994), which has been employed before in both the private and public sectors (e.g., Bysted and Hansen, 2015), and good validity has been reported. This instrument captures three dimensions of employees' self-rating: idea generation, idea promotion and idea realization. A sample item is: "I'm creating new ideas for improvements "I search out new working methods, techniques, or instruments", "I mobilize support for innovative ideas", "I transform innovative ideas into useful applications". After piloting this scale, I have decided to remove two items because almost all the respondents to the pilot (n= 17 of 20) reported that some items were not well understood. In addition, I emailed with no success the author to ask for the original version of the scale (in Dutch), since I used the English translation. In any case, I piloted the items and reliability of the instrument was checked.

Self-rate performance. The instrument used to measure performance was developed for the present research to measure overall performance on the job as perceived by middle managers. This measure was inspired by four-item scale taken from the work of Baird (1977) which identified fours dimensions of evaluation of performance: effort; quality; quantity, overall performance. The scale's Cronbach's alpha was 0.86.

In the current study, perceptions of performance were distinguished in two dimensions:

1) *Department performance* referred to the unit/team (departmental performance) a middle manager supervises (4 items). Examples of items are

Q22a) How do you evaluate the productivity of your department?
Q22b) How do you evaluate the quality of work?

Middle managers were asked to rate the performance of their department/team on a scale from 0 (worst possible) to 100 (extremely good)

2) *Organizational performance* referred to organizational level (at school or company level). Example of items are

Version for schools:

Q23) This school provides its students with high quality education
Q24) This school uses its resources optimally to be productive.

Version for companies

Q23)This company provides its customers with high quality products
Q24) This company uses its resources optimally to be productive

Reponses were given on a seven-point Likert scale from "1= Strongly disagree" to "7=Strongly agree".

The scores on dimensions were added to obtain an overall measure of performance.

Affective organizational commitment (AOC) was measured using the six-item scale developed by Meyer et al. (1993). Cronbach's alpha = 0.82. Examples of items are.

Q34) I would be very happy to spend the rest of my career with my organization
Q35) I really feel as if my organization´s problems are my own

Answers were given on a seven-point scale from "1= Strongly disagree" to "7= Strongly agree"

Job satisfaction (JS). Job satisfaction was measured with one overall item: "*How satisfied are you overall in your current job?*". Constructs formulated from multiple items are sometimes preferred, but in line with Scarpello and Campbell (1983), I argue that a global rating of overall

job satisfaction can be assessed as a more inclusive measure. In addition, Wanous and Reichers (1996) estimated that single items of job satisfaction were reliable as they tended to correlate 0.70 with full scales. Reponses were given on a seven-point Likert scale from “1=extremely dissatisfied” to “7=extremely satisfied”.

Demographic section. The demographic section of the survey included questions that sought information regarding age, gender, job positions, level of education, number of years of total managerial experience, number of years of middle management experience in that school/company, number of supervised people while the school demographic questions inquired about school/company size. In addition, a final question on the survey asked participants if they were willing to be interviewed at a future time for the second phase of research.

8.8 The sample characteristics

The resulting sample of participants were 116 iGaming middle managers and 100 school middle managers; however, after deletion of incomplete answers and/or blank questionnaires, the number of actual respondents in the present study amounted to 206, 87 iGaming middle managers and 89 school middle managers. They all voluntarily (self-selected) answered the surveys.

Taken together, middle managers’ age ranged from 23 to 61 years old. Specifically, school middle managers’ age ranged from 33 to 61 years old and iGaming middle managers’ age from to 23 to 59 years old. Mean age for iGaming middle managers (n= 86) is 34.30 (S.D. 6,24) while male iGaming managers (n= 57) are almost the double than female iGaming managers (n= 30) in the identified sample.

In the school sector, the mean age is higher (n= 89; mean: 44,61; S.D. 6,81) and in comparison, to the iGaming sector, the sample is composed by more female (n=58) than male (n=31).

Figure 8.2 displays the frequency of age categories across the two sub-samples (iGaming companies and schools). 40.35% of iGaming managers were in the age category of 19-39 while 11.36% of school managers were within the same age category. On the other hand, 37.5% of school managers were in the age category of 40-59 and only 1.70% of the school population

>60. Instead, in comparison to the school managers, only 9.09 % of the iGaming manager were > of 40- Hence there seems to be differences between iGaming and school Managers with respect to the age category since the iGaming population is younger than the school population.

Gender (iGaming)	
	Frequency
Male	57
Female	30
Total	87
Gender (school)	
	Frequency
Male	31
Female	58
Total	89

Table 8.6. Characteristics of Participants (Gender)

Education (Gaming)	
	Frequency
High school	20
Bachelor's degree	37
Master's degree	25
Professional degree	5
Education (School)	
	Frequency
High school	2
Bachelor's degree	42
Master's degree	42
Professional degree	3

Tab.8.7 Characteristics of Participants (Education)

In terms of qualification, the majority of school managers have graduated with a Bachelor (n=42) or a Master's Degree (n=42). With respect to the iGaming population, 34 managers have a Bachelors' degree and only 25 have a Master's degree. The difference between school and iGaming with respect to their qualifications is due to the fact that a degree is an entry requirement to become a middle manager in schools.

Age of respondents (iGaming)			
	Frequency		
18-29	19		
30-39	52		
40-49	13		
50-59	3		
Age of respondents (School)			
	Frequency		
18-29	0		
30-39	20		
40-49	51		
50-59	15		
>60	3		

Tab. 8. 8 Characteristics of Participants (Age of respondents)

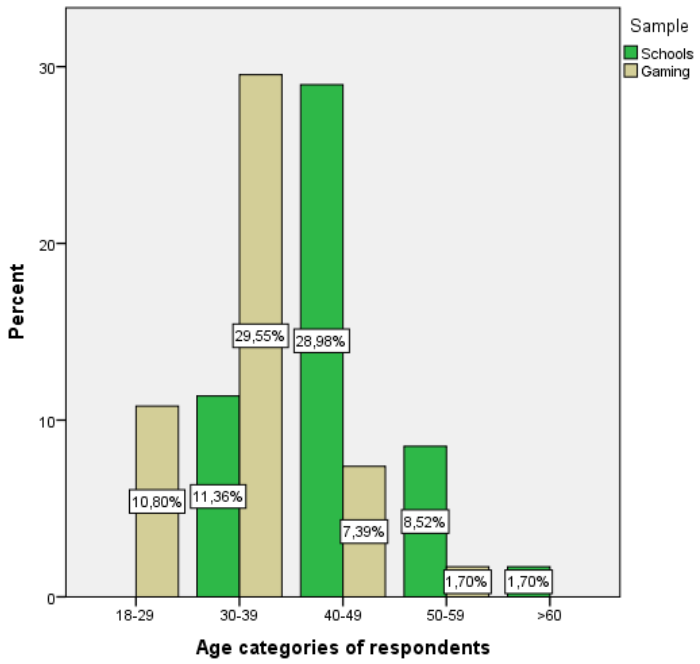

Figure 8.2. Age categories

A Chi-square independence test evaluates if two categorical variables are associated in the two subsamples (Gaming and schools). It should be refuted the null hypothesis that two categorical variables are (perfectly) independent in the subsamples. Chi-square tests for independence were used to compare baseline characteristics of middle managers who work in the private and public sectors. As can be seen by the frequencies cross tabulated in Table 8.9, a significant relationship was observed between Age and Sectors in which middle managers work; between Gender and Sectors in which middle managers work and between type of Education and Sector in which middle managers.

In this case p.=< 0.000 so I reject the null hypothesis that the variables are independent in the entire population.

Characteristic		School	Gaming	Total	Chi square test of independence
Age categories					
18-29	Count	0	19	19	**χ2 (4) N=176, N=66.77, p < .000**
	Expected Count	9.6	9.4	19	
30-39	Count	20	52	72	
	Expected Count	36.4	35.6	72	
40-49	Count	51	13	64	
	Expected Count	32.4	31.6	64	
50-59	Count	15	3	18	
	Expected Count	9.1	8.9	18	
>60	Count	3	0	3	
	Expected Count	1.5	1.5	3	
Gender					
Male	Count	31	57	88	**χ2 (1) N=176, N=16.57, p < .000**
	Expected Count	44.5	43.5	88.0	
Female	Count	58	30	88	
	Expected Count	44.5	43.5	88.0	
Education					
High school graduate	Count	2	20	22	**χ2 (3) N=176, N=19.83, p < .000**
	Expected Count	11.1	10.9	22.0	
Bachelor's degree	Count	42	37	79	
	Expected Count	39.9	39.1	79.0	
Master's degree	Count	42	25	67	
	Expected Count	33.9	33.1	67.0	
Professional degree	Count	3	5	8	
	Expected Count	4	4	8.0	

Tab. 8.9 Chi Square test

8.9 Data analysis

After the data collection process had finished, the next step, which is sorting out data, was one of the most challenging. The next section is dedicated to explain the data analysis procedures

followed by a presentation and a discussion of the findings. The data were analyzed using SPSS 22. Specifically, data analysis was performed in two parts. First, the survey data was entered into version 22 of SPSS on my personal computer. Descriptive statistics were calculated on all variables as well as inferential statistics. Several statistical techniques were used including exploratory factor analysis (EFA) and correlations. The significance level for the tests used in this study was set at 5%. Gall et al. (2007), Bryman (2012) and Punch (2014) refer to 5% significance level as an accepted cut-off level of significance in social sciences research. Second, the confirmatory factor analysis (CFA) was conducted to estimate the overall fit, construct reliability, convergent validity and discriminant validity (Anderson and Gerbing, 1988). To test and confirm my hypotheses, I consulted Thomas Jønsson, who acted as advisor for this part of the statistical analysis. He used AMOS software to examine the factor model by using confirmatory factor analyses (CFA), which will be explained in the following sections (See also Appendix 11 for an account of this process by Jønsson).

8.9.1 Preliminary analysis

According to Tabachnick and Fidell (2012), for large samples (200+) the presence of skewness and kurtosis in the data set will not make an essential difference to the analysis. However, a preliminary analysis was conducted on the to assess level to assess properties of the distribution of scores. In fact, skewness and kurtosis statistics are used to assess the normality of a continuous variable's distribution.

In general, values for asymmetry and kurtosis between -2 and +2 are considered acceptable in order to prove normal univariate distribution (George and Mallery, 2010). For almost all the measures, the distribution of data set was nearly normal and homoscedastic. However, the following items exhibited a significant high kurtosis (Q1, Q2 and Q3, *Attitude of Involvement*; Q22d, *Department Performance*) and a slightly high kurtosis (Q40, *Job Satisfaction*). A distribution with positive kurtosis has many scores in the tails (a so-called heavy-tailed distribution or leptokurtic distribution) (Field, 2013).

Items	N		M	SD	Skewness		Kurtosis	
	Valid	Missing			Skewness	SD	Kurtosis	SD
Q1	203	3	4,49	,786	-2,294	,171	6,892	,340
Q2	204	2	4,39	,802	-1,927	,170	5,218	,339
Q3	204	2	4,50	,766	-2,311	,170	7,390	,339
Q22d	179	27	81,88	12,49	-2,192	,182	10,331	,361
Q40	178	28	5,85	1,167	-1,644	,182	3,178	,362

Table 8.10 Items analysis

8.10 Correlations

Correlations were calculated to identify significant relationships found across items and variables in the data (Muijs, 2004). The Pearson product- moment coefficient was represented by *r*. The correlation could range from -1.00 to 1.00. A high positive value represents a high positive relationship while a negative value represents a negative relationship (McMillan and Schumacher, 2010). Since the explorative nature of this work, I decided to adopt a 2 -tailed hypothesis testing because my aim is to test for the possibility of the relationship among the variables in both directions. In the following section, I report the significant relationships between DLA items, forming part of the newly developed scale (DLA measure) and the identified variables (Autonomy, Attitude to Involvement, Innovation, Perceived Performance, Affective Commitment and Job Satisfaction). Based on the data analysis, some initial research hypotheses were developed for the current study.

	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18
Q4 N	**1** 191														
Q5 N	,765** 191	1 191													
Q6 N	,523** 191	,557** 191	1 191												
Q7 N	,491** 191	,465** 191	,548** 191	1 191											
Q8 N	,321** 191	,322** 191	,213** 191	,246** 191	1 -										
Q9 N	,291** 186	,257** 186	,199** 186	,200** 186	-	1 186									
Q10 N	,306** 186	,293** 186	,155* 186	,211** 186	-	,710** 186	1 186								
Q11 N	,251** 186	,273** 186	,475** 186	,307** 186	-	,629** 186	,599** 186	1 186							
Q12 N	,289** 186	,265** 186	,417** 186	,453** 186	-	,545** 186	,562** 186	,693** 186	1 186						
Q13 N	,265** 186	,219** 186	,251** 186	,321** 186	,252** 186	,611** 186	,548** 186	,645** 186	,720** 186	1 186					
Q14 N	,301** 181	,257** 181	,302** 181	,385** 181	-	,353** 181	,352** 181	,330** 181	,341** 181	,237** 181	1 181				
Q15 N	,227** 181	,306** 181	,291** 181	,316** 181	-	,326** 181	,420** 181	,326** 181	,341** 181	,252** 181	,687** 181	1 181			
Q16 N	,196** 181	,297** 181	,516** 181	,414** 181	-	,243** 181	,255** 181	,490** 181	,437** 181	,294** 181	,635** 181	,600** 181	1 181		
Q17 N	,276** 181	,312** 181	,482** 181	,494** 181	-	,275** 181	,264** 181	,428** 181	,584** 181	,363** 181	,572** 181	,577** 181	,713** 181	1 181	
Q18 N	,297** 181	,272** 181	,466** 181	,476** 181	,161* 181	,332** 181	,274** 181	,438** 181	,538** 181	,411** 181	,550** 181	,434** 181	,638** 181	,678** 181	1 181

***. Correlation is significant at the 0.01 level (2-tailed).*
**. Correlation is significant at the 0.05 level (2-tailed*

Table 8.11 Correlations between DLA items

DLA scale (newly developed measure)

The data provided in Table 8.11 shows that there are significant and positive relationships between all the items (except for Q8). of the newly developed DLA scale, and consequentially among the identified dimensions (DLA Upward, DLA Peers and DLA Downward. (In fact, the results show that these items correlate quite strongly. Since the three foci of DLA are strongly intercorrelated, it seems the middle managers delegate to peers and to employees that report to them the leadership they 'have' from their top leaders.

Based on these results and on the previous theoretical assumptions, an initial hypothesis was developed. In fact, DLA was operationalized as an individual total involvement in DL configurations, while DL configurations (DLA Upward, DLA peers and DLA Downward) denote the distribution of leadership functions and reciprocal influence. Hence, DL configurations must be comprehended at a relational and/or collective level of analysis. In contrast, DLA belong to an individual level of analysis as the experiential impact of the totality of leadership actions within leadership configurations.

For the purpose of measurement and operationalization and based on the above-mentioned notions, the following hypothesis were developed:

Middle managers' DLA could be measured as a middle manager's participation in task, relation and change leadership in a reciprocal influence with his or her manager, peers and employees. Consequentially, DLA could be measured as the total influence of DL configurations on a person.

Autonomy

	Autonomy Items		
	Q19	**Q20**	**Q21**
Q8	,269**	,232**	,207**
Q14	,315**	,315**	,319**
Q15	,319**	,419**	,302**
Q16	,254**	,220**	,240**
Q17	,424**	,394**	,441**
Q18	,253**	,258**	,260**

***. Correlation is significant at the 0.01 level (2-tailed).*
**. Correlation is significant at the 0.05 level (2-tailed).*
n=178

Table 8.12 Correlation between DLA items and Autonomy Items

Based on the above correlation, the data suggests that there is a positive relationship between all the items of DLA Downwards (Q14, Q15, Q16, Q17, Q18) and Autonomy (Q19, Q20, Q21 items); it was not found significant relationship between DLA upwards (except for Item Q8) and DLA Peers items and Job autonomy for middle managers. With respect to the purpose of validating the measurement of DLA, results about such a relationship can also provide discriminant and convergent validity. In fact, theoretically, DLA is not the same thing as autonomy, yet the two should be related, and a moderately sized association between Job Autonomy and DLA may support that I validly measure DLA.

Given this premise, the more DLA middle managers experience, the more autonomy they will have.

Attitude to Involvement (AI)

No significant correlations were found between all the DLA items and Attitude of Involvement. Since DL constructs deal with actual DL in terms of people and agency, the construct should be behavioral rather than attitudinal (Spector et al., 2017). In fact, attitude to involvement is a general belief or a generalized evaluation that involving employee is a ‘good thing’. Instead, DLA refers to a person’s capacities for- and experiences with actions (behaviours) intended toward leading others toward organizational goals (within task, relation and organizational

change). Though middle managers' attitude to employee involvement can stem from successful practices (Fenton-O'Creevy, 2001), the two concepts are different. Moreover, in order to establish validity, such an attitude should not bias the respondents' answers about their DLA. Hence, discriminant validity would require that the two concepts do not correlate (or at least do not correlate strongly) (Jønsson et al., 2016). This leads to this claim about discriminant validity:

DLA should not correlate with an Attitude to employee involvement

DL, performance and Innovation

	DEPARTMENT PERFORMANCE				ORGANIZATIONAL PERFORMANCE				INNOVATION						
DLA ITEMS	**Q22a**	**Q22b**	**Q22c**	**Q22d**	**Q23**	**Q24**	**Q25**	**Q26**	**Q27**	**Q28**	**Q29**	**Q30**	**Q31**	**Q32**	**Q33**
Q4	**,230****	**,156***	**,231***	**,303****	**,258***	**,228****	**,157***	**,232***	**,240****	**,231****	**-**	**,153***	**,240****	**,228****	**-**
Q5	,261**	,176*	,224**	,304**	,236**	,187*	,152*	,243**	,208**	,232**	,098	,154*	,222**	,230**	-
Q6	,230**	,228**	,156*	,269**	,354**	,257**	,316**	,324**	,179*	-	,148*	,205**	,199**	,254**	,174*
Q7	,198**	-	,228**	,277**	,237**	,149*	,125	,233**	,360**	,236**	-	,223**	,173*	,317**	,180*
Q8	-	-	,164*	-	-	-	-	-	-	,172*	-	-	,218**	,250**	,202**
Q9	,169*	,186*	-	,217**	,194**	-	,176*	,155*	,202**	,205**	,179*	,155*	,165*	,204**	,233**
Q10	,178*	,181*	-	,205**	,174*	-	-	-	,278**	,210**	,171*	,134	,057	,186*	,174*
Q11		,171*	-	,173*	,226**	,150*	,213**	,185*	-	,187*	-	,214**	-	-	,111
Q12	,243**	,179*	-	,229**	,273**	,157*	,167*	,249**	,283**	-	-	,192*	,133	,232**	,190*
Q13	,182*	,172*	-	-	,224**	,184*	,148*	,208**	,313**	,214**	-	,199**	-	,244**	,243**
Q14	,181*	,282**	,204**	,324**	,155*	-	-	-	,416**	,330**	-	,233**	,173*	,225**	,258**
Q15	,213**	,298**	,255**	,299**	,217**	-	-	-	,381**	,332**	,166*	,263**	,194**	,255**	,291**
Q16	,210**	,207**	-	,192**	,204**	-	-	-	,270**	,270**	-	,191*	,187*	,225**	,095
Q17	,237**	,179*	-	,234**	,200**	-	-	-	,339**	,188*	,126	,225**	,188*	,270**	,256**
Q18	,222**	,229**	,154*	,264**	,222**	,182*	,192*	,268**	,360**	,274**	,175*	,371**	,295**	,345**	,334**

***. Correlation is significant at the 0.01 level (2-tailed).*
**. Correlation is significant at the 0.05 level (2-tailed).*
N=179

Tab. 8.13 Correlation between DLA items, Performance and Innovation

Affective Commitment and Job Satisfaction

	AFFECTIVE ORGANIZATIONAL COMMITMENT						JOB SATISFACTION
DLA ITEMS	**Q34**	**Q35**	**Q36**	**Q37**	**Q38**	**Q39**	**Q40**
Q4	,322**	,324**	,317**	,388**	,411**	,395**	,293**
Q5	,191*	,293**	,302**	,395**	,402**	,366**	,257**
Q6	,291**	,299**	,317**	,290**	,358**	,353**	,296**
Q7	,272**	,235**	,250**	,336**	,335**	,334**	,395**
Q8	-	,181*	-	,167*	,138	-	,160*
Q9	,149*	,165*	-	-	,204**	-	,207**
Q10	,186*	,237**	-	-	,186*	-	,139
Q11	,180*		,160*	,229**	,312**	,213**	,226**
Q12	-	,234**		,188*	,253**	,194**	,261**
Q13	,202**	,235**	,161*	,228**	,220**	,181*	,199**
Q14	,181*	-	-	-	-	-	,190*
Q15	-	,148*		-	,177*	-	-
Q16	-	-	-	-	,153*	-	-
Q17	-	,161*			,233**	,157*	-
Q18	,177*	,256**	,204**	,250**	,297**	,255**	,199**

***. Correlation is significant at the 0.01 level (2-tailed).*
**. Correlation is significant at the 0.05 level (2-tailed).*
N=178

Table 8.14 Correlation between DLA items, Commitment and Job Satisfaction

Data suggests there is a positive relationship between DLA items and job satisfaction, affective commitment, innovation and perceived performance items respectively. However, there are some differences. For example, DLA peer items are less or not related to outcomes (innovation or perceived performance): it seems that the role of peers doesn't seem significant when it comes to performance or innovation.

In general, I could interpret such findings as supporting the predictive validity of the DLA measurement. In other words, if I measure DLA correctly, it should be related to job satisfaction and affective commitment: that is

The more DLA a middle manager experiences, the more satisfied he or she will be with their middle manager job.

The more engaged in DLA, the more affectively committed to the organization a middle manager will be.

In addition, positive relationships have been found between DLA items and both middle managers' innovative behavior and perceived performance. I therefore propose a linear relationship between DLA and innovative behavior, that is, the more employees take part in distributed leadership, the more innovative behavior they will display. Also, I propose that DLA is positively associated to perceived performance

DLA is positively related to innovative behavior
DLA is positively related to perceived performance.

It's important to remember that correlation coefficients give no indication of the direction of causality., but the absence of a correlation demonstrates no causality. So, in this case, although I can conclude that there is a positive association between the two variables (DLA and other dimensions) I cannot argue that DLA affect managers to be more efficient or innovative.

8.11 Factor analysis.

Factor analysis is a method of grouping together variables which have something in common. It is a process which enabled me to take a set of variables and reduce them to a smaller number of underlying factors which account for as many variables as possible (Gall et al., 2007). According to Eysenck (1953, 107) a factor can be defined as a "contended statement of relationships between a set of variables which is in agreement with a prediction based on theoretical analysis"

There are two major classes of factor analysis: Exploratory Factor Analysis (EFA), and Confirmatory Factor Analysis (CFA). Broadly speaking EFA is heuristic. In EFA, the researcher has no expectations of the number or nature of the variables and it is exploratory in nature. That is, it allows the researcher to explore the main dimensions to generate a theory, or model from a relatively large set of latent constructs often represented by a set of items (Fabrigar et al., 2012). Whereas, in CFA the researcher uses this approach to test a proposed theory (CFA is a form of structural equation modelling), or model and in contrast to EFA, has assumptions and expectations based on priori theory regarding the number of factors, and which factor theories or models best fit. Furthermore, EFA provides procedure for determine an appropriate number of factors and the pattern of factor loading form the data. In contrast, CFA requires a research to specify a number of factor. In this case, both EFA and CFA were carried out in two distinct phases. In fact, the data were analysed using SPSS 22 and AMOS software.

First EFA was performed on all the 15 items of the newly developed DLA scale with SPSS 22. In fact, it is common practice to proceed to evaluation after EFA. In order to strengthen and confirm the results, AMOS was used to examine the measurement model by using CFA for all the measures. The CFA was conducted to estimate the overall fit, construct reliability, convergent validity and discriminant validity (Anderson and Gerbing, 1988). For the purpose

of validation, this kind of analysis was conducted by Thomas Jønsson, because of his previous work on the validation scale (2016) and because AMOS software was not available to me.

8.11.1 Exploratory Analysis

Pallant (2010) discussed two steps which are required to check the suitability of the data for factor analysis. The first step was to compute correlation matrix for all the items which make up all the variables in order to understand see whether there are significant correlations between items (Bryman and Cramer 2011). In other words, if the question items measure the same underlying dimension (or dimensions) then I would expect them to correlate with each other. Hence, once I examined the correlation matrix of all the variables and verified that there are significant correlations between the items, a decision was made to run an exploratory factor analysis. In addition, there are two main issues to take into consideration to determine whether a particular set of data is appropriate for EFA; number of samples (sample size) and the strength of the relationship between indicators (variables) Pallant (2010). The Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity, measures of sampling adequacy, were used to assess the sample size of the entire sample, that is managers in schools and iGaming companies (Norusis, 2012; Pallant, 2010). The Kaiser-Meyer-Okin verified the sampling adequacy for the analysis. Kaiser (1974) recommended accepting values greater than 0.5. As can be seen in Table 8.15, KMO = 0.82 ('great' to Field, 2013). Instead, Bartlett's Test of Sphericity should be significant ($p < .05$) to consider the sample size as suitable and reject the null hypothesis that all correlation coefficients are 0. Bartlett's test is significant ($p < 0.001$). For these data, the results of both measures are shown in the Table below.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,826
Bartlett's Test of Sphericity	Approx. Chi-quadrato	5275,705
	Df	1035
	Sig.	,000

Table 8.15 KMO and Bartlett's Test

As showed, a factorization of the matrix can be performed.

Generally speaking, carrying out EFA involves three distinct stages: 1) extraction; 2) rotation; 3) interpretation

1) Factor extraction.

Factor extraction is the method of identifying the components that best characterize a set of variables. Principal components analysis (PCA) is the most popular among three factor extraction methods (Conway and Huffcutt, 2003; Henson and Roberts, 2006). The goal of PCA is data reduction, that is reducing a large number of variables to a smaller set of components that account for a large amount of observed variance (Kashy et al., 2009). By explaining all the variance in any particular correlation matrix (Kline, 2014), PCA assumes that there is as much variance to be analyzed as the number of achieved variables. Hence, all the variance can be explained by extracted components (Pett et al., 2003). This process simplified my data and allowed for the development of a more parsimonious presentation of the data. Also, there are a number of methods that might be used to help in making decision regarding determining the smaller number of factors that should be retained. One of the most frequently used methods is known as the Eigen value rules or the Kaiser's criteria. Under this criterion, components with an Eigen value larger than 1 are retained, or factors which explain a total of 70-80% of the variance are retained. In addition to the Eigen value, I used the scree plot to determine the underlying factors for each measure. A scree plot shows the eigenvalues on the y-axis and the number of factors on the x-axis and it always displays a downward curve. The point where the slope of the curve is clearly leveling off (the "elbow) indicates the number of factors that should be generated by the analysis.

Factor rotation Once factors have been extracted, it is possible to calculate to what degree variables load onto these factors to better interpret the relationships that exist among the factors (Field, 2013). Rotation methods are either orthogonal or oblique. Simply put, orthogonal rotation methods assume that the factors in the analysis are uncorrelated, that is the factors are rotated such that they are always at right angles (90 degrees) to each other. This means the correlation between the factors is zero (Kerlinger and Lee, 2000). Instead, in the oblique rotation, the factors remain correlated. The choice of rotation depends on whether there is a good theoretical reason to suppose that the factors should be related or independent. According to Brown (2009), both methods of factor rotation should lead to similar results, although orthogonal solutions are easier to interpret. With respect to the DLA measure for middle managers, as shown earlier, there are theoretical grounds to think that the three theoretical configurations of DLA (DLA with superior; DLA with peers; DLA with employees who report to middle managers) might correlate. Therefore, oblique rotation has been selected.

In addition, a principal axis factor analysis was conducted respectively on all the items of the respective measures (Attitude to Involvement; Autonomy; Department Performance; Organizational Performance; Innovation; Organizational Commitment). Factor analysis on all the respective items indicated one factor for all the respective measures. These factors are taken as valid because they have an eigenvalue greater than 1 (Coakes and Steed, 2003).

8.12 Reliability and validity

The reliability, which refers to "a matter of whether a particular technique, applied repeatedly to the same object, yields the same result each time" (Babbie, 2014, 152), and validity, which refers to "the correctness and truthfulness of an inference that is made from the results of a research study" (Christensen et al., 2014, 159). In this study validity was examined based on whether the survey content and construct measured the phenomenon that it was supposed to measure. The survey content was reviewed by several leadership researchers and pretested by middle managers from both organizational contexts. In addition, with respect to the purpose of validating the measurement of DLA, construct validity, which implies both convergent and discriminant validity, was obtained. Gall et al. (2007) defined construct validity as "the extent to which a measure used in a case study correctly operationalizes the concepts being studied" (636). Factor analysis was performed through SPSS and AMOS since it is among the procedures that can be used for assessing construct validity. Reliability, on the other hand, was scrutinized based on whether the survey data had high internal consistency (Hesse-Biber, 2010) and checks were undertaken on internal consistency using Cronbach's alpha coefficient (reliability of scales).

To determine the quality and consistency of the survey instruments, reliability scores were calculated. One of the most commonly used reliability coefficients is Cronbach' s Alpha (Coakes and Steed, 2003), Which is a widely used measurement of the internal consistency of a multi-items scale. Normally, values of Cronbach' s Alpha above .70 are considered to represent acceptable reliability, above .80 good reliability, and above .90 excellent reliability (Sekaran, 2000). The lower limit for acceptable reliability may be reduced to .60 in exploratory research (Manning and Munro, 2007).

Variable	Alpha	No. of items
Attitude to involvement	0.88	3
Perceived influence	0.89	3
Department Performance	0.84	4
Organizational Performance	0.85	4
Innovation	0.82	7
Organizational Commitment	0.881	6
Job Satisfaction		1

Tab. 8.16 Reliability Statistics ‘Cronbach's Alpha’.

Scale reliabilities were acceptable, and all the measure were above 0.80. In all cases, Cronbach’s Alpha can be considered to represent ‘good reliability’ (Manning and Munro, 2007).

8.13 Exploratory factor analysis

My main purpose was to develop and validate a questionnaire scale to measure theoretical elements of DL in middle management. Given this purpose, an EFA was specifically performed on the 15 items of the newly developed DLA scale.

An initial analysis was run to obtain eigenvalues for each component in the data. Four components had eigenvalues over Kaiser´s criterion of 1. Table 8.16. shows the actual factors that were extracted and in combination explained % 73, 75 of the variance.

Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of variance	% cumulative	Total	% of variance	% cumulative	Total	% of variance	% cumulative
1	6,467	43,116	43,116	6,149	40,991	40,991	3,475	23,164	23,164
2	1,848	12,323	55,439	1,538	10,255	51,246	3,114	20,762	43,926
3	1,717	11,449	66,888	1,388	9,254	60,500	2,446	16,303	60,230
4	1,030	6,864	73,752	,725	4,833	65,333	,765	5,103	65,333
5	,829	5,529	79,281						
6	,583	3,886	83,168						
7	,447	2,980	86,148						
8	,413	2,752	88,900						
9	,320	2,132	91,032						
10	,279	1,858	92,890						
11	,277	1,847	94,737						
12	,254	1,693	96,430						
13	,192	1,278	97,708						
14	,189	1,258	98,966						
15	,155	1,034	100,000						

Extraction Method: Principal Axis Factoring.

Table 8.17 Total Variance explained

As a further guide, I used the scree plot. The heuristic is to retain all the factors above (i.e. to the left of) the inflection point (i.e. the point where the curve starts to level off) and eliminate any factor below (i.e. to the right of) the inflection point. The scree plot is slightly ambiguous, and the curve is difficult to interpret because it begins to tail off after 3 factors showing inflexions that would justify retaining both 3 and 4 factors.

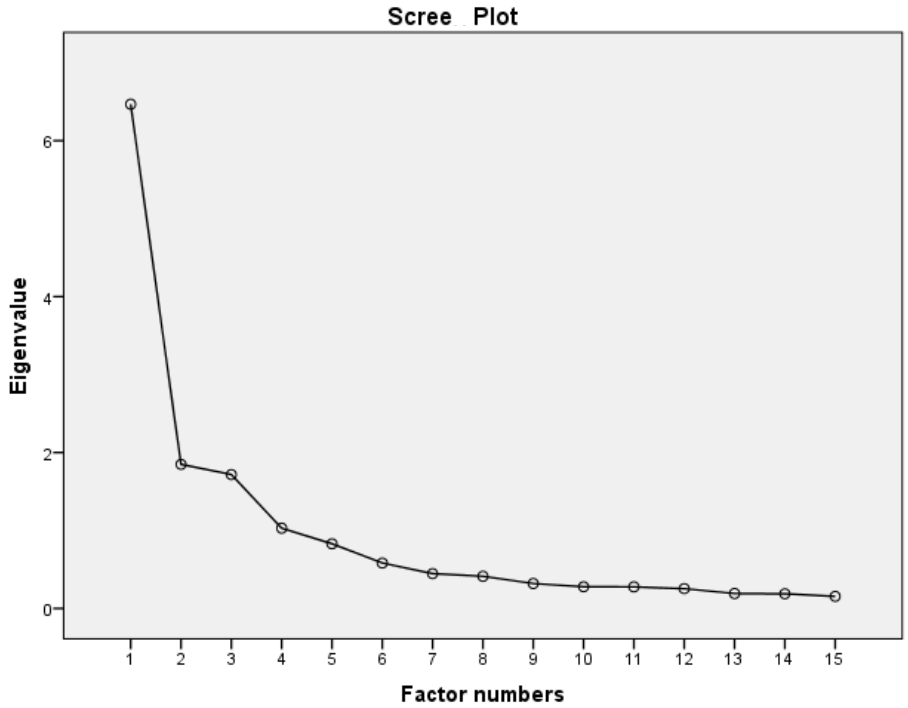

Fig. 8.3 Scree plot

When an oblique rotation is conducted the factor matrix is split into two matrices: the *Pattern matrix* and the *Structure matrix*. The Table below shows the Pattern matrix containing the factor loadings which is a matrix of the factor loadings for each variable on each factor (DLA scale). Most researchers interpret the Pattern matrix, because it is usually simpler. In the Table below, factor loadings less than 0.4 have been highlighted. In fact, the original logic behind suppressing loadings less than 0.4 was based on Stevens' (2002) suggestion that this cut-off point was appropriate for interpretative purposes (i.e. loadings greater than 0.4 represent substantive values).

Pattern Matrix[a]				
DLA items	Factors			
	1	2	3	4
Q4	-,012	,003	**,895**	,155
Q5	,065	,064	**,881**	,145
Q6	,233	-,009	**,556**	-,298
Q7	,262	-,056	**,462**	-,222
Q8	-,090	-,065	**,396**	-,049
Q9	,018	**-,794**	,025	,247
Q10	,072	**-,763**	,043	,376
Q11	,106	**-,734**	,018	-,137
Q12	,127	**-,728**	,020	-,291
Q13	-,077	**-,817**	,030	-,146
Q14	**,824**	-,005	,026	,195
Q15	**,807**	-,039	-,007	,269
Q16	**,789**	-,023	,008	-,196
Q17	**,700**	-,094	,053	-,271
Q18	**,553**	-,177	,076	-,269

Extration Method: Principal Component Analysis.
Roration Method: Oblimin with Kaiser Normalization.
a. Rotation converged in 29 iterations.

Table 8.18 The Pattern Matrix

The next step is to look at the content of questions that load onto the same factor to try to identify common themes. According to the data, there are four factors, but most variables load very highly on only three factors. The questions that load highly on factor 3 seem to relate to DLA Upwards. In the same way questions that load highly on factor 2 seem to relate to DLA Peers and on factor 1 to DLA Downwards. However, according to the data there seems to be another factor. In fact, all variables (except for Q8) load slightly on the 4th factor. This might be labelled as 'Influence'. According to the theory (Groon, 2000), influence should be treated as the same conflated concept, with much of the concept being based on the idea of social influence. Theoretically, reciprocal influence should be part of the three components forming part of the DLA concept. Hence three factors were retained based on the different levels of configuration. Finally, this analysis seems to reveal that the initial questionnaire, in reality, is composed of 3 dimensions.

Finally, for the purposes of measurement and operationalization, and based on the above-preliminary analysis, I develop the following assumptions which should be valid for both sectors:

***Research Hypotheses based on the above analysis*.**

	Research hypothesis
Hp.1	Middle managers' DLA (Distributed Leadership Agency) can be measured as a middle manager's participation in task, people and change leadership in a reciprocal influence with his or her manager, peers and employees.
Hp.2	DLA can be measured as the total influence of distributed leadership configurations on a person
Hp.3	The more DLA middle managers experience, the more autonomy they will have.
Hp.4	DLA should not correlate with an attitude to employee involvement
Hp.5	The more DLA a middle manager experiences, the more satisfied he or she will be satisfied with their middle manager job
Hp.6	The more engaged in DLA, the more affectively committed to the organization a middle manager will be.
Hp.7	The more DLA a middle manager experiences, the more positive will be the middle managers perceived performance
Hp. 8	DLA is positively related to innovative behaviour

8.14 Measurement model

As a further development and in order to test the above hypothesis and, more specifically, to confirm the three-factor model (DLA Upward, DLA peer and DLA Upward) of the DLA measure for middle managers, Thomas Jønsson was consulted because his previous experience in the validation of the DLA scale (2016) and because AMOS Software was not available to me. Based on the results of the previous Exploratory Factor Analysis (EFA), Jønsson used Confirmatory Factory Analysis (CFA) which allows for testing hypotheses about a particular factor structure, by indicating both the number of factors that will exist within a set of variables and the factor tallying to each variable (Hair et al., 2006). The strategies of analysis adopted and the results based on the data collected are reported in Appendix 11.

Confirmatory factor analysis is a necessary procedure for structural equation modelling analysis (SEM). SEM is a process for multivariate co-relational analyses which can be used in the testing of a theoretical model. To carry out SEM, a theoretical model with latent variables is required. For this reason, I consulted Thomas Jønsson to confirm my theoretical model.

In order to assess whether or not middle managers in very different organizational contexts comprehend the scale questions in the same way, Jønsson tested the equivalence in the measurement properties between the two groups. The first and 'weakest' test of invariance

across groups tests if the factor structure is the same across the two groups (the 'configural model'). This illuminates whether the same construct is measured at all in the groups. The second step is to test the metric model, which adds the invariance of factor loadings and is thereby stricter than the configural model. This is a prerequisite for comparing variances across the groups, for example correlation with other phenomena. The metric model can be understood as testing whether an item contributes to the latent, composite scale variable in the same way in different groups. For instance, the metric model tests if the items measuring DLA are each as important for the DLA scores in the school context as in the iGaming company context. A yet stronger test is the scalar model, adding the invariance of item intercepts, meaning that each item has the same mean in each group. By implication, factor means will be comparable across groups. Since the models are increasingly constrained because of the increasingly similar measurement properties, the tests show invariance if more constrained models fit almost as good as the less constrained model. The test is based on criteria indicating invariance from Cheung and Rensvold (2002), Chen (2007) recommending that Comparative Fit Index (CFI) does not drop more than .010, that Root Mean Square Error of Approximation (RMSEA) does not increase more than .015 or that (Standardized) Root Mean Square Residual (SRMR) does not increase more than .030. Jønsson conducted a SEM model in order to test relationships between DLA and the hypothesized related variables.

For the purpose of validation and based on his strategies of analysis, my results were confirmed. More specifically, results reported by Thomas Jønsson (see Appendix 13) validated the measurement of the DL configurations and three factor model (DLA Upwards, DLA peers and DLA Downwards). Hence, the results supported my previous findings and the previous theoretical analysis proposing that task, relation and change leadership, together with reciprocal influence in relationships between middle managers and his or her superior manager (upwards), peer managers (horizontal) and employees (downwards) form DLA for middle managers. The results confirmed that the scales measured invariantly across our two, very different organizational contexts. It was also found that upwards, horizontal and downwards DL configurations formed a common factor measuring DLA as reflecting an individual's total DL engagement. In addition, the analysis confirmed the results established convergent validity of the DLA measurement by showing significant relationships with autonomy, Furthermore, the results confirmed discriminant validity by showing a non-significant relationship with attitude to Involvement.

8.15 Conclusion

As earlier stated, this study utilized a sequential explanatory design (Creswell and Plano Clark, 2011) consisting of two phases where the quantitative phase was dominant, meaning more weight was placed on the quantitative phase (Creswell and Plano Clark, 2007). This chapter included the quantitative data, results and analysis obtained from a questionnaire. Data were gathered from 208 middle managers working in public schools and private iGaming companies. More specifically, the present study aimed to contribute to the field by developing clear key concepts and validating a questionnaire scale to measure these (the newly developed DLA Scale for Middle managers) and their relationship with identified variables (Attitude to Involvement, Autonomy, Innovation, Performance, Affective Commitment and Job Satisfaction). The results validated the measurement of DLA and confirmed that the scales measured invariantly across the two different organizational sectors. As it was hypothesized, the DL Agency construct was related to but different from Job autonomy, it was different from Attitude to involvement and it was related to middle managers' job satisfaction, affective commitment, innovation and performance.

The following chapter will focus on the qualitative piece, which served as a follow-up to the dominant quantitative phase.

Chapter 9. Exploring Distributed Leadership in Middle Management: the qualitative strand.

9.1 Introduction

In this study the sequential explanatory design starts with a quantitative study phase then followed up by a qualitative study phase. The qualitative phase described in the present chapter was designed to further explore the DLA model and to delve deeper into finding out what middle managers from both sectors think and feel about how DLA is enacted with the aim of providing explanations to quantitative results (Creswell and Plano Clark, 2011). This chapter provides details about the research purpose of the sub-study, setting and participants, data collection and data analysis procedures followed by a presentation of the research findings. The results of data analysis are arranged according to hypotheses starting with middle managers' survey and presented without discussion. In Chapter 10 the results will be interpreted in light of the research questions.

9.2 The qualitative strand

The mixed-methods sequential explanatory design is highly popular among researchers and implies collecting and analysing first quantitative and then qualitative data in two consecutive phases within one study (Ivankova et al., 2006). The qualitative phase came second in the sequence because the study goal was to seek an in-depth explanation of the results from the quantitative measure and "to elaborate on and expand the findings of one method with another method" (Creswell, 2003, 16). In this sense, this qualitative strand represents a systematic approach to understanding qualities, or the essential nature, of the DL phenomenon within a particular context (Brantlinger et al., 2005, 195).

Interviews were used to follow up quantitative results, and to go deeper into the motivations of respondents and their reasons for responding as they do (Cohen et al., 2007). For example, Oppenheim (2000) suggests that explanatory interviews are designed to be essentially heuristic and seek to develop hypotheses rather than to collect facts and numbers.

Interviews offered me insights into middle manager' minds and responses and permitted me to carry out a deeper and more detailed investigation than would other methods (Robson and McCartan, 2016). In effect, this phase was not only aimed at just 'explaining' quantitative findings, but the interviews raised significant points (Maxwell, 2004) and novel insights into DL and also helped brainstorm other aspects of DL in general that I found puzzling about the concept and the practice hereof.

When interviews are semi-structured, they allow for individual variations and as an interviewer I felt free to probe and explore within the predetermined inquiry areas (Patton, 2015). They also helped me to probe for more detailed responses and when necessary I asked every respondent to repeat and to clarify for me what he/she had said (Gray, 2004). Further, interviews enabled me to interact with middle managers who directly experienced the effects of the fundamental decisions that are taken in their place of work (Baker et al., 1992). In effect, my goal was to document the DL process and dynamics as well as the unique configurations of leadership distribution that have emerged, often in response to the different conditions to which middle managers have had to adapt. This phase was useful to investigate the variations, range and patterns of DL in middle management. In this sense, interviews can be also considered a conversation with a purpose as they offer a degree of interaction between the researcher and the respondent and the possibility of clarifying ambiguous information and perceptions (Ribbins, 2006). In addition, interviews enable the use of multi-sensory channels like the verbal, nonverbal, spoken and heard channels (Cohen et al., 2007).

9.2 Purpose of the study

To describe and explain how DLA develops in middle management with reference to the different layers of management (top managers, peers and employees), 12 semi structured interviews with middle managers (6 for each sector) were conducted. The most significant step to develop the explanatory interview schedule was the construction of aspects and questions that were partly grounded on the following quantitative results, made up of these propositions:

- *DLA can be measured as the total influence of DL configurations on a person*
- *The more DLA middle managers experience, the more autonomy they will have.*
- *DLA in middle managers is positively related to innovative behavior.*
- *DLA in middle managers is positively related to the perceptions of performance.*
- *The more DLA a middle manager experiences, the more satisfied he or she will be with their middle manager job*

Similarly to Willig (2008), it is important to note that the aim of this phase was not to replicate the quantitative survey findings regarding different levels of DL, but rather to explain dynamics of DL and middle managers' experiences in both sectors, by considering the three forms of leadership configurations i.e. with top managers, with peers and with employees who report to middle managers. Hence, the main purpose of this phase was to

consider the nature, character, configuration and realisation of DL in middle management and to investigate its relationship with identified dimensions (i.e. perceived performance, innovation, affective commitment etc.) in both sectors.

9.3 Preparation stage

The preparation stage of the interview involved translating the research objectives into the questions that makes up the main body of the interview schedule (Cohen et al., 2007) . Based on the results of the survey, two similar versions of the interview guide were developed, one for each sector. Details about the interview guide are being provided in Appendix 11. However, this guide was considered flexible to be adjusted during the interviews to accommodate the interview situation (Robson, 2002; Yin, 2009). In this sense, I followed Smith's (2008, 58) recommendation that the interview should "be guided by the schedule rather than be dictated by it". In addition, semi-structured interviews were used with a more open-ended approach (Burns, 2000) in which participants could describe their opinions and elaborate on their experiences for eliciting information about their leadership experience (Bush, 2006; Zikmund 2000).

9.4 Multilanguage issues

Language is a fundamental factor shaping research processes in manners both subtle and obviously manifest, for example, to grasp "local nuances in the languages and cultures of their respondents" (Ryen, 2002, 335). In fact, language skills determine research opportunities and what researchers are able to discover (Chapman et al., 2004).

This study presents significant methodological challenges in the interpretation of information, due to the need to work across both cultural and linguistic boundaries (Squires, 2009). In fact, qualitative data set more than quantitative require specific methodological choices since qualitative research is about the interpretation of phenomena in terms of the meanings people bring to their natural situations (Denzin and Lincoln 2005). In this study, English was not the first language of either the interview or the interviewee, but it was used as the inquiry language for different reasons.

First, initial information obtained from all informants selected for this study made clear that all of them were sufficiently proficient in English. Assistant Heads and Head of Departments in schools were Maltese and bilingual. In fact, Maltese, the national language of Malta, is, without doubt, the dominant language of many Maltese people in most domains of language use in Malta (Vella, 2013). Also, due my previous working experience in the sector as a HR

manager, I expected that iGaming middle managers would be sufficiently proficient in English given the international working environment where English is the working language. Thus, carrying out an interview in a (fluently spoken) foreign language would not impact the quality of the interview. Also, although my mother tongue is not English, I considered myself sufficiently fluent in this language and was thus assuming that the interviewer's reasonable fluency in the inquiry language would be completely adequate to ensure a clear, well-understood interview (Haak et al., 2013). In fact, conducting an interview in an inquiry language which is not the interviewer's mother tongue might be disadvantageous in situations where the interviewer's fluency in the inquiry language is limited and the interview is conducted with a reserved and hesitant participant (Marschan-Piekkari and Welch, 2004).

An issue may raise when the wording of interview questions can have different connotations in different languages, especially in the case of conducting interviews in a foreign country (Thomas, 2004). This perspective also raises the issue that words and concepts do not always have a corresponding meaning or content even in correctly translated (grammatically, not necessarily culturally) words in other languages. In this case it was important to note how pilot interviewees react to the different wordings in various languages before conducting the actual interviews (Zhang and Guttormsen 2016). Hence, a pilot study was conducted (paragraph. 9.5) to clarify the asked questions and to reflect upon both interviewers' and interviewees' social, cultural, ethnic and professional backgrounds.

Because the enquiry language of this study was English, translation was not necessary. Interviewing in this language avoids the "problematic of translation", reduces "noise" and provides greater "convenience in the analysis" (Van Nes et al., 2010). In fact, each time a text is translated there is a risk of losing contextual specific meaning and features that are necessary to reveal fully what the interviewee intended to express. However, this was not the case.

Also, it is important to note how researchers interpret information relayed by interviewees is not only a question of how interview transcripts have been coded, but also how the interviews have been conducted and how the researchers' own backgrounds have influenced the research design. In this sense, following Welch and Piekkari (2006) and King and Mackey (2016), I adopted various techniques to facilitating communication with the interviewees and to provide a common ground for a relationship between interviewee and myself: asking frequent clarifying questions, which meant conducting the interview at a slower pace; providing a more structured interview guide, with more frequent prompts and

less complex questions; using an 'international' English devoid of idioms, dialect and colloquialisms, also sending ahead the interview guide to the middle managers in order to let them become familiar with the questions and sending back the interview transcripts to middle managers to confirm their contents.

9.5 Pilot study

An important element to the interview preparation was the implementation of a pilot test (Gall et al., 2007). The pilot test assisted me in determining if there were flaws, limitations, or other weaknesses within the interview design and allowed me to make necessary revisions prior to the implementation of the study (Kvale, 2007; Turner, 2010). As recommended by Magnusson and Maracek (2015), pilot interviews were initially undertaken to test the questions, allowing revisions and feedback to be made before the formal interviews were carried out. Pilot interviews were undertaken on Skype, not for data collection but as a technique in designing the interview questions (Berg, 2007) with three experienced middle managers with similar characteristics to the participants in the main interviews, working respectively in the two organizational contexts. In addition, interview questions were sent to four leadership academics to get "valuable feedback on the content, flow, and clarity of the questions" (Bartholomew al., 2000, 292). This process enhanced the quality of questions through feedback from participants and improved my interviewing skills through familiarization with questions (Cohen et al., 2007). Pilot interviews were not included in the final data collection, but they were used for testing the interview schedule.

Participant	Gender	Age	Current Role	Years of experience in the sector	Sector
001	Male	40	Human Resources Manager	15	Business
002	Female	55	Assistant Head (primary school)	20	Education
003	Male	35	Marketing Manager	5	Business

Tab. 9.1 Pilot interviews sample

As suggested by Kvale (2008), each interview was recorded, transcribed and analysed to identify concerns or problems with the questions adopted and to allow for preliminary identification of the emerging themes. In relation to interview wording and questions, it was

clear that two middle managers (001;002) were more able then the other to provide adequate information and reflection. Analysis of the interview transcripts showed that a more comprehensive introduction to the interview would assist to yield more focused answers. As most participants are accustomed to discussing and experience leadership in work environment, the terms 'distributed leadership' 'delegation' 'shared' and in particular 'distribution' was often used within the interview. Hence, at the start of the interview, I decided to ask participants to provide their own definition of 'Distributed Leadership'. In fact, semi-structured interviews typically start with a general question in the broad area of study. Also, I considered that a detailed introduction to each interview question would orient the participant, and encourage to focus specifically on their own experience, providing me with practical examples from their working experience.

9.6 Sample and data collection procedure

Semi - structured interviews helped me to access middle managers' perspective on several topics related to the study, i.e. their definition of DL (definitional issue), how their experience of DL can affect innovation behaviours or perceived performance. To this end, I encouraged them to recall some events of examples from their working experience. This happened because interviews are not only concerned with collecting data about life: they are considered part of life itself (Cohen at al., 2007).

As stated by Creswell (2014), if the intent of the qualitative phase is to explain the results obtained from the quantitative phase, then the qualitative sample was from the same group of individuals from the initial quantitative sample. Indeed, the selected sample has been chosen among the middle managers who completed the online survey.

When e-mails were sent out to invite middle managers to participate in the survey, invitations were also sent to respond if they could be interested in participating in a follow up interview. A total of 35 people was willing to participate. The 35 respondents were contacted again when interviews were being arranged. In fact, similarly, to Bowen et at. (2017) potential participants were contacted via email with both an explanation of the research project and a request to participate. Of the 35 people, only 20 replied (8 iGaming managers and 12 school managers). To make a comparable sample, a pool of survey participant was randomly selected based on their availability to participate in the follow up interview till a sample of 12 people, 6 for each sector were obtained. Once agreement has been received, a consent form along with the list of questions were sent via email. Six participants were interviewed by Skype when I was in Denmark. The other six were interviewed during my 2-week visit

in Malta. Generally, interviews were undertaken outside normal office hours. In fact, similarly to Kvale (2008), it was found that this choice minimised distraction and allowed the interviewee to focus on content of the interview. In this sense, it was important to ensure that participants were as comfortable as possible during the interviews. Semi structured interviews were undertaken from November 2017 to February 2018 and a summary of information relating to those interviewed is shown below.

Summary of those interviewed	
People interviewed	12 (6 for each sector)
Length of interviews	25 minutes to 1 hour and 10 minutes
Average length of interview	42, 5 minutes
Ages of those interviewed	28 to 59
Male/ Female	7 males, 5 females
Roles	Business: - Marketing Manager (n=1, MK) - Customer Service Manager (n=1; CSM) - IT Manager; (n= 1; IT) - HR Manager, (n= 2; HR1 and HR2) - Finance Manager (n=1; FM) Education: - Head of Department (n=3 from secondary schools; HoD1, HoD2, HoD3) - Assistant head (n=3; AH1 primary school, AH2 primary school; AH3 secondary school)
Length of experience in middle management positions	From 4 to 20
Interview was held	6 (Skype); 6 (different locations selected by each participant in Malta)

Table 9.3 Main characteristics of interviews

A digital audio recorder was used during the semi-structured interviews, with the approval of the participants and these were transcribed after every interview (Patton, 2015).

9.7 Data analysis

The data were analysed using common qualitative directive procedures (Creswell, 2014) and using a thematic approach, according to Braun and Clarke's thematic approach (2013), which was already described in details Study 1 (paragraph 6.2.). In effect, qualitative data were coded for themes to allow me to make the findings more logical. I created a database in QSR NVivo12 version software. Each data source was imported as text, including the

fully transcribed interviews. After writing my transcripts, I made it a point to listen once again to the recording of every interview and check that every transcript respected the views expressed by the middle managers during the interview sessions. As stated earlier, to increase the validity of the answers I invited every respondent to confirm or comment on the accuracy of my interpretation of their responses (Cope, 2004). In this way, I made sure that every respondent could confirm the meanings assigned to his/her experience in the different institutions (Wimpenny and Gass, 2000).

Initially, I conducted a focused coding of the interviews using key topics from the interview protocols as guidelines while continuously adding emerging themes with relevance to the analytical purpose of exploring the dynamics of DL based on the views of middle managers. Marshall and Rossman (1995) claim that researchers should never think of coding as a one-step process, as it involves multiple steps that may include revising, moving or deleting codes throughout the process. This process resulted in three main themes and organized codes (see Table 9.4) as well as number of loosely organized codes applicable to only smaller parts of the material. Themes are described by Creswell (2009) as broad united of information that contain several codes aggregated together to form a common idea. At this stage of analysis, I systematically went through the core analytical themes from the initially developed coding hierarchy (most notably 'Definitional and conceptual issues of DL', 'Leadership configuration', 'Willing to take part in leadership distribution') and compared their coded content both within and across the two sectors (i.e. business and educational sectors). Since I was interested in exploring dynamics and configuration of DL in middle management, data are presented without a specific sectorial distinction, although specific reference to the organizational contexts in which the middle manager operated was made.

Themes number	Themes	Main Code	Sub Code	Description
1	Definitional and conceptual issues of DL (*General expressions of DL leadership approach*)	DL_Definition		What does it mean to distribute leadership for middle managers?
		DL_Benefits		What are the main benefits of a DL approach?
		DL_Conditions		What are the main conditions that can be in place in order to implement a DL approach?
2	Leadership configuration	Leadership distribution with top managers (*Explanations, expressions and experiences concerning their involvement in leadership distribution)*	Middle manager role	What are the main roles middle managers perform?
			Relationship with top managers	Descriptions of relationship between middle managers and top managers.
			DL_ challenges	Information about eventual experienced challenges or conflicts after receiving leadership
			DL_innovation (top managers)	To what extend and how middle managers involvement in leadership distribution with his/her top manager effects innovative behaviour
			DL_performance (top managers)	To what extend and how middle managers involvement in leadership distribution with his/her top manager effects performance
		Leadership distribution with peers		Information about the working relationship between colleagues and managers of equal status. how are other middle managers in this company involved in leadership distribution?
		Leadership distribution with employees who report to middle managers *Explanations, expressions and experiences concerning their involvement in distributing leadership to employees*	DL_ Practises (employees)	Involvement, participation, actions and examples related to leadership distribution with employees who report to middle managers
			DL_innovation (employees)	To what extend and how middle managers involvement in leadership distribution with employees who report to them influences innovative behaviour
			DL_performance (employees)	To what extend and How middle managers involvement in leadership distribution with employees who report to them influences innovative behaviour
3	Willing to take part in leadership distribution			Information about their will to directly taking part and involvement in leadership distribution

Table 9.4 Coding scheme

9.8 Themes 1: 'Definitional and conceptual Issues' of DL

9.8.1 DL definition

Introducing questions are meant to 'kick start' an interview and move to the interview's focus as rapidly as possible (Qu and Dumay, 2011). At the beginning of the interview, I asked middle managers from both sectors to provide their own definition of DL with the aim of understanding and comprehending how it was defined and conceptualized.

Much of the research reviewed for this thesis suggested that the successful achievement of DL is determined by the interactive influences of multiple members within an organization (i.e. Gronn, 2008; 2011; Harris, 2013). In fact, DL is not just about the sharing of tasks in an organization but is also used to explain deeper levels of interaction between members working through shared goals (Spillane, 2006). According to the data, it was difficult to identify a common definition of DL and many managers from both sectors described DL through their purposes. DL was mainly defined as distribution of task and responsibilities according to each specialization which recalls one of the identified characteristics of DL (Bennett et al., 2003b) according to which expertise is distributed across many staff rather than concentrated with the few.

According to the middle manager's opinion, heads of school and top managers did not have expertise in all areas therefore inevitably they could not but pass on certain duties and decisions to others, in this case, the middle managers. In this sense, DL also involved the sharing of leadership specifically in those areas in which the senior leadership team did not have enough experience or expertise. As a result, leadership cannot be restricted only to the managerial leadership elite within the institution (Wright, 2008; Woods and Gronn, 2009). According to the data, DL places an emphasis upon maximizing expertise of organizational members and building capacity within the organization (Harris, 2008; 2011).

> *AH1: Distributing jobs to people and to your team, according to their specialization …leaving them free …but knowing what is happening*
>
> *HoD1: No leader is specialized in everything…so to be a good leader …(you are always the leader since you are accountable for your work…) you have to find the special people in your team who are specialized more than you*
>
> *AH2: DL is very important... because obviously one person cannot do everything and keep it up on everything…*

The initial responses to the first question "What is DL?" seem to lead to the conclusion that there was only limited conceptual standardisation in the definition of DL, with only limited degrees of agreement as to what it was, and very wide ranging interpretations of its mechanisms and consequences. This sense of conflicting levels of understanding as to what DL means is reflected in the literature (Mayrowetz, 2008; Bolden, 2011; Tian et al, 2016). As indicated earlier, it was difficult to identify a common definition of DL. Also, there doesn't seem to be any difference in definition between business and school managers. However, in the business sector DL seemed to be better described in terms of its functionality and for its instrumental purposes. For example, an iGaming manager (FM) promoted DL to avoid the risk of having one-solo leader at the top of the organization, while another middle manager (HR) associated DL to its motivational value to retain employees in an organization. In fact, particularly in the iGaming sector, the high turnover of employees is a specific issue given the vast array of job opportunities available in this sector.

> *FM: Delegating leadership tasks…its very risky to have one person who has the power…*
>
> *AH1: If that person is sick or quit nobody can do his task… It's important to have multiple persons knowing everything*
>
> *CSM: DL is to get the people to stay longer…more tasks to do in order to grow as a person… a sort of motivational boost… but of course there are also some negative aspects… we are a small team … and customer agents do not have time… in bigger organization it might be easier… it' s dangerous and risky when a person leaves and there is nobody who can take over*

9.8.2 DL benefits

As indicated from middle managers, DL increases opportunities for the organization to benefit from the capacities of more of its members. In this sense, these benefits of DL mirror claim about the benefits of professional learning communities as a whole (see Carpenter, 2015; Stoll, 2011; Webster-Wright, 2009). In fact, professional learning communities emphasize collaborative work among professionals and provide settings for them to learn and build knowledge together. Furthermore, some interviewed middle managers identified some beneficial effects of a DL approach, such as the opportunity to save time for decision making or a motivational effect on employees.

HR2: I think it's important to have DL because you are empowering your employees as much as possible. Also, DL can enhance individual and personal skills. Because in today day's society everything is moving so fast and sometimes you have 'pull your socks up' and be a leader in every aspect and make decisions.

AH2: You will be better… you feel empowered and you feel that you are doing something at your school.

MK: It's a motivational boost…and it boosts morale since you trust them (employees) based on their leadership capacity.

HoD2: One positive thing is that there are various people focused on different aspects… the head has to administer has a lot time taken out of problems… we are focused more on teaching and learning.

9.8.3 DL conditions

In order to make a successful transition in to a DL model, certain conditions must be in place. According to the data, the decision to delegate some of the head's duties depends to some extent on the level of trust that top managers have towards their middle managers. In fact, among the most indicated conditions for promoting DL, trust was fundamentally important (Simkins, 2005; Louis et al., 2009; Murphy et al., 2009). In schools, trust enabled heads to distribute leadership, not only through formal task delegation but also through informal empowerment (Smylie et al., 2007). In this study, it would seem that trust would first be built upon interpersonal relationship between the top and the middle managers, rather than on pedagogical competence. With respect to the iGaming sector, this study confirms the usefulness of the construct of trust in business relationships (Costa et al., 2018; Leung et al., 2005; Kriz and Keating, 2010; Phong et al., 2018).

AH1: I believe that things don't happen…because the leaders are usually afraid…afraid to give responsibilities… afraid that some else can takes his job…afraid they cannot get the benefits…if there is lack of distribution of tasks then it means that the head is not always good enough to take challenge to delegate. If he or she is not ready, everyone would suffer, even him/herself because they he/ she has to do the work alone first…

Also, where individuals did not trust each other and power struggles emerged, DL breaks down irrecoverably, as shown by an assistant head in the following case. In fact, as shown form the following case, a lack of "a climate of trust and openness" (Aubrey et al., 2013, 26) may cause an assistant head to quit her job and move to another school.

AH2: I have experience of two head teachers… the first one… some years ago… he was there for five years and then he retired. There was me and the other assistant head …we used to run the school and we loved it. We went along very well, and we distributed the leadership between us… the head teacher just gave us the blessing…encouraging us. It worked a lot…the teachers were happy, and communication was good. When another head teacher came …she felt the need to be in control. There was another assistant head… she (the head) made her leave…it hurts to work with this head …it's not easy.

In the business sector, according to one middle manager, the size of the organization would be one of the factors influencing leadership distribution and the opportunity for middle managers to engage in collaboration and share leadership tasks. As suggested in literature (Cope et al., 2011) in small business contexts, the role of top managers support particularly the engagement of more people in decisions, enabling collaboration and designing institutionalizing structures and practices. In fact, in a smaller company, due to the flatter nature of the management team, it is easier to interact with decision makers and to have direct influence over managers. Also, direct interaction between managers and employee means that a blueprint can be transmitted to employees much more effectively than it can in larger organizations (Sadler-Smith et al., 2001). In addition, there is more time for leadership issues and leadership development. Another middle manager highlighted that a smaller business could be perceived as riskier, particularly when a person quits and there is no available replacement for that post.

HR2: It helps to have DL when it comes to leadership skills. Before joining this position, I was working in a 400- hundred company in Malta, and unfortunately this was not available because you are just a number. We didn't have time to focus on this area because there were many things to do. When you have many people reporting to you it's impossible to dedicate time to them.

Acknowledging the importance of the time, two middle managers highlighted the importance for top managers to spend time i.e. in meetings, discussing what kind of changes could be implemented. The top managers' commitment to developing leadership capacity also manifested itself in the amount of time and effort they were willing to invest in developing leadership capacity in others (Huggings et al., 2017). Hence, time is another important condition.

FM: Delegating is very good if you have the time …

CSM: We don't have time to reflect here

9.9 Themes 2: Leadership configuration

In this section, following Gronn's (2011) notion of leadership configuration themes are organized according the three layers of management with whom middle managers interact (top managers, peers and employees) which form different configurations of leadership.

9.9.1 Leadership distribution with top managers

From the interviews held, it was revealed that middle managers in their respective organizations held various and numerous duties and were expected to be multi-tasking. In addition, the duties of middle managers varied from one organization to another. In this section, my aim is to investigate to what extent middle managers were involved in the administration and leadership by top managers. Studies conducted in England and the USA and in other countries (Harris, 2014; Spillane, 2016) suggested that the work of school managers has become more complex and stressful because they do not have enough time to fulfil all their duties. In the business sectors, the same trend has been noticed (Bolden, 2011; O'Tolle et al., 2002). In addition, middle managers usually have more profound knowledge of the operational reality than those at the top of their hierarchies. However, a range of conditions are needed to be in place including a culture of trust and support from their top managers in order to implement DL. In fact, middle managers involvement seems to be affected by their personal relationship with of his/her managers in both sectors.

9.9.1.1 Middle managers' role

In schools the duties of middle managers varied from one school to another (Fleming, 2013; Gjerde and Alvesson, 2019). Assistant heads were not only consulted but were also asked to provide a sense of direction and leadership in those areas in which the middle leaders were considered as experts in the field and for whom the head had still responsibility (Muijs and Harris, 2003). Through this study, it was shown that middle managers hold unique positions within schools and iGaming organizations providing them with the opportunity to influence an organization's strategic activities. For example, in schools, middle managers decided on the type of education resources that had to be bought, the organization of the special arrangement with children with special needs, the way the school should hold certain activities like sports days, prize days, special events (like the Global European Week or the annual exhibition), live-ins and also strategies on the way the senior managers and the school

should handle students with learning or behavioural difficulties. For all the cases, meetings with head of schools were scheduled on a weekly basis, either as a group or on an individual basis but, this was dependent on the relationship with the heads.

In the business sector, the interviewed middle managers typically encounter widened responsibilities and spans of control. Some middle managers were also involved both at a strategical and executive level, depending on the organizations. Managers also felt that they were able to have strategic input into senior management decisions, since they were able to influence development of the resources.

> *MK: As I am the communication manager, I have a supporting function… I report to the COO …Once he has an idea about a communication aspect… he has no idea how to execute so he trusts me a lot. I've been involved in everything which he did in terms of communication. Usually I go with ideas and proposals, discuss them and very often I get the greenlight to execute and implement. I was the most influential in conveying the message …giving directions to the conversation and how the decision should be taken.*

> *CSM: After all, I am the operational manager… he (my head) is more the strategic leader… for example… I was having one-to-one meetings with the Customer agents to improve the quality of their communication with clients … but he was more the strategical one…since he had more information than me (for example about new regulations) while I am more effective at an executive level…*

9.9.1.2 Head of Department role

If participating as leaders, the middle managers should be able to make decisions and act upon their own principles and values (Shamir and Eilam, 2005). This includes their ability to participate in decision-making processes at their schools. To the contrary, as shown in this study, the head of departments in Maltese schools discussed a lack of participation in this capacity. In this sense the lack of their involvement in the school leadership was one relevant aspect emerging from the interviews.

Recent literature (Bassett, 2016; Leithwood, 2016) shows that heads of schools and department heads, acting in concert, may be especially well-situated to provide both instructional and transformational leadership practices and, as a consequence, make powerful contributions to school improvement. In effect, according to their job description, head of departments are expected to work together with the College and school educational leadership to ensure high standards of teaching and learning practice and processes. However, in this study, the reality for all the Heads of department in this study is different since their involvement mostly depends on the respective head of schools.

HoD1: We are not considered as part of the official Senior Management Team (SMT) even if we should be. We are not officially asked to join the SMT every week. I used to have a head of school who involved us at least once a month… that was beneficial to everyone because we used to have a staff room. I also had an office… I spent a lot of time in the staff room in which teachers could bring up certain issues with us more easily than that assistant head… recently we emphasized this problem during an audit… and we discussed this aspect…Today, it is different…

HoD2: In reality, you are part of SMT…. It's really depends on the heads of school… they don't treat the HoD as part of SMT…for instance, every year in the secondary school we have the test assessment …usually when the head of schools receives a circular that ask to choose a member of SMT to be the coordinator for that PISA survey in that school …in our case…I've been the PISA coordinator for last 10 years…but every time I go in a meeting with all the coordinators of Maltese schools…all of them are assistant heads…. The assistant heads usually say the HoDs don't want to do everything…the reality is that the head of schools doesn't' often involve the HoD as part of SMT. They only treat us for the dirty job and not involve us in the administration. That's why many HoDs are frustrated because they are not treated well. I cannot say it's my case…even in my school there are many Hods treated differently.

HoD1: The assistant head has a parking place in our school … on paper it is framed in a good way…we should have the same grade for the contract agreement …the reality is different…

9.9.1.3 Relationship with top managers

While this seems intuitive, it is important to be able to show through research that the dispositions of top managers can have strong influence on their relationship with middle managers. This is true for both sectors. In fact, the school leader played the key leadership role (i.e. Mayrowetz et al., 2009; Murphy et al., 2009). Still developing within that role, the school leader appeared the driving force very much behind a DL perspective. In this sense, the results of the current study provided evidence that heads' implementation of DL is important for building a positive school environment with mutual respect and trust, which has been confirmed as the most important school component for school effectiveness and success (Bryk and Schneider, 2002; Hoy et al., 2002).

As top managers ask more of their middle managers and challenge them to step into leadership roles, they must make sure their relationships with their staff build on mutual respect and reflect personal integrity and competence. Processes and procedures may denote one as a manager, but his/her behaviour with people will reveal his/her leadership quality and skills. Leaders need to view leadership as an outcome of interpersonal relationships founded on trust and openness, a claim that finds support in Owen (2014), and Hoerr (2005)

In this study, except for one case, the middle managers showed a positive relationship with their top managers.

> *AH1: I'm a lucky on a personal basis we get along……so we are working totally together…*
>
> *HoD1: He trusts me a lot. Leadership trust is very important, but it came after years…*
>
> *AH2: The assistant head together with the head, we have a quite good relationship, and this helps a lot in running the day to day running of the schools. I am aware of other schools in which the relationship between the senior management is not that good and obviously this influences teachers and the day to day running of the schools. I believe that to be friends rather than colleagues at this level helps a lot in the performance at schools.*
>
> *AH2: She (the head of school) is moody. For instance, I supposed to be in charge of the pastoral care…I was having a good relationship with the priest… I took some decision with the priest… and she say NO…I have to refer to her every time…she is stopping me to take decisions… she wants to take control from me…also with regards to stationary and cleaning…so I don't have free hands…*
>
> *AH2: She is becoming a big head… she at the top… and I am her puppy…*

9.9.1.4 DL challenges

Involvement of middle managers in leadership distribution with their top managers may lead to experiencing some challenges: for example, when they have to face a difficult situation, a misunderstanding in the communication process, or a lack of appreciation for the work done. Usually the conflicts/frictions identified in the data on DL are between competing leaders, often between the heads of school and middle managers (Storey, 2004; Timperley, 2005; Torrance, 2013), generally because of competing visions or priorities. However, discussions and regular meetings could help to solve these conflicts.

> *FM: We are quite on the same wavelengths when it comes to leadership. We discuss what challenges we have with every manager.*
>
> *AH1: We are not there for appreciation, but appreciation is important.*
>
> *HoD2: We have different opinions… but no really conflicts…*
>
> *AH1: Speak and move forward…when I have something to say… I discuss directly with my head*

9.9.1.5 DL and Innovation

All middle managers taking part in this study believed that by granting autonomy and distributing leadership to them, top managers encourage innovation, by bolstering middle managers ’competences, security, and freedom (Fernandez and Moldogaziev, 2012). This may enhance managers’ innovative behavior through the strengthening of individual capacities and creative process management (Janssen, 2005). In this sense, the formally appointed leader has to take on a new role that fosters team member leadership initiatives. This recalls the notion “empowering leadership” which is defined as a leader’s encouragement of middle managers to implement new projects, initiate tasks, learn new thing, assume responsibilities, and coordinate and collaborate with each other. (Özarallı, 2015; Lee, 2018).

Innovation is a core value in both sectors. It seems to be linked to the formal leaders’ commitment (Kremer et al., 2019). Although it may have a different meaning in the educational and the business fields, innovation it opens new avenues for the development of the organizations. In this study, innovation is encouraged at all levels i.e. through regular meetings, open discussions and training.

> *HR1: Actually, innovation is one of our core values. We try to be innovative as much as possible… Since we are an iGaming company, we have to be on top of our industry and on top of our competitors. If someone comes with a new idea and something can help the company to be more efficient and effective, by all means, go for it, you know… we are quite open. We have an all- hands meeting which is held on a monthly basis … we see how we can improve that idea… if it will affect the company in a good or bad manner…we do all the plan of actions as much of possible.*

> *AH1: When we have to take a decision about certain things, usually there are three of us… three brains working … someone is coming with different ideas… for example… we have a Xmas fest at our …It was a real success ... I think it worked because there was more than one person involved…it started with the SMT but even the teacher started asking us: “Can we do it? can we do that? … ”*

> *AH2: I discussed with my head the idea to invite parents in class to see what is going on there… learning if fun and parents usually don’t realize what it does mean…This experience improved a lot our relationships between them and teachers.*

9.9.1.6 DL and Performance

All the managers in this study believe that DL would lead to an improvement of the overall performance of the institution. This is in line with the literature according to which DL practice is more likely to equate with organizational performance and outcomes (Leithwood

et al., 2004). However, DL does not automatically improve performance, in fact it is the nature and the quality of the leadership practise that matters (Bezzina, 2019). In this sense, the job of top managers is to primarily hold the pieces of the organization together in a productive relationship, by replacing macro managing with micro managing approaches and by creating a common culture of expectations and learning from mistakes.

According to the literature, the data confirmed the claim that the emergence of DL does not eliminate the existence of nor continued need for a formally appointed team leader (either internal or external), also referred to as a vertical leader (Ensley et al., 2006). In addition, one particularly promising psychological mechanism which may seem to mediate the relationship between DL and performance is psychological empowerment – an employee's cognitive state characterized by increased intrinsic task motivation, perceptions of competence and self-determination to initiate and implement work behaviour (Shalley et al., 2004). In the data this mechanism seems to be expressed by the words "empowered", "enhanced".

> *HR: If there a good distribution of leadership, the person will be much more efficient when it comes to work. I think this will enhance person to performing… This distribution has to do with delegating tasks. … Unfortunately, the mentality when I came in here, it was more of micro managing rather than macro managing … but due to training and coaching, we started to move from there and even we started to recruit people with a different mentality. We get people with different professional skills, enhancing what people are supposed to do…!*
>
> *AH1: When we have Distribute leadership, people feel more engaged they feel more involved and I think, by effect of that, they are more productive, and they feel part of it…certain things rely on them and they are responsible for them… they really need to be productive to make the things happen*
>
> *MK: One attitude that we have here if that trust and accountability count… where mistakes I wouldn't say they are encouraged but they are super accepted…so people are encouraged to try out new things… attitude and trust means that everyone is responsible and not afraid of it.*
>
> *FM: If the intentions are good … the fact you can make mistakes is accepted…*

9.9.2 Leadership distribution with other managers

According to the survey data, for middle managers of both sectors the distribution of leadership with other peers doesn't seem correlated to a positive perceived performance or innovative behaviour. By exploring this claim, it was realized that the job of other middle managers does count. As middle leaders can directly influence the work of others through

their expertise and peer relationships (Fitzgerald et al., 2006) but the potential for exchange with peers depends on the amount of lateral task interdependence and the manager's control over resources desired by peers. This exchange is used to obtain support and assistance from peers. Sometimes managers ask for favour from peers but lack the authority to ensure compliance with a formal request. Also, there is evidence that managers use coalitions to influence peers and superiors to support changes, innovation and new projects but there is more opportunity to decisions make when they ask directly the superiors rather than rely on peers. In this sense, the hierarchical culture, especially in the school sector, seems to influence this attitude and behaviour. Peers contribution is valuable but interacting with top managers would seem more effective for decision making purposes. In this sense, the data confirmed the claim that the emergence of DL does not eliminate the existence of nor continued need for a formally appointed team leader (either internal or external), also referred to as a vertical leader (Ensley et al., 2006).

With specific reference to the educational sector, this resonates with the concerns expressed in another local study (Mifsud, 2106a; 2016b) that whilst there are benefits to be accrued through DL, middle managers note that their autonomy has been eroded and are victims of what Hargreaves (2004) had aptly described as 'contrived collegiality'. In this sense, the opportunity of having the opportunity to bounce off ideas from the colleagues is often missed (Bezzina, 2019). This concern is expressed in the following quotes:

> *HoD2: In Malta, education is quite centralized …therefore to try to bring change even at school level we have to seek approval first of all from the College Principal, then the College principal has to seek approval from higher authorities…it's not that easy…however to bring small changes is not that difficult…*
>
> *HoD1: We are a quite centralized educational system…in reality even the head of schools has policies coming from up and they just follow the policies … at our school particular students that are not capable to follow not even a CCP (Core Curriculum Programme, a low programme for students who are very low achievers). For example, we have three students that they are not even at that level, the head cannot to take the decision to do something different… being the head…imagine being the Head of Department*
>
> *AH2: If someone has an idea… first we discuss between each other and then we go to the head… …we meet 2/3 times a week … we need to talk a lot… primary school is so complicated…*
>
> *FM: I think it's important include my colleagues in some tasks but not all projects… when it's useful to get her point of view…*

MK: Sometimes you just discuss… discuss and never happens…when you discuss with your boss is different … there is no place for opinions. I would prefer this approach sometimes

9.9.3 Leadership distribution with employees

This section deals with the downward influence of middle managers with employees who report to them. In fact, in both sectors, middle managers are keenly aware of their profound influence on those in the lower level of the organization.

9.9.3.1 DL practises

Middle level managers are often implicated by both academics and practitioners as principal barriers to the success of employee involvement practices. Contrary to a number of existing studies (Ashton, 1992; Fenton-O' Creevy, 2001), this study suggested that it is not middle management attitudes that are the barrier to successful employee involvement.

Consultation with employees is effective for increasing innovation and performance and middle managers usually have substantial power over subordinates. Comments made by the interviewed managers reflect a commitment and also managerial concerns of being aware of the benefits of a DL approach.

HR2: I'm distributing, delegating and macro-managing so … in that regards that person feels empowered, trusted and this person can be more innovative and efficient. Employees are empowered. For example, everyone is involved and present

HoD2: If educators are given more responsibilities… (they know the students' reality better than me) … if we share this responsibility they can come up with different options and solutions. Some of the teachers are knowledgeable about their subjects and even about other matters… some they continue their studies at the University, and we should take advance of their knowledge and use it rather that don't give them the opportunity to take responsibilities. I have some teachers in mind… and they are really knowledgeable if we give the right responsibilities, we can enhance our practise at schools.

In some cases, DL also involved encouraging staff to take initiatives. In fact, this approach aimed to make the staff more self-sufficient and less reliant on the managers. However, it was only the more experienced managers who discusses this approach.

AH1: I involve them in the projects…we have crib competitions … there were LSAs (Learning Support Assistants) and I ask them "can you can take care of this project?" They do in their way…I let them free… I encourage them …that's it… last year they did something, and this year did some other things.

AH2: I take care of the outings and all that… for example in Malta, Nature trust (an international organisation) works to promote the environment and gave us a book with some activities for every class connecting with the syllabus … it was up to the teacher to encourage the other colleagues and classrooms to do the work. Last year…we got the gold awards… I don't have time to follow… to see what she is doing…when you give them the freeway… she is responsible for it and you can do another thing… I was telling them all the time ...oh what a good job you did!

AH1: It's our culture… that we involve teachers as much as we can… even when we formulate the School Development Plan (SDP) we can take very seriously that the teachers are on board…and we start from them … if you have to come and to talk to the teachers they would know what the SDP is and what the action plans are ... because the OWN it…

As managers they were keen to support their team and help them. This included having regular one to one meeting with staff, but also supervision meetings to check the status of the delegated work.

HR1: We have a biweekly meeting with my employees, and we share ideas and plans…also we have a monthly meeting with all employees in the company where they know what is going on in the company.

AH2: How? You discuss with them if they want to take some responsibilities or not. For instance, I have discussed an idea about an inclusion event and debate classes. I have expressed my idea with them, and they told me they were on board… and they could help me on this… we are going to set up an inclusion week. A teacher is going to organize a debate schools and serious matters about inclusion … another teacher is 100% responsible about ecology and this kind of responsibilities should be shared with more teachers….

9.9.3.2 DL and Innovation

The participants stressed the unique position of middle managers in the organization that enabled them to influence others and manage the day-to-day operations. In particular, middle managers influence employees' innovative behaviour both directly through creating structure for decision-making (i.e. meetings); and indirectly as leaders shape the organizational environment. In doing this, middle managers help establish the context and climate in which innovation may blossom. This confirms what highlighted in the literature according to which middle management support and mutual trust were found to enhance innovative behavior (Hammond et el., 2011).

MK The more distributed, the more you are innovative…the more staff you can try out…the better is….

HoD2 We have the official departmental meeting once every week…we also benefit from a staff room…some innovations may come from an email …something that we discuss during coffee…that's the best results and unofficial

.

9.9.3.3 DL and Performance

Researchers have also explored the impact of sharing power with employees and how empowering leadership contributes to increased performance of an individual employee at the work place. The influence of middle managers' DL found in this study seems to support their operational (downward focus) roles as suggested in literature (i.e. Delmestri and Walgenbach, 2005).

MK: The productivity is improved if tasks are distributed … …

HoD2: I think the more Leadership is distributed the more there is a smooth running… but … I think it's a question of empowerment … If teachers feel empowered…than teaching and learning would be more affective…it's also about satisfaction… you have a certain amount of say of what is happening …

AH1: My philosophy is "do your best!" the process is more important than results…. That's me…that's my philosophy … I was a teacher for 23 years… I never use to fright the children … I used to encourage … it's does matter if you pass or fail…some teachers don't like me talking like this because they are exam oriented…result oriented. I'm 54 and I believe in that. I'm the oldest …It's important that you tell them (the teachers) the vision…

9.10 Themes 3. Willingness to take part in leadership distribution

All middle managers are motived to take part in leadership distribution for many reasons. i.e. career expectations, learning opportunities, increased engagement and commitment to the organisation, sense of ownership. They also argue that increased autonomy usually increases problem ownership and also motivates them to try new tasks and develop new skills. From a middle management perspective, this good intention to be involved in leadership distribution depends on the quality of relationship with the superior. In this sense, the relationship evokes their leadership potentialities, but it must show a sense of inclusivity, respect, collaboration, transparency and caring (Crippen, 2012). One of the main findings here is that, despite of the sectorial and the structural conditions, middle managers are willing to take part in leadership task and responsibilities. In other words, the main differences about the sectors are structural and not agentic.

AH1: First of all, it will enrich my portfolio… maybe in some years I would like to become a head or to work in the Ministry. It's good to always take the initiative and to take some roles and… I believe also that when you take a direct role… you have more ownership of the schools and you feel more part of it.

HR: I am quite open for everything and even from an HR perspective I think I cannot be rigid. I feel I wouldn't do a good job if I would be rigid.

HoD1: It's not a wish but a try.... it's not a one-man thing… if I want and you don't' want it doesn't work… it depends on the leader…

AH2: I want to…I believe in it … it interests me…but I think that the head has to make a framework and it has to stay the same… Last year the head went on a Comenius project in Cyprus for a week… and she came back very enthusiastic saying "I want to have a happy school" …two weeks after…she started shouting at children…how can she have a happy school?

AH1: My previous headteacher gave me free hand officially … do in your way…even if I don't' agree with you …the new one is afraid to talk like that…

9.11 Conclusion

The findings of this qualitative phase revealed the perspectives of 12 interviewed middle managers from both sectors on DL, by considering the three levels of relationship which characterizes their hierarchical positions in an organization, i.e. their involvement in leadership distribution with top managers, peers and employees who report to them. The characteristics of participants in this research were outlined. In the context of this research, middle managers from both sectors held various and numerous duties and were expected to be flexible and multi-tasking. DL was considered as an opportunity to help the middle managers to grow personally and professionally by providing them with leadership opportunities. In addition, DL also permitted a smooth running of the organizations although for both sectors it seemed that the success of DL depended on the type and the quality of relationship with the top managers. In addition, an important step was to identify what leadership dynamics and conditions can foster or inhibit a distributed model of leadership, by proving practical example form their working experience. The hypothesis of the quantitative survey was confirmed and deepened with more practical examples along with a range of conditions. The following chapters discusses the findings for the research questions and present the conclusions.

Chapter 10. Discussions

10.1 Introduction

As can be noted from the previous chapters, this research attempted to fill several research gaps found in the existing literature. Particularly, the structure - agency duality model of DL was adopted to understand how DL can be conceptualized and comprehended in different sectors and with reference to a particular layer of management i.e. middle management. In fact, whilst the study of middle managers is not new, it is an area that is thought to be under-researched and much of the literature focuses on middle managers at a general level and not with reference to the specific structural and agentic perspectives.

Middle managers were chosen because, despite growing interest in leadership and management in the sector, much of the research, particularly on leadership, was focused at senior management level. However, it was clear from the literature that building leadership capacity at all levels is considered to be a key factor in enabling schools and business organisations to meet the current and future challenges. In this sense, investigating their role specifically within this framework provided a new and different perspective. It is intended that the findings of the study informed and enhanced understanding, providing new knowledge and information about new ways of conceptualized DL in middle management functions.

The research questions set were:

RQ1. What are the structural manifestations of DL in state schools and private iGaming enterprises in Malta? Are there any difference/similarities?

RQ2. How do middle managers from both the public and private sectors enact DLA (Distributed Leadership Agency)?

RQ3. How does DLA relate to outcome variables (performance, innovation, commitment and job satisfaction)? Are there differences in DLA in middle managers from the public and private sectors?

This Discussion chapter reflects on the degree to which the research questions have been answered by the findings of the study.

Throughout the PhD journey, the use of multiple sources of data and the production of large amounts of information for analysis made this task a complex one (Stake, 1995) navigating among methodological intersections and different levels of theoretical analysis. I was concerned about the major difficulty that I had to face using such an approach, due to the excessive data generated by documentary analysis, surveys and interview. At the end of this

process, it is often valuable to look at a study with the benefit of hindsight, in order to evaluate the extent of which choices and decisions have affected the findings. Before to address each RQ, I have therefore decided to undertake a brief critical analysis of the adopted model.

10.2 An evaluation of the structure agency model

Research internationally into theory and practise in both education and business leadership indicated that DL is dominantly expected and praised (Bolden, 2011; Tian et al., 2016). There is, however, limited research in the Maltese context to find out how effectively this model is working in relation to the expectations of theory and practise and in reference to one layer of leadership, middle managers. In addition, there are also very few studies in any context which compare business and education practises.

As the research project reaches its final stage, looking back over the 5-year research process shows that some methodological choices and decisions have proven successful while some practices could have been done differently. Through a deep literature review, I realized that there was not a universally accepted definition of DL and this research gap was worth filling. On one side, I was aware that any attempts at creating a definitive definition would fail to capture the complexity and diversity of DL in practice since it is highly context-bound and practice-oriented phenomenon. On the other side, for research purposes, the scientific method requires that the nature of these concepts be unambiguously communicated to others with the development of theoretical definitions. Hence, due to the lack of both a clear definition and an explicit research framework of DL, I adopted the structure-agency theoretical framework (Archer 1982; 1995, 1996; Tian et al., 2016; Woods et al., 2005) in the attempt to provide a good guide for the empirical phases of the research. Given the expected complexity and variation of organizational contexts (i.e. state schools and iGaming companies), the work division defined by profession, the functional interdependence and associated configurations of structure and agency, the related integration of and interaction between leadership practise and middle managers' involvement in both sectors, the analytical dualism of the proposed structure-agency approach was suited to these organizational contexts. In fact, the structure-agency model was applied first to explore structural elements of DL in Study 1 and second to serve as the analytical framework for building the exploring the agentic dimensions of DL and the development of the two research instruments (survey and interview). By accounting for both organisational and individual

perspectives applied to middle management, the empirical studies produced relevant findings to the research project.

Finally, the structure-agency framework provided a useful tool for systematically and analytically identifying both structural and agentic dimension of DL in a way that facilitated the emergence of clear research findings. Also, the framework also provided a clear way of understanding DL in middle management across different sectors and groups that could facilitate a common approach to future studies in this area.

This project tried to address three RQs. In the following section, I do not simply re-present the findings again but rather to revisit each research question in turn in order to highlight the main findings of this study.

10.3 What are the structural manifestations of DL in state schools and private iGaming enterprises in Malta? Are there any difference/similarities?

Structure designates all existing environmental constraints and resources for the agent (here a middle manager). In reference to the context of study, structural elements were organized for both sectors according to Wood et al.'s (2000; 2004) categorization: institutional distribution of internal institutional resources and responsibilities and duties of roles; systems and patterns of knowledge, ideas and values and social patterns of relationships and interactions.

Middle manager roles. For most of the organizations in the sample, the primary document sources for the analysis included the job descriptions complemented by institutional policy documents that describe the role and appointment of middle managers in both sectors. While middle management is a term, which "is used widely but has no precise definition" (Kay, 1974, 106), in the context of this study the definition used in this research project was: 'Middle managers have managers reporting to them and are also required to report to managers at a more senior level'. As expected, a number of difficulties arise when one attempts to define middle managers in the iGaming sector in Malta, mainly because there is no national-scale definition and local published literature is limited. This is one of the main differences between the sectors found in this study. Nonetheless, the fluidity and ambiguity of the term offers rich and nuanced insights into the subtleties and intricacies of who middle managers are. In fact, the variety of available job adverts and the different job descriptions described the typical dynamism of the private sector and, in particular, of the iGaming sector.

Hence, it is difficult to classify or categorize middle management positions because their roles and duties according to their task since they vary according to organizational size (a corporate or a start-up environment). Hence, it should come as no surprise that there are substantive variations in the decisions that individual iGaming company made in terms of their governance and administrative structure. They have unique administrative structures and budget and planning processes, and do not have sector -specific collective agreements that govern the conditions of employment of iGaming employees. In this sense, middle managers as a category in the iGaming sector remains a 'controversial subject' (Dopson and Neumann, 1998). However, according to the job description, middle managers establish themselves between first-line supervisors and top executives, executing operational control, technical expertise and offering specialist support, all of which is required for organisations to continue functioning properly (Reed, 1989). The growth of specialist functions within the technical element of middle management such as accountancy, project management, marketing and product research (Reed, 1989) in Malta led to a situation in which middle managers usually emerged from traditional professions and new expert occupations arose. In this sense, middle managers perform both general management functions and specialised technical functions, although with specific reference to the data, the technical function was more evident in the job adverts. Also, the iGaming sector offers significant career opportunities with attractive packages, together with the opportunity to work on some of the latest industry technologies, that make this industry appeal to both the well-experienced individuals as well as the recent graduates. Another important contextual element is the high talent competition among the iGaming firms. In fact, Malta's booming gaming industry means all companies are competing for the same, limited talent pool, which has resulted in high staff turnover and somewhat inflated salary expectation. This point has to take into consideration when considering the differences with the public sector. In fact, middle managers in Maltese schools enjoy a stable position and their job descriptions are fixed by a collective state agreement with a fixed wage, which is lower than the iGaming sector.

In a similar way to the iGaming sector, the analysis of the job descriptions and the interviews revealed that middle managers in schools held various and numerous duties and are expected to be multi-tasking. In addition, qualitative data showed that the duties of middle leaders varied from one school to another. Middle managers, especially assistant head have the duty to have an active part in meetings with the senior leaders. Differentiating from the iGaming sectors where no collective agreement exists, Assistant Heads and Heads of Department benefit from a collective agreement with fixed wages and benefits. Hence, the presence of a

collective agreement is one the main structural differences between the sectors. More than the school sector it would seems that many formal statements in the iGaming sector are silent on specifics of roles and responsibilities of middle managers, leaving the door open to possible flexibility in the execution of duties, latitude of decision-making, and scope of relationships within and outside the organisations

Also, an important point here it the role of the Heads of Department which according to the official job description "are expected to work together with the College and School educational leadership to ensure high standards of teaching and learning practice and processes while being guided by Education Officers" (see Appendix 3). However, the reality is different since their role is not well recognized in the schools as emerged from the interviews. According to the collective agreement they should enjoy the same grade of the Assistant Head (Grade), but they do not have the same recognition from the head of schools and very often they have limited opportunity to influence. While emphasising the need to focus more on this layer of management in Maltese schools, it is also important to emphasised that the school head needs to start promoting heads of department from within.

DL values. Following the definition of structure by Woods et al. (2004), DL values have been identified as another structural element in both sectors, which characterize schools and iGaming companies in terms of cultural and patterns of knowledge, ideas and values.

Relating to the DL model, policy school documents set out the government's strategy to transform the existing educational system into one that would foster new professional identities, as well as learning communities that would provide the appropriate scenario to ensure a quality education for all. In the Maltese educational system, legislation such as the Amendment to the Education Act (2006) clearly regulates the school principal as the ultimate bearer of responsibility within a school. In addition to these pieces of legislation, recent policy documents, such us *For All Children to Succeed (FACT)* (2005), *Towards A Quality Education For All - The National Curriculum Framework* (2013) also strongly endorse DL through school leaders. In fact, the reform necessitated the introduction of new roles and new responsibilities, amongst which was the deployment of the College Principal, designated to be the educational leader of the college as a whole. The Principal, a role which *the Education Act* (2006) makes provision for, is described as the 'Chief Executive Officer of the College, while the Head of School, according to the policy document FACT, is expected to lead and manage, is explicitly required to collaborate with other Heads of College Schools. As Mifsud (2015) reminds, power, therefore, resides in structure, in terms

of the college itself and its leadership positions, but it also exists very strongly within relationships. The FACT policy promotes more autonomy and decentralization for the schools within a framework of strong central control. In the school mission statements, the value of DL was not so evident and manifested. A few elements (e.g. the notion of holistic education or to providing a safe and nurturing environment and) appear frequently across Maltese state schools. There is a prevalence of elements related specifically to 'service' or through the inculcation of civic values in students, or to the prepare pupils to meet the challenges of society. There is a clear tendency for public schools to describe this work as preparing 'citizens' or 'promoting civic engagement'. Hence, the focus on DL values is therefore less evident than in the iGaming sector. This is another difference was found between the sectors. However, the reasons for the dramatic differences between state schools and companies' inclusion of the value of teamwork in their mission statements is less clear. It could be argued that because concerns for employees (for example the retention of the employees) appeared to be a greater issue for the iGaming sector, it makes sense that teamwork would also rank higher among their stated values. Also relevant to this finding are the results of a study by Petty et al. (1995) that are recounted by Amato and Amato (2002): "Teamwork and trust were promoted when the corporate leadership [in that study] developed a vision statement that valued trust, integrity, teamwork, and dignity". In effect, it should be noted that one of the functions of the mission statement is to serve as an effective public relations tool and to inspire enthusiasm about the firm (Bartkus et al., 2000). As Cross (1991) points out, "persuasion, the ability to win over an audience and inspire action is, after all, the underlying goal of most corporate correspondence, whether it's trying to create an image, keep goodwill, or collect an overdue bill" (3). In this sense, mission statements, particularly in the iGaming sector rather than in the educational sector are decidedly persuasive: in fact, by being part of a precise communication strategy, they not only dictate how an organization as a whole should act, but also how individual employees think about their jobs. In this sense, given the 'talent war' which characterizes the sector, mission statements attract job seekers whose values align with companies' values becoming therefore ne more recruiting tool.

Innovation was another structural element that was identified for both sectors, which is considered as the main driver for employee's behaviours. The main attention to the relationship between leadership and innovative behavior has attracted more attention in the private sector settings (Howieson and Hodges, 2014) rather than in the public sector. Special attention is paid to the role of the organizational as facilitator that help generate product innovation among creative and technology-intensive firms (for example, the iGaming

sector). In fact, considerable research finds that innovation is a key driver of firm value as well as overall economic growth. Within this context, managers influence employees' innovative behavior both directly through resource allocation and decision-making; and indirectly as leaders shape the organizational environment (Denti and Hemlin, 2012). Hence, leaders help establish the context, the culture and the climate in which innovation may blossom (Goulding and Walton, 2014). In fact, culture is important in influencing employees' and managers' agency (Hofstede, 2001). Creativity embedded in the product innovation in the iGaming sector is directly and indirectly shaped by cultural values, which are evident in their values statements. Within this industry, individual creative talents that involve product innovation are perpetuated by the deeper and less obvious layer of culture at the firm level and the sociocultural level; hence, I paid particular attention to innovation values in the analysis of this structural element which characterises the industry and may represent a resource for the employee (the agent). It is therefore important to be aware of what 'pushes' and what 'pulls' innovation. For example, as the analysis of 'About US' page of main iGaming operators, companies may stimulate innovation via flat organizational structures, specific development programmes, opportunities for training, different forms of meetings and gathering to share knowledge and ideas, rewards (e.g. bonuses, recognition), a innovate culture (e.g. attitudes to risk, learning from failure, encouragement of radical thinking).

With respect to the public sector, there is a widely held assumption that the public sector is inherently less innovative than the private sector. Imputed reasons include a lack of competition and incentives, a culture of risk aversion and bureaucratic or conservatism; a workforce which is unresponsive to and unwilling to change. While in the private sector, the main motivation for innovation is the need to maintain or increase profitability, in the public sector the value of innovation is different from the private sector and can be more complex and more difficult to measure. It may include some readily quantifiable outcomes (such as student outcomes), and some 'softer' outcomes such as the quality of services and trust between i.e. parents and schools' operators.

10.4 How do middle managers from both the public and private sectors enact DLA (Distributed Leadership Agency)?

The findings addressed this research question in both theoretical and methodological terms.

In the previous chapters, I argued that middle leaders' agency in DL is experienced as an active, engaged involvement in taking part in leadership activities. As such, a scale measuring DLA taps into experiences of active involvement in different leadership tasks. Hence, I created and measured DLA by asking each middle manager how far they are actively engaged in participating in leadership tasks. In fact, this study takes an agentic approach that the very few existing quantitative measures on DL did not consider (i.e. Leithwood et al., 2007). In fact, with respect to the DLA measurement, the findings of the present study showed that the newly developed questionnaire captured middle managers' active participation in leadership tasks in both sectors. Theoretically, the fifteen items were derived from Yukl et al.'s (2002) three meta categories of leadership functions and from Groon's notion of leadership configuration (2016; 2017). The results supported the theoretical analysis proposing that task, people and change leadership formed different DL configurations together with reciprocal influence in relationships between middle managers and his or her superior manager (upwards), peer managers (horizontal), and employees (downwards). However, the three-factorial structure of the measure was empirically not supported, as the three dimensions were too strongly related to each other. As such, the results reveal a unidimensional measure with good model fits and high internal consistency. The results confirmed that the scales measured invariantly across our two, very different organizational contexts and according to the data, upwards, horizontal and downwards DL relations formed a common factor measuring DLA as reflecting an individual's total DL engagement.

With respect to the measurement purposes, the study also demonstrated that the phenomenon measured by the unidimensional DLA scale is associated with similar but distinct constructs. For example, the results established convergent and predictive validity of the DLA by showing significant relationships with autonomy, affective organizational commitment, and job satisfaction. While the association between DLA and organizational commitment and job satisfaction will be discussed later in this chapter, one important element of the organizational culture and organizational structure as well as one the main drivers for the development of DL is the dimension of the *Job Autonomy*. In the DL concept, Woods et al. (2004) point to control and autonomy as crucial factors. *Job Autonomy* has been defined previously as "the degree to which the job provides substantial freedom, independence, and discretion to the employee in scheduling the work and in determining the procedures to be used in carrying it out" (Hackman and Oldham 1975, 162). Hence, I assume that an individual's autonomy as a feature of organizational structures is likely to facilitate middle

manager activity in leadership tasks whereas bureaucratic and strong hierarchical structures may hinder active participation in leadership functions. In addition, the body of literature on DL makes numerous explicit references to the notion of 'expertise' (e.g. Bennett et al., 2003a) alongside terms such as skills, potential and abilities (e.g. Hammersley-Fletcher and Brundrett, 2005). However, although expertise is a precondition for DL, it is not sufficient. To enable professionals to apply their expertise, it is equally vital to grant them the autonomy to do so. The results of the quantitative phase showed that there is a positive relationship between DLA and *Job autonomy* for middle managers. With respect to the purpose of validating the measurement of DLA, results about such a relationship provided discriminant and convergent validity. In fact, theoretically, DLA is not the same thing as autonomy, yet the two should be related, and a moderately sized association between job autonomy and DLA supported that the validity of the DLA measure.

Moreover, the results confirmed discriminant validity by showing a non-significant relationship with *Attitude to Involvement*. In this sense, results showed that the attitudinal construct (*Attitude to Involvement*) was positively but weakly related to DLA. Attitudes are known to influence individual's actual behaviour (Ajzen, 1991) and therefore I assumed a positive attitude towards participation to be an important precondition that managers take over leadership tasks (Jønsson et al., 2016). At the same time, this study showed that middle managers' behaviour is not merely an attitude towards DL within an organization. In this sense, the non-significant relationship with *Attitude to Involvement* confirmed the behavioural focus of DLA. Also, inspired by Jønsson at al.'s (1016) DLA questionnaire, the survey built within the context of this PhD study directly asks middle managers about their active participation in concrete leadership tasks. The items of Jønsson et al. (2016) DLA questionnaire were formulated for the hospital context, but the wording was general enough to be applied also in other organizational settings. This was problematic with quantitative DL measures that applied in some way an agentic perspective but were very specific only for the school context (e.g. Heck and Hallinger, 2010; Hulpia et al., 2009).

To sum it up, one of the steps forward in this research was the opportunity to develop and validate a sound measurement instrument that can assess the phenomenon of leadership among organizational members, notably for middle managers (Yammarino et al., 2012).

In addition to the methodological confirmations, the results paint a picture of how middle managers cooperate with other agents about organizational leadership. In both sectors, by finding that upwards, horizontal and downwards DL relations formed a common factor measuring DLA as reflecting an individual's total DL engagement, the results of this study

fortified the importance of structural working conditions on middle managers' engagement in executing leadership tasks. In both sectors, the more middle managers perceive autonomy from their top managers, the more they actively participate in leadership functions, the more they delegate to their employees and their peers. In this sense, DLA can be considered as a form of Organizational Participation (Wegge et al., 2010); this refers to processes in which power and influence as well as decision-making and responsibility are shared between all hierarchical levels. DLA asks to what extent each employee is actively engaged in leadership tasks, it does not ask how much he/she is involved in decision-making. Organizational Democracy as the most comprehensive form of employee involvement of organizational leadership is an institutionalized form of employee participation and focuses on the organizational level (Wegge et al., 2010). However, it should be noted that DL is not inherently democratic; but it has democratic potential (Woods and Gronn, 2009; Woods and Woods, 2013). DLA with democratic potential focusses on the benefits for employees and society. In fact, collective decision-making and leadership responsibilities can empower employees, increase their commitment, and enable them to recognize their influence at work to ultimately enhance self-efficacy and increase work motivation (Wegge et al., 2010).

Overall, results underline the importance of structural working conditions for middle managers to engage in leadership tasks. In fact, high perceived autonomy is positively related with active participation in leadership functions, that is DLA. Individually perceived autonomy is a working condition and a structural feature that offers employees and middle managers the opportunity and freedom to try new ways of accomplishing their work – for example, to participate or not in leadership tasks. Archer's (1982) analytical dualism highlight this relationship insofar as considering a time perspective.

10.5 How does DLA relate to outcome variables (performance, innovation, commitment and job satisfaction)? Are there differences in DLA in middle managers from the public and private sectors?

One assumption of this study was that in cases of organizational change and/or innovation, or more simply in the day to day management and running of a school either a business organization, a high level of middle management involvement and participation (agency) is needed both to ensure middle management acceptance and generate lasting effects (Wegge et al., 2010). It is therefore critical for organisation to take middle managers' involvement into account, e.g. in the case of innovation (Kesting and Ulhøi, 2010), as well as deal with the requirements and expectations of other central stakeholders (Madsen and Ulhøi, 2001).

The combined approach regards the structure of DL and the agency in these structures, i.e. activity aimed at dealing with change in a constructive participative manner. The results of this study are most favourable towards the importance of the quality of relationship between top managers and middle managers in supporting the middle managers' agency in DL. Thus, middle managers in both sectors reciprocate by working hard and performing better due to a positive social exchange relationship (Cropanzano and Mitchell, 2005) and due to a positive quality of relationship between senior manager and middle manager. In other words, across all the empirical studies, the quantitative and qualitative data recurrently confirmed the top manager's essential role (either school leadership or top manager in the business sector) in enacting DL. This is well in line with previous studies that showed that empowering leaders create an atmosphere of trust by putting their confidence in employees' competencies to deliver results and enabling employees to take ownership of their work and organization, independent of current circumstances (e.g. Jung et al., 2003). Top managers or school leaders adopting a DL approach may be perceived as credible, since they give more autonomy and freedom to middle managers who are closest to their team members, i.e. other team members or teachers. School leaders and to managers may therefore create better preconditions for the successful implementation of DL practices. This is encouraged especially in the educational sector, school managers can provide autonomy and freedom in a very hierarchical, complex and predefined setting such us a school organization in the Maltese context

Finally, one of the strengths of the contribution of the present study is its combination of an agentic with a normative approach. Mayrowetz (2008) claimed that researchers do not use an agentic approach when they study the associations of DL. I addressed this claim by showing that that middle managers' active participation in leadership tasks – measured with the DLA – had positive association with perceived performance, innovative behaviour, commitment and job satisfaction.

10.5.1 DL and performance

The study confirmed that middle managers' involvement in organizational leadership can promote work motivation (Wegge et al., 2010) and thereby a positive perception of performance of their work and of the organizational context in which they work. In other studies, DL practices could help in developing the attribute of taking initiatives, accountability and could promote organizational efficiency and effectiveness. These results were supportive to existing findings regarding the positive outcomes of DL practices (e.g.

Mayrowitz, 2008; Hulpia and Devos, 2009, 2010; Hulpia et al., 2011). According to the data, when middle managers experience DL from upward, downward and from peers, they feel more empowered and also more productive. With respect to schools, these results are in line with a number of other studies (i.e. Harris and Muijs 2004; Hulpia and Devos, 2009; Leithwood and Jantzi, 2000; Silins and Mulford, 2002) indicating a positive relationship between DL and significant aspects of school performance. However, although these claims are derived from research in schools, it is possible to consider their application in other contexts. In fact, the findings of the present study tried to address the claim made by Bolden (2011) who suggested that a key focus for future research was exploring how particular configurations of DL contribute towards, or inhibit, organizational performance. The DLA configurations applied to middle management may be suited to address this call.

However, the association between DL and performance is not automatic since, as suggested by some middle managers, the nature of the relationship and the quality of leadership makes a profound difference. Consequentially, the role of the top managers and school managers become crucial in supporting the success of DL and in creating a safe and stable school/company environment. Hollander (2009) notes that effective leaders are aware of the needs and interest of their followers and that the dynamics of school staff are critical. This common element emerged from both sectors. Along the same line, the concept of trust towards management or towards peers has recently emerged as the most crucial construct for success in business relationships (Leung et al., 2005; Kriz and Keating, 2010) and it documented the dynamic and positively reinforcing nature of trust: through information- and knowledge-sharing, middle managers improve their mutual communication; through taking over leadership tasks, organizational members can acquire broader skills and competences and the combination of these characteristics should lead to better performance.

From the DL perspective, unleashing of human potential resides in the participation and involvement of leadership activities in a meaningful manner. Such participation is the base for innovative and spontaneous behavior at an organizational level (Organ, 1988). Moreover, such participation in leadership tasks is crucial to mitigate the risk and to face environmental volatility by speeding up the process of decision-making by the lower level of employees. However, the involvement of lower management employees depends on the level of trust in the unit and in the organization, and degree of job satisfaction.

A brief remark that emerged from the interviews was the middle managers' concern for top managers' behaviours whereby a manager closely observes and/or controls the work of his/her subordinates adopting a micromanagement style or being excessively rigid. This

could deal with the so-called toxic leadership (Pelletier, 2010) because of the seriousness of consequences that are caused by leadership failure.

10.5.2 DL and innovation

This section deals with two organizational characteristics: a culture that is focused on innovation and continuous renewal (structural dimension), and committed individuals, eager to innovate (agentic dimension). A strong innovation-oriented culture, together with creative and smart individuals with a passion to bring changes in organisations, create a strong drive towards continuous innovation. According to the data, there is evidence to suggest that high DLA engagement is beneficial for a middle manager. In fact, important findings come from the results showing that DLA does have a significant positive relationship with innovative behavior. Hence, when a middle manager assumes a formal role that includes leading tasks, human relations and change, he/she is more likely to engage in innovative behavior. In other words, innovative behavior may directly be incited by the leadership agency. This finding extends the understanding from case studies of successful innovation based on DL practice (i.e. as reported in the literature review, Buchanan, et. al, 2007; Chreim et al., 2010; Fitzgerald et. al. 2013) by suggesting that DL facilitate innovative behaviour (idea generation, promotion and implementation). In addition, the positive association between DLA and innovation is in line with Chreim's (2010) finding that no formal and in this sense centralized 'change agent' role needs to be appointed for DL to emerge. This finding is also in line with notions from Van de Ven (1986), Scott and Bruce (1994), and Janssen (2000) that individual employees as opposed to a central management, "develop, carry out, react to, and modify ideas" (Van de Ven, 1986, 592), suggesting that all middle managers from both sectors context tends to display innovative behavior when they are engaged in DLA.

However, this positive association is not an automatic process. In fact, results from the qualitative analysis support the importance of trust in management as an important factor for improving DL innovative practices. The interviews confirmed that middle managers who experienced high relational trust were more likely to engage in innovative practise. In this sense, these findings were in line with studies confirming the usefulness of the construct of trust in business relationships (Leung et al., 2005; Kriz and Keating, 2010) and in educational contexts (Harris, 2014).

In line with previous studies, with particular reference to the state schools, it seems that the logic of professional hierarchy (Abbott, 2014) dominate the decision-making process in leadership. I could sense from the respondents of the interview that the power in their schools

is largely influenced by the leader's personality and type of relationship (Bate, 2000). Hence, it is necessary for the managers to promote innovation in their organization. In the iGaming sector where customers have high expectations, innovation is seen as a natural fuel for the survival of the firm; hence it is encouraged and facilitated at all levels.

Finally, in the present study, I argued that DL can be a structural element that stimulates innovative behavior. Taken together, the evidence suggests that DLA is positively associated to middle manager innovative behavior. Theoretically, however, the reverse causality could also be argued – i.e. middle managers, who generate, promote and implement an innovative idea, might afterwards be more inclined to engage in leadership agency concerning the everyday tasks relevant to the innovation. This implies that innovative behavior might lead to DLA, and thus there might be a reciprocal relationship between the two variables. An investigation into this notion is, however, outside the scope of this study, as the cross-sectional design prevents me from making inferences about causality. Future research using other design types is therefore needed to inquire further into this question.

10.5.3 DL and commitment and job satisfaction

According to the data, there is evidence to suggest that high DLA engagement is beneficial for a middle manager: the most committed, satisfied and autonomous middle managers were those, who participated most in DL with other leaders and employees.

This study empirically demonstrated DL's potential impact on relevant individual and organizational outcomes. In fact, this study showed that for middle managers in both sectors, DL is positively associated with job satisfaction and commitment.

In relation to job satisfactions, these results are well in line with research evidence from the education sector showing that DL can have a positive impact on teacher satisfaction and commitment (Hulpia and Devos 2009; Hulpia et al., 2012). This result is also in line with other research supporting the impact of leadership on job satisfaction whether directly or through mediating factors (Aydin et al., 2013; Webb, 2009; Yang, 2014). In this sense, middle managers job satisfaction is a sense which is desirable in most of the organizations and valued by the staff and it is one of the key indicators of organizational success. Lok and Crawford (2004) emphasize that both organizational performance and effectiveness are influenced by the organizational commitment and job satisfaction.

10.6 Conclusion

This chapter reflected on the main findings of the study and was organized in three sections, after a brief critical analysis of the adopted structure agency model.

The first section presented the structural elements of DL in both state schools and private enterprises. The second section discussed the agentic dimension of DL in middle management, with respect to the DLA model and measurement. Specific theoretical concepts within the DL framework were developed and measured. The last section discussed the relationship between DLA and associated variables such us innovation, performance, commitment a job satisfaction among middle managers from both sectors.

Chapter 11. Conclusions

11.1 Introduction

This is the final chapter of this thesis. It starts by presenting and highlighting the contribution of this study. Next, theoretical and practical implications are addressed. Finally, the limitations of the study are acknowledged and suggestions for further research are presented.

11.2 Contributions of this study

This study contributes to the existing research on DL in several ways. The existing literature on DL in the public sector, in particular empirical studies of DL, tends to be limited to the educational field in general (Bolden, 2011). This study extends the extant research by studying DL within two dissimilar organizational contexts, and by looking at particular layer of management which is often overlooked in literature.

Applying DL through cross comparison in the public and private sectors analysis has rarely been researched before. I therefore decided to investigate two specific organizational contexts in Malta i.e. iGaming companies and state schools which have been characterised by decentralization trends and dynamics in leadership structures and processes. Within this context, middle managers' roles have expanded into activities and responsibilities previously managed by senior leaders thus leading to more complexed and varied roles. Hence, DL processes emerged and were mainly based upon delegation, emergence and employee willingness to execute leadership functions.

The starting point of the study was a specific theoretical framework developed from the structure-agency perspective (Archer, 1995; 2000) which made possible a coherent theoretical alignment during the entire research project. In fact, to date, few empirical studies have investigated DL, most have used cross-sectional designs without incorporating a structure-agentic approach to the operationalization of DL (Bolden, 2011). In addition, cross sector comparisons gave unique possibilities for combining analysis of variation within dependent and independent variables. Within this theoretical framework, the project has improved the foundation for new theoretical developments about DL in middle management (i.e. the operationalization of the DLA). DLA in middle management has been defined as a specific form of employee agency, in which middle managers – irrespective of their formal roles - participate actively in undertaking leadership tasks in different domains. This study confirmed that this approach to leadership may provide a substantial understanding of middle management' engagement in leadership functions.

Also, in accordance with an agency-activity perspective, and in a different manner from Jonsson et al., 2016), who chose not to focus on formal leader positions, I have decided to focus on middle management positions in both sectors. My aim was to develop a survey that measured middle management' agency in leadership. To the best of my knowledge, no quantitative empirical study investigating the relationship of DLA in middle management has yet been conducted. Certainly. there are some qualitative accounts that indicate antecedents likely to develop DL (Leithwood et al., 2007; Murphy et al., 2009) but this project attempted to bridge the descriptive and normative approaches within the field of DL (Mayrowetz, 2008).

The properties of such a scale helped facilitate an investigation of different (sub)organizational patterns of DL (Gronn's (2009) concept of leadership configurations), as well as supported the understanding of the individual level of analysis. According to the data, in fact, the more DL is dispersed within an organization, the more middle managers are engaged in leadership tasks. As a consequence, leadership distribution may involve upward, downward and horizontal relationships of DL activities. In other words, the more a middle manager is involved in leadership functions, such as tasks, people or change leadership and reciprocally sharing influence, the more can the person acts intentionally and goal-oriented, thus shaping the formal and informal structural elements of a workplace.

Results from survey and interviews supported the concept that actively participating in leadership tasks offers middle managers opportunities to practice meaningful experiences that foster the development of innovation behaviours, positive perception of performance, commitment and job satisfaction without significant differences in both sectors. Also, the findings confirmed that the surveys measured invariantly across the two very different contexts and this could represent a strength. In fact, it suggests that the surveys are useful not only in school organization contexts, but also in the private sector.

Overall, the results provide hints that are in line with Archer's (1982) morphogenetic cycle. Structural properties are timely prior to actions, as they will either constrain or facilitate an action. Hence, structural properties reciprocally shape agentic properties.

In this project, 'structure' designated all the existing environmental and contextual constraints and resources for the agent (here a middle manager) who participates in leadership functions with a reciprocal influence in upward, peer and downward people. For instance, values underlie the conceptualization of the organizational culture (i.e. innovation or performative values) as well as the variety of leadership roles that middle managers perform in both sectors, can represented some examples of structural elements. Also, from

a DL perspective, autonomy as a feature of organizational structures helps to facilitate employee participation in leadership tasks. By taking over leadership tasks, employees must engage with their colleagues, develop mutual understanding, share their knowledge and discuss conflicts.

11.3 Theoretical and practical implications

The findings of the present research project bring to the foreground some theoretical and practical implications that I can regards as valuable and necessary to present.

With respect to the theoretical development of DL, the structure-agency model created in the present project turned out to be a useful theoretical tool and could thus be adopted in future research. After being applied, tested, and expanded in the empirical studies, this model seemed to generate knowledge of DL that had been earlier neglected, i.e. the interdependence of structure and agency in middle management. In terms of future research, the resource– agency duality model could be therefore used as a lens to explicate the complex dynamics of DL.

Another theoretical advancement was the opportunity to develop and specify theoretical concepts within the DL framework, including those necessary to operationalize and measure DL concepts (i.e. Attitude to involvement, Autonomy) and its relationship with identified dimensions. Despite the conceptual definition of DL, this study attempted to clarify some specific elements, affording more precise methodological operationalizations.

In addition, the findings of this study revealed the significant relationship between DLA and innovation, performance, commitment and job satisfactions. Hence it could be suggested that building and nurturing a culture and climate of distribution of leadership is a critical factor in the success of organisations. Certainly, there are some contextual conditions. For example, overall, this study showed that DL, to be implemented successfully, needs time dedicated to leadership processes and development and resources. In fact, these factors are prerequisite to find common ground across shareholders and to build up credibility and trust. In particular, time can be conceived here as a necessary investment, which may pay off in the long run.

Also, the results of this study suggest that DL can strengthen middle managers' innovation and perception of performance in the workplace. In this sense, senior managers could focus on how to encourage and support employees and middle managers to participate in leading tasks, relations and change in workplaces. DL may also motivate middle managers, and

some of this enhanced motivation may strengthen their innovative behaviour and performance.

One important concept is that DLA can be fostered trough the design of particular organizational structures in order to enable broad collaborations, such as meetings (conferences, lunch meetings). In addition, distributing leadership and decision making to middle managers, may not only pave the way for emergent patterns of DL, but also for increased shared understanding and responsibility. This will create opportunities to making room for 'middle managers' and, consequently, in a virtuous circle, for employees to come up with new ideas of innovation (employee driven innovation, Kesting and Ulhøi, 2010) or to boost positive performance. In fact, team members who are used to discussing and working together find it easier to accumulate resources and social capital, and to build up a common understanding for areas which need change and improvements. In fact, the results of this study suggested that DL can strengthen middle managers' innovation, perception of performance, commitment and satisfaction at the workplace. In this sense, senior managers could encourage and support middle management involvement and participation in leadership tasks. This is especially true for middle managers in state schools and for Heads of departments. In fact, as emerged from the official documents they are officially recognized by the Education Directorate for Quality and Standards in Education in Malta, but their role is not acknowledged in schools by head of schools since they do not take part very often of the Senior Management Team. This could be a clear example of a unitized leadership capacity since the interviewed Heads of Departments viewed their job as a profession, a vocation and a form of a mission and they are willing to take parts in leadership roles.

With respect to the DLA concept, findings are expected to be highly relevant to decision makers and top managers. In fact, these could be used to contribute to ways of overcoming unnecessary friction associated with DL, by assessing the potential for different members to engage in DL leadership practices. Also, DLA might be a significant concept in humanistic management research, which instead of profit-maximization, focusses on human dignity, employee well-being and organizational participation. Profit oriented approached are evident in schools where the standards-based reform movement has led to increased emphasis on tests, coupled with rewards and sanctions, as the basis for 'accountability' systems. Similarly, business organizations are, by definition, goal and profit- oriented. According to a humanistic management perspective, DL approaches may protect employee fundamental human needs. For example, Dierksmeier (2016, 26) pointed to the humanistic

potential of self-management-oriented leadership styles, which relate to DLA because boundaries between leaders and followers become blurred and such styles "rather advocate for the responsibility of all and the dominance of no-one. In a similar vein, Maak and Pless (2009) suggested that successful responsible leaders make their followers into leaders. However, beyond the above approaches, by its very definition DLA represents a leadership perspective in which leadership functions are distributed to all employees (with and without formal leadership authority); the consequence is that followers become leaders and leaders become followers (Unterrainer et al., 2017).

In terms of practical implications, the results of this study can also suggest effective strategies of improving leadership skills which would positively impact supervisor-employee relationship (top manager-middle manager; middle managers-employee) For example, schools and business organisations should pay more attention to improving supervisors' management and leadership skills and to monitoring the relationship between supervisors and employees. Some strategies and managerial plans need to be developed in order to increase the organizational effectiveness further. Professionals and trainers can use the results from the current study to develop leadership development training interventions, based on organisational and individual needs. The organizational culture should be such that employees are encouraged to get involved in decision making, strategic thinking and futuristic planning. In relation to the DLA construct, if the agentic approach is preferred, the newly developed questionnaires is a strong measurement tool, which can be used in further studies. This tool might also be used as a "diagnostic tool" to assess the level of engagement of managers and might be particular useful as part of engagement surveys or during training and coaching sessions to assist in personal and leadership development. While the scale could be of less value for structural approaches of DL, other dimensions within the DL approach and other theoretical notion of interest within the DL theoretical (i.e. Gronn (2002)'s different forms of configurations) could be supplement the scale. By applying Yukl et al.' (2002) meta categories of leadership, I also do not claim to have identified all possible leadership areas that can be distributed, and the scale may be subject to further development to meet local demands. In such a case, the scale is illustrative as a method for formulating items to measure agency in new leadership areas.

11.4 Limitations of the study

Although this research study has several strengths and results provide crucial insights into the importance of employee relations and conditions for DL research, I am also aware of limitations that must be addressed in light of interpreting the findings.

The national context of Malta may be a potential contextual limitation that applications of the scales in other countries need to supplement. In fact, other national or cultural contexts may be structured differently. In this sense, a relatively high-power distance and individualism characterizes Maltese national culture (Hofstede Insights, 2018). At face value, such a cultural environment may not stimulate the organizational practices of forming relationships based on sharing leadership functions and mutual influence. The fact that the practice is somewhat at odds with the prevailing culture adds to the strengths of the findings. Since DLA can be measured consistently and is positively related to middle managers' commitment and satisfaction in Malta, I could be more confident about the possibilities for generalization to other countries, both within the same cultural cluster and for cultural clusters more benign towards sharing power and leadership (i.e. low power distance and collective cultures).

In addition, investigating DL in one specific sector (the iGaming and the schooling sectors) could be a further limitation of this study, as generalizability of the findings to other populations may be substantially restricted. The external validity refers to the "degree to which the results can be generalized to the wider population, cases or situations" (Cohen et al., 2007, 136.). Whilst the middle managers in schools and iGaming companies in this study were selected to ensure a "naturalistic coverage" (Ball, 1984, 75) of the state schools and iGaming companies that represent the vast majority of organisations in the Maltese islands no single school can be truly representative or reflective of the sector. Further research could investigate DLA in different economic branches, with a broad range of firms or sectors.

A significant step in this direction was the opportunity in February 2018 to be granted a scholarship at the School of Education - Tallinn University in Estonia where I had the opportunity to translate the survey in the Estonian language to collect data from Estonian teachers in order to find out how effectively DLA may operate in relation to Estonian schools. Data were collected but not analysed yet. However, this opportunity gave me the possibility to expand my research finding in terms of cross- cultural perspective which were in line with the strategic goals (2015-2020) of Tallinn University. The DLA model could be a useful lens through which the development and implementation of the 21st century learning culture in the Estonian educational sphere can be supported, by adding understanding to new

way of managing educational institutions, facilitating new approaches that support the contemporary teaching and learning culture.

In terms of methodology, there are some limitations. With respect to the Study 1 (documentary research), one limitation of this study could be the rhetorical character of many existing DL policy documents and mission statements which often fail to relate to daily school practices (Torrance, 2013). Similarly, in the business sector, many job adverts and policy available documents usually praise a team working culture in which everyone can express its potentiality. More specifically, one of the main aims of Study 1 was to discover and report differences and similarities of how DL is espoused in two different organizational contexts through the analysis of mission's statements or other official documents. The analysis was performed only on mission statements that are published on internet or on official websites. They do not represent the whole, formally defined organisations' mission but just a part of it. In fact, this analysis provided only an overview of how various organizations of both sectors are representing themselves. However, I could not extrapolate behaviours of organizational members from espoused organizational DL values. In the same way, the analysis of middle managers' job responsibilities through the job adverts forms part of a reality which is recorded and codified in documents. In fact, a job advert does not necessarily reflect the 'reality' of jobs as it is perceived and experienced by middle managers. Taking these aspects into consideration, research carried out based only on published data without closer investigation into the realities of the researched organizations is likely to produce erroneous conclusions. In this sense, documents bring difficulties (Bailey, 2008). They may be highly biased and selective, as they were not intended to be regarded as research data but were written for a different purpose, audience and context. They, themselves, may be interpretations of events rather than objective account (Cohen et al., 2007).

Another limitation of this study is that this research focused only on middle managers' perceptions of DL and does not claim that these are totally objective. As suggested by Harris (2011), one of the difficulties in studying DL is the multiple sources of influences in organizations and their impact on DL, which makes it hard to isolate practices exclusive to DL. However, future studies should therefore take a more comprehensive approach in investigating the phenomenon, i.e. in the school sector with triangulated data using students' achievement levels and the perspectives of parents and the wider community. Given that the main sample was composed by middle managers, this research could be replicated with top

managers and/or employees to compare and contrast results. This would offer a more comprehensive picture of leadership styles in the different sectors.

In Study 2, there were also some limitations. Self-rated questionnaires were used to collect the data on all the measures (i.e. performance and innovation). In recent years, the use of subjective performance measures has been somewhat contested within the literature due to the risk of common method bias and social desirability bias of using such measures compared with more objective measures (Meier and O'Toole, 2013). In other words, if all the middle manager's measures were measure at the subjective level, the common method variance could be a source of bias in the results. In addition, in a cross-sectional study, data are collected on the whole study population at a single point in time, the findings about relationships between variables do not indicate the direction of causality. However, the study's primary purpose was not to investigate the dynamics between variables across time. In this sense, for the present purpose, the comparative, cross-sectional design provides data in order to validate the questionnaire scales.

The questionnaire method applied here can be used to measure middle managers' active engagement in DL configurations (with top managers, peers or team member) and the totality of these engagements (i.e. DLA). In this sense, the measurement instrument catches an individual's generalization of DL actions. Therefore, the data source is the individual, whereas the level of analysis or reference is his or her relational and agentic experiences of DL. Studies using observational methods or multisource data could supplement this by assessing the degree of agreement about the intensities of DL in the configurations. Disagreements between data from middle managers and other agents, or factual observations, may be an interesting source of data about how DL is experienced and operates for future studies.

Overall, I am aware of the methodological limitations of self-reported measures, I acknowledge that it only provides an indication of actual individual performance or innovation. Hence, it would be a good idea – if possible - to incorporate some of the objective measures of employee's/manager's performance/innovation in future studies too.

Methodologically, future studies could apply processual, comparative or more experimental research design to further explore factors which enable or inhibit DL, determinants and conditions, dynamics and underlying processes and outcomes of DL. Future research using other design types is therefore needed to inquire further into this question. In this study a mixed method approach was used for Study 2 where findings from interviews helped explain findings from the questionnaire. Undertaking the study sequentially was found to be a

sensible and practical way of undertaking the research since it allowed for clarity of collection of data, analysis and evaluation. Limitations are likely to be inevitable when undertaking research with people. However, using mixed methodology can help reduce possible limitations where findings from interviews can be used to explain findings from quantitative surveys. In turn, fuzzy generalisations can be made (Bassey, 2001). As further studies are undertaken greater clarity may be forthcoming. Dutton (2013,92) provides a good explanation in which "the screen of life is densely populated with millions upon millions of pixels; the repeated interaction of which, gives rise to the bigger picture."

11.5 Conclusion

This study should be considered as a beacon, illuminating the path and guiding the journey towards the exploration of the DL in middle Management in Malta. It was the first major study undertaken in Malta which compares schools and iGaming companies and thus, claims significant contextual, empirical and theoretical contributions to the body of knowledge on educational and business leadership. The notions introduced in this chapter and, by extension, in this thesis, are not wholly novel. In fact, DL has been researched across different sectors. However, the research field of DL consists of loose and contested theoretical concepts and the main contribution of this thesis was the concept of DLA applied to middle management along with the coalescence of both structural and agentic dimensions. Grounded in this approach, the present study aimed to contribute to the field by developing clear key concepts and validating a questionnaire scale to measure these dimensions. The study contributed to the field of research and practice by providing clearer concepts and measurement tools that can be useful in quantitative and mixed methods research across organizational types.

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Appendices

Appendix 1. General Information about the Maltese education System

Malta is made up of a group of small islands; the two larger and inhabited islands are Malta and Gozo. Its position in the middle of the Mediterranean and its natural harbors have attracted a number of colonial powers to take possession of the islands. As a result, Malta has an extremely rich cultural inheritance.

The population is concentrated on the two main islands Malta and Gozo. A survey conducted by Sciriha and Vassallo (2001) indicates that Maltese is the first language for 98.6% of the Maltese population. However, 87% of the Maltese people claim to be proficient in English to various degrees, for example 31.7% of them state to use English well and 39.1% - very good. Hence, Maltese and English are used as a medium of instruction in different situations, and to varying degrees depending on the type of school. Consequently, most of the Maltese pupils are able to understand and follow instructions in both languages to certain extent

All children between the ages of five and sixteen are entitled to free education in all state schools regardless of age, sex, belief and economic means.

The Ministry of Education and Employment is responsible for the provision of education in Malta. The Directorate for Quality and Standards in Education (DQSE) is specifically responsible to regulate, evaluate, and report on the various sections of the compulsory education system, with the aim of assuring quality education for all. Education in Malta is offered through three different providers: the state, the church, and the private sector

1.1 Stages of the Education System

Formal education in Malta is divided in four stages: early years (from 3 to 6 years), junior years (from 7 to 11 years), middle years (from 11 to 13 years) and secondary years (from 14 to 16 years).

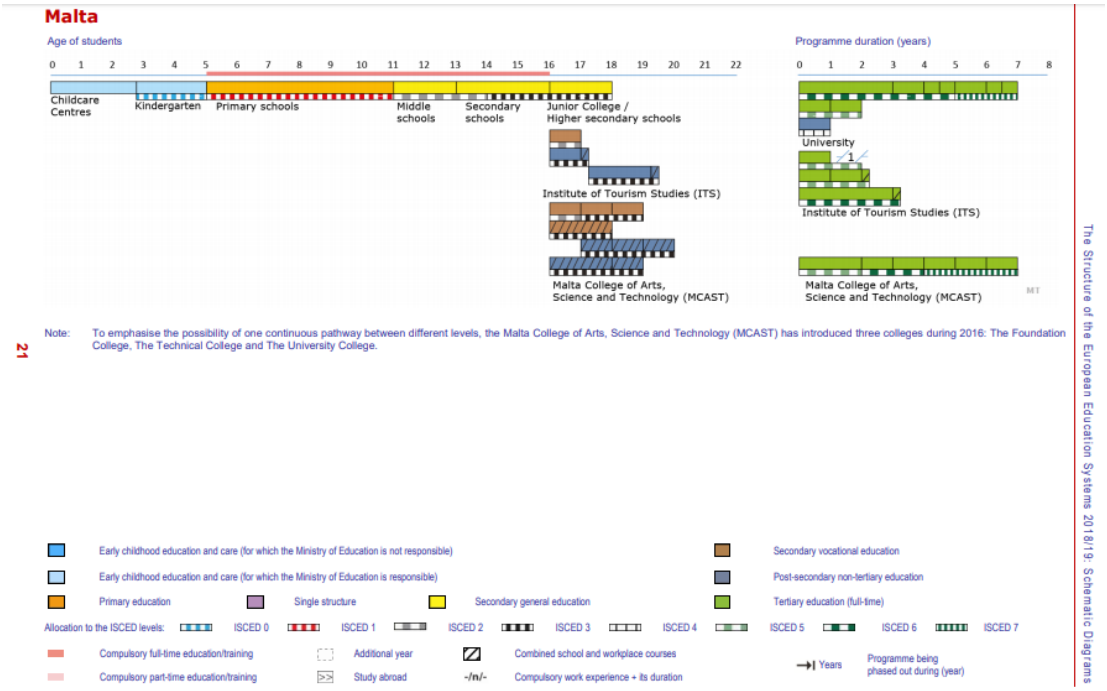

Fig. 1.1 Stage of the education system (Eurydice, 2019)

1) Early childhood education and care, available for children from the age of 3 months up to 2 years and 9 months, is provided at centres run by both the state and private entities

2) Primary education consists of a 6-year programme which addresses general and vocational themes.

3) As from 2014, co-education has been introduced in the secondary cycle. The phasing in of middle schools (from age 11 to 13) ensures that smaller sized school communities result in more individual

attention and a more caring environment that promotes better student-teacher relationships. The curriculum addresses general and vocational skills.
4) All secondary schools (from age 13 to 16) provide general education courses and also options for students who want to follow a vocational career pathway. At the end of secondary education students are awarded a Secondary School Certificate & Profile (SSC&P) that recognizes formal, non-formal and informal education

Following compulsory education students can choose to follow either a general or a vocational post-secondary education path (from age 16 to 18). General and some vocational education programmes are intended to lead to tertiary education. The main institutions at post-secondary level are the Junior College Malta, the Malta College of Arts, Science and Technology (MCAST) and the Institute of Tourism Studies (ITS), the latter providing hospitality courses.
The University of Malta (UoM), also an autonomous institution, offers tertiary general education programmes ranging from certificate and under-graduate level to doctoral leve

1.2. Brief historical overview of the Maltese education system

Due to its colonial past, Malta's state school sector drew its main inspiration from the British education system one could say up to the early 1990s (Sultana, 1997).
In the last decades the erstwhile British based educational system, developed over the past two centuries, has undergone considerable growth and development, as the country has sought to adopt a system suited to its needs as a developing small island state.
In 1964, the Maltese Islands gained independence from the UK and a number of educational reforms were implemented. As summarized by Cutajar et al. (2013) the main educational landmarks in the history of Maltese Education since Independence are:

- secondary education for all in 1970
- reviewing the school leaving age in 1974 – the compulsory school leaving age was raised from 14 to 16
- in 1988 a new Education Act established the onus of the State to provide compulsory education to all Maltese citizens so as to meet the needs of society, and recognized the professional status of teachers and set up School Councils (Laws of Malta, 1988)
- 1989 saw the creation of the first National Minimum Curriculum, which attempted to describe what compulsory education was meant to be doing
- the 1994 new organizational structure of the Education Division saw the creation of the Department of Curriculum Development, Implementation and
- in 2000 there was the publication of the second National Minimum Curriculum.

1.3. Decentralization reforms

The reform process that Maltese education has been going through since 1964 has reached an extremely significant stage in its journey in the last decade, predominantly as a result of the publication of the policy document *For All Children to Succeed'* (Ministry of Education, Youth and Employment, 2005) in 2005 which mandated collegiality in the state school system.
This document sets out the Government's strategy to transform the existing educational system into one that would foster new professional identities ready to embrace innovative changes that may be introduced, as well as learning communities that would provide the appropriate scenario to ensure a quality education for all.
The latest education policy agenda, spearheaded by the *Education (Amended) Act* of 2006, sees the clustering of all Maltese primary and secondary schools into ten regional colleges. In other words, Maltese state schools were organized into 10 colleges between 2006 and 2008. 'College' is the legal term chosen to denote the network of schools, made up of a number of primary schools feeding into secondary schools according to their geographical location. This setup is meant to ensure that

children will begin and finish their education in the same college, ensuring a smooth transition across all levels through internal exams, control, and accountability.
This major reform necessitated the introduction of new roles and new responsibilities, amongst which was the deployment of the College Principal, designated to be the educational leader of the college as a whole. Besides ensuring "an effective and efficient dialogue with all Heads of School and stakeholders", the Principal is also "expected generally to execute and implement efficiently the policies of the College" (FACT, 2005, 73). The *Education Act* (2006) compels the Principal to hold a monthly meeting for all the Heads of School in the college, which is legally known as the 'Council of Heads'(CoH), to enable all the leaders to build and maintain open channels of communication within and beyond the school community. The CoH is primarily expected to 'nurture a spirit of collegiality in the running of the college while developing a common ethos and identity' (Art. 55, 621–622).

1	St. Margaret College	Vittoriosa
2	Maria Regina College	Mosta
3	St. Benedict College	Kirkop
4	St. Nicholas College,	Mgarr
5	San Ġorġ Preca College	Ħamrun
6	St. Theresa College,	Mriehel
7	St. Ignatius College,	Qormi
8	St. Thomas More College	M'Xlokk
9	St. Clare College,	Pembroke
10	Gozo College	Victoria
11	Mikiel Anton Vassalli College (from 2018)	Xewkija

Tab. 1.1 List of Colleges

The *Education Act* (2006) and the policy document *For All Children to Succeed* not only mark the culmination of a long process that brought about a paradigm shift in educational vision and the enabling structures needed to bring about and manage the envisaged change but can also be considered as the high-water mark for stronger inter-school collaboration and partnership with the external communities.

Appendix 2. General information about the iGaming sector

Malta has become the European hub for i-Gaming. Malta licenses remote gaming operations of companies engaged in the business offering games such as casino, poker, sports betting, lotteries and software vendors through distance communication. Remote gaming operators established in Malta benefit from a stable legal regime thanks to the robust *Remote Gaming Regulations* (2004) as well as from very attractive fiscal incentives including advantageous corporate and gaming tax rates
In fact, Malta was the first to regulate the gaming industry in Europe, since joining the European Union (EU) in 2004. This choice progressively metamorphosed into a flourishing and lucrative sector witnessing Malta's emergence as a leader in the field as a gaming jurisdictional hub (MGA, 2017).
The application of common market principles applied by EU member states, including Malta, and the freedom of movement of both goods and services, are deemed to be the most fundamental factors.

2.1 Origins of iGaming

Lottery games have probably been played in Malta since the end of the 17th century. However, it was only in 1922 that the *Public Lotto Ordinance* was enacted to establish the government monopoly on organising lottery activities. The Race course Betting Ordinance was subsequently enacted in 1934 to regulate horse and dog racing licences. The next development came in 1958 when the Kursaal Ordinance, regulating casino activity, was enacted. This statutory instrument was subsequently superseded by the Gaming Act 1998, which set out further controls and reinforced the regulatory framework for casinos.
In 2001 the *Lotteries and Other Games Act* (Lotteries Act) was passed. This Act established the Malta Gaming Authority, which replaced the Director of Public Lotto, and incorporated most gaming legislation into a single legislative instrument. The only exception is casinos, which continue to be regulated by the Gaming Act (Chapter 400, Laws of Malta).
Regulation of online gaming came into force in 2000 through amendments to the Public Lotto Ordinance. These regulations remained effective until 2004, when the Remote Gaming Regulations came into force. The regulations shifted the focus away from 'games' and towards the 'means' by which the gaming was offered. The new regulatory regime became both:

- Game neutral (applicable to all types of games).
- Technology neutral (applicable to almost any type of technology, including internet, mobile, telephone and other types of remote gaming).

2.3. Malta Gaming Authority

The Malta Gaming Authority (MGA) is the regulatory body responsible for the governance and supervision of all gaming activities in, and from, Malta. The Authority oversees within
its jurisdiction the provision of fair, responsible, safe and secure gaming services, with particular emphasis on the prevention of crime, fraud and money laundering, together with the protection of minors and vulnerable persons. The Authority's key functions include:

- regulating gaming;
- supervising licensees and overseeing gaming operations;
- ensuring fit and properness of individuals and companies in possession of a licence issued by the MGA;
- on-going monitoring and ensuring licensees are in compliance with the laws and regulations;
- acting as a supervisory Authority in accordance with the Prevention of Money Laundering and Funding of Terrorism Regulations;
- assessing licence applications and issuing approvals in line with the MGA requirements;
- supporting and investigating player complaints;
- advising the Government on new developments and risks in the sector; and

- submitting legislative proposals to address changes within the sector

It is the Authority's mission to regulate competently the various sectors of the gaming industry that fall under the Authority by ensuring gaming is fair and transparent to the players, by preventing crime, corruption and money laundering and by protecting minor and vulnerable players

2.4. Gaming Industry Growth Statistics (MGA, 2018)

The gaming industry is estimated to have generated just over €1.4 billion1. in terms of gross value added in 2018, as shown in Table 2.1. This represented a 12.1% growth over 2017, when the industry had already increased its gross value added by 10.4% year-on-year.
As a result of this momentum, the gaming industry's share in economic activity over the past years has increased, to stand at around 13.2% by 2018.
The gaming industry directly accounted for just below 6,800 jobs in full-time equivalent terms as at the end of 2018. It is estimated that the expenditure by gaming firms in Malta generates the equivalent of an additional 3,000 full-time equivalent jobs in other economic sectors with high value added. A survey carried out by the MGA for the year 2018 indicates that, when taking indirect employment into account, the total employment in the gaming industry was estimated to be around 9,850 full-time equivalent (FTE) jobs. The sustained growth in employment further attests to the sector's significant contribution to the Maltese economy. The growth registered by the gaming industry activity in Malta in 2018 remained significant, both in terms of performance in earlier years as well as in the context of the development of gaming activity globally. This in part reflects the development of a new Gaming Act, which re-regulated the gaming industry, and thus repositioned Malta as a jurisdiction of choice. During 2018, companies based in Malta consolidated their operations towards service delivery robustness, quality and consumer satisfaction, driven also by regulatory requirements.

Appendix 3. University of Lincoln Ethical Approval (EA2)

For completion by the Chair of the School of Education Research Ethics Committee

Please select ONE of A, B, C or D below.

☒ **A. The School of Education Research Committee gives ethical approval to this research.**

☐ **B. The School of Education Research Committee gives *conditional* ethical approval to this research.**

12 Please state the condition (including the date by which the condition must be satisfied, if applicable).	

☐ **C. The School of Education Research Committee cannot give ethical approval to this research but refers the application to the College of Social Sciences Research Ethics Committee for higher level consideration.**

13 Please state the reason.	

☐ **D. The School of Education Research Committee cannot give ethical approval to this research and recommends that the research should *not* proceed.**

14 Please state the reason.	

Signature of Chair of School of Education Research Committee (or nominee)

Signed **Date 10 September 2014**

Appendix 4. Request for Research in State schools and authorization letter

DIREKTORAT GHAL
KWALITA' U STANDARDS FL-EDUKAZZJONI
FURJANA VLT 2000
MALTA

DIRECTORATE FOR
QUALITY AND STANDARDS IN EDUCATION
FLORIANA VLT 2000
MALTA

Request for Research in State Schools

A. (Please use BLOCK LETTERS)

Surname: BUFALINO Name: GIAMBATTISTA

I.D. Card Number: YA7987921

Telephone No:_____* Mobile No: 77890339 *

Address: VIA NINO OXILIA 41,

Locality: RAGUSA Post Code: 97100

E-mail Address: bufalinogiambattista@gmail.com

Faculty: **SCHOOL OF EDUCATION, UNIVERSITY OF LINCOLN**
Course: **PhD in EDUCATIONAL RESEARCH** Year Ending: **2017**

Title of Research: **Distributed leadership in middle management**

Aims of research: ☐ Long Essay **X Dissertation** ☐ Thesis ☐ Publication

Time Frame: 6 months Language Used: English

Description of methodology:
Mixed method design: online survey and interviews

School/s where research is to be carried out: **Schools (primary and secondary) across the 10 Colleges with the aim to collect 100 responds from middle managers (e.g. Heads of Subject/Department)**

Years / Forms:_____ Age range of students:_____

*** Telephone and mobile numbers will only be used in strict confidence and will not be divulged to third parties.**
I accept to abide by the rules and regulations re Research in State Schools and to comply with the Data Protection Act 2001.
Warning to applicants - Any false statement, misrepresentation of concealment of material fact on this form or any document presented in support of this application may be grounds for criminal prosecution.

Signature of applicant: Date: 28-04-2017

B. Tutor's Approval (where applicable)

The above research work is being carried out under my supervision.

Tutor's Name: Dr Joss Winn Signature: _____

Faculty: School of Education, College of Social Science

Faculty Stamp: We do not use a stamp. Please contact jwinn@lincoln.ac.uk if you require further information from me in support of this research.

C. Directorate for Quality and Standards in Education - Official Approval

The above request for permission to carry out research in State Schools is hereby approved according to the official rules and regulations, subject to approval from the University of Malta Ethics Committee.

Date: 18/05/2018

Raymond Camilleri
Director
EU Affairs, International Relations
Research and Policy Development Directorate
Official Stamp

Director
(Research and Development Department)

Conditions for the approval of a request by a student to carry out research work in State Schools

Permission for research in State Schools is subject to the following conditions:

1. The official request form is to be accompanied by a copy of the questionnaire and / or any relevant material intended for use in schools during research work.

2. The original request form, showing the relevant signatures and approval, must be presented to the Head of School.

3. All research work is carried out at the discretion of the relative Head of School and subject to their conditions.

4. Researchers are to observe strict confidentiality at all times.

5. The Directorate for Quality and Standards in Education reserves the right to withdraw permission to carry out research in State Schools at any time and without prior notice.

6. Students are expected to restrict their research to a minimum of students / teachers / administrators / schools, and to avoid any waste of time during their visits to schools.

7. As soon as the research in question is completed, the Directorate for Quality and Standards in Education assumes the right to a full copy (in print/on C.D.) of the research work carried out in State Schools. **Researchers are to forward the copies to the Assistant Director, International Research, Directorate for Quality and Standards in Education.**

8. Researchers are to hand a copy of their Research in print or on C.D. to the relative School/s.

9. In the case of video recordings, researchers have to obtain prior permission from the Head of School and the teacher of the class concerned. Any adults recognisable in the video are to give their explicit consent. Parents of students recognisable in the video are also to be requested to aprove that their siblings may be video-recorded. Two copies of the consent forms are necessary, one copy is to be deposited with the Head of School, and the other copy is to accompany the Request Form for Research in State Schools. Once the video recording is completed, one copy of the videotape is to be forwarded to the Head of School. The Directorate for Quality and Standards in Education reserves the right to request another copy.

10. The video recording's use is to be limited to this sole research and may not be used for other research without the full consent of interested parties including the Directorate for Quality and Standards in Education.

Appendix 5. Job description of Assistant Head, Head of Department, Head of Department (Primary). Source: *Job description Handbook for grades and position within the Directorate for Quality and Standards and the Directorate for educational Services*

ASSISTANT HEAD OF SCHOOL

Overall Purpose of Position

• To assist and deputise for the Head of School in the efficient and effective management and control of the human, physical and financial resources of the school, and

• To offer professional leadership in the implementation and development of the National Curriculum Framework.

Main Responsibilities

• Assisting in managing the school or such part of the school as may be determined by the Head of School;

• Undertaking any professional duties which may be delegated to him/her by the Head of School;

• In the absence of the Head of School, undertaking the management and professional duties of the Head of School;

• Adopting and working towards the implementation of the school development plan of the particular school they are giving service in;

• Providing professional support to teachers in the proper execution of their pedagogical duties, particularly by mentoring new teaching staff

• Co-operating with the Head of School in the implementation and evaluation of curriculum innovation and development within the school;

• Acquiring experience in the management of different levels of school, including taking charge of the kindergarten section of the school, if applicable;

• In cases of emergency, taking charge of a class;

• Encouraging participation in EU projects and other projects in accordance with the SDP targets and as agreed with the Senior Management Team

HEAD OF DEPARTMENT (Subject or Group of Subjects)

Heads of Department are expected to work together with the College and School educational leadership to ensure high standards of teaching and learning practice and processes while being guided by Education Officers.
The duties and responsibilities of a Head of Department (Subject/Group of Subjects) shall include the following:

• Performing the duties of Teacher (see Job Description of a Teacher) and Head a Department for a particular subject or group of subjects;

• Actively assisting the Head of School in ensuring the good professional practice, standards, and quality of teaching and learning of subject/s through proper dialogue with the class teachers and, under the direction of the relative Education Officer, promotes a healthy process of reciprocal informal observation of class teaching practices;

• Advising and contributing to curriculum development at school and system level under the direction and guidance of the respective Education Officer;

• Co-ordinating the teaching and learning of the subject/s for which one is responsible;

• Setting examination papers, co-ordinating marking schemes and moderating examinations and assessment processes at one's school as well as in other schools;

• Ensuring timely and adequate provision of textbooks, materials, and equipment required for the effective teaching of the subject across schools in the College;

• Ensuring that the maintenance and upkeep of equipment related to the subject at school is regularly carried out;

• Preparing specifications and budgets for the requirements of the subject-specific teaching tools and equipment, including laboratory equipment;

• Mentoring (Appendix 1) other teachers in the subject/level of their speciality;

• Holding and leading regular departmental meetings and ensuring the keeping of minutes;

• Encouraging participation in EU projects and other projects in accordance with the SDP targets and as agreed with the Senior Management Team.

HEAD OF DEPARTMENT (Primary)

The duties and responsibilities of a Head of Department (Primary) shall include the following:

• Performing the duties of Head of Department and perform limited Teacher duties (see Job Description of a Teacher) to ensure one remains in touch with the practice;

• Actively assisting the Head of School in ensuring the good professional practice, standards, and quality of teaching and learning of subject/s through proper dialogue with the class teachers and, under the direction of the relative Education Officer, promotes a healthy process of reciprocal informal observation of class teaching practices;

• Advising and contributing to curriculum development at school and system level under the direction and guidance of the respective Education Officers;

• Co-ordinating the learning and teaching of the Primary Curriculum;

• Co-ordinating the setting of examination papers and marking schemes and moderating examinations and assessment processes at one's school/s;

• Ensuring the timely and adequate provision of textbooks and materials required for effective teaching and learning;

• Assisting the Head of School in the preparation of specifications and budget for curricular requirements.

• Encouraging participation in EU projects and other projects in accordance with the SDP targets and as agreed with the Senior Management Team

Appendix 6. Letter to request Principal's endorsement

Dear XXX,

I hope this email finds your well.

My name is Giambattista Bufalino, a doctoral student at the University of Lincoln. I am conducting comparative research on middle management in Maltese schools and the business sector. Specifically, I am interested in exploring the role of middle managers in Maltese schools in relation to the distributed leadership model and how their responsibilities are distributed amongst other member of staff. Your endorsement will be a valuable contribution to my research, which could lead to recommendations for how to improve leadership practises and conditions in schools.

The University of Lincoln has given ethical clearance for this project and it is being run in accordance with Malta's ethical and data protection requirements. I have also obtained approval to conduct research in State schools from the Directorate for Quality and Standard in Education (see attached).

I do have all the contact emails of head of schools and I am in the process of acquiring middle managers 'institutional email addresses. This would allow me to distribute an online survey to them.

I would greatly appreciate if you could endorse my research project by sharing this information with your schools.

I will be happy to discuss the findings of this study and to provide you with a full report of research.

I would really appreciate your help. If you have any question, please do not hesitate to contact me 00356 77890339 / bufalinogiambattista@gmail.com

Looking forward to hearing from you soon
Giambattista Bufalino

Appendix 7 Survey email invitation (middle managers)

Dear XXX

My name is Giambattista Bufalino, a doctoral student at the University of Lincoln. I am conducting comparative research on middle management in Maltese schools and the business sector. So far, my research shows that middle managers occupy a pivotal position in the public and in the private sectors; however, their role is often overlooked.

For this reason, I am interested to explore the unique role of middle managers in Maltese schools and how leadership roles and responsibilities are actually distributed between senior leaders, middle managers, teachers or other members of staff.

Although the term 'distributed leadership' is emphasised in national policies and it reflects current changes in industry, very little is known about its practice and perception. Therefore, as a middle manager you are an in an ideal position to describe it from your own perspective. Your participation will be a valuable contribution to my research and could lead to recommendations for how to improve middle leadership practices and conditions. You will also be provided with a full report of the research and invited to a future seminar to discuss the findings.

Your participation involves filling an online survey that will take approximately 15 minutes. You may also opt to contribute further through a personal interview and/or a discussion group with other middle managers. All information you provide will be anonymized and all data will be stored through a password protected electronic format. The University of Lincoln has given ethical clearance for this project and it accords with Malta's ethical and data protection requirements.

If you have any questions, please do not hesitate to ask! (bufalinogiambattista@gmail.com)

I would really appreciate your help in making this an informative and useful study.

Thank you,

Giambattista Bufalino

Appendix 8. On line surveys for middle managers (school and iGaming versions)

Dear XXX

My name is Giambattista Bufalino, a doctoral student at the University of Lincoln. I am conducting comparative research on middle management in Maltese schools and the business sector. So far, my research shows that middle managers occupy a pivotal position in the private sector; however, their role is often overlooked. For this reason, I am interested to explore the unique role of middle managers in Maltese iGaming companies and how leadership roles and responsibilities are actually distributed between senior leaders, middle managers, or other members of staff. Although the term 'distributed leadership' is emphasised and it reflects current changes in industry, very little is known about its practice and perception. Therefore, as a middle manager you are an in an ideal position to describe it from your own perspective. Your participation will be a valuable contribution to my research and could lead to recommendations for how to improve middle leadership practices and conditions. You will also be provided with a full report of the research. Your participation involves filling an online survey that will take approximately 20 minutes.

You may also opt to contribute further through a personal interview and/or a discussion group with other middle managers. This research has not been commissioned by any organisation or agency. All information you provide will be anonymized and all data will be stored through a password protected electronic format. The University of Lincoln has given ethical clearance for this project and it accords with Malta's ethical and data protection requirements. If you have any questions, please do not hesitate to ask! (bufalinogiambattista@gmail.com)

I would really appreciate your help in making this an informative study

ELECTRONIC CONSENT

Please select your choice below.

Ticking on the "agree" button below indicates that:

- you have read the previous information
- you voluntarily agree to participate and you can withdraw at any time

☐ Agree

☐ Disagree agree

Please indicate how strongly you agree or disagree with the following statements:

Q1) Involvement in an organisation's decision making is important for the employees' well-being

- ❍ Strongly disagree
- ❍ Disagree
- ❍ Neither agree nor disagree
- ❍ Somewhat agree
- ❍ Strongly agree

Q2) The productivity of an organisation is improved if the employees are involved in the organisation´s decision making.

- ❍ Strongly disagree
- ❍ Disagree
- ❍ Neither agree nor disagree
- ❍ Somewhat agree
- ❍ Strongly agree

Q3) Involvement of employees in an organisation's decision-making results in better cooperation with management

- ❍ Strongly disagree
- ❍ Somewhat disagree
- ❍ Neither agree nor disagree
- ❍ Somewhat agree
- ❍ Strongly agree

Based on your experience as a middle manager in your organisation, please answer the following questions:

IGAMING VERSION

In this section, we are interested to know how leadership responsibilities and tasks are distributed between your direct manager (CEO, or other top managers), other middle managers (i.e. colleagues of similar status) and employees who report to you (i.e. members of you team). Based on your experience as middle manager, please answer the following questions.

Q4) How actively engaged are you in collaborating with your manager on managing changes? (e.g. changing organisational processes, products, and/or services...)

SCHOOL VERSION

In this section we are interested to know how leadership responsibilities and tasks are distributed between your direct manager (i.e. head of school), other middle managers (other assistant heads or

HoDs) or employees who report to you (i.e. teaching staff). Based on your experience as a middle manager in your organisation, please answer the following questions:

Q4) How actively engaged are you in collaborating with your manager on managing changes? (e.g. changing teaching/learning practise and processes...)

- ❍ Not at all
- ❍ Slightly
- ❍ Moderately
- ❍ Very
- ❍ Extremely

Q5) How actively engaged are you in collaborating with your manager on ensuring that tasks are organised and carried out in an efficient manner?

- ❍ Not at all
- ❍ Slightly
- ❍ Moderately
- ❍ Very
- ❍ Extremely

Q6) How actively engaged are you in collaborating with your manager on ensuring there are good conditions for employees' development and well-being? (e.g. providing recognition, training opportunities, creating a nice workplace...)

- ❍ Not at all
- ❍ Slightly
- ❍ Moderately
- ❍ Very
- ❍ Extremely

Q7) How influential are you in this collaboration?

- ❍ Not at all
- ❍ Slightly
- ❍ Moderately
- ❍ Very
- ❍ Extremely

Q8) How influential is your manager in this collaboration?

- ❍ Not at all
- ❍ Slightly
- ❍ Moderately
- ❍ Very
- ❍ Extremely

IGAMING VERSION

Q9) How actively engaged are you in collaborating with your peers (employee of similar status, e.g. other middle managers) on managing changes? (e.g. changing organisational processes, products and/or services...)

SCHOOL VERSION

Q9) How actively engaged are you in collaborating with your peers (employee of similar status, e.g. other middle managers) on managing changes? (e.g. changing teaching/learning practise and processes...)

- ❍ Not at all
- ❍ Slightly
- ❍ Moderately
- ❍ Very
- ❍ Extremely

Q10) How actively engaged are you engaged in collaborating with your peers (employee of similar status, e.g. other middle managers) on making sure that tasks are organised and carried out in an efficient manner?

- ❍ Not at all
- ❍ Slightly
- ❍ Moderately
- ❍ Very
- ❍ Extremely

Q11) How actively are you engaged in collaboration with your peers (employee of similar status, e.g. other middle managers) on ensuring there are good conditions for employees´ development and well-being? (e.g. providing recognition, training opportunities, creating a nice workplace...)

- ❍ Not at all
- ❍ Slightly
- ❍ Moderately
- ❍ Very
- ❍ Extremely

Q12) How influential are you in this collaboration?

- ❍ Not at all
- ❍ Slightly
- ❍ Moderately
- ❍ Very
- ❍ Extremely

Q13) How influential are your peers (employee of similar status, e.g. other middle managers) in this collaboration?

- ❍ Not at all
- ❍ Slightly
- ❍ Moderately
- ❍ Very
- ❍ Extremely

IGAMING VERSION
Q14) How actively engaged are you in collaboration with employees who report to you on managing changes? (e.g. changing organisational processes, products and/or services...)

SCHOOL VERSION
Q14) How actively engaged are you in collaboration with employees who report to you (i.e. teachers) on managing changes? (e.g. changing teaching/learning practise and processes...)

- ❍ Not at all
- ❍ Slightly
- ❍ Moderately
- ❍ Very
- ❍ Extremely

Q15) How actively engaged are you in collaborating with employees who report to you on ensuring that tasks are organised and carried out in an efficient manner?

- ❍ Not at all
- ❍ Slightly
- ❍ Moderately
- ❍ Very
- ❍ Extremely

Q16) How actively engaged are you in collaborating with employees who report to you on ensuring there are good conditions for employees' development and well-being? (e.g. providing recognition, training opportunities, creating a nice workplace...)

- ❍ Not at all
- ❍ Slightly
- ❍ Moderately
- ❍ Very
- ❍ Extremely

Q17) How influential are you in this collaboration?

- ❍ Not at all
- ❍ Slightly
- ❍ Moderately
- ❍ Very
- ❍ Extremely

Q18) How influential are employees who report to you in this collaboration?

- ❍ Not at all
- ❍ Slightly
- ❍ Moderately
- ❍ Very
- ❍ Extremely

Please answer the following on a scale from NONE to VERY MUCH

Q19) How much influence do you have on how your daily work is carried out?

- ❍ None
- ❍ A bit
- ❍ Some
- ❍ Much
- ❍ Very much

Q20) How much influence do you have on how your daily work tasks are organised

- ❍ None
- ❍ A bit
- ❍ Some
- ❍ Much
- ❍ Very much

Q21) How much influence do you have on how your working day is organised and scheduled

- ❍ None
- ❍ A bit
- ❍ Some
- ❍ Much
- ❍ Very much

IGAMING VERSION

Q22) Please rate the performance of your department/team on a scale from 0 (worst possible) to 100 (extremely good). By department/team we refer to the organizational unit that you supervise
How do you evaluate …

SCHOOL VERSION
Q22) Please rate the performance of your department/team on a scale from 0 (worst possible) to 100 (extremely good). By department/team we refer to the organizational unit that you supervise. If you are an assistant head, please refer to the school context. If you are a Head of Department, please refer to your team (i.e. Teachers)

How do you evaluate ...

a)_____ the productivity of your department?
b)_____ the quality of the work?
c)_____ the ability to meet deadlines for doing tasks?
d)_____ the overall performance?

IGAMING VERSION
Based on your experience, please indicate how strongly you agree or disagree with the following statements
Q23) This company provides its customers with high quality products

SCHOOL VERSION
Based on your experience, please indicate how strongly you agree or disagree with the following statements:
Q23) This school provides its students with high quality education

- ❍ Strongly disagree
- ❍ Disagree
- ❍ Somewhat disagree
- ❍ Neither agree nor disagree
- ❍ Somewhat agree
- ❍ Agree
- ❍ Strongly agree

IGAMING VERSION
Q24) This company uses its resources optimally to be productive.
SCHOOL VERSION
Q24) This school uses its resources optimally to be productive.

- ❍ Strongly disagree
- ❍ Disagree
- ❍ Somewhat disagree
- ❍ Neither agree nor disagree
- ❍ Somewhat agree
- ❍ Agree
- ❍ Strongly agree

IGAMING VERSION
Q25) This company delivers its product/services when its customers need it
SCHOOL VERSION
Q25) This school delivers its services when its students need it

- ❍ Strongly disagree
- ❍ Disagree
- ❍ Somewhat disagree
- ❍ Neither agree nor disagree
- ❍ Somewhat agree
- ❍ Agree
- ❍ Strongly agree

IGAMING VERSION
Q26) How would you rate the overall performance of your company?
SCHOOL VERSION
Q26) How would you rate the overall performance of your school?

_____ Choose from 1 to 7 stars

Please rate the following set of statements on a scale from 1 (NEVER) to 7 (ALWAYS)
Q27) I come up with new ideas about how to solve problems

❍ 1
❍ 2
❍ 3
❍ 4
❍ 5
❍ 6
❍ 7

Q28) I search out new working methods, techniques, instruments, products/services

❍ 1
❍ 2
❍ 3
❍ 4
❍ 5
❍ 6
❍ 7

Q29) I acquire approval from relevant persons for innovative ideas

❍ 1
❍ 2
❍ 3
❍ 4
❍ 5
❍ 6
❍ 7

Q30) I make my colleagues enthusiastic for innovative

❍ 1
❍ 2
❍ 3
❍ 4
❍ 5
❍ 6
❍ 7

Q31) I transform innovative ideas into useful applications

- ❍ 1
- ❍ 2
- ❍ 3
- ❍ 4
- ❍ 5
- ❍ 6
- ❍ 7

Q32) I implement innovative ideas in my organization

- ❍ 1
- ❍ 2
- ❍ 3
- ❍ 4
- ❍ 5
- ❍ 6
- ❍ 7

Q33) I evaluate the usefulness of innovative ideas

- ❍ 1
- ❍ 2
- ❍ 3
- ❍ 4
- ❍ 5
- ❍ 6
- ❍ 7

Please indicate how strongly you agree or disagree with the following statements

Q34) I would be very happy to spend the rest of my career with my organization

- ❍ Strongly disagree
- ❍ Disagree
- ❍ Somewhat disagree
- ❍ Neither agree nor disagree
- ❍ Somewhat agree
- ❍ Agree
- ❍ Strongly agree

Q35) I really feel as if my organization´s problems are my own

- ❍ Strongly disagree
- ❍ Disagree
- ❍ Somewhat disagree
- ❍ Neither agree nor disagree
- ❍ Somewhat agree
- ❍ Agree
- ❍ Strongly agree

Q36) I do not feel a strong sense of belonging to my organization

- ❍ Strongly disagree
- ❍ Disagree
- ❍ Somewhat disagree
- ❍ Neither agree nor disagree
- ❍ Somewhat agree
- ❍ Agree
- ❍ Strongly agree

Q37) I do not feel emotionally attached to my organization

- ❍ Strongly disagree
- ❍ Disagree
- ❍ Somewhat disagree
- ❍ Neither agree nor disagree
- ❍ Somewhat agree
- ❍ Agree
- ❍ Strongly Agree

Q38) I do not feel like "part of the family" at my organization

- ❍ Strongly disagree
- ❍ Disagree
- ❍ Somewhat disagree
- ❍ Neither agree nor disagree
- ❍ Somewhat agree
- ❍ Agree
- ❍ Strongly Agree

Q39) My organisation has a great deal of personal meaning for me

- ❍ Strongly disagree
- ❍ Disagree
- ❍ Somewhat disagree
- ❍ Neither agree nor disagree
- ❍ Somewhat agree
- ❍ Agree
- ❍ Strongly Agree

Q40) How satisfied are you overall in your current job?

- ❍ Extremely dissatisfied
- ❍ Moderately dissatisfied
- ❍ Slightly dissatisfied
- ❍ Neither satisfied nor dissatisfied
- ❍ Slightly satisfied
- ❍ Moderately satisfied
- ❍ Extremely satisfied

IGAMING VERSION
Q41) How many years of managerial experience do you have in total? (approximately)
SCHOOL VERSION
Q41) How many years of managerial experience (as Assistant Head or Head of Department) do you have in total? (approximately)
IGAMING VERSION
Q42) How many years have you been working as a middle manager for this company?
SCHOOL VERSION
Q42) How many years have you been working as a middle manager for this school**?**
IGAMING VERSION/SCHOOL VERSION
Q43) How many people do you supervise?
IGAMING VERSION/SCHOOL VERSION
Q44) How many employees are working for your organisation in Malta? (approximately)
Q45) Age:

Only for iGaming managers

Q46) How would you classify your job position within this organisation?

- ❍ 1st Level manager: I a manager of employees (i.e. who carry out the daily job)
- ❍ 2st Level manager: I am a manager of 1st Level Manager (i.e. I am a manager of other supervisors)
- ❍ 3st Level manager. I am a manager of 2st Level Manager (i.e. I am a manager of managers)
- ❍ Above third
- ❍ Doesn´t apply/ Don't´ know

Q47) What is your job position? _____
Q48) What is your gender?
- ❍ Male
- ❍ Female

Q49) Education
- ❍ High school graduate
- ❍ Bachelor degree
- ❍ Master degree
- ❍ Professional degree
- ❍ Doctorate

Q50) Would like to participate in a next step interview?
- ❍ YES
- ❍ NO

If YES, please write your email address below

Appendix 9. Information sheet for participants (Interview)

Distributed Leadership in Middle Management

My name is Giambattista Bufalino and I am currently undertaking a PhD study at the University of Lincoln to explore how distributed leadership operate within a comparison of two sectors, schooling and private *companies*. I thank you for taking the time to complete the survey and your interest to participate in a follow-up interview.

I am now in the process to complete my doctoral project and I would really appreciate your help with my last part of the research. In fact, I am interested to explore the role of middle managers and how those are distributed across your organization. The purpose of this interview is to gather the views and experiences of middle managers about their leadership experience. If you agree to take part, we can arrange a meeting at any time of your convenience to talk to you for about 45min- 1 hour about your personal experience. The interview will be digitally recorded, if you agree to that, but I will delete the recording as soon as I have written up my notes for the interview.

There are no known risks or disadvantages in taking part, as I strive to protect your confidentiality. If you are taking part in the interview, I will send you the transcript of the interview before the analysis to allow you to ensure that you have not been misrepresented.

Information gathered will follow strict ethical guidelines. You don't have to answer any questions you don't want, and you can stop at any time without giving a reason.

You will not be able to be identified in any reports or publications unless you have given consent for this. No one will know you are from the final thesis and you will be given an opportunity to check the thesis to make sure you can't be identified from it if you wish. You are also welcome to a copy of the final thesis.

If you decide to take part, you will be given this information sheet to keep and be asked to sign a consent form.

Thank you for your time

Giambattista Bufalino Phone +356 77890339
Email: bufalinogiambattista@gmail.com

Appendix 10. Participant Consent Form (Interview)

Distributed Leadership in Middle Management:

Please complete this form after you have read the attached Participant Information Sheet on the above-named study, and understand the purpose and procedures described within it. Thank you for considering taking part in this research

Participant's statement

- I have read the information sheet on the research and I have received enough information to make me informed about participating

- I want to join in by being interviewed for this research.

- I understand that the project is designed to gather information about middle managers experiences in who different sectors.
- I know I have the opportunity to ask questions how to get help if anything we talk about in the research makes me feel worried or upset
- I understand that the interview will last approximately 45 min-1 hour. Notes will be written during the interview. An audio tape of the interview and subsequent dialogue will be made.
- I understand my participation in this project is completely voluntary and that I am free to decline to participate, without consequence, at any time prior to or at any point during the activity.
- I understand that the researcher will not identify me by name in any reports using information obtained from this interview, and that my confidentiality as a participant in this study will remain secure. Subsequent uses of records and data will be subject to standard data use policies which protect the anonymity of individuals and institutions.
- Manager of my companies/schools will neither be present at the interview or have access to raw notes or transcripts. This precaution will prevent my individual comments from having any negative repercussions.
- I also understand that there are no risks involved in participating in this activity, beyond those risks experienced in everyday life.
- I understand that data gathered from the results of the study may be presented at a conference or published, provided that I cannot be identified
- I have read and understand the explanation provided to me. I have had all my questions answered to my satisfaction, and I voluntarily agree to participate in this study.
- I understand that I will be given a signed copy of this document to keep.

Participant's name
……

Signature: ……Date:……

Appendix 11. Interview Protocol and Questions Middle Managers (Schools)

University of Lincoln UK, Doctoral Research Project

Thank you for participating in this project. Our areas for discussion are outlined below. Following the interview, should you feel you want to add to any of your answers or raise questions about it, please contact me at 0039 3319473448
Approximate length of interview: 45 minutes – 1 hour.
Personal information:
School: _____

	• Can you please briefly describe the administrative structure of your school? • How many people do you supervise? Whom do you report to? • How many years have you been working in this organization? • How many years of managerial experience do you have?
Distributed Leadership	• In your opinion, what are the main purposes for distributing leadership to more members in your school (company)? Have these purposes been achieved in practice, why or why not?
Leadership distribution with head of schools	• As a middle leader, how are you involved in leadership distribution with your head of school in your school? Could you describe a few situations in which you were involved? • Who do you think is the most influential in this relationship? • Have you experienced any challenges or conflicts after receiving leadership? Could you please you give some examples? • To what extend do you think that taking part in leadership tasks (with your head) effects innovation at your school? Why and/or why not? Could you please give some examples? • To what extent do you think that taking part in leadership distribution effects the performance of the school as whole? Why and/or why not? Could you please you give some examples? • Do you want to take part in this leadership distribution with your head of school? In what ways?
Leadership distribution with your peers (other middle managers)	• In your opinion, how are other middle managers in this school (company) involved with you in leadership distribution? *Ie. Do they take part in leadership distribution with you*? • Can you give me some examples?
Leadership distribution with teachers who report to you	• As a middle manager, how are you involved in distributing leadership tasks to teachers who report to you? Could you please give me some examples? • To what extent do think that this (the fact to distributed leadership tasks/ and or involve (to) your employees) effects innovation at your school? According to you experience, can you give me some examples? • To what extend do you think that this (the fact to distribute leadership task/and/or involve (to) your employees) effects the performance of your school/company? According to you experience, can you give me some examples? • Have you experienced any challenges or conflicts after distributing/delegating leadership? Could you please give me some examples? • Do you want to distribute leadership to your employees? In what ways?

Appendix 12. Interview Protocol and Questions Middle Managers (iGaming)

University of Lincoln UK, Doctoral Research Project

Thank you for participating in this project. Our areas for discussion are outlined below. Following the interview, should you feel you want to add to any of your answers or raise questions about it, please contact me at 0039 3319473448
Approximate length of interview: 45 minutes – 1 hour.
Personal information:
Company: _____

	• Can you please briefly describe the administrative structure of your Department? • How many people do you supervise? Whom do you report to? • How many years have you been working in this organization? • How many years of managerial experience do you have?
Distributed Leadership	• In your opinion, what are the main purposes for distributing leadership to more members in your company? Have these purposes been achieved in practice, why or why not?
Leadership distribution with your manager	• As a middle leader, how are you involved in leadership distribution with your top manager in your company? Could you describe a few situations in which you were involved? • Who do you think is the most influential in this relationship? • Have you experienced any challenges or conflicts after receiving leadership? Could you please you give some examples? • To what extend do you think that taking part in leadership tasks (with your head) effects innovation at your company? Why and/or why not? Could you please give some examples? • To what extent do you think that taking part in leadership distribution effects the performance of the company as whole?)? Why and/or why not? Could you please you give some examples? • Do you want to take part in this leadership distribution with your head? In what ways?
Leadership distribution with your peers (other middle managers)	• In your opinion, how are other middle managers in this company involved with you in leadership distribution? *Ie. Do they take part in leadership distribution with you*? • Can you give me some examples?
Leadership distribution with employees who report to you	• As a middle manager, how are you involved in distributing leadership tasks to employees who report to you? Could you please give me some examples? • To what extent do think that this (the fact to distributed leadership tasks/ and or involve (to) your employees) effects innovation at your company? According to you experience, can you give me some examples? • To what extend do you think that this (the fact to distribute leadership task/and/or involve (to) your employees) effects the performance of your company? According to you experience, can you give me some examples? • Have you experienced any challenges or conflicts after distributing/delegating leadership? Could you please give me some examples? • Do you want to distribute leadership to your employees? In what ways?

Thanks once again for your co-operation and attention.

Appendix 13 (written by Thomas Jonsson)

Factor structure and measurement equivalence

First, I tested the hypothesized structure of the three types of DL configurations. The results generally support Hypotheses 1 and 2 in that all three configurations (i.e. upwards, peer and downwards DL configurations) each consisted of items measuring engagement in task, people and change leadership functions, in addition to the items about the reciprocal Influence of the responding middle manager and his or her manager, peers and employees.
In order to maintain comparability and content validity, I applied the same item wordings, and replaced references to manager, peers and employees for each of the three foci. This approach makes the three dimensions comparable, but also entails a risk of item error correlation because very similarly worded items are likely to share common measurement errors. SEM modeling can handle such a case by modeling common error factors that do not correlate with the latent factors. Alternatively, an item error can be set to correlate across latent factors. By conducting a Confirmatory Factor Analysis (CFA), I tested a model without common error factors, and found such a model to be of an unacceptable fit (See Table 1). By exploring modification indices, I discovered that DL items from an upward, peer and downward DL configurations shared common error variance, and that, similarly, Influence items shared common error variance. Hence, I included two latent error factors that loaded only on the DL leadership item errors and influence item errors, respectively. The results of the CFA demonstrated that the hypothesized model fitted well with the data (Table 1). The results also showed that factor loadings were significant and of a satisfactory magnitude (see Table 2). One exception was the loading of the item about the superior manager's influence on the configuration about distributed task leadership, which was smaller than the rest (λ=.360). This indicates a relatively larger variation in how a superior manager contributes to reciprocal influence and distributes leadership tasks than how a middle manager does. This is in line with the formal organizational hierarchy, which designates superior managers with more influence. It should be noticed that by separating the item error from the latent factor, SEM methods secure that only the proportion of the superior manager's influence that is in line with the practice of the distribution of leadership and influence is used to measure DLA.

Table 1: SEM models' fit indices

Model	**χ^2 (df)**	**SCF**	**RMSEA**	**CFI**	**TLI**
DL CFA	309.814 (87)**	1.145	.116	.828	.792
DL CFA, error corr.	94.751 (78), n.s.	1.147	.034	.987	.983
Structural model 1	497.58 (329)**	1.061	.050	.938	.929
Invariance models					
Configural	200.57 (114)		.088	.926	
Metric	233.11 (96)		.085 Δ=-.003	.925 Δ=.001	
Scalar	254.08 (86)		.086 Δ=.001	.917 Δ=-.008	

Notes: ** = p<.001, Δ= change from model above, SCR= Scaling Correction Factor used in MLR estimation.

Table 2: Factor loadings

Factor loadings	DL		
	Upward	Downward	Peer
How actively engaged are you in collaborating with your [reference*] on managing changes?	.876	.831	.833
How actively engaged are you in collaborating with your manager on ensuring that tasks are organized and carried out in an efficient manner?	.863	.797	.844
How actively engaged are you in collaborating with your [reference*] on ensuring there are good conditions for employees' development and well-being (e.g. motivating staff, training opportunities, creating a nice workplace…)?	.623	.737	.744
How influential are you in this collaboration?	.549	.678	.665
How influential is your [reference*] in this collaboration?	.360	.595	.703
Loading of DL configurations on the DLA factor:	.594	.725	.650

Factor loadings on Common Error Factor in People Items	
Downwards Distributed Relation Leadership	.485
Upwards Distributed Relation Leadership	.602
Peer Distributed Relation Leadership	.521

Factor loadings on Common Error Factor in Influence Items	
MM's own influence on Upwards DL configuration	.422
MM's own influence on Downwards DL configuration	.535
MM's own influence on Peer DL configuration	.633
Employees' influence on DL configuration	.471
Peers' influence on DL configuration	.379

* The reference was changed [manager/employees (who report to you, e.g. teachers)/peers (employee of similar status, e.g. other middle managers)].

Since I did not intend to test measurement invariance in item error loadings onto the common error factor, I allowed the particular item errors to correlate instead of using latent error factors. I tested invariance in the three-factor model across middle managers from schools and middle managers from the gaming industry. The invariance tests showed that the metric model was as good as the configural model, and that the scalar model was as good as the metric model (see Table 1). The results support that the scales measures DL configurations invariantly across the two groups.

Tests of convergent, discriminant and predictive validity

In a new structural model (cf. Structural Model 1 in Table 2), I also added the variables Autonomy, Attitude to Involvement, Affective Organizational Commitment and general Job Satisfaction to the DLA measurement. This model exhibited a satisfactory fit, and that Autonomy was positively related to DLA (beta = .320, SE=.151, p<.001), that there were significant and positive relationships between DLA on the one hand and Affective Organizational Commitment (beta = .532, SE=.137, p<.001) and Job Satisfaction (beta=.394, SE=.104, p<.001) on the other. Moreover, the results could not demonstrate a significant association between Attitude to Employee Participation, which indicates discriminant validity. These results support the hypotheses about predictive, convergent and discriminant validity (Hypotheses 4).