THE IMPACT OF MARKET ORIENTATION ON THE PERFORMANCE
OF PROFESSIONAL SERVICE FIRMS

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PhD Thesis

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Abstract

Market orientation theory is an integral and well established part of international marketing literature. The basic notion is that market oriented companies outperform organisations with a lower market orientation. Although many scholars agree with this concept and have provided empirical evidence to support it, there still remain a number of question marks regarding the implementation of market orientation, its impact and conceptualisation in a professional service firm environment, and its interrelations with knowledge management.

A mixed method approach, characterised by a sequential explanatory design, was selected to analyse the interdependences between market orientation, knowledge management, self efficacy, and performance, in the context of a professional service firm. An embedded case study, using the eight practice groups of an international law firm as sub-cases, was carried out to meet the research objectives.

Based on 189 useable questionnaire responses and 10 semi-structured interviews, the empirical findings suggest that market orientation and self efficacy have a positive impact on subjective performance and job satisfaction, but not on profitability. Although knowledge management staffing levels have a positive impact on subjective and objective performance, the budget for knowledge management and practice development activities does not. The findings also showed some differences between partners and senior associates and suggested that smaller, internationally integrated practice groups have a higher market orientation. In addition to this, the results provide evidence for the importance of responsiveness to professional service firms. Finally, the findings from the semi-structured interviews suggested that market oriented behaviours also play a crucial role during an economic crisis and thus contribute to this fairly under-researched topic.

Guided by a novel research approach, the findings of this dissertation add to existing knowledge on market orientation, knowledge management, and professional service firm theory on several different levels and provide new insights for both scholars and practitioners.

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Abbreviations and formula

Abbreviation	Description
Centr-IV	Interviewee based in central KMPD department
DC	Dynamic capabilities
GPN	Global Professional Network
H	Hypothesis
ICT	Information and communication technology
IC	Intellectual Capital
IG	Market information gathering
ID	Market information dissemination
KBV	Knowledge based view
KMPD	Knowledge Management and Practice Development (department at LawCo)
KM	Knowledge management
KML	Knowledge management lawyer (a.k.a. PSL)
LawCo	Case Company (an international law firm)
M&A	Mergers and acquisitions
MARKOR	Market orientation construct developed by Jaworski and Kohli
MKTOR	Market orientation construct developed by Narver and Slater
MO	Market orientation
MPB	Managed Professional Business
PD	Practice development
PDE	Practice development executive
PDM	Practice development manager
PG	Practice group (a.k.a service line)
PG-IV	Interviewee based in a practice group
PSF	Professional service firm
P^2	Professional partnership
PSL	Professional support lawyer (a.k.a. KML)
R	Responsiveness
RBV	Resource based view
RQ	Research question
SEM	Structural equation modelling
SG	Sector group

Publications to date

Refereed journal papers:

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Refereed conference papers:

Forstenlechner, I., Lettice, F., and Tschida, M. H. (2007) Motivating lawyers to share knowledge in an international law firm. In: 23rd EGOS Colloquium, Vienna, July 2007.

1   Introduction

This research focuses on the characteristics and challenges of today's professional service firms. One immediate and rather extraordinary challenge is the economic downturn, which is commonly considered to be the worst economic crisis since the Great Depression in 1929. Some of the more general issues include the impact of globalisation and the emergence of new professional archetypes.

Law firms such as the case company are prime examples of professional service firms; often also referred to as knowledge intensive firms in the literature (i.e. Alvesson 2001; Swart and Kinnie 2003). The past years were characterised by extended service offerings in terms of breadth and depth, increased global reach and issues relating to internationalisation and intensified competition (Segal-Horn and Dean 2007; Hitt et al. 2007). In addition to this, professional service firms are also under financial pressure from both their clients, in terms of fee levels, and from their highly educated work force, who are aware of their bargaining power (Muzio and Ackroyd 2005; Galanter and Henderson 2008). In this climate of change, many professional service firms are forced to rethink their strategies, business models, and processes. However, as the market is evolving into a global knowledge economy, many professional service firms are reaching uncharted territory. The magnitude of change and the resulting opportunities and challenges leave many companies contemplating what to focus on and which strategy to pursue.

Based on the developments described above, it might be worth assessing whether existing frameworks could be beneficial to professional service firms who need to adapt to a changing environment. One such framework is market orientation; a fundamental element of the marketing literature. According to a vast number of empirical research contributions, market orientation can lead to increased organisational performance (Jaworski and Kohli 1993; Slater and Narver 1995). Market oriented companies are said to outperform organisations with a lower market orientation (see Cano et al. 2004; Kirca et al. 2005). Although the concept is well established (see Day, 1999), there are significant gaps in the literature regarding the implementation of market orientation (Van Raaij and Stoelhorst 2008; Foley and Fahy 2009), its impact and conceptualisation in a professional service firm environment (Esteban et al. 2002; Helfert et al. 2002), and its interrelations with knowledge management (Darroch and McNaughton 2003; Sivaramakrishnan et al. 2004; Wang et al. 2009).

An investigation into the role, impact, and implementation of market orientation in the professional service firm environment could therefore not only help to fill existing gaps in the literature, but might subsequently provide professional service firms with recommendations on which strategies to choose in order to be successful in their changing business environment. The aim of this research is to pursue this goal. This chapter provides an introduction to the research objectives of the thesis, the key fields of literature, the research methodology, and the intended contribution to knowledge.

1.1 Research aim and objectives

The research objective is to investigate the role, impact, and implementation of market orientation in a professional service firm environment. This requires an analysis of the interdependences between market orientation, knowledge management, and performance, in the context of a professional service firm. These interrelationships are not fully explored in the literature. The research was consequently designed to give answers to the following research question:

How do market orientation, knowledge management, and self efficacy affect the performance of professional service firms?

Answering the research question will involve analysing whether the positive relationship between market orientation and performance holds true in the context of an international professional service firm. Similarly, the research will also need to explore how market orientation, knowledge management, and self efficacy influence the performance of practice groups.

1.2 Key fields of literature

Based on the research question there are three primary fields of literature; professional service firms, market orientation, knowledge management, and also specifically the literature on how each of these affects performance. In addition, there are also various related secondary fields of literature, including relationship management and law firm management.

Market orientation theory is a well established cornerstone of the marketing literature. A large number of studies have shown its positive correlation with firm performance (see Esteban et al. 2002; Kirca 2005). As the market orientation construct contains

information and knowledge management related activities on intelligence gathering and dissemination, it may be of value to link market orientation theory with knowledge management theory. Even though there have been several attempts to measure the success and impact of knowledge management on a firm's performance (Darroch 2005; Forstenlecher 2005), the results are mixed and there is no widely used method to measure this relationship. In addition to this, there have only been a limited number of studies on the relationship between knowledge management, market orientation and firm performance (i.e. Darroch and McNaughton 2003; Olavarrieta and Friedman 2008; Wang et al. 2009).

To summarise, there are clear gaps in the literature related to professional service firms, market orientation, and knowledge management, which need addressing. The existing literature, as well as the specific gaps in knowledge, will be covered in Chapter 2 of this thesis.

1.3   Research methodology

A case study approach was selected to explore the relationships between knowledge management, market orientation, and performance in the market (Yin, 2009). The company in this case study ("LawCo") is one of the top ten global law firms. A detailed description of the law firm follows in section 1.4 and in Chapter 4.

The case study consists of eight embedded sub-cases, representing the firm's practice groups. An empirical research method was chosen in order to verify whether market orientation has a positive impact on practice group performance. To establish the present level of market orientation, an existing framework, MARKOR (Jaworski and Kohli, 1993), was adapted to develop a questionnaire that meets the requirements of professional service firms (Esteban et al., 2002). In addition to the quantitative part of the research, semi-structured interviews were carried out to analyse 'how' and 'why' market orientation is put into practice (i.e. Morgan, 2009; Gebhardt et al., 2006; Yin, 2009). The overall research approach can be described as a mixed method approach (Teddlie and Tashakkori, 2003) that is characterised by a sequential explanatory design (Creswell et al., 2003).

1.4   Defining the environment

The case company in this study is an international law firm with over 2,000 lawyers spanning 25 offices worldwide. The firm provides a comprehensive global service to national and multinational corporations, financial institutions and governments. For the purpose of this research the firm is referred to as 'LawCo' to retain anonymity. LawCo's organisational structure is characterised by a matrix design, which is divided into practice groups (service lines), sector groups (industries and markets), and regions (see Müller-Stewens 1999; Scott 2001).

'Practice groups' are the main focus of this study and refer to the technical legal specialisation of lawyers. There are eight practice groups within LawCo, focusing on areas such as competition, corporate, and litigation. Due to confidentiality issues regarding some of the internal data that was used for this study, the remainder of this document will refer to the practice groups using the aliases 'PG1' through to 'PG8', which were randomly assigned. Lawyers are typically assigned to one practice group, although occasionally lawyers may work across two groups. 'Sector groups' divide clients into their industry sectors and run across all practice groups. Sector group membership is optional. There are 10 sector groups covering various areas including energy, financial institutions, and automotive. The third dimension of the matrix structure covers the regions in which LawCo has offices: UK, US, Asia, Continental Europe I (German speaking countries and Central Eastern Europe), Continental Europe II (remaining European countries), and Middle East.

Knowledge management is recognised as an important business activity within the firm. LawCo believes that a cohesive approach to knowledge management is necessary in order to cope with the challenges of a knowledge-intensive firm. Based on this understanding, over the course of the past 10 years, LawCo has set up a worldwide knowledge management department of nearly 300 people. The knowledge management team consists of knowledge management lawyers and assistants, library and information services staff, as well as a number of specialists in related fields. After a review in 2007, the knowledge management function was subsequently merged with the practice development function; which also covers marketing and public relations processes, and is now led by a joint Director of Knowledge Management and Practice Development who reports directly into the firm's senior management team.

The knowledge management and practice development department carries out vital processes related to market orientation, including client relationship management,

strategic research, and know-how management. It is also worth highlighting that everyone in the firm, including lawyers, is expected to carry out knowledge management (i.e. submitting precedents to the know-how database, participating in team meetings, and sharing knowledge and best practices) and practice development (i.e. strategic planning, client relationship management, and pitching). Chapter 4 will provide a more detailed description of LawCo and its practice groups and business services departments.

1.5   Structure of the thesis

This thesis is divided into eight chapters. Chapter 1 provides an introduction to the study. Chapter 2 summarises the literature review, providing an overview of the key fields of literature in regards to this study. Chapter 2.2 introduces professional service firms. Chapter 2.3 focuses on the market orientation concept and Chapter 2.4 explores knowledge management literature. Chapter 2.5 provides an overview of combined market orientation and knowledge management studies and introduces the resource based view firm. Chapter 2.6 summarises the literature review and highlights the identified gaps in literature. It also introduces the conceptual model and the hypotheses.

Chapter 3 provides an overview of the research methodology including the research objective and research design. It gives an overview of the mixed method approach and the quantitative and qualitative methods used. The aim of Chapter 4 is to describe the case study organisation, including its practice groups and business services functions. The information in this chapter was largely derived from LawCo document analysis, which is also described within the chapter.

An analysis of the quantitative findings of this research can be found in Chapter 5. The chapter introduces the variables and scales used in the research and provides an overview of the outcomes of the correlation and regression analysis. Chapter 6 focuses on the qualitative findings of this study. The chapter provides an overview of the patterns emerging from the semi-structured interviews, the within-case analysis, and the cross-case analysis. The chapter also provides further information on practice group characteristics, in terms of financial performance and their knowledge management and practice development functions.

Chapter 7 provides a discussion of the findings, linking them back to the research question and the literature review. The chapter focuses on market orientation, knowledge management, professional service firms, and the economic crisis. Chapter 8 concludes

this research and provides an overview of the research limitations and areas for further research. The thesis structure is outlined in the graphic below:

1. Introduction
2. Literature review
2.2 Professional service firms
2.3 Market orientation   2.4 Knowledge management
2.5 Combining MO, KM, and performance
2.6 Gap analysis and hypotheses
3. Research methodology
4. Case company description
5. Quantitative findings
6. Qualitative findings
7. Discussion
8. Conclusion
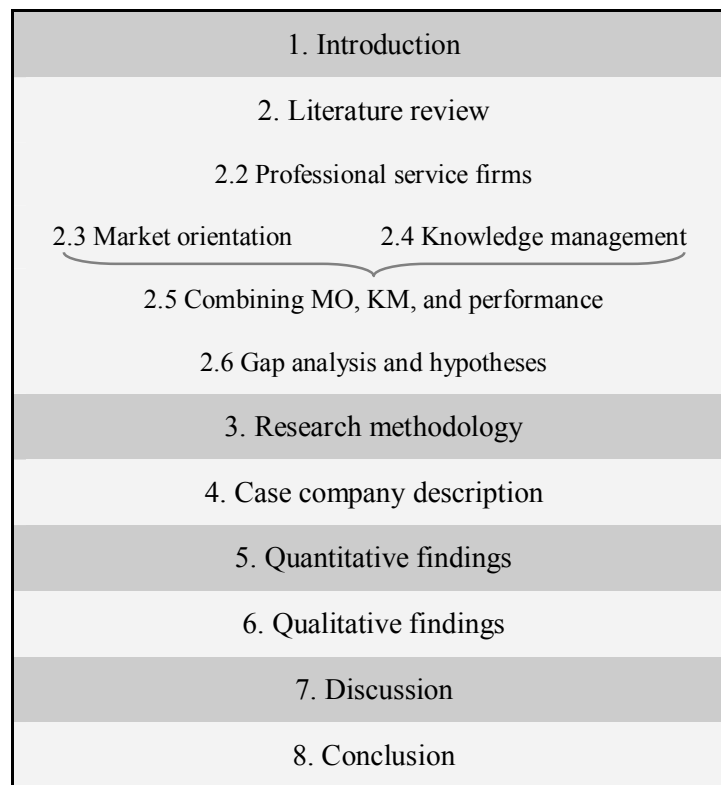
Figure 1 Thesis structure

2 Literature Review

2.1 Introduction

A literature review, focussing on professional service firms, market orientation, and knowledge management was conducted throughout the duration of the research. The aim of the literature review was to obtain a thorough understanding of the development of knowledge within these research areas, up until present day. In addition to this, gaps in knowledge were identified, which led to the development of hypotheses. Both, gaps in knowledge and hypotheses, are presented in section 2.6.

According to Eisenhardt (1989), a broad literature review is essential in case study research. Below is a brief list of key terms that are in the scope of the research. The list provides the reader with insights into its main emphasis: professional service firms, market orientation, knowledge management, knowledge-based client relationships, law firm management, relationship management, relationship marketing, market-based capabilities. Although the literature review was broadly based on the terms above, it was not limited to these areas. The chart below represents the research focus in graphical form:
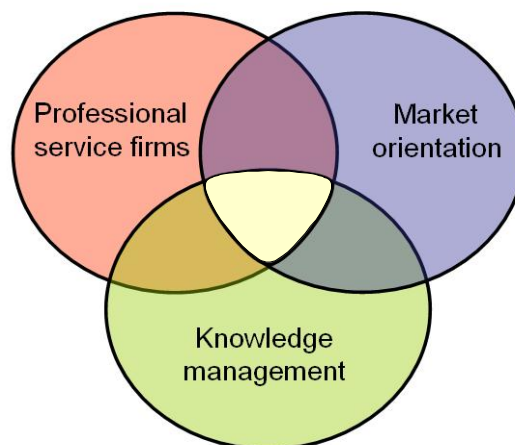
Figure 2 Literature fields

The following sub-sections focus on professional service firms (section 2.2), market orientation (2.3), knowledge management (2.4), the combination of market orientation and knowledge management (2.5). Section 2.6 provides an overview of the gap analysis and the hypotheses.

2.2   Professional service firms (PSF)

The purpose of this section is to give an overview of professional service firms by describing the different organisational archetypes; the value creation process and the basic economics behind professional service firms; and the importance of the human factor, intellectual capital, and client relationships. The aim is to provide context for the case study and to help to identify gaps in the literature on market orientation (see section 2.3) and knowledge management (see section 2.4).

Professional service firms are increasingly becoming a more important business sector. Typical examples of professional service firms are investment banks, consulting firms, accounting firms, law firms, marketing agencies, architects, and insurance companies. Some of the oldest professional service firms in existence today date back to the middle of the 18th century. During the course of the past two and a half centuries, the governance and structure of professional service firms have seen some dramatic changes. However, their basic principles and underlying values are not too different from those in the early days of professional services.

According to Müller-Stewens (1999, p.20), a professional service firm is a "brain-driven" and "knowledge-intensive" firm that provides unique and professional services to companies. Governmental services are excluded from this definition. In order to emphasise this, Müller-Stewens mentions the term "Professional Business Service Firm". However, in this thesis those companies are referred to as professional service firms.

Although PSFs operate in different sectors and provide various distinct products and services, it is possible to also view them as one industry. For example, Scott (2001, p.180), concludes that professional service firms "have much more in common with each other than they do with the notional areas of business activity with which they are commonly classified". Maister, a pioneer in the arena of professional service firm research, describes in his seminal book "Managing the professional service firm" (1993, p.15) that professional service firms have a "high degree of customisation" and "a strong component of face-to-face interaction". As a consequence of knowledge being the essential resource of every professional service firm, it is inevitable that the skills and experiences of employees play an important role in their management. Professional expertise can be defined as the application of knowledge to a particular question (Abbot, 1998). The relationship to the clients and the reputation of the company are also very

important characteristics of a professional service firm (O'Malley and Harris, 1999; Palmatier et al., 2006).

The typical goal of a professional service firm is to solve a client's problem. According to Dawson (2005, p.20), "the highest level of value in professional services is enhancing client's own knowledge and capabilities." Those clients are often confronted with important projects (e.g. strategic, financial) or changes (e.g. mergers and acquisitions). Furthermore, they do not have the capabilities or resources to manage these problems. These restrictions may be quantitative (lack of employees) or qualitative (lack of knowledge, expertise, and experience). In summary, the mission of many professional service firms is: "To deliver outstanding client service; to provide fulfilling careers and professional satisfaction for our people; and to achieve financial success so that we can reward ourselves and grow" (Maister, 1993, p.3).

Keegan (2001, p.372) defines services as "intangible benefits purchased by customers that do not involve ownership." He continues to define products "as a collection of physical, psychological and symbolic attributes that collectively yield satisfaction, or benefits, to a buyer or user." Consequently there are four characteristics that distinguish services from products: "variability, perishability, simultaneous production and consumption, and the characteristic of being intangible" (Keegan, 2001, p.372). In the PSF literature, the terms "products" and "services" are often used interchangeably.

Müller-Stewens (1999) explains that professional service firms are usually structured in a matrix form, which takes into account the service lines and functions. Industries/markets provide a second dimension to the matrix structure, which is then replicated across regions.
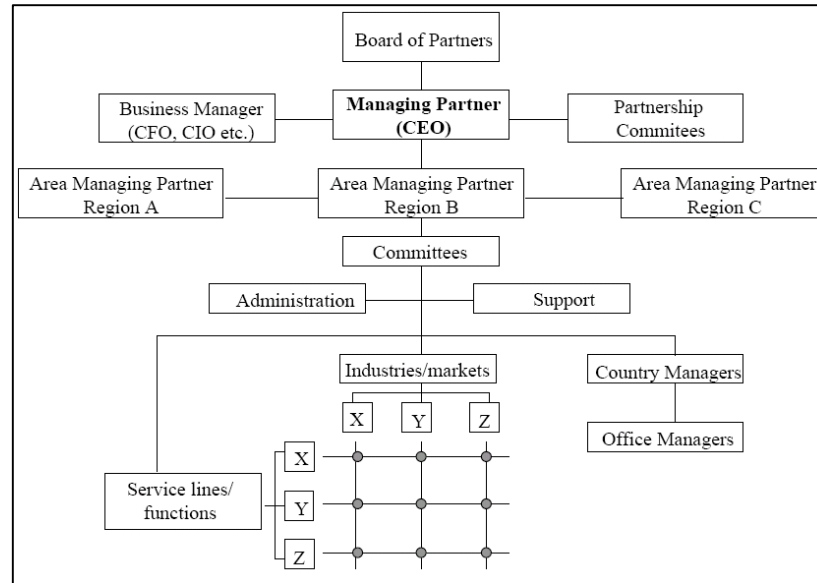
Figure 3 Generic structure of a professional service firm (Müller-Stewens, 1999, p.85)

According to Stevens, Loudon, and Williamson (1998) a professional service firm's marketing strategy process needs to focus on the firm's level of specialisation, its competitive marketing behaviour, and its perceived positioning in clients' minds. Scott (2001) describes that a product-led strategy has traditionally been used by many PSFs, including law firms. Due to its "inward-focused orientation", PSFs following this strategy generally tend to build up expert knowledge in order to be better at "particular methodologies and approaches to problem solving than a generalist competitor" (Scott, 2001, p.42). On the other hand, a sector specialisation, which Scott (2001, p.42) describes as "a client-focused strategy", is a relatively new approach. The crucial success factor is to create more knowledge of the client's industry than the actual clients possess themselves (Scott, 2001). Knowing the client's sector might actually prove more useful to clients than the ability to thoroughly deploy product-led services, which could inevitably be copied by competing PSFs. Scott (2001, p.42) consequently argues that "thorough knowledge about a client sector based on a working relationship with the key players, is highly defensible because such a PSF will tie up the critical relationship which unlocks the knowledge of the sector."

2.2.1 Professional archetypes

Several authors have discussed the archetypes of professional service firms (i.e. Greenwood et al. 1990 and 1996; Greenwood and Hinings 1993 and 1996; Cooper et al.

1996; Greenwood and Empson 2003; Brock 2006 and 2008; Ackroyd and Muzio 2008). The 'professional organisation' (see Greenwood et al., 1990), in its simplest form, can be described as an "organization primarily sustaining professional occupations" (Brock 2006, p.156). These organisations "for professionals by professionals" (Brock 2006, p.157), which strive for the highest quality standards and technical expertise, have recently had to respond to major developments in the market, leading to the emergence of several new archetypes (Cooper et al., 1996).

The professional partnership (P^2) model, as proclaimed by Greenwood et al. (1990), is one archetype for firms that are owned, governed, and managed by professionals who work with clients in order to deliver professional services. This partnership model is also characterised by low levels of hierarchy, collegiality, and governance and decision-making processes that can be described as a participative, representative democracy. According to Brock (2006, p.160), the "strategic direction in P^2 organizations tends to be weak and not centrally controlled. Its successful adoption depends on consensus building among the partners." An effective management team of P^2 firms will therefore need to spend significant time discussing issues and initiatives in order to engage other partners. This also requires the ability to listen to fellow partners and to take on board different views and concerns. Peer pressure is a key control element in those organisations, which is why there are also formalised performance measurement systems. As mentioned above, changes in the marketplace, as well as internal and institutional factors, brought new and more commercial archetypes to the surface. A review of those current challenges can be found in section 2.2.3.

The Managed Partnership Business (MPB) is an archetype that emerged from the P^2 model. It is characterised by commercialism, as well as the standardisation of processes and a higher level of managerial processes, including target setting. In addition to this, centralisation of power and control, and the importance of efficiency and effectiveness in service delivery are key aspects of MPBs (Cooper et al., 1996). MPBs are structured "based on a set of values which are becoming organised into a coherent interpretive scheme about the professional service firm as a business" (Cooper et al., 1996, p.625). Segal-Horn and Dean (2009) state that the values for global law firms, as an example, focus on quality, commitment and expectations with regards to providing high service standards. However, Galanter and Henderson (2008, p.142), state that "economics rather than culture are the glue that holds the [modern large law] firm together."

Brock and Powell (2005) present a new archetype of professional firms called GPN (Global Professional Network), which takes into account additional features such as network structures and managerialism. As a consequence of the emergence of GPNs, some smaller professional firms, which Brock (2006) refers to as "Stars", chose a strategy of becoming a niche player, focusing on a specific market and/or practice area. This is a strategy that can be rewarding; Sherer (1995) established that highly specialised law firms with a low leverage of partners to associates are able to maintain the highest billing rates. The main characteristics of Stars, GPNs, and P^2s are laid out in the table below.

	P^2	Star	GPN
Structure and process	Peer control, Partnership-track, Small size, Moderate support staff and small technostructure	Peer control, Informal, Moderate support staff and moderate technostructure	Strong differentiation and integration mechanisms, Spatial differentiation, Formal, Large support staff and technostructure, Networks
Strategy	Generalist, Accessibility, Reliability, Local	Niche, Differentiation, Elite, Regional	Market share, Leverage, Consistent branding, National or global
Interpretive scheme	Collegiality, Client focus, Referrals	Excellence in professional specialty	Corporate, Money making, Market dominance
Examples	Neighbourhood dental clinics, Family law practices	Kohlberg Kravis and Roberts; Mayo Clinic; Wachtell, Lipton, Rosen & Katz	Aetna Health, Baker & McKenzie, Blue Cross-Blue Shield, Boston Consulting Group, Columbia/HCA

Table 1 Key aspects of the three competing archetypes (Brock, 2006, p.170)

The transformation from one archetype to another, is no radical shift but rather "a layering of one archetype on another" (Cooper et al., 1996, p.624). The traditional professional organisation, for example, still "exists with essentially unchanged characteristics" (Brock et al., 2007, p.234). The importance of hybrid forms is also highlighted by Faulconbridge and Muzio (2008), who use the term "organizational professionalism" to describe the interconnection between organisational bureaucracy and a professionalism that seems to take on a "multitude" of forms. Wallace and Kay (2008, p.1043), who studied the characteristics of professionalism of sole practitioners and law firm lawyers, believe that "neither embodies the full constitution of the archetypical professional."

2.2.2 Law firms

Law firms are prime examples of professional service firms and knowledge-intensive firms. Corporate law firms play an important role in today's economy. Most major mergers or acquisitions, restructuring works, or intellectual property issues will need the involvement of specialist law firms. However, the basic business model of corporate law firms is the same as that of any other law firm: selling legal advice for money.

In order to provide clients with legal services, law firms also need to carry out "subtasks", which involve (i) extensive factual and legal research; (ii) the analysis of the law and the facts as they appear in a particular client's situation; (iii) counselling clients based on that analysis; and (iv) negotiation or litigation on the client's behalf (Edwards and Mahling, 1997, p.159). As in other professional service firms, relationship management plays a very important role in the legal industry (O'Malley and Harris, 1999).

In their seminal book "Tournament of Lawyers: Transformation of a Big Law Firm", Galanter and Palay (1991) describe the business model of law firms with a particular focus on the development and promotion of lawyers and its impact on a firm. Their tournament model follows the Cravath model (Swaine, 1946); named after a US law firm that now operates under the name of Cravath, Swaine & Moore LLP. The model depends on hiring the best students straight from law school and can be characterised as followed:

- Salaried lawyers are paid more than the average rate for the level of their seniority

- An apprenticeship model allows inexperienced lawyers to gradually take on bigger responsibilities

- Following the apprenticeship (usually after at least five years), associates would be promoted to partners or would leave the firm

Muzio and Ackroyd (2005, p.639) describe that "competition over increasingly sparse promotions reinforces the possibility of the exploitation of associates, as it fuels processes of work intensification and internal competition." According to Price's (2006, p.13) analysis of the up-or-out tournament model (Galanter and Palay, 1991), "the tournament works as a monitoring device to ensure that associates will not engage in opportunistic behaviour by 'shirking' or failing to exert maximum effort or develop professionally, 'grabbing' by taking a partner's client, or 'leaving' by going somewhere else and taking the firm's investment of training with them." Price (2006, p.13) found empirical evidence that "the tournament model operates as a governance mechanism to prevent leaving and shirking, though not grabbing."

Developing young lawyers plays a key role in this model. Partners are nowadays expected to spend much more time devoted to training and developing associates, as well as getting business (Galanter & Palay, 1991). Professionals, managers, and support staff need to fulfil a wide range of activities in order to bring the business to life. Maister (1993, p.213) had a closer look at the activities of managers (i.e. professionals) in professional service firm and divided those activities into five categories: (i) administrative and financial matters; (ii) doing professional (billable) work; (iii) general client relations; (iv) personal marketing and selling; and (v) dealing and talking with senior professionals and staff.

Maister (1993) indicates that doing professional work, client relationship management, and dealing and talking with senior staff is highly important. However, he argues that the most valuable activity a manager of a PSF can do is to coach others. Maister (1993) concludes that experts should carry out administrative work rather than the professionals themselves. Many PSFs understand this issue and consequently aim to structure their company in a way that frees up professionals' time.

Law firms have recently been experiencing new trends and market conditions. Parkin (2007) analysed trends in the law firm sector and came to the conclusion that large multi-office firms are on the rise, whereas the number of mid-sized firms are declining. Her research also suggests that the acquisition of other law firms is often triggered by the need for diversification in terms of practice areas and geography. Parkin reports that pure scale mergers are not uncommon.

Segal-Horn and Dean (2009) state that the globalisation of law firms is not a globalisation of law firm products and services, because many products and services are tailor-made for clients and are subject to the jurisdiction they are covering. However, the "internal processes" that are needed to produce the services are globalised. Protocols, communication, and trust (Segal-Horn and Dean, 2009) are therefore key factors for becoming a truly globalised law firm. Elements such as "a single global profit centre for determining partner remuneration; global clients teams… [and] integrated global authority for decision-making" (Segal-Horn and Dean 2009, p.47) are characteristics of a global law firm.

What Segal-Horn and Dean (2009, p.41) describe as "delivering 'effortless experience'" has positive implications on clients and can therefore lead to a competitive advantage. However, it is not easy to imitate because of the high long-term investment that is required to become a fully integrated firm. Segal-Horn and Dean (2009, p.49)

consequently believe that these investments will lead to a service delivery that is characterised by "greater speed, shared knowledge, flexibility, and responsiveness", which in turn may lead to decreased costs.

In addition to the above, Parkin (2007) highlights that leverage is growing; especially in small and mid-sized companies (also see Muzio and Ackroyd, 2005). Leverage is the extent to which partners are supported by associates. Kor and Leblebici (2005) examined 105 top US law firms in order to analyse the impact of human capital on diversification and performance. In particular they wanted to find out whether partner human capital leveraging has an impact on service- and geographical diversification. The findings confirmed Kor and Leblebici's (2005) hypotheses that high partner leverage has a negative impact on both service- and geographical diversification, thus affecting the initially positive relationship between service- and geographical diversification and firm performance. Two other hypotheses, the positive impact of partner leverage and the negative impact of the interaction of partner leverage and the lateral hiring of associates, were also confirmed. However, Kor and Leblebici's (2005) assumption that the interaction of lateral hiring and service- and geographical diversification is positively related to firm performance could not be confirmed.

It needs to be noted that there are limits to the positive, linear relationship between partner leverage and firm performance. Very high partner-associate leverage would mean that one partner is managing, mentoring, and developing a high number of associates, which in turn could lead to deficits in associates' learning progress, performance and morale (Kor and Leblebici, 2005). Kor and Leblebici's (2005) findings suggest that service- and geographical diversification have a positive impact on performance because it allows law firms to utilise economies of scope and it also increases the client offering by being able to provide "one-stop shopping" throughout multiple locations.

Parkin (2007) claimed that nowadays it takes associates longer to become senior associates or partners. So called "up or out" policies are therefore not as strong as they used to be (Pinnington and Morris, 2003). Muzio and Ackroyd (2005) found that the "salaried employment", i.e. associates and non-equity partners, is rising. According to Parkin (2007) there is empirical evidence that coming from the same law school as existing partners in the same office increases the probability of promotion. This linkage can be explained by favouritism, rather than by efficient behaviour.

Shah & Kraatz (2002) report a rise in lateral hiring that can be explained by a market that is becoming increasingly transparent. The vast majority of law firms publish their

revenues, profit per partner statistics, headcount figures, and billing rates in magazines such as the American Lawyer or Legal week (Pinnington and Morris 2003; Hitt et al. 2006). This transparency also impacts the behaviour of clients who are now more aware of service offerings and differences in pricing (Galanter and Henderson, 2008).

Based on data provided by the Law Society's Strategic Research Unit and the Solicitors's Indemnity Fund, Muzio and Ackroyd (2005) analysed the "consequences of defensive professionalism" in the legal market in England and Wales. Muzio and Ackroyd (2005, p.621) found empirical evidence that suggests an increasing "organizational consolidation"; changing leverage ratios and the "elongation of professional hierarchies"; a decrease in non-fee earning staff; and "aggressive headcount management policies" in respect to non-fee earning employees. The main findings of their highly informative and relevant study are summarised below:

− The legal services market in England and Wales is growing, especially business law and personal injury work, but there is also a decrease or stagnation in areas such as conveyancing or legal aided work. Muzio and Ackroyd (2005) also reported that the ratio of non-fee earning staff has decreased. The authors believe that technological developments, which also lead to an increased commoditisation of services, enlarged roles of qualified lawyers, and an increase in trainee lawyers, triggered this effect.

− According to Muzio and Ackroyd (2005, p.625), non-fee earning staff do not have a direct impact on the creation of revenues. However, the authors continue that non-fee earning staff contribute directly towards overheads and thereby negatively impact the profitability of a firm (also see Scott, 2001). As a consequence, non-fee earning staff are seen as a "convenient buffer" (Muzio and Ackroyd, 2005, p.637) during an economic downturn and are therefore more likely to be laid-off than fee-earning staff. These staff reductions can occur as "recruitment freezes and non-renewal of temporary contracts as well as outright redundancies" (Muzio and Ackroyd, 2005, p.637).

− Muzio and Ackroyd (2005, p.639) believe "that current processes of occupational reorganization can be linked to attempts by partners to safeguard their income levels at the expense of subordinate groups in an increasingly hierarchical and gendered division of labour."

− The authors of the study also describe "an underlying process of polarization between (i) the shrinking elite of partners, who manage and regulate the activities of the rest of the profession and enjoy a disproportionate share of its associated rewards, and (ii) a

rapidly expanding cohort of salaried professionals, who are excluded from many decision-making processes, and are faced by supervised work and deteriorating employment conditions" (Muzio and Ackroyd, 2005, p.640).

- Muzio and Ackroyd (2005, p.641) state that "as a response to recent circumstances, professional control has simply taken a more inward facing and exploitative turn".

- Finally, Muzio and Ackroyd (2005, p.621) describe the trends mentioned above "as defensive moves by an increasingly embattled profession … in the context of some deteriorating environmental conditions." Deregulation and changing government policies play a significant role in this equation.

Galanter and Henderson's (2008) updated 'tournament of lawyers' model is a response to some of the changes described above and offers a comprehensive generic description of the structure of modern law firms. A key adjustment is the introduction of permanent associates and Of Counsels and the increase of non-equity partners to the model. In doing so, Galanter and Henderson are also taking into account the weaknesses of "up or out" policies.
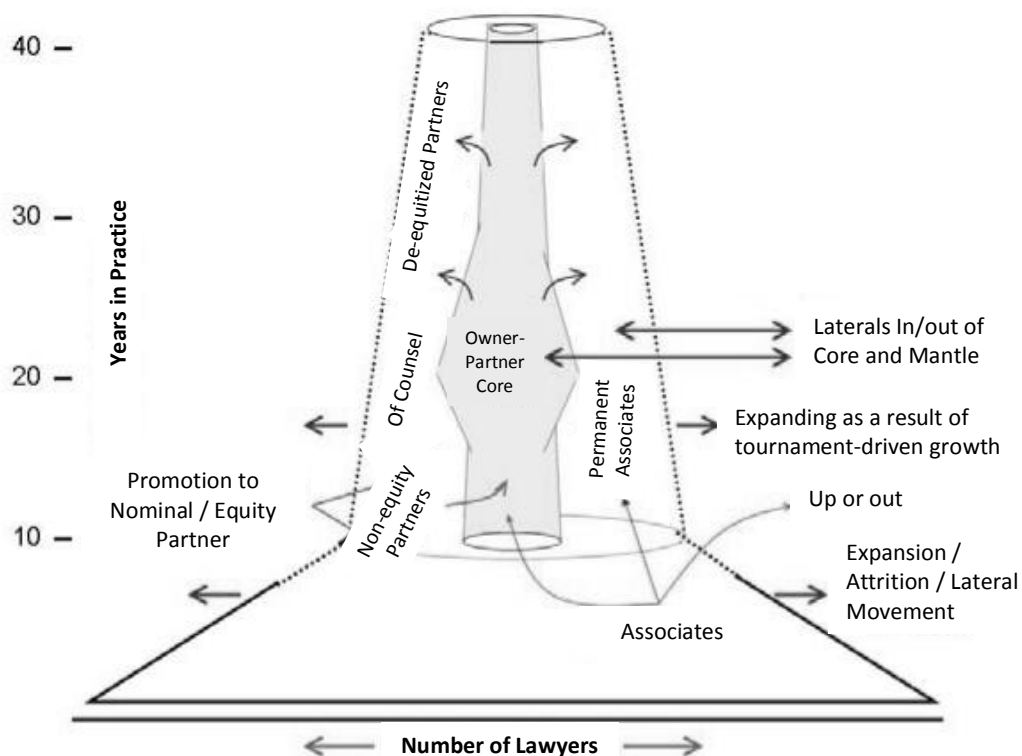
Figure 4 The later "Core and Mantle" of tournament firms (Galanter and Henderson, 2008, p.112)

Galanter and Henderson (2008, p.115) depict several forces that led to changes among large law firms. The authors state that the supreme court rulings of 1975 (Goldfarb v. Virginia State Bar) and 1977 (Bates v. State Bar of Arizona) resulted in a transparency in fees and thus paved the way for price competition in legal services. The changes to competition rulings, together with the beginning of the first wave of the information revolution, in particular the emergence of trade journals by the legal press and digitalisation, gave clients a greater knowledge of the legal sector and the ability to compare fees.

Once clients were aware of the various pricing structures, the loyalty to law firms decreased and the new switching behaviour led to an increased use of specialists, who were able to offer more competitive prices. Another trend of the 1980s was that in addition to fees, law firms' incomes were also becoming more transparent. This led to the establishment of rankings in trade journals, such as American Lawyer. Once law firm partners and mangers were able to compare their performance to that of other firms, key success measures such as 'profit per partner' became more important. In addition to clients switching law firms, lawyers and partners also begun to move to more attractive law firms.

The emphasis on profitability measures and the increase in lateral movements also led to differentiated pay structures within law firms. Galanter and Henderson (2008) describe that these changes ultimately led to today's structure, which is characterised by two-tier partnerships, de-equitisation, and an intensified pressure to increase both workload and billables. Together, these drivers result in more competition within the firm.

Galanter and Henderson (2008) conclude that the changes in client behaviour, such as the decreased loyalty to a firm, leads to attachment to individual lawyers and the unwillingness to pay for associate training costs. This, together with changes within law firms, such as the tiering of partners and non-partner lawyers, causes various complex and new issues for law firms. The increased demand for legal services and the consequent globalisation and expansion of law firms simply reinforces this trend.
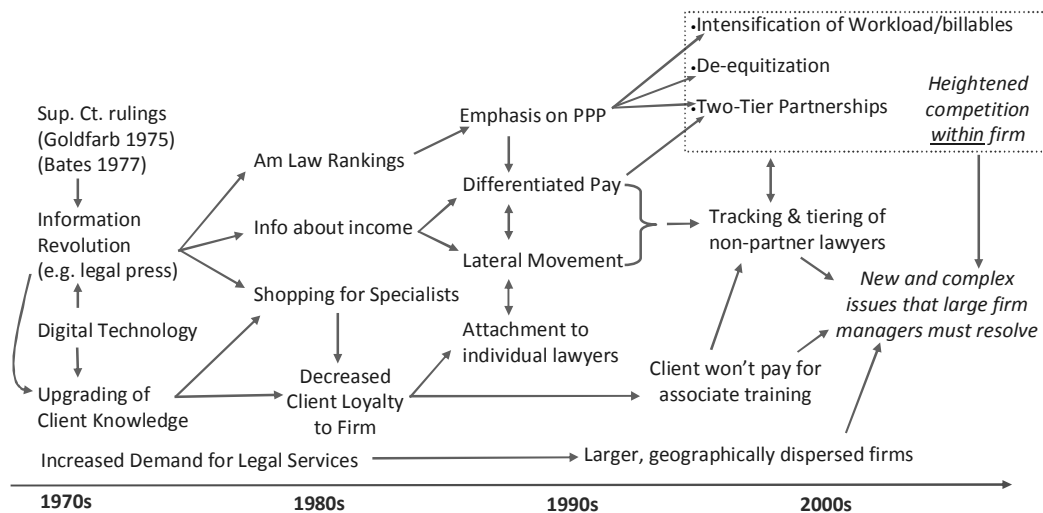
Figure 5 Forces driving change among large law firms (Galanter and Henderson, 2008, p.115)

Faulconbridge and Muzio (2008, p.23) describe "organizational professionalism" in regards to the legal profession as "a new form of professionalism" that can be defined by the following characteristics:

– "the organization and its bureaucratic apparatus is becoming the main locus of professional activity"

– "traditional values, objectives and rewards connected with professionalization projects are increasingly achieved and secured through the support of appropriate organizational systems, structures and procedures"

– "these organizational tactics and mechanisms are ultimately defined and influenced by professional interests"

– Lawyers "enjoy high degrees of autonomy… [and] retain substantial amounts of control over their work and service delivery, despite financial and market pressures"

In contrast to managerialism, professionals in organisational professionalism "design organizational strategies and structures to maintain their professional occupational principles and objectives." (Faulconbridge and Muzio, 2008, p.24)

Following the recent rise of international law firms (i.e. Hitt et al., 2007) and the increase in law firm size through mergers and acquisitions, and formal and ad hoc network relationships, practice groups gain increasing importance as administrative and organisational units. Practice groups not only carry out important managerial tasks, such

as budget setting and client relationship management activities, but they are also an important platform for networking and learning within the organisation. "Practice groups allow lawyers in different offices to form a shared identity on the basis of common legal practice" (Faulconbridge et al., 2007, p.32).

The shifting archetypes of professional service firms, i.e. from a professional organisation to partnership models, managed partnership businesses, and global partner networks (see. section 2.2.1) are also applicable to the law firm environment. Wallace and Kay (2008) analysed the impact of work contexts on professionalism by comparing sole practitioners to partners and associates in law firms. They discovered that, compared to sole practitioners, partners in law firms experience less autonomy and public service to society, but more collegial relations among the lawyers within their firm; however, "decision-making authority" and ownership impact professionalism of both groups (Wallace and Kay 2008, p.1039).

Further to this, Wallace and Kay's (2008, p.1039) findings suggest that "the nature of lawyers' practice settings' (i.e. the time lawyers spend with corporate clients and pressures to generate profits) have negative effects on lawyers' sense of professionalism by reducing their autonomy and opportunities for service-oriented work". The more time lawyers spend working with corporate clients the "less opportunity" the lawyers have "to exercise discretion". Lawyers working with "big business" clients are more likely to feel that they are not making a significant contribution to society, however, the opposite is true for lawyers who spend more time working with individuals (see Wallace and Kay 2008). Wallace and Kay (2008, p.1039) conclude that "being a professional has changed to accommodate the importance of being businesslike in a highly competitive marketplace… at the cost of autonomy, public service-oriented work, and commitment to the profession" (also see Cooper et al., 1996).

Greenwood et al. (2007) analysed the impact of ownership on the performance of professional service firms. Based on information taken from practitioner publications on management consulting firms, publicly available statistics, and interviews, Greenwood et al. (2007) discovered that organisations that are controlled by the owners, in particular partnerships, outperform organisations that have distinct ownership and management; a finding in line with the work of Greenwood and Empson (2003). They also found that the complexity of an organisation does not have an effect on performance. Contrary to Greenwood and Empson (2003), they state that owner's liability, which is a characteristic of partnerships, does not affect performance.

2.2.3 Current challenges

As discussed above, the key drivers of successful PSFs are their client relationships, the knowledge of their employees, and their reputation. Consequently, PSFs by definition need to meet or exceed client expectations, attract highly skilled personnel and retain their knowledge, and establish a good reputation in the market. Improving those three factors is a key to success in business and poses big challenges to many PSFs. However, there are also several other challenges that await PSFs in today's knowledge intensive economy, which will be described in the remainder of this chapter.

Brock (2006), for example, believes that deregulation and competition, technological developments, and the globalisation of services are the main "forces of change". Stumpf et al. (2002, p.259) point out that "the increased pressure for global service provision has forced PSFs to expand their offerings and office locations in response to client pressures to deliver more comprehensive and integrated services across the many countries in which multinationals conduct business." Scott (2001) also highlights internationalisation, integration, and a trend to both consolidation and fragmentation; mainly due to specialisation. In many cases, the establishment of a new office in a new country is not purely due to leveraging economies of scale (see Scott, 2001). It is rather the case that clients expect their PSFs to also have branches in the countries in which they operate. The same holds true for broadening services offerings; although with slightly less emphasis. The strategic decision to offer new products and services, or to enter new market areas, is to some extent also dependent on the client's expectation to receive integrated services; often also referred to as a one-stop-shop. Furthermore, the IT-revolution triggered major increases in technology spending and the so-called 'war for talent' (Stumpf et al. 2002) intensified the growth of cost for attracting, retaining, and rewarding the very best talent.

To summarise, client globalisation, the challenges caused by a highly educated workforce, and the war for talent are the main reasons that trigger market changes. PSFs are also frequently under pressure to provide clients with global, integrated service offerings; to increase use of technology and provide more professional development or apprenticing; and to invest more to attract, retrain, and reward key talent. Aside from the increase of staff support activity, Stumpf et al. (2002, p.263) agree that these "changes in the market for professional services create pressures on PSFs to merge, globalize, and extend their service offerings".

These trends are ongoing and impact the strategies of many professional service firms. The challenges described triggered a wave of mergers and acquisitions (M&As) in the PSF sector during the late 1990s. Similarly, investments into knowledge management initiatives and the implementation of customer relationship management (CRM) systems are seen as legitimate reactions to those challenges. Even before the merger and acquisition boom in the professional service firm arena and the simultaneously developing 'dot-com bubble' in internet stocks, which burst in March 2001, Fiona Czerniawska (1999, p.103) predicted that:

> *"... for the majority of consulting companies there is still a long way to go before the ideal of the global firm, as it is being talked about today, becomes a reality. National firms continue not to co-operate; cultural difficulties and domestic loyalties are still major barriers; performance measurements still encourage the traditional, quasi-feudal perspective."*

Even today, one could argue that this conclusion may hold true for many international firms in the professional services industry. Segal-Horn's (2007) qualitative study (23 in-depth-interviews within three of the top-ten international UK law firms), which focussed on the globalisation of law firms, for example, named the managerial issues ("strategic objectives") below as the essence of the process of becoming a global firm:

Ends - strategic objective	Means – internal process
Shift to the managed firm: developing managerial hierarchies	– Decline in professional autonomy – Rise of professional managers – Lawyers as managers
Post-acquisition integration	– Partner firm selection – Management of merger process – Building shared corporate culture
Operationalizing global practices	– Common technology platforms and KM capability – Creation of common HRM systems – Building cross-border professional networks

Table 2 Strategic objectives of professional service firms (adapted from Segal-Horn, 2007, p.213)

Segal-Horn (2007) presents supporting literature (i.e. Pinnington and Morris 2002 and 2003; Løwendahl et al. 2001) for the definition of her strategic objectives and associated internal processes, but concludes that there is also a clear need for further research in this area.

Post-acquisition/merger integration has already been widely discussed in academic literature and there are now many dedicated international consulting companies with the specific expertise of managing the respective change processes, on hand to help firms. However, as Brock (2006) and Hitt et al. (2006) respectively report, two very much under-researched areas are still the development of hierarchical structures and professional management in PSFs, and the operationalisation and internationalisation of PSFs. Freeman and Sandwell (2008) researched the barriers of internationalisation of PSFs in emerging markets, using a qualitative case study approach with a small sample of companies within the legal, media, and finance industry. They found that the cost of face-to-face communication, cultural work practices, language (in particular "communication practices"), and the regulatory environment pose the key barriers to a successful entrance in the Asian market. They conclude that social networking can be an effective way to overcome these barriers.

Hitt et al. (2006) examined the impact of human capital and relational capital on the internationalisation of professional service firms. Based on a sample of the 100 largest US law firms, in terms of revenue, Hitt et al.'s findings suggest that there is a direct link between a firm's human capital and successful internationalisation. The relationship between relational capital, in terms of corporate clients, and successful internationalisation is only positive if there is sufficient appropriate human capital. Relational capital, in terms of relations to foreign governments, has a negative impact on firm performance but a positive effect on internationalization. Hitt et al. (2006) conclude that human capital and relationships with governments prove to be important factors for international market entries.

Cort et al. (2007) used an attribution theory approach in order to understand managers' perceptions and motivating factors for internationalising their professional service firms. In particular, Cort et al.'s (2007) findings suggest that managers' perception of the depth of financial resources that could be directed to internationalisation efforts and a firm's competitive pricing, has a positive impact on managers' expectation of a successful internationalisation strategy; this, in turn, has a positive impact on the international success. However, in contrast, Cort et al. (2007) found that the uniqueness of a firm's products and services may lead to higher adaptation costs; which is why the uniqueness of offerings has a negative causal relationship with the expectations of success.

Reihlen and Apel (2007, p.147), who conceptualised the internationalisation of professional service firms as a learning process by using a constructivist approach,

believe that it is important for a firm "to embed itself in knowledge-intensive networks and the institutional structure of the new market." The firm's goals, thereby, can be described as "signaling its own competence… build up a reputation… ensure its own legitimacy in the market… learn through the feedback" (Reihlen and Apel, 2007, p.147).

2.2.4 Professional service firm economics

The sections above highlighted the main differences of professional service firms compared to industrial companies or traditional service firms. These differences manifest themselves in the way that PSFs compete for talent and clients, as well the way that they structure their business in order to create value.

According to Müller-Stewens (1999), the value chain of PSFs covers not only the service process itself but also the areas of systems, capital, professionals, and service development process. Müller-Stewens (1999) describes that service process starts with financing and service development and is structured into acquisition, staffing and sourcing, operations and delivery, and termination.

Under the term "systems" Müller-Stewens (1999, p.87) summarises the processes around research and development, knowledge management, technologies, project management, standards, and branding. As discussed previously, employees are key assets of professional service firms; therefore, Müller-Stewens (1999) also includes processes around professionals in his value creation framework. These processes are: recruiting, training, reviewing, remuneration, promotion, and retention and retirement.

Although the management of professional service firms is receiving more attention as a research topic, most academic contributions barely discuss the issues of professional service firm economics. However, Maister (1993), Scott (2001) and Parsons (2004), give a good overview of the main business drivers for PSFs and law firms respectively.

Maister (1993) states that the key business drivers are the average realised rate, leverage, margin, and utilisation. These drivers are strongly interrelated and it is difficult to change one driver without affecting another one. Parsons (2004) brought these drivers into a law firm context and described them as follows:

- The 'average realised rate' is the average hourly rate (also known as average billing rate) achieved by the firm, which is calculated by dividing total billings by the number of hours billed and usually expressed as an amount in currency (i.e. £280).

– 'Leverage' measures the extent to which the firm leverages its partners and more experienced staff. Often also referred to as 'gearing', it represents the relative profile of the fee earners whose time has been billed to a client. It is calculated using the amount of associate hours relative to partner hours and thus represents the extent to which partners are supported by, and lead, a team of associates (i.e. a leverage of 5 means that a partner is supported by five lawyers).

– 'Margin' measures the profitability of the team and is calculated by dividing the profit for the group by the fees charged by the group. A high margin indicates that the fees were well in excess of the costs. However, because there is no compensation cost for equity partners, this measure may be misleading. A high number of partners on a transaction would lead to a higher margin because the cost of a partner's compensation (i.e. profit share) is normally not included in this calculation. The profit for the group will be the group's revenue, less its direct and indirect expenses allocated to it (i.e. 32% of each pound in fees is kept by the firm as a profit).

– 'Utilisation' measures the average utilisation (or billable hours recorded) of all of the fee earners in the team, divided by the number of fee earners (i.e. 1,750 hours per year).

Using the drivers of profitability above, it is possible to calculate the profit per equity partner (PPP or PEP); which is one of the key performance indicators for PSFs. This indicator can be derived by either dividing the annual profit by the number of equity partners, or by multiplying the values of the business drivers described above (average realised rate x leverage x margin x utilisation = i.e. 280 x 5 x 0.32 x 1750 = GBP784,000).

As Scott (2001, p.57) describes, the operating profit can also be calculated by deducting pass-through costs, direct costs, and overhead from billings. Reducing billings by pass-through costs produces a firm's 'revenue' or 'gross margin'. Deducting direct costs from revenue leads to the 'contribution margin'. Reducing the contribution margin by the overhead then delivers the 'operating profit'.

'Pass-through cost' can be defined as "bought-in services provided by a third party which the client could buy-in separately" (Scott, 2001, p.55). An international law firm, for example, working on a multinational transaction could bring in lawyers from jurisdictions where the firm does not have an office or expertise, to work on a particular part of the transaction. The international law firm may coordinate the different local law firms and

consolidate their fees into one bill for the client. The revenue resulting from the bill is therefore not accurately reflecting the international law firm's billable work, which is why the pass-through costs need to be deducted.

Comparing PSFs with other industries, Scott (2001) explains that increasing PSF revenue also means increasing direct resource (i.e. staff), which leads to higher costs. Reducing the 'cost per unit' is therefore very difficult for PSFs. Consequently, although break-even may normally occur at relatively low levels, there are usually no economies of scale, since profitability cannot be substituted by revenue growth. Margin is therefore a very important measure of PSF performance.

Successful knowledge management or practice development strategies need to have a positive impact on the drivers of profitability mentioned above. Parsons (2004, p.38) states that there are "must haves", which he describes as "items necessary to compete", in a knowledge management strategy. He continues that "the objective in relation to the must-haves is to make sure you are efficient in funding and delivering the core legal knowledge (both internal and external) necessary to deliver your services."

Based on the findings in market orientation literature (i.e. Jaworski and Kohli 1993; Slater and Narver 1994), one could argue that market information or market knowledge should play an equally important role in a PSF's knowledge management strategy. In terms of the effect that knowledge management can have on a firm's performance, Parsons (2004) gives examples by linking KM activities with the business drivers above. Knowledge management strategies could:

− Improve utilisation by decreasing the time that lawyers spend on administrative, non-billable tasks

− Improve the margin by producing precedents and standard forms with a "focus on competitive advantage and quality" (Parsons, 2004, p.38) or minimising the number of business support resources required by fee-earners

− Improve leverage by "facilitating the delegation of work to nonpartner resources by using tools or documents embedded with the experience of the firm" (Parsons, 2004, p.38), but by maintaining the level of quality

− Improve the average realised rate by developing profitable fixed-price products that are not billed on an hourly basis

In recent years, alternative billing and pricing arrangements became more popular in the law firm environment, in order to attract and retain profitable work (see i.e. Glater, 2009). Examples include blended rates, fixed fee pricing, and contingent fees. Some clients and general counsels are actively pushing for alternative arrangements in order to get away from the billing by the hour principle, with the aim to subsequently pay less fees, or receive greater value, for the legal work they require. Alternative pricing models have a huge impact on a law firm's needs to plan and calculate the optimal use of their resources. The structuring of the pricing of products and services, therefore, becomes more important in the pitching process.

There is also a tendency to agree rather moderate hourly fees with the perspective of earning a bonus where the transaction goes to plan, or on the other hand, to agree discounts. This means that clients are actually transferring some of their risks onto the law firms. There is also a tendency to agree caps (i.e. a certain threshold for the total fees). Once the threshold is reached, the law firm needs to inform the client in order to discuss the pricing going forward.

In summary, billing models can broadly be clustered into three categories: (i) the traditional time-based model; (ii) product and service specific models; and (iii) value based models. The traditional billing model bases its prices on the time, expenses and materials needed to provide the service. The biggest part of the invoice is made of the billed hours, which are usually calculated based on fixed or blended rates. From a management point of view the main challenge is to control the team's effort and output.

Other billing models are based on the type of product or service. If products and services can be relatively well defined it is common to agree a set price for the delivery of the work product. The challenge for the management lies not only in making sure that the product and service are delivered in the right quality and time, but they also need too look at the internal efficiency of the processes in order to guarantee the right level of profitability.

The third category includes billing models that take into account the value that is created by the law firm. The concept is similar to the second model, but focuses more on out of the ordinary projects, such as products and services that are not standardised. This involves a rather high level of risk taking for law firms, with the perspective of significant premiums and, based on the type of project or transaction, if successful a positive impact on both reputation and the relationship with the client. Trust between a client and a law firm is highly important and a precondition for this model to work. From a management

point of view the challenges lay in controlling the team's output, risk management, and client relationship management.

There are two predominant compensation models for partners. Most US law firms pay their partners based on the business they bring in; this model is often referred to as "eat what you kill". English law firms tend to divide the firm's income using a points system, which is largely based on seniority. There is a perception that US lawyers generally tend to bill more hours; however, English practitioners would be quick to point out that this is mainly due to billing practices, rather than due to actual performance.

Forstenlechner (2004) consolidated the views of Rusanow (2003) and Schulz and Klugmann (2005a, 2005b) on revenue based and lockstep models of law firms and created the table below, labelled "Difference in law firm compensation models". The table is particularly useful since it offers a view on the impact of the two models on knowledge management functions and initiatives.

	Revenue based (predominantly US law firms)	Lockstep (predominantly UK law firms)
Concept	A partner's compensation is solely determined by the amount of revenue generated by the partner. Partners focus on their own practice rather than on the whole firm (Rusanow, 2003).	A partner's compensation is based on seniority and overall contribution to the firm. Revenue generated directly by a partner is only one criterion in partner assessment (Rusanow, 2003).
Management implications	Encourages partners to grow business and be entrepreneurs (Rusanow, 2003).	Incentive to cross sell to other partners and grow the firm as a whole (Rusanow, 2003).
Implications for knowledge management	– A high level of competitiveness among lawyers can generate a fear of losing influence by sharing one's "unique" knowledge (Schulz and Klugmann, 2005a). – No incentive to invest non-billable hours in KM (Rusanow, 2003). – No incentive to share knowledge (Rusanow, 2003).	– Knowledge sharing is most likely easier as there is no fear of losing clients (Rusanow 2003; Schulz and Klugmann 2005b). – KM can be included in partner assessment (Rusanow, 2003). – Lawyers with specific know-how in a particular subject-matter typically hope to enjoy a higher standing and reputation within the firm by keeping their expertise instead of sharing it (Schulz and Klugmann, 2005a).

Table 3 Difference in law firm compensation model (adapted from Forstenlechner, 2004)

2.2.4.1 Law firm market

A major economic crisis developed during the course of this research. Financial markets were heavily impacted by the economic downturn, which in turn also had negative implications on the legal sector. According to Mergermarket (2009, p.9), an information provider, the global mergers and acquisition (M&A) market plummeted in 2009, particularly in North America. The global financial services sector decreased by 31% to $2.5tr in deal value, with volumes decreasing by 20% to slightly over 12,000 deals. The biggest drop happened in North America, which normally represents around 40% of values worldwide; now below 35%. The figures indicate a decline by 44% from $1.5tr to $848bn. The Asia-Pacific region accounts for around 16% of total values, which is an increase from 11-12% over the past three years. Europe accounted for five of the global top 10 deals that were announced in 2008.

European M&A dropped across all sectors in 2008. Deal activity dropped by 20% (from around 6,450 to 5,150) and overall values were down by 32% (from around €1,095bn to €741.7bn). Similar levels were last seen in 2005. Deal volumes decreased significantly in the final quarter of 2008, showing just 825 deals, which was the lowest quarterly volume since Q2 2003.

Despite the credit crunch, the financial year 2007/08 (from May 2007 to May 2008) was the best year ever for many UK law firms. A brilliant first half helped to cushion many law firms from the difficult downturn during the second half. Similarly, benefits from currency conversions (especially euro/pounds) and the fact that Asia, Russia, and the Middle East were initially lagging behind the economic trend, made up for the credit crunch related effects in the US and London markets.

In addition to this, restructurings at some of the bigger international law firms (i.e. reduction of equity partners, business services staff, off-shoring) helped to bolster the average profit per partner. These effects are evident in the financial results and other key indicators, which are listed in the appendix.

2.2.5 Understanding the client

As stated earlier, there is a knowledge gap between clients and experts at professional service firms. Clients often find it difficult to judge whether a particular PSF will be able to help them solve their specific problem. Day and Barksdale (2003, p.565), state that

"professional services cannot be evaluated prior to purchase and only some can be evaluated during and after service delivery".

Many clients, therefore, invite PSFs to present their credentials in order to get to know the firms and their approaches to solving the client's problem. This part of the selection process is often referred to as a 'beauty parade' or 'pitch'. For professional service firms it typically entails developing a proposal and a presentation for a client or potential client. In one of their earlier papers, Day and Barksdale (1992) presented four dimensions that are critical to the client's selection decision: (i) perceived experience, expertise, and competence of the provider; (ii) the provider's understanding of the client's needs and interests; (iii) the provider's relationship and communication skills; and (iv) the likelihood of the provider conforming to contractual and administrative requirements.

Building upon their previous findings, Day and Barksdale (2003) wanted to further research selection criteria for companies that had already made it onto the client's short list. According to Day and Barksdale (2003), the criteria for the selection of professional service firms can be divided into three categories: competence, client-orientation, and chemistry. In addition, they suggest that firms that made it onto the short list, but who are not ultimately commissioned, are "not necessarily rejected, they simply were not selected" (Day and Barksdale, 2003, p.571). The authors state that "not being selected reflects a failure to (positively) differentiate the firm, whereas being rejected is more likely to be due to some blunder" (Day and Barksdale, 2003, p.571).

The number of new clients or the retention of existing clients usually drives the performance in the market. Another way to compete successfully is to increase efficiency. Consequently a business model that is both client-oriented and competence focused could succeed in the competitive environment and the selection process. In more practical terms, strong client relationship management, together with holistic knowledge management (comprising not only systems but also processes and culture) should enhance the firm's profitability by winning new clients and retaining existing clients. It could be an aim of future research projects to find out whether this assumption holds true.

In order to narrow down the literature review, Day and Barksdale (2003, p.566) state that "because professional services in the consumer sector are not identical or sometimes even similar to those offered in the business and industrial sectors, the consumer behaviour literature is of limited value." However, Day and Barksdale highlight a literature review carried out by Crane (1996) indicating that competence is a key criterion for selecting "high-contact service providers". PSFs that make it onto the short list are often already

perceived as being competent enough to offer the requested solution. Hence, this characteristic may be slightly less important when selecting PSFs from a shortlist. According to the study, good chemistry could be defined as: "having confidence in, dependability, likeability, cooperative attitude, shared values, rapport, feeling comfortable with, trusting" (Day and Barksdale 2003, p.573). The authors point out that "positive 'personal chemistry' contributes to trustworthiness".

Since competence, client-orientation, and chemistry play an important part in the clients' selection processes, it is worth analysing the differences between conventional transactions and the kind of relationships that are required for a more complex and lasting cooperation between clients and service providers. O'Malley and Harris (1999) analysed the legal-market dynamics, with a focus on the relationships within the legal industry. The authors conclude that a characteristic of the legal industry is the existence of interactions "of both a transactional (impersonal, discrete, episodic) and relational (close, enduring, interdependent associations) nature" (O'Malley and Harris, 1999, p.889).

Maister (2008) offers a succinct overview of the characteristics, perceptions, goals, actions, plans, communications, and working styles of both transaction based cooperation and complex relationships:

	Transactions	Relationships
Characteristics	Short-term benefit; Focus on the present	Long-term benefit; Focus on the future
Perception	Them; Opponents; Suspicion	Us; On the same side; Trust
Goal	Make yourself look attractive; Prevail	Understand the party; Preserve the relationship
Actions	Preserve options, avoid obligations; Negotiate and bargain	Make a commitment; Give and be helpful
Plan	Develop a detailed contract	Be comfortable with ambiguous understandings about future reciprocity
Communication	Preparation and rehearsal of what we are going to say and do; Listen to what they are saying	Adaptability and flexibility to the responses of the other party; Listen to what they are feeling, why they are saying it
Style	Can be impersonal, detached; Usual feeling during the interaction is tense, enervated; Interactive style is defensive, protective	Must be personal, engaged, intimate; Usual feeling is relaxed, comfortable; Interactive style is open, inquisitive

Table 4 Transactions versus relationships (table adapted from Maister, 2008, p.84)

Day (1999, p.139) distinguishes between transactional, value-adding, and collaborative exchanges. Whereas the distinction between transactional and value-adding exchanges is similar to Maister's (2008) categorisation, collaborative exchanges are characterised by two-way collaboration, joint problem-solving, multi-level contacts, extensive sharing of proprietary information, information system and process integration, social networks, joint planning, mutual commitments, shared incentives and goals, and trust.

O'Malley and Harris (1999, p.889) explain that "closer, more enduring relations" could be explained by "the existence of shared values, mutual goals, trust and the nature of interdependencies within the industry." O'Malley and Harris (1999, p.891) also highlight the management of increased client expectations by stating that "a recognition of the increasing importance of functional quality (that is, how the service is delivered) as opposed to technical quality (the quality of the service itself)" is required.

In their meta-analysis, Palmatier et al. (2006) examine the notion that relationship marketing, which encompasses "all marketing activities directed towards establishing, developing, and maintaining successful relational exchanges" (Morgan and Hunt, 1994, p.22), has a positive effect on customer relationship and supplier performance. Based on 94 journal papers and manuscripts containing more than 600 correlations from over 100 samples, the authors analysed antecedents, outcomes and the mediator's commitment, trust, relationship quality, and relationship satisfaction.

The findings support the assumption that relationship marketing has a positive impact on a supplier's performance, which is to the largest part influenced by relationship quality. Commitment, on the other hand, has less influence on performance. In addition to this, the more critical a relationship is to a client, the more effective the relationship marketing efforts of a supplier will be. Similarly, the effect is stronger when the relationship is established at an individual level, rather than on an organisational level. The main findings of Palmatier et al.'s (2006) meta-analysis are set out in the table below:

Categories	Description of findings
Antecedents	– *Expertise* and *communication* are the most effective strategies for building relationships, followed by *relationship investment*, *similarity* (between customers and sellers i.e. values), and *relationship benefits.*
	– *Frequency*, and *duration* are relatively ineffective.
	– The extent of negative impact of *conflict* (disagreements between buyer and seller) outweighs all other positive relationship marketing strategy effects. This leads to the conclusion that it is highly important to resolve conflicts.
	– *Relationship benefits*, *customer dependency*, and *similarity* can increase *commitment,* but not *trust. Relationship investment* and *frequency* have the opposite effect.
Outcomes	– *Relationship quality*, which measures relationship strength, has the biggest effect on objective performance; whereas *commitment* is on the other side of the spectrum.
	– *Relationship investment* and *dependence* (i.e. customer is relying on seller due to lack of alternatives) have a large, direct effect on seller objective performance. However, *dependence* shows little impact on relational mediators.
	– Looking at all outcomes, relationships have the biggest effect on *cooperation* and *word-of-mouth* (i.e. customers recommend a supplier's services), but least influence on *objective performance*.
Moderators	– In general, relationship marketing is more effective when the relationship is more critical to customers; such as for services (rather than products), channel partner exchanges (rather than direct sales exchanges), and business markets (rather than consumer markets).
	– The relationship marketing effect is stronger when the relationship is established at an individual and interpersonal level, rather than on an organisational level.

Table 5 Antecedents, outcomes, and moderators of B2B relationships (based on Palmatier et al, 2006, p. 150)

2.2.6 Conclusion and relevance to the research

The aim of this section was to provide an overview of the characteristics of professional service firms. As law firms are typical examples of this business sector, the literature on professional service firms is highly relevant to this research and will also help to identify and clarify gaps in the literature on market orientation and knowledge management (see section 2.6).

Maister (1993) describes that the purpose of a professional service firm is to solve a problem for a client. He adds that skills and experience of employees, client relationships, and reputation are the key success factors of PSFs. The typical structure of professional service firms, as described by Müller-Stewens (1999, p.86), is a matrix structure with the

dimensions: service lines/functions, industries/markets, and regions. This structure is applicable to LawCo.

Professional service firms are knowledge intensive firms: "A law firm can be understood as a social community specializing in speed and efficiency in the creation and transfer of legal knowledge" (Gottschalk and Khandelwal, 2004). As Sheenan (2005) points out, it is difficult to apply 'old' management frameworks such as Porter's Five Forces model (Porter 1980, 1985, 1998) to knowledge intensive firms. These firms face different challenges and need to be managed in different ways. Current challenges are, for example, client globalisation and the need to provide clients with "global, integrated service offerings" (Stumpf, 2002).

Day and Barksdale (1992) found that competence, client-orientation and chemistry are key criteria when selecting a professional service firm. Therefore, PSFs need to have the best-educated and experienced employees in order to meet clients' expectations; Stumpf (2002) calls this the "war for talent". For this reason, as employees are enticed from firm to firm, staff turnover is generally high in PSFs and retaining the knowledge of employees is a key challenge for management. As a result, many PSFs aim to increase the use of technology to strengthen their position in the market. Mergers and acquisitions are also another popular option to survive in these challenging situations. Not surprisingly, whilst these 'solutions' appear to solve problems, they are also likely to trigger new ones.

A more promising strategy to overcome some of the above challenges is to continue to apply and enhance knowledge management strategies in PSFs, in order to develop and maintain their key success factors. As Scott (2001, p.177) predicted, "the management of talent and knowledge, make the PSF sector the model for the rest of industry over the next twenty years". The following sections will provide an overview of contributions to market orientation (section 2.3) and knowledge management (section 2.4) literature and their implications for professional service firms.

2.3   Market orientation (MO)

"The market orientation literature is the closest the marketing discipline has to a theory of the firm that can explain why some firms outperform others" (Van Raaij and Stoelhorst, 2008, p.1265). Market orientation is not a synonym for marketing orientation. Marketing orientation focuses on staff and activities in the marketing function, whereas market

orientation is a much wider concept that involves all employees and focuses on the market environment, including customers, competitors, and internal processes (Esteban et al. 2002; Gounaris 2008).

The market orientation concept emerged in the early 1990s when Jaworski and Kohli (Kohli and Jaworski 1990; Kohli et al. 1993; Jaworski and Kohli 1993), as well as Narver and Slater (Narver and Slater 1990; Slater and Narver 1994 and 1995) published their market orientation frameworks, aiming to analyse and characterise "market driven" organisations. Although their constructs differ around the precise definition and characteristics of market orientation, both concepts suggest that market orientation leads to better performance in the market, and are thus highly valued by fellow scholars and practitioners. Their seminal papers still form the common basis of current thinking on market orientation and will be introduced in the sections below.

This section will introduce market orientation with a focus on measuring the construct, the implementation of market orientation, and professional service firm specific aspects. The purpose of this section is to identify gaps in the literature and to develop hypotheses (see section 2.6).

2.3.1   Introduction to market orientation theory

Market orientation theory is an integral and well established part of the marketing concept and has been tested and analysed in various surveys and journal papers (Shoham et al. 2005; Grinstein 2008). The basic concept is surprisingly simple: "A market orientation fosters an awareness of the external market, which requires response at appropriate levels and functions of the firm" (Schlosser and McNaughton, 2007, p.309). Subsequently, market oriented organisations are supposed to perform better in the market (see i.e. Webster 2005; Appiah-Adu 1998).

As stated in the introduction, there are several sets of definitions and characteristics of market orientation (Matsuno et al., 2005). In a paper reviewing and integrating the contributions to date, Van Raaij and Stoelhorst (2008) conclude that some of the most influential definitions of market orientation share the same strong client-focus, but also emphasise different organisational elements, such as the decision-making process (Shapiro, 1988), information processing activities (Kohli and Jaworski, 1990), business culture as a set of behavioural components (Narver and Slater, 1990), business culture as

a set of beliefs (Deshpande et al., 1993), the organisational strategy process (Ruekert, 1992), and organisational capabilities (Day, 1994).

Authors	Definition
Shapiro (1988, p.120).	An organisation is market oriented if "information on all important buying influences permeates every corporate function… [; and] … strategic and tactical decisions are made interfunctionally and interdivisionally … [; and] … divisions and functions make well-coordinated decisions and execute them with a sense of commitment"
Kohli and Jaworski (1990, p.6).	"Market orientation is the organisationwide generation of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across departments, and organisationwide responsiveness to it"
Narver and Slater (1990, p.20).	Market orientation is defined as "the business culture that most effectively and efficiently creates the necessary behaviors for the creation of superior value for customers"
Ruekert (1992, p.228).	Market orientation is the level to which an organisation "(1) obtains and uses information from customers; (2) develops a strategy which will meet customer needs; and (3) implements that strategy by being responsive to customer needs and wants"
Deshpandé, Farley, and Webster (1993, p.27).	Customer orientation, which is in this case defined as a synonym for market orientation, is "the set of beliefs that puts the customer's interest first, while not excluding those of all other stakeholders such as owners, managers, and employees, in order to develop a long-term profitable enterprise"
Day (1994, p.37).	"Market orientation represents superior skills in understanding and satisfying customers"

Table 6 Definitions of market orientation

Based on a number of meta-analyses it is fair to say that the majority of scholars in this field either use Jaworski and Kohli's (Kohli and Jaworski, 1990) or Narver and Slater's (1990) framework of market orientation, or an adapted form of their constructs (Langerak 2003; Shoham et al. 2005). Narver and Slater's (1990) framework is often referred to as the "cultural approach" to market orientation that focuses on fundamental organisational characteristics (Carrillat et al., 2004). For the purpose of this thesis, culture can be defined as "the collective programming of the mind which distinguishes the members of one group or category of people from another" (Hofstede, 2003, p.260).

Narver and Slater's (1990) market orientation framework comprises the elements of customer orientation, competitor orientation, and inter-functional co-ordination, as well as the decision criteria called long-term focus and profitability. According to Slater and Narver (1999), market-oriented firms address both expressed as well as latent customer needs. In contrast to Slater and Narver (1994 and 1995), Kohli and Jaworski (1990) do

not define market orientation as a cultural phenomenon, but rather as organisational behaviours comprising the generation of information, dissemination of information, and the responsiveness to information. Their approach is, therefore, frequently referred to as a "behavioural approach" to market orientation (Carrillat et al., 2004).

Jaworski, Kohli and Sahay (2000) also emphasise the distinction between market-driven and driving markets. They define driving markets as "changing the structure or composition of a market and/or the behaviour(s) of players in the market" (Jaworski et al., 2000, p.47). Further to this, they argue that "driving markets is a matter of degree" and distinguish between two key dimensions, namely the number of changes and the significance of the changes (Jaworski et al., 2000, p.47). Jaworski et al. (2000, p.47) state that "what counts is the extent to which a business changes market composition and/or behaviour, not whether one is first with an idea or not". This is a particularly important annotation and is similar to other scholars' (e.g. Day and Shoemaker, 2006) remarks on first mover advantages. Sheehan (2006, p.54), for example, noted that first-mover advantages "play a decidedly smaller role in knowledge-intensive industries due to the rapid commoditization of ideas and processes." According to Jaworski et al. (2000), there are therefore three general approaches to drive markets: constructionist, deconstructionist, and functional modification. They also state that "several organizations may coordinate the changes in a given market" (Jaworski et al., 2000, p.47).

Compared to the more active concept of driving the market, being market-driven comprises activities such as "learning, understanding, and responding to stakeholder perceptions and behaviours within a given market structure" (Jaworski et al., 2000, p.47). Market-driven companies, however, still follow strategies that are centred on customer value (Deshpande et al. 1993; Day 1999). Compared to the market-driving concept, the market-driven strategy is more passive and as a result, companies tend to accept "the market structure and market behaviour as given results" (Jaworski et al., 2000, p;46). Not surprisingly, Jaworski, Kohli and Sahay (2000) state that market-driving organisations are better able to achieve a sustainable competitive advantage.

Given the significance of market orientation, many scholars aimed to refine the model (i.e. Deshpande 1993; Day 1999; Matsuno 2000), discuss antecedents (i.e. Kohli and Jaworski 1990; Carrillat et al. 2004), moderators (i.e. Bhuian et al. 2003; Pulendran 2000; Kirca 2005), mediating factors (i.e. Langerak, 2003), and organisational barriers to developing market orientation (i.e. Kohli et al. 1993; Harris 2000). Various market orientation scales have been developed in order to rigorously test the concept in various

situations and under different circumstances (a discussion on measurement scales follows in section 2.3.2). For example, scholars applied market orientation theory to organisational functions such as key account management (Workman Jr. et al., 2003) or sales (Le Meunier-FitzHugh and Lane, 2009). Academic research also focused on different business sectors including retail firms (Elg 2002 and 2003; Rogers et al. 2005; Kara et al. 2005) and organisational orientations such as entrepreneurial orientation (Bhuian et al. 2003; Atuahene-Gima and Ko 2001). There have also been cross-cultural studies (i.e. Selnes et al. 1996; Ellis 2006), which aimed to examine market orientation in an international context. Several research initiatives (i.e. Matsuno and Mentzer 2000; Homburg et al. 2003) investigated the impact of strategy on market orientation.

Krohmer et al. (2002, p.461) found that "active influence of other [internal] groups over decisions on marketing activities is beneficial". In a recent research study analysing the internationalisation in small software firms, Ruokonen et al. (2008) adopted a qualitative case study approach, combined with quantitative data from the two case study companies. Their findings suggest that the systematic dissemination of information can help to ensure a better response to market needs: "When there is a strong market pull and the company is offering a rather standardised product, the emphasis of the customer information may quite soon change from customer understanding to customer satisfaction. [On the other hand,] when there is technology push and the company is launching an innovative product and yet creating the market, the need to understand and to satisfy the customer remains rather balanced" (Ruokonen et al., 2008, p.1308).

Sorensen (2009) analysed the role of competitor orientation and customer orientation in relation to the market orientation concept. He argues that an emphasis on either competitor or customer orientation will result in different market oriented activities, thus impacting performance in different ways. This theory is in line with Slater and Narver (1994) who believe that in markets with high competitive intensity and high environmental uncertainty, companies should focus on customer orientation. Vice versa, in markets characterised by low competitive intensity and low environmental uncertainty, companies should be more competitor oriented. Sorensen's (2009) findings suggest that customer orientation in markets with competitive intensity is indeed detrimental to a firm's performance; measured as return on assets (ROA). Competitive intensity also plays a moderating part in this relationship; the more competitively intense the markets are, the lower the negative impact on customer orientation. The study also confirmed that higher competitor orientation leads to an increased market share. However, it is worth noting that a higher market share did not lead to an increased ROA. In conclusion, Sorensen

(2009) argues that companies need to focus on both customer and competitor orientation, depending on the kind of market they are in. In addition to this, Sorensen (2009) calls for more research into the real-life activities that make customer and competitor orientation, to find out why and how they are being carried out. He also believes that future research should focus on the responsiveness to market information, paying special attention to the timeliness of the response.

2.3.2 Measuring the impact of market orientation

According to Day (1999) the positive impact of market orientation can be illustrated by superior cost and investment efficiency, employee satisfaction, price premium, revenue growth, and competitive pre-emption. Several scholars (i.e. Kohli and Jaworski 1990; Narver and Slater 1990; Ruekert 1992; Cadogan and Diamantopoulos 1995) developed a variety of market orientation scales in order to empirically test and diagnose the level of market orientation. It is, however, not yet clear which scale is the most relevant for measuring the market orientation of an organisation (Matsuno, 2005). The two most prominent and most frequently used scales (Langerak, 2003) were developed by Jaworski and Kohli (i.e. 1993), who analysed the level of market orientation based on their MARKOR questionnaire, and Slater and Narver (i.e. 1994 and 1995), whose scale is called MKTOR.

Whilst several scholars (i.e. Esteban et al. 2002; Cano et al. 2004; Kirca et al. 2005; Shoham et al. 2005) confirm the positive relationship between market orientation and organisation's performance, there are also some scholars (i.e. Langerak, 2003) who question the significance of this relationship. Besides contextual, socioeconomic, and cultural factors, critics also list measurement-related issues, such as the type of scale or the number of responses, as potential perturbations.

Given the fact that both the MARKOR and MKTOR scale have been heavily used in the past, thus emerging as the predominant market orientation scales, it is worth analysing the two constructs in more detail. First of all, it is probably fair to say that neither of the two scales is the indisputable leader among market orientation scales. Also, given the conceptual nature (i.e. one focuses on behaviours; the other on culture) of the scales and depending on the context of a specific piece of research, there seem to be justifiable reasons to pick one scale or the other.

As indicated above, Jaworski and Kohli's (1993) MARKOR scale focuses on behavioural aspects; especially on activities regarding the information on customer need and an organisation's market environment. Jaworski and Kohli (1993), therefore, distinguish between three categories of market oriented processes: (i) market intelligence generation; (ii) the dissemination of market intelligence; and (iii) the responsiveness to market intelligence across organisational functions.

Narver and Slater (1990, p.21) argue that an appropriate organisational culture must be in place in order to establish a market orientation: "Market orientation is the organizational culture that most effectively and efficiently creates the necessary behaviours for the creation of superior value for the business". Based on this definition, their MKTOR scale distinguishes between three categories of market oriented processes: (i) customer orientation; (ii) competitor orientation; and (iii) inter-functional coordination.

According to Cadogan and Diamantopoulos's (1995) assessment of Jaworski and Kohli's (1993) MARKOR scale and Narver and Slater's (Slater and Narver 1994 and 1995) MKTOR scale, there is a conceptual overlap with customer orientation and intelligence generation, and intelligence dissemination; and an operational overlap with intelligence generation and responsiveness. Furthermore, there is a conceptual overlap between competitor orientation, intelligence generation, and intelligence dissemination, in addition to an operational overlap between intelligence dissemination and responsiveness. There is also an operational and conceptual overlap with inter-functional coordination and intelligence generation, intelligence dissemination, and responsiveness. It is probably this similarity that led Dobni and Luffman (2003, p.578) to conclude that "…it is now broadly accepted that a market orientation is a behavioural culture, the principal features of which are actionable, that dictates how an organization's employees think and act." Similarly, Homburg and Pflesser (2000) argue that studies rooted in the cultural stream of market orientation literature typically conceptualise and measure market orientation in terms of behaviours.

Schlosser (2004, p.21) believes that Jaworski and Kohli's behavioural view on market orientation is "gaining acceptance" and cites Darroch and McNaughton (2003) and Helfert et al. (2002) to support her statement. In particular, she states that market-oriented behaviours are a sign for a market-oriented culture and that market-oriented behaviours will therefore lead to a better performance in the market. However, according to Matsuno et al. (2000, p.528), the MARKOR scale "only represents a limited number of stakeholder domains. It mostly captures customers and competitors as focal domains for

understanding the market environment and does not explicitly address how other market factors suggested in the literature (e.g., legal and regulatory environment, macroeconomic environment) may influence competition and customers". Ruokenen et al. (2008, p.1297), on the other hand, state that Jaworski and Kohli's (1993) conceptual model already entails the presumption that market-oriented firms "should be aware of and able to act upon customer needs by understanding the factors that influence those needs, including developments in its competitive and regulatory environments."

The main criticism of Narver and Slater's MKTOR scale focuses on its potential circular logic (Deshpande and Farley, 1998). According to their concept, an appropriate culture is required in order to create market oriented behaviours. Narver and Slater then suggest to measure market orientation (which is defined as culture values) by analysing processes (i.e. behaviours) that ought to be the consequences of an organisational culture. Or, as Matsuno et al. (2005, p.2) put it, "although *culture* seems to be promising as an internal environment antecedent to market-oriented *behaviours*, the chance of conceptual and empirical confounding from treating the two as one is not negligible"; (emphasis in original).

Another criticism of Narver and Slater's (1990) approach focuses on culture itself. Deshpande and Farley (1998), who developed a market orientation scale labelled MORTN, oppose the idea that culture is supposed to be an antecedent to market-oriented behaviour. According to their findings market orientation cannot be classified as a culture, but as a set of market-oriented activities. On the other hand, Homburg and Pflesser (2000), who acknowledge the importance of culture in this discussion, call for a multi-layer model of market oriented culture, based on findings in the field of organisational culture. In particular, they suggest that the market orientation culture construct needs to distinguish between shared basic values, norms, artefacts, and behaviours. Their findings suggest that values (i.e. open internal communication or interfunctional cooperation) and norms, which are defined as being formed by shared values and which represent expected behaviour or results, only impact market oriented behaviours indirectly. Artefacts (i.e. the language, stories, and rituals created by organisations), however, have a significant impact on a firm's market oriented behaviours. Homburg and Pflesser (2000) thus highlight the managerial implications with regard to the symbolic meaning of artefacts. Story-telling, for example, could be an effective way to improve market oriented behaviours, especially when the stories focus around best practices or specific examples of exceptional market oriented behaviours by individuals.

Besides criticism regarding the definition of market orientation and market-oriented behaviours, there are also issues when it comes to the operationalisation of the concept. There is a lack of longitudinal studies that would help to clarify the causal relationship between market orientation and performance over time (i.e. Sin et al., 2005). In order to analyse the potential linkage between market orientation and firm performance, many scholars will use subjective performance-related measures based on rating scales, such as the Likert scale, rather than using absolute performance figures, such as sales growth; therefore, responses are subject to the respondent's personal view. Largely due to the multifaceted nature of performance, the discussions on the relevance of certain measures of business performance or competitive advantage are still ongoing (Hult et al., 2008). A related question is how to control for other factors outside the market orientation concept, that impact performance. Similarly, common method bias (Podsakoff et al., 2003) can also be cited as a point of criticism, because the same respondents are not only rating the market-oriented processes, but also performance. The selection of respondents (i.e. seniority and function within the organisation) is also a cause for concern (Robson 2002; Yin 2009). One could also argue that in-depth personal interviews would be more insightful rather than the self-reported questionnaires that are usually used by researchers (Robson 2002; Kirca et al. 2005). The design of this thesis, as described in the research methodology, including its mixed method case study approach, will help to overcome some of the issues described above (see Robson 2002; Podsakoff et al. 2003; Teddlie and Tashakkori 2003; Yin, 2009).

Langerak (2003, p.459), who analysed "if" (direct effects), "when" (moderating effects), and "how" (mediating effects) market orientation influences an organisation's performance, discovered that innovation, customers' trust in suppliers, and firm effectiveness mediate the relationship between MO and performance. The moderating effects of market-level factors (i.e. market turbulence, competitive intensity) on the MO-performance relationship, however, were equivocal. Wrenn (1997) and Kirca et al. (2005) also found insufficient empirical evidence for the suggested moderating effect of market turbulence, technological turbulence or competitive intensity. Slater and Narver's (1994) findings only provide little support for competitive environment being a moderator between market orientation and performance. The authors state that environmental conditions are frequently of a transient nature; whereas being market oriented is associated with long term benefits. Slater and Narver (1994) thus argue that environmental factors will only have a short term impact, which may not affect the effectiveness of a market orientation. Homburg and Pflesser's (2000) research, however,

suggests that market-oriented culture is especially important in times of turbulent market conditions with high levels of market dynamism. Similarly, Van Egeren and O'Connor (1998) found a significant relationship between market orientation and external conditions.

Kohli and Jaworski's work (1990) suggests that active senior management and an appropriate resource allocation can enhance a firm's market orientation. High formalisation and centralisation, however, may hinder an effective market orientation. Van Raaij and Stoelhorst (2008, p.1271), distinguish between internal ("organizational factors that enable the adoption of the market orientation concept") and external ("environmental factors that stimulate a firm's adoption of a market orientation") antecedents. Hence, they characterised market dynamism and competitive intensity as external antecedents. Internal antecedents, according to Van Raaij and Stoelhorst (2008), are for example: Ruekert's (1992) market-oriented recruiting, training, and compensation factors, as well as Jaworski and Kohli's (1993) top management emphasis, interdepartmental conflict and connectedness, and reward systems.

2.3.3 Meta-analyses on market orientation

Several authors (i.e. Cano et al. 2004; Kirca et al. 2005; Shoham et al. 2005; Grinstein 2008) carried out detailed meta-analyses on market orientation studies and the impact on performance. For example, Cano et al. (2004, p.193), who carried out a meta-analysis of 53 empirical studies on market orientation from 23 countries, across five continents and a combined total sample size of 12,043 respondents, state that "market orientation is a critical component of business performance and offers evidence of the effectiveness of the implementation of the marketing concept". The following table summarises the findings, in chronological order, of meta-analyses on market orientation to date:

Authors	Focus/Method	Key findings
Grinstein (2008)	Analysis of 70 empirical studies with a focus on market orientation and its relationship with alternative strategic orientations, such as innovation, learning, entrepreneurial orientation, and employee orientation. The study covers 135 effects.	− Strong positive relationship between MO and learning orientation ($r = .635$, $p < .05$), entrepreneurial orientation ($r = .633$, $p < .05$), and employee orientation ($r = .522$, $p < .05$). − Moderate positive relationship between MO and innovation orientation ($r = .397$). − The findings suggest that companies that combine MO with alternative strategic orientations are more likely to perform better.

Authors	Focus/Method	Key findings
Ellis (2006)	Analysis of 56 market orientation studies, which were conducted across 28 countries.	− There is a generic relationship between MO and performance, which is moderated by measurement and contextual factors. − MO effects on performance depend on market size and the level of economic development. The relationships were stronger in large, mature markets. This explains why the correlation in US studies ($r = .355$, $p < .05$) were higher than the average correlation ($r = .263$, $p < .05$). − The effects were also stronger when using the MARKOR construct. − MO's managerial value is significantly affected by a country's cultural and economic characteristics.
Shoham, A. et al. (2005)	Analysis of 28 studies from the past 15 years, with a focus on the relationship with performance, esprit de corps, and organisational commitment. The study covers 35 effects.	− MO has a positive impact on a firm's performance ($r = .28$, $p < .05$), organisational commitment, and esprit de corps. − The MO-performance relationship was strongest when using subjective measures, followed by the combination of subjective and objective measures, and then objective measures independently. − No significant difference between the three types of MO scales (Jaworski/Kohli, Narver/Slater, other scales). − The location of the study had a significant impact on the result (USA versus other locations). − Due to its effect on organisational commitment and esprit de corps, the impact of MO on performance may be stronger than previously expected.
Kirca et al. (2005)	Analysis of antecedents (63 effects) and consequences (355 effects) from 114 studies.	− Positive relationship between MO and performance ($r = .32$, $p < .05$), including performance measures such as overall business performance, profits, sales and market share. − Significant positive relationship between MO and top management emphasis, interdepartmental connectedness, marked-based reward systems, and market-oriented training. − Significant negative relationship between MO and interdepartmental conflict, centralisation, and formalisation. − Positive relationship between MO and cus-

Authors	Focus/Method	Key findings
		tomer measures (perceived quality, customer loyalty, customer satisfaction), innovation (organisation's innovativeness, new product performance), employee measures (organisational commitment, team spirit, customer orientation, employee role conflict, job satisfaction).
		– Environmental factors had a non–significant impact on the MO/performance relationship in the majority of the empirical studies.
		– Innovativeness, quality, and customer loyalty, are mediating factors in the relationship between MO and performance.
		– The MO-performance relationship was stronger in low-power distance and uncertainty-avoidance cultures.
		– The relationship was also stronger in manufacturing companies and when subjective performance measures were used.
		– The use of cost- and revenue-based performance measures (ROA) strengthened the relationship and was stronger in manufacturing companies.
Cano et al. (2004)	Analysis of 53 empirical studies from 23 countries, across five continents and a combined total sample size of 12,043. The study covers 58 effects.	– Significant positive relationship between MO and performance (r = .35, p < .05) across countries, that is not influenced by socioeconomic factors or national cultures (i.e. collectivism).
		– The relationship was stronger when using the MARKOR scale.
		– Stronger relationship between MO and performance when subjective performance measures were used (rather than objective measures).
		– Stronger correlations between MO and performance in services firms (rather than manufacturing) and not-for-profit organisations.
Langerak (2003)	Analysis of 51 studies between 1990 and 2002 that examined the predictive power of MO and the relationship between MO and business performance.	– Based on the percentage of positive (68.3%), non-significant (30.0%), and negative (1.7%) direct effects of MO on performance, Langerak describes the direct impact of MO on business performance as equivocal.
		– The moderating effects of market-level factors (i.e. market turbulence, competitive

Authors	Focus/Method	Key findings
		intensity) on the MO-performance relationship are equivocal. Any irregularities are independent from the MO scale (i.e. MARKOR, MKTOR) used.
		− The predictive power of MO depends on the context, the type of sample, and the number of respondents.
		− Single-corporation surveys show the highest number of positive relationships between MO and performance.
		− Innovation, customers' trust in suppliers, and firm effectiveness mediate the relationship between MO and performance.
Esteban et al. (2002)	Qualitative analysis of market orientation studies focusing on the service industry, covering 23 studies between 1971 and 2000.	− MO improves the results of service companies.
		− MO has a positive relationship with consumer satisfaction.
		− MO has a positive impact on the internal organisation.
		− No significant relationship between the different types of services and the variables.
		− The studies covered in the meta-analysis did not pay sufficient attention to the social environment and to marketing channels.
		− The authors suggest that the market orientation scales can be improved by developing sub-scales that take industry and service specific activities into account.
		− The differences between Likert scale and Thurstone scale are negligible.

Table 7 Summary of meta-analyses on market orientation

2.3.4   Implementing market orientation

As described above, the measurement of the market orientation construct, as well as the analysis of antecedents, moderators, and mediators has been the focus of a reasonable number of research papers. Regrettably, however, the implementation of market orientation has received a lot less attention (Homburg et al. 2004; Rogers et al. 2005; Van Raaij and Stoelhorst 2008). Foley and Fahy (2009) state that there is a lack of advice as to how to develop and operationalise a market orientation in practice. Similarly,

Morgan et al. (2009) argue that future research needs to examine the quality of market orientation.

In the same vein, Gebhardt et al. (2006) highlighted this gap in research and tried to formulate a process for the implementation of market orientation. They adopted an in-depth, longitudinal approach, analysing 4 highly market oriented companies. Their research suggests that successful market oriented companies share six key values: (i) the companies see the market as the raison d'être; (ii) collaboration; (iii) respect, empathy, and perspective taking; (iv) keeping promises; (v) openness; and (vi) trust. As a consequence, Gebhardt et al. (2006, p.38) suggest that "market orientation rests fundamentally on cultural values" (also see Slater and Narver, 1998).

According to Gebhardt et al. (2006), the process of creating market orientation within an organisation follows four path-dependent stages. The first of which is the "initiation" stage, which is characterised by the recognition of external threats and the preparation of the change process. This is followed by "reconstitution", which includes activities such as demarcation, value and norm development, reconnection with the market, personnel changes, and the development of a collaborative strategy. The focus of the third, "institutionalisation" stage lies in formalisation, the alignment of rewards, creating awareness, and shifting power. The final stage is defined as "maintenance", containing building blocks such as cultural screening, culture maintenance rituals, ongoing market connections, cultural flame keepers, and vigilance against fads and fashions.

Gebhardt et al. (2006, p.54) conclude that the process described above "imbues the organization with a set of cultural values that support market-oriented activities, an organizationally shared understanding of the market, and organizational learning capabilities." They go on to state that cultural values are highly important and argue that "the intraorganizational distribution of power and organizational learning play central, though overlooked, roles in creating and sustaining a market orientation" (Gebhardt et al., 2006, p.54).

Diamantopoulos and Cadogan (1996) carried out an explorative study into the nature of market orientation in an export environment. Using in-depth interviews, their research revealed underlying trends and characteristics of British exporters' market orientation. Their study is based on 14 respondents from 11 export companies. Although the focus of their study, export orientation, is not directly linked to this thesis, Diamantopoulos and Cadogan's (1996) research provides a framework for successfully analysing market orientation using a case study approach; they used case study techniques including

within-case and cross-case analysis. Their study highlights the role of export experience and dependence, the turbulence and complexity of the export environment, organisational learning, and the quality of an organisation's coordinating mechanism. The table below presents the propositions that Diamantopoulos and Cadogan (1996) derived from their case study, together with a classification of the characteristics of intelligence generation, intelligence dissemination, responsiveness, and the coordinating mechanism.

Market orientation	Propositions
Intelligence generation: – Broad approach: customers, competitors and exogenous market influences – Intermediate focus: customers and competitors – Narrow focus: customers only	– The higher the complexity and turbulence of the export market environment, the broader the scope of intelligence generation activities. – The higher the export dependence, the broader the scope of intelligence generation activities. – The greater the export experience, the more effective intelligence generation activities will be.
Intelligence dissemination: – Rapid and multidirectional – Moderate speed and unidirectional – Slow and internally focused	– The higher the export dependence, the greater the value of export intelligence, and thus the greater the speed and breadth of intelligence dissemination. – The larger the organization, the more sophisticated the intelligence dissemination mechanisms it will employ.
Responsiveness: – High responsiveness – Low responsiveness	– The greater the export experience, the higher the responsiveness of the firm. – The better the export intelligence generation and dissemination process, the more effective response design and implementation will be.
Coordinating mechanism: – Strong coordinating mechanism – Weak coordinating mechanism	– The stronger the coordinating mechanism, the more effective the firm's export intelligence generation, dissemination and responsiveness.

Table 8 Classification of market orientation characteristics (based on Diamantopoulos and Cadogan, 1996)

Van Raaij and Stoelhorst (2008, p.1282), who define market orientation as "the ability of a firm to generate knowledge about markets and use this knowledge in its business processes for the creation of superior customer value", also attempted to analyse the progress made on the implementation of market orientation. The authors were able to distil seven enablers of market orientation out of a selection of nine implementation

approaches. Their enablers include structure, process design, ICT systems, reward systems, leadership, behavioural norms and values, and competence management (Van Raaij and Stoelhorst, 2008). As described above, Gebhardt et al. (2006, p.54) expand on this by stating that the distribution of power within an organisation as well as organisational learning play key roles in the creation and maintenance of a market orientation. Linking market orientation with other strategic orientations or functional aspect may well be a key to further improve the effect of market orientation on firm performance.

The discussion of barriers to market orientation offers a first insight into the essential hurdles that need to be overcome in order to put the market orientation concept into practice (Webster, 1988). Harris (2000), for example, identified eight factors that can impede the implementation of market orientation and grouped them into three categories. Harris' (2000, p.616) research thus provided a list of impediments relating to (i) organisational structure (connectedness, centralisation, and formalisation); (ii) strategic characteristics (service and cost focused); and (iii) system characteristics (communication systems, integration devices, and co-ordination systems that are controlled by the marketing function).

Vickerstaff (2000), who examined market orientation in the legal sector also examined barriers to marketing in general. Vickerstaff (2000, p.358) surveyed the managing partners of 'The Legal 500', a list of the top 500 legal firms in England and Wales, and found that culture (24% of respondents), time (18%), resources (14%), internal communication (8%), awareness and understanding (7%), and expertise and skills (3%) pose substantial barriers to implementing a market orientation. Vickerstaff (2000) explains that 'culture' refers to barriers around the attitudes within a firm such as economic orientation, or the lack of financial incentives for implementing market orientation, or a lack of team culture. 'Time' constraints relate to fee-earners being pre-occupied with legal work, which leaves less time for market orientation activities. Vickerstaff (2000) states that marketing is seen as expenditure that takes away 'resources' rather than an investment. 'Internal communication' refers to the dissemination of client intelligence across teams and locations. 'Awareness and understanding' relates to the lack of knowledge among fee earners of the concept of marketing and market orientation. Finally, a lack in 'expertise and skills' among fee earners poses another barrier to implementing market orientation.

2.3.5 Market orientation and the professional services industry aspects

The role of market orientation within the professional services sector has not yet been exhaustively researched. This is not surprising given that only a mere 10 years ago Van Egeren and O'Connor (1998), who set out to investigate the drivers of market orientation and performance in services firms, argued that their survey was the first systematic research into market orientation and the services industry. In addition to this, the rise of the professional services sector is a fairly recent development (Muzio and Ackroyd, 2005; Hitt et al. 2006; Reihlen and Apel 2007), which may help to explain why only limited efforts were made to target this specific segment of organisations.

Analysing a sample of 289 responses from 67 large, stand-alone service organisations, Van Egeren and O'Connor (1998) found a significant positive relationship between market orientation and performance. 'Top management team cohesiveness' and external factors such as 'environmental dynamism' and low 'environmental munificence' were also significantly related to market orientation. 'Top management team informality' and 'heterogeneity', however, did not show a significant relationship with market orientation. As a consequence, Van Egeren and O'Connor (1998) argue that customer focus and competitor intelligence are not the only important elements of market orientation, but that environmental scanning, as well as a united top leadership team play a role.

Although extensive research across different databases was carried out, it appears that Vickerstaff's (2000) contribution is the only journal paper specifically targeted at the market orientation of law firms. Other studies on market orientation of professional services often have a very limited scope, like the effect of internationalisation on small software firms (Ruokonen et al., 2008), or the role of entrepreneurship and market-driving behaviour in small businesses (Schindehutte, Morris, and Kocak, 2008). For example, Borges, Hoppen, and Luce (2009), who used a case study of three retail companies in Brazil to analyse the impact of information technology on market orientation in e-business, found that investment in information systems technology can enhance an organisation's market orientation capabilities, including the way it processes market information in order to establish customer needs and the necessary responses.

Hampton and Hampton (2004) studied the role of market orientation in medical professional services focusing on certified nurse-midwives. Their findings suggest that professionalism has a positive impact on market orientation, job satisfaction, and work satisfaction. The authors suggest that professionalism does not impair the development of market oriented behaviours. Hampton and Hampton (2004) also highlight the positive

impact of market orientation on job satisfaction. Rexha et al. (2000) who examined the market orientation of Australian engineering service firms, found a negative relationship between the level of market orientation behaviours and technically focused values. Their findings suggest that a technical focus as well as negative attitudes to marketing, and a lack in marketing knowledge may act as a barrier to market orientation.

Based on a sample of managing partners of 'The Legal 500' (the top 500 legal firms in England and Wales; response rate of 32%), and using Deng and Dart's (1994) market orientation scale, Vickerstaff (2000) found that only 17% of the surveyed law firms had a 'high' market orientation. 63% of law firms showed a 'medium' market orientation and 20% of the firms appeared to have a 'low' market orientation. Law firms showing a high market orientation demonstrated consistent high scores across the scale rather than being outstanding in one particular area. Law firms generally scored highly on 'customer orientation' and 'long-term profit emphasis', followed by 'employee orientation' and 'competitor orientation'. Vickerstaff (2000, p.357) did not find any significant relationships between market orientation and age of firm or firm size and concludes that "the level of marketing orientation in legal firms appears to be limited". Regrettably, her journal paper does not discuss the impact of market orientation on law firm performance, which would have enriched the findings. It is also worth highlighting that some researchers (i.e. Schlosser and McNaughton, 2009) oppose Deng and Dart's (1994) extension of the market orientation scale due to the integration of profit orientation.

Helfert et al. (2002), who analysed the impact of market orientation on a firm's relationship with its clients, believe that market orientation needs to focus on individual customers on a relationship level. Their findings are based on the analysis of 153 standardised personal interviews with managers from German advertising agencies and software companies. The study is particularly relevant since the authors approached professional service firms in order to test their hypotheses.

The relationship-level of Helfert et al.'s. (2002, p.1123) construct consists of four relationship management activities: exchange, inter-organisational coordination, conflict resolution, and adaptation. Exchange activities are broken down into product/service-related activities, problem-related activities, and person-related activities. Inter-organisational coordination covers the cross-functional processes of an organisation. Conflict resolution capabilities are required for "extraordinary, non-standard situations which are bound to occur in every long-term relationship" (Helfert et al., 2002, p.1124).

Finally, adaptation refers to the various activities that are required in order to meet the specific needs of customers.

According to (Helfert et al., 2002), on the firm-level, customer orientation acts as an enabler for the above activities; whereas, on a relationship-level market orientation represents the availability of resources (i.e. market information, knowledge of internal processes). Based on this understanding the authors attempted to analyse the impact of resource availability and relationship task performance on relationship effectiveness. Resource availability covered items such as customer and market information, information on strategic goals of the service provider, technical equipment, and time for the relationship management. Relationship task performance relates to the relationship management activities described above. Relationship effectiveness is operationalised as sales effectiveness, performance development effectiveness, and market development effectiveness.

Helfert et al.'s (2002) findings suggest that resource availability has an indirect impact on the relationship level. The authors also diagnose that the effect of relationship task performance on relationship effectiveness is highly significant. Hence, Helfert et al. (2002, p.1133) conclude that "market orientation matters on the relationship level!".

However, it needs to be stated that Helfert et al. (2002) have not sufficiently taken into account or focused enough on the nature and structure of professional service firms. Although they have used a sample of German professional service firms, Helfert et al. (2002) did not embed their findings into the existing literature on professional service firms. They also did not discuss the impact of their findings on the challenges many professional service firms are facing in the current economic environment (Brock 2006; Galanter and Henderson 2008).

2.3.6 Conclusion and relevance to the research

The seminal papers on market orientation by Jaworski and Kohli (i.e. Kohli and Jaworski 1990; Kohli et al. 1993; Jaworski and Kohli, 1993) and Narver and Slater (i.e. 1990; Slater and Narver 1994 and 1995) led to a stream of research into this area. Many researchers were able to confirm the general notion that market orientation leads to better performance in the market (i.e. Deshpande et al. 1993; Jaworski and Kohli 1993; Vorhies et al. 1999). This finding is probably still one of the most interesting and widely accepted contributions to marketing literature, and the majority of studies in this area prove this

positive causal relation (see Kirca et al.,2005). Meta-analyses suggest that most scholars use either Jaworski and Kohli's (1990) or Narver and Slater's (1990) conceptualisation of market orientation (Langerak, 2003). The literature review as part of this research also revealed gaps in knowledge in terms of the implementation of market orientation (Gebhardt et al. 2006; Van Raaij and Stoelhorst 2008).

Kohli and Jaworski (1990, p.6) describe market orientation as "the organisation wide generation of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across departments, and organisation wide responsiveness to it". Given that their definition of market orientation strongly focuses on information management processes, it may be worth discussing knowledge management, a concept frequently adopted by many modern organisations, in relation to market orientation. The literature review, however, suggests that there are only a limited number of academic contributions that were aimed at bridging those two fields. The contributions to date are presented and discussed in section 2.5. Before that, section 2.4 provides an introduction to knowledge management literature, with a focus on professional service firms.

2.4   Knowledge management (KM)

The shift from an industrial society to a knowledge society (Drucker, 1993) is also reflected in academic research (see Leonard-Barton 1995; Nonaka and Takeuchi 1995; Stewart 1997; Sveiby 1997; Davenport and Prusak 1998; Stewart 2001). It is suggested that the effective management of knowledge resources is a vital activity for companies in order to be successful in today's interconnected global knowledge economy (Starbuck 1992; Swart and Kinnie 2003).

According to a recent study ('Foresight 2020: Economic, industry and corporate trends') surveying 1650 leading business executives, which was published by The Economist Intelligence Unit (2006, p.4), 43% of the respondents think that knowledge management "offer[s] the greatest potential for productivity gains over the next 15 years".

Knowledge management is followed by "customer service and support" (35%), "operations and production processes" (29%), "strategy and practice development" (29%), and "marketing and sales activities" (28%). "Financial management and

reporting" and "supply-chain management" can be found towards the end of the table with only 17%.

The overwhelming majority of managers also believed "that knowledge workers will be their most valuable source of competitive advantage (compared with other roles) in 2020, whether in outward-facing functions such as sales or inward-facing ones such as knowledge management" (The Economist Intelligence Unit, 2006, p.4).

It can be suggested that businesses start to embrace knowledge management as a potential driver for future success. Also, academic literature on knowledge management is growing steadily and academic journals, as well as professorships focussing on this topic have been introduced. Nevertheless, knowledge management still needs to be brought into a clear theoretical framework (Darroch, 2005). The sections below aim to give an overview on the current state of research in knowledge management with a particular focus on professional service firms.

2.4.1   Introduction to knowledge management theory

The origins of knowledge management can be dated back to Polanyi (1958), who defined tacit knowledge, and Drucker (1993), who emphasised the importance of knowledge as a key asset of economies around 1960. Knowledge-based theory of the firm views the business organisation "as a dynamic, evolving, quasi-autonomous system of knowledge production and utilization" (Spender, 1996, p.59). Building on the resource-based view of the firm (Wernerfelt 1984; Barney 1991) the knowledge-based theory describes a firm's ability to create, share, and use knowledge as a key source of sustained competitive advantage (Kogut and Zander, 1992).

Nonaka (1991), Nonaka and Takeuchi (1995), and Davenport and Prusak (1997) demonstrated the importance and value of knowledge management for organisations. Several authors (Kaplan and Norton 1996; Stewart 1997; Edvinsson et al. 1998) also created a link between knowledge management and a firm's intellectual capital. As a consequence, knowledge management is often also referred to as the management of intellectual capital. The measurement of intellectual capital and the return on investment of knowledge management is also becoming more and more important and researchers such as Edvinsson (see Edvinsson et al., 1998) and Lev (2003), to name but a few, have already produced significant insights into this topic.

Even though research on knowledge management is growing, there appears to be a lack of consensus among researchers and practitioners as to what kind of activities and processes knowledge management should entail. Some researchers even question whether the term 'management' is actually appropriate for 'inherently uncontrollable' (van Krogh et al., 2000) knowledge processes. Van Krogh et al. (2000, p.4) highlight the importance of knowledge creation and believe that 'knowledge enabling', "the overall set of organizational activities that positively affect knowledge creation", is the key activity that managers should focus on. However, in practice, 'knowledge management' is widely accepted as a collective term for various knowledge strategies, processes and activities such as knowledge identification, acquisition, usage, dissemination, storage, or development.

According to Darroch and McNaughton (2003, p.575), for example, knowledge management is "the process that creates or locates knowledge and manages the sharing, dissemination and use of knowledge within the organisation. When knowledge is used, learning takes place, which, in turn, improves the stock of knowledge available to the firm". Hult (2003, p.190) defines knowledge management "as the organized and systematic process of generating and disseminating information, and selecting, distilling, and deploying explicit and tacit knowledge to create unique value that can be used to achieve a competitive advantage in the marketplace by an organization." Similarly, Laudon and Laudon (2007) state that knowledge management refers to the set of business processes developed in an organisation to create, store, transfer, and apply knowledge.

As a common and widely accepted definition for knowledge management is yet to emerge, it is beneficial to distinguish at least between data, information and knowledge (Nonaka and Takeuchi, 1995). Darroch and McNaughton (2001) highlight that knowledge comprises data, information and tacit knowledge. Larry Prusak (2006, p.19) describes information as "a message, one-dimensional and bounded by its form: a document, and image, a speech, a genome, a recipe, a symphony score. You can package it and instantly distribute it to anyone, anywhere". Knowledge, on the other hand, "results from the assimilation and connecting of information through experience, most often through apprenticeship or mentoring. As a result it becomes embedded in organizations in ways that, so far, have largely evaded codification" (Prusak, 2006, p.19). According to Hult (2003, p.189), "….knowledge is broadly defined as credible information that is of potential value to an organization." Sabherwal and Becerra-Fernandez (2003, p.227) define knowledge "as the set of justified beliefs that enhance an entity's capability for effective action." Sabherwal and Becerra-Fernandez (2003, p.227) subsequently state that

knowledge management comprises "doing what is needed to get the most out of knowledge resources" by "organizing and making available important knowledge, wherever and whenever it is needed."

The need for differentiating between tacit and explicit or articulate knowledge has been discussed in the literature (i.e. Polanyi, 1958; Nonaka and Takeuchi 1995; Hansen et al. 1999). Easterby-Smith and Prieto (2008) define explicit knowledge as the 'knowledge' that people or organisations 'have' (possession). On the other hand, tacit knowledge is referred to as 'knowing' how to 'do' (practice) things. The latter has a social aspect to knowledge, whereas the former follows a more cognitive view. Werr and Stjernberg (2003, p.903) argue that instead of the current "dichotomous treatment", articulate and tacit knowledge should rather be "seen as symbiotic, providing the prerequisites of one another's use and development".

There are, of course, many reasons why the term 'knowledge management' still remains somewhat ambiguous. One explanation being that knowledge management affects so many diverse disciplines, sub-disciplines, and subject areas that it is inevitable that various disciplines have varied approaches to, and a different understanding of, knowledge management. This diversity covers areas such as business and economics, human resources management, computer science and information technology, library science, operations research, innovation management, psychology, and even neuro-sciences. However, it is worth noting that, according to a bibliometric study carried out by Ponzi (2002), in the 'early days' of knowledge management (1994-1999) the 'interdisciplinary breadth' of knowledge management appears to have been in the management arena. Contrary to one of Ponzi's hypotheses, the computer science discipline did not play a major part. Ponzi used the terms organisational learning, knowledge-based theories, and the role of tacit knowledge in organisations as synonyms for knowledge management.

Begona Lloria's (2008, p.78) paper on knowledge management approaches is based on business management studies, which all see "knowledge as the answer to the new competitive challenges faced by firms today". Thereby, she states that knowledge management should "include information and knowledge-creating systems, as well as strategic management and innovation" (Begona Lloria, 2008, p.78). In an attempt to categorise and relate the different research streams to one another, the first step in the development of the model is the differentiation between 'measuring knowledge', 'managing knowledge', and 'creating knowledge'. She also distinguishes 'managing

knowledge' according to whether more emphasis is put on the 'human factor' or on 'information technologies'.

Measuring knowledge (Europe)	Managing knowledge (U.S.A.)		Creating knowledge (Japan)
	Greater emphasis on the human factor	Greater emphasis on information technologies	
Models of intellectual capital	Perspective focused on the culture of the firm	Perspective focused on information/Perspective focused on technology	
	Socially constructed models		Knowledge category models
	KM as community/KM as normative control	KM as extended libraries/KM as enacted blueprints	
Economic (commercial) school		Technocratic school (systems/cartography/ engineering)	Behavioural school (organizational/spatial/ strategic)
		Capture and codification of knowledge through the introduction of information technologies	Creation and sharing through social media
	Knowledge-based theory of the firm/Knowledge management		

Table 9 Approaches to knowledge management: a proposed synthesis (Begona Lloria, 2008, p.86)

In addition to this, Begona Lloria (2008, p.86) also proposes to categorise approaches to knowledge management following a scale ranging from a "descriptive perspective" to a "normative perspective". The descriptive perspective encompasses knowledge-based theories of the firm (i.e. Prahalad 1996; Spender and Grant 1996; Teece et al. 1997) and intellectual capital models ("European models") such as Skandia's Navigator developed by Leif Edvinsson (see Edvinsson et al., 1997). Knowledge creation models such as the "Japanese models" (i.e. Nonaka and Takeuchi 1995; Nonaka et al. 2008) are in the centre of the scale of descriptive and normative perspectives. "U.S. models" can be found towards the normative perspective of the scale. Begona Lloria (2008) distinguishes them between academic contributions and a consultancy perspective. The academic perspective consequently includes works by the likes of Leonard-Barton (1995), Davenport and Prusak (1998), and von Krogh (2000). The consultancy perspective represents efforts by companies such as Ernst & Young, McKinsey & Co., or Xerox.

Even within one discipline there are still many different and sometimes even contradictory definitions of, and approaches to knowledge management. Begona Lloria (2008) reviewed the main approaches to knowledge management from a strategic 'business management' point of view and proposed a model that categorises the main strategies in this field. In order to achieve meaningful results and to keep a clear focus,

related disciplines such as information technology, psychology, economics, and engineering were neglected. This strong focus on business management is very much in line with this research thesis. The proposed models accurately reflect the various streams of knowledge management research that are important for this paper in order to embed the knowledge management strategies and activities that are applied at LawCo. As with any model, by no means does it encompass all research carried out in the field. For example, the study does not explicitly mention Hansen et al.'s (1999) work on codification and personalisation strategies. The general idea of Hansen et al. (1999) that tacit knowledge may be better suited for a personalisation approach to knowledge management and explicit knowledge to technological approaches, however, is captured under the 'managing knowledge' section of Begona Lloria's (2008) conceptual model.

2.4.2 Knowledge development and transfer

Nonaka (1991) distinguishes between four types of knowledge creation and transfer, taking into account the types of knowledge: socialisation (from tacit to tacit), articulation (from tacit to explicit), combination (from explicit to explicit), and internalisation (from explicit to tacit). Based on this model, Sabherwal and Becerra-Fernandez (2003) analysed the effect of knowledge management processes on the perceived knowledge management effectiveness at individual, group, and organisational levels. The authors found that internalisation and externalisation impact the perceived effectiveness of knowledge management at the individual-level. Socialisation affects the perceived effectiveness of knowledge management at the group-level and combination processes influence the perceived effectiveness of knowledge management at the organisational-level. The empirically tested interrelationship between the three levels (individual, group, and organisational) leads Sabherwal and Becerra-Fernandez (2003, p.246) to conclude that the "aggregation of knowledge to higher hierarchical levels is essential for knowledge growth".

In an in-depth comparative case study, analysing knowledge development in two professional service firms, Fostenlokken et al. (2003) found rather astonishing similarities between the two companies. Even though both companies could be classified as professional service firms (public relations and engineering), the findings were surprising as they revealed key firm and industry differences. The public relations firm offered highly customised services and methodologies and was not member of a profession. The engineering firm, in contrast, did not offer genuinely customised services and

methodologies and was a member of a profession. The two companies also used different knowledge development strategies. The public relations firm followed a personalisation approach whereas the engineering company used codification techniques (Hansen et al., 1999). Therefore, it is quite remarkable that individuals from both companies, across different levels of seniority, with different backgrounds and gender, shared common views about knowledge development.

According to Fostenlokken et al. (2003, p.872) "on-the-job learning in projects was the most important factor in knowledge development." Other considerable factors were "internal knowledge sharing" and "personal initiatives". In terms of knowledge development, individuals from both companies value working with ("knowledgeable") clients and working in multidisciplinary teams. They also shared the view that "short term" client commitments tend to be more important than "long term" knowledge development. Lastly, it was highlighted that "tacit knowledge, such as interpersonal communication skills and the ability to understand different types of client expectations, was emphasized by all professionals, juniors as well as seniors" (Fostenlokken et al., 2003, p.872).

There were also some differences between the two companies. Individuals from the engineering firm "emphasized learning from peer experts", "multidisciplinarity in terms of multiple engineering specialities", and the preference of "clients with specified requirements" (Fostenlokken et al., 2003, p.872). However, individuals from the public relations firm "highlighted learning from people with very different backgrounds", "multidisciplinarity meant training and educational backgrounds from fields as different as economics, sociology, and drama", and they "chose clients with underspecified requirements" (Fostenlokken et al., 2003, p.872). As a conclusion, Fostenlokken et al. (2003) advocate a 'refinement' of Hansen et al.'s framework (1999), because of the mix of the proposed two knowledge development categories, personalisation and codification.

Based on "the discrepancies in responses between managerial-level professionals and juniors", Fostenlokken et al. (2003, p.875) assume "that individual knowledge development is less accessible than PSF managers might think". Fostenlokken et al. (2003) also suggest that further research is needed on the role of clients and client knowledge in knowledge development. This is a view that is shared by Reihlen and Apel (2007), who highlight the importance of social interactions with clients and other actors in the market, in the internationalisation process of professional service firms. Reihlen and Apel (2007, p.146) see knowledge creation as "a result of embedding higher mental

operations into specific forms of social interactions" and emphasise the feedback and input on product and service design that can be gained by client interaction.

2.4.3   Knowledge intensive firms

Knowledge intensive firms can be defined as organisations "where most work is said to be of an intellectual nature and where well-educated, qualified employees form the major part of the workforce" (Alvesson 2001, p.863; also see Alvesson 2000). Although Quinn (1992) argues that all organisations require a considerable amount of 'know what' and 'know how' in order to create a sustainable competitive advantage, it can be said that knowledge intensive firms are more dependent on knowledge as an input factor than on any other resource (Starbuck, 1992). Similarly, human capital plays a more important role than financial or physical assets (Starbuck 1992; Swart and Kinnie 2003). Alvesson (2001, p.865) thus describes a knowledge intensive firm as an organisation "that can produce exceptionally good results with the help of outstanding expertise".

Sheehan (2005, p.54) defines knowledge-intensive firms as companies that "create value by solving their clients' problems through the direct application of knowledge". Since professional service firms "specialize in the creation, validation, and application of knowledge in order to solve client problems" (Reihlen and Apel, 2007, p.141) they can consequently also be described as knowledge-intensive firms (Alvesson, 2001). Segal-Horn (2007, p.208) also states that "some of the strongest brands in services and PSF's are based on perceived accumulated know-how". Sheehan (2005, p.54) outlines five main characteristics that distinguish knowledge-intensive firms from industrial companies:

– "Knowledge-intensive firms compete differently since they fight vigorously to win the best experts and best projects but thereafter cooperate with their rivals. (i.e. law firms may sub-contract work for large legal cases)."

– "First-mover advantages play a decidedly smaller role … due to the rapid commoditization of ideas and processes."

– "Experts may have high bargaining power if their clients are tied to the expert rather than to the firm."

– "The bargaining power of clients is reduced due to a knowledge gap between experts and their clients."

− Since reputation is highly important, "established experts have an easier time if they are known to clients, but new entrants are hindered by their newness."

Teece (2009) comes to similar conclusions about the challenges of, what he calls, knowledge-based enterprises, such as the increased competition and the role of highly skilled individuals within an organisation. Discussing the importance of recruiting and retaining top employees, Teece (2009, p.217) states that "economic power" lies with the individual who has outstanding skills rather than with the organisation. Teece (2009, p.218) thus argues that the "traditional employment relationship", which is characterised by a "command-and-control hierarchical structure", may not be suited in today's environment and calls for greater autonomy, accountability, and responsibility for individuals and for "a relative flat structure, with distributed leadership, and self-organizing teams".

Teece (2009) and Sheehan (2005) suggest that there is a lack of research on the business models of knowledge-intensive firms and that established tools to manage performance, like Porter's five forces model (1985, 1998), are not entirely suitable for knowledge-intensive firms. One criticism is that they are paying too much attention on competitors and the market environment, instead of the organisation and its capabilities. This is particularly problematic as research suggests that "firm effects" are more significant determinants of organisational performance than "industry effects" (Barney and Clark, 2007, p.232). Hence, Sheehan (2005) argues that very little is known about how to increase the profitability of knowledge-intensive firms.

In a similar vein, Frei (2008) describes that many prevailing management tools and techniques focus on industrial companies and may not be adequate for service firms. She suggests that service firms should focus on four elements to improve profitability: the design of the offering, employee management, customer management, and funding mechanism. She also highlights the importance of the customer's input during service development processes.

2.4.4   Knowledge management in law firms

"…the practice of law is an information and knowledge intensive business" (Edwards and Mahling, 1997, p.160).

Knowledge management in law firms is a specialised topic that is increasingly becoming the subject of books and research papers (i.e. Edwards and Mahling 1997; Rusanow 2003;

Susskind 2003; Gottschalk and Khandelwal 2004; Parsons 2004; Disterer 2005; Forstenlechner 2005; Schulz and Klugmann 2005) and conferences (i.e. ARK Group and Managing Partner conference). Many of the currently available publications focus on internal issues such as the implementation of knowledge management strategies (including services and systems), cultural barriers, or return on investment of knowledge management. It would be fair to conclude that there is still a significant lack of research on client-facing knowledge management or the client's perception of knowledge management in law firms. Dawson's (2005) work on knowledge-based client relationships, for example, focuses more on client relationship management than on knowledge management.

In order to be able to evaluate the role of knowledge management within law firms, it is beneficial to have a closer look at the professional output of law firms and to then analyse the knowledge management related activities, or input, that is required to achieve the proposed result. According to Edwards and Mahling (1997) the key task of a law firm is to provide clients with legal services. As stated in section 2.2.2, Edwards and Mahling (1997) also define four subtasks which involve: (i) extensive factual and legal research; (ii) the analysis of the law and the facts as they appear in a particular client's situation; (iii) counselling clients based on that analysis; and (iv) negotiation or litigation on the client's behalf. Edwards and Mahling (1997, p.159) also emphasise the importance of communication with clients and state that "much of the firm's work product in carrying out these activities consists of communication with the client in the process of counselling and advising and of the production of written work product in both paper and electronic form".

Analysing the core tasks of law firms mentioned above, it becomes clear that knowledge management needs to encompass a variety of data, information, and knowledge. Distinguishing between these three categories is only one requirement before developing knowledge management strategies (i.e. Prusak 2006). For the purpose of this research it is also important to further characterise the kind of knowledge that is being held and managed at professional service firms. Malhotra (2003, p.950) suggests to "identify what the firm 'knows', what the knowledge is about, where it resides in the organization, and the ways in which the different knowledges combine to facilitate the creation and delivery of service". Malhotra (2003), for example, distinguishes between the 'organizational level' (individual, team, firm) and types of knowledge such as 'explicit', 'tangible' knowledge and 'highly experiential, embedded' knowledge, be it basic technical

knowledge, experiential technical knowledge, or knowledge of personal relationships and connections.

Cepeda and Vera (2007) also suggest to analyse the breadth and depth of a firm's current knowledge configuration before assessing its desired future knowledge configuration. 'Breadth' relates to the various areas of company's expertise and skills whereas 'depth' characterises a companies "mastery" of its knowledge (Cepeda and Vera, 2007, p.428). Cepeda and Vera (2007) argue that both breadth and depth may differ not only across, but also within industries.

Looking at the breadth of knowledge configuration in law firms, Edwards and Mahling (1997) distinguish between administrative data and declarative, procedural and analytical knowledge. They believe that "declarative, procedural and analytical knowledge offer significantly greater possibilities for creating strategic value to the firm" (Edwards and Mahling, 1997, p.161) than administrative data. Edwards and Mahling (1997, p.160) define administrative data as basic "information about firm operations, such as hourly billing rates for lawyers, client names and matters, staff payroll data, and client invoice data". 'Declarative knowledge', also referred to as the knowledge of the law, is defined as "the legal principles contained in statutes, court opinions and other sources of primary legal authority" (Edwards and Mahling, 1997, p.160). 'Procedural knowledge', on the other hand, covers "knowledge of the mechanisms of complying with the law's requirements in a particular situation" (Edwards and Mahling, 1997, p.160). Finally, 'analytical knowledge', which is based on the analysis of declarative knowledge (i.e., substantive law principles), covers "conclusions reached about the course of action a particular client should follow in a particular situation" (Edwards and Mahling, 1997, p.160).

Rusanow (2003, p.27) divides the knowledge areas in international law firms into two areas: core legal knowledge resources; and knowledge that is required to operate the business. The former encompasses case law, commentary and interpretation; legislation and commentary; best practices documents and precedents. The latter includes firm and practice area knowledge; client knowledge; business and industry knowledge; staff skills and expertise; methodology and processes; past projects and lessons learned; other third party knowledge (i.e. consultants or regulators); and knowledge on the firm's market position, revenue, costs, and profitability.

In addition to this Scott (2001) and Fincham et al. (2008) also highlight the importance of sector knowledge in professional service firms and its role in the diagnosis, inference, and

treatment processes. Although Edwards and Mahling's (1997) classification of law firm knowledge is genuinely useful for understanding the scope of the challenges that knowledge management departments face in the legal industry, it is also important to clarify the concrete knowledge management related activities that need to be carried out in real-world environments.

Rusanow's (2006) survey on knowledge management in law firms delivers some interesting insights into the motivation for doing KM in law firms, the objectives of KM, and the roles of knowledge managers, information officers, and professional support lawyers. The activities below summarise some of the main findings of Rusanow's (2006) research and offer a good overview of the kind of categories of practical day-to-day activities that knowledge management personnel in the legal industry carry out. According to Rusanow (2006), top knowledge management priorities are to improve quality of client service, leverage expertise, gain competitive advantage, improve speed of client service delivery, improve productivity, improve lawyer development, and improve the quality of legal knowledge.

Subsequently, the role of a knowledge manager is to advise management of knowledge management, manage implementation of knowledge management initiatives, identify knowledge needs, build user support, develop knowledge management strategy, content management, and disseminate current awareness materials. The tasks of information officers include conducting legal research, developing content, disseminating current awareness materials, building user support, conducting business research, indexing and data entry. Finally, Rusanow (2006) states that the role of professional support lawyers is to develop content, conduct legal research, build user support, draft precedents, disseminate current awareness materials, coordinate others to draft precedents, identify knowledge needs, and advise management on knowledge management.

In a similar vein, Disterer (2005) analysed the goals of knowledge management in law firms. He found that law firms pursue quality related goals such as standardisation, the exchange of best practices, learning among fee earners, and the incorporation of best knowledge and practices. Efficiency related goals were of similar importance. Capturing knowledge for reuse and reducing redundant work scored highly; so did accessibility of documents, the efficient transfer of knowledge between practice groups, and standardisation in order to increase efficiency. Analysing Disterer's (2005) findings, Forstenlechner (2005) pointed out that potentially important issues such as decreasing

dependency on individuals' know how, the loss of knowledge caused by staff turnover, and risk management played a surprisingly low role.

Many legal KM departments tend to use sophisticated information technology in order to fulfil the tasks and activities mentioned above and to efficiently and effectively cope with the ever increasing body of legal knowledge and expertise (Du Plessis and du Toit, 2006). The use of information technology and dedicated knowledge management software has consequently steadily increased over recent years. Gottschalk's (2005; also see Gottschalk and Khandelwal 2004) generic knowledge management technology model ("KMT model") describes four stages of technological growth:

- People-to-technology: tools for end users are made available to knowledge workers

- People-to-people: information about 'who knows what' is made available to all people in the firm and to selected outside partners

- People-to-documents: information from knowledge workers is stored and made available to everyone in the firm and to designated external partners

- People-to-systems: information systems solving knowledge problems are made available to knowledge workers and solution seekers.

It could be argued, however, that in a law firm environment the third step (people-to-documents) would often come before the second step (people-to-people) provided that information about 'who knows what' is more than just a mere telephone book stating lawyer's practice group or sector group membership. LawCo, for example, focuses more on people-to-document strategies, such as knowledge repositories, than people-to-people strategies.

Du Plessis and du Toit (2006) carried out an empirical survey on information and knowledge management in South African law firms. Not only did they find out that IT applications and KM systems are widely used in South African law firms, but they also compiled a good overview of the systems that are frequently in use. They categorised the applications in systems for managing the following resources: records or documents, cases (client files), expert knowledge, customer relationships, forms and precedents (checklists), research archives, procedures, and in-house developed databases. In addition to this, Du Plessis and du Toit (2006, p.369) also concluded that their findings "indicate a lack of knowledge or awareness with regard to KM systems" among lawyers. As a consequence of these findings, it would be beneficial to market KM services internally.

Du Plessis and du Toit (2006) also highlighted that there is room for improvement, in terms of supporting lawyers with information and communication technology for legal research.

As stated in the chapter on professional service firms (see section 2.2.4), Parsons (2004) illustrated how knowledge management strategies can impact law firms' business drivers. Utilisation, for example, could be increased by helping fee earners to spend less time on administrative or non-billable tasks. The profit margin could be increased by introducing standard forms and templates that will improve the development of legal documents. The same holds true for fixed-price products, which are not billed on an hourly basis.

Based on the current challenges in the globalised knowledge economy, one could argue that experienced and well-educated knowledge management and practice development staff are a highly important asset for many law firms. The number of KM and PD personnel has steadily increased over recent years. This also holds true for other business services departments such as IT and risk and compliance.

2.4.5 Knowledge-based products and services

According to Dawson (2005, p.20) "relationships with clients need to be structured so that professional's specialist knowledge is integrated into their client's operations and decision making". Smedlund (2008) proposes a matrix (nature of innovation / strength of the relationship with the client) to describe the dyadic relationship between professional service firms and their clients. Based on this classification, Smedlund depicts four types of professional services: (i) operational services; (ii) experimental services; (iii) tactical services; and (iv) high-potential services.

Operational services, characterised by weak ties with clients and an incremental nature of innovation, are relatively fixed services with a low degree of customisation and low profit margins. Innovation of operational services usually focuses on increasing the efficiency of service delivery. Experimental services, typically with weak ties with clients, but a radical nature of innovation, are "radically new to the market" (Smedlund, 2008, p.867) and are therefore rather risky, but highly profitable for suppliers. Clients do not get overly involved in the design of the service. Tactical services, showing strong ties with the clients, but only incremental nature of innovation, are the 'cash cows' of professional service firms. Within these services close client contact helps to develop a relationship. Clients are "highly interested in the successful delivery of the service, but the

professional service firm has developed competences and operational processes to deliver services on a day-to-day basis" (Smedlund, 2008, p.868). Innovation of tactical services focus on increasing the efficiency of the customisation of the service, as well as service delivery in general. Lastly, high-potential services, characterised by strong ties with clients and a radical nature of innovation, bear risks for both the clients and suppliers. There is a strong relationship between the two parties. The successful development of a high-potential service will often lead to the replacement of existing services and has advantages for the clients and the suppliers; especially for the suppliers due to an advantage over competitors.

According to Smedlund (2008) law firms are typical examples of a tactical service provider. The types of service offerings are certainly dependent on the size, structure, focus, and positioning in the market of the professional service firm. In order to mitigate risks and develop healthy profit margins, or to achieve a reputation as a leading and innovative firm, a single professional service firm may also offer a range of services that fall under each of the four categories. The result of Smedlund's (2008, p.875) case study suggests that "the nature of innovation in a professional service is transilient in the lifespan of the service". Smedlund (2008, p.875) states that the services have "very different kinds of relationship structures with the clients and other partners" during the various development stages (i.e. idea stage and commercialisation stage) and highlights the importance of creating "the right management system for each phase of the lifespan of the service".

Frantz & McDougall (2004, p.7) found out that "higher value clients typically have more complex, ongoing legal matters whereas the lower value clients have isolated one-off matters." This requires professional service firms to start "customizing the service offerings for specific customers and adding service components tailored to individual client needs" (Frantz & McDougall, 2004, p.7). This goes hand in hand with the current change from transactional marketing to relationship marketing; the shift from a practice group focus to a sector group focus; and the emerging trend towards collaboration between clients and suppliers. As noted in a study published by The Economist Intelligence Unit (Foresight 2020: Economic, industry and corporate trends; 2006, p.4) the report concludes that "collaborative relationships will multiply and intensify [and that] collaborative problem-solving is expected to increase in volume inside and outside the organization, as customers and suppliers become more involved in product development, as cross-functional and crossborder teams work together more frequently and as partnerships with other organizations proliferate".

This is also reflected in the work of Van den Bosch et al. (2005) who describe that there are several drivers of change in professional service firms, highlighting issues concerning (i) knowledge accumulation; (ii) commodification and leverage of knowledge by information and communication technology (ICT) enabled knowledge management; (iii) new entrants; and (iv) increased client's problem-solving abilities. Van den Bosch et al. (2005) argue that knowledge sharing between clients and supplier firms may weaken the position of professional service firms as this will increase the clients' own problem solving abilities.

2.4.6 Value perception of knowledge management

Zack, McKeen, and Singh (2009) found that knowledge management practices impact intermediate measures of organisational performance, such as operational excellence, product leadership, and customer intimacy, which in turn leads to enhanced financial performance. The authors, however, could not find a significant direct link between knowledge management and financial performance. Zack et al.'s (2009) exploratory study was based on responses by 88 middle and senior managers from various industries in the USA, Canada, and Australia. The findings are in line with other studies on knowledge management and organisational performance (i.e. Darroch and McNaughton 2003; Sabherwal and Becerra-Fernandes 2003).

Choi et al. (2008) analysed the impact of knowledge management strategies on organisational performance by surveying a cross-section of major listed Korean companies (n=131). Choi et al. (2008, p.236) chose a complementarity theory-based approach and distinguished knowledge management approaches in terms of KM focus (explicit- and tacit-oriented), following Hansen et al.'s (1999) framework, and KM source (internal- and external-oriented):

- Explicit-oriented: increase organisational efficiencies by codifying and reusing knowledge mainly through advanced information technologies

- Tacit-oriented: personalisation approach where tacit knowledge is communicated through direct person-to-person contact and through socialization processes

- External-oriented: attempts to bring knowledge from outside sources via either acquisition or imitation and then transferring the knowledge throughout the organisation

– Internal-oriented: focuses on generating and sharing knowledge within the boundary of the firm

The authors found that high explicit-oriented strategies lead to a higher probability of a better performance. Tacit-oriented strategies and a combination of explicit-oriented/tacit-oriented strategies only achieve a low probability of increased performance. Both external-oriented and internal-oriented strategies have a high probability of better performance. In contrast to the KM focus findings, a combination of external- and internal-oriented strategies actually increase the probability of better performance. Combining KM focus and KM source, Choi et al. (2008) found that high tacit-internal-oriented strategies show a high probability of better performance, whereas high explicit-external-oriented strategies only show a low probability to achieve higher performance. The latter, however, acts as a moderator in the tacit-internal-oriented and performance relationship. Choi et al.'s (2008) findings prove to have managerial implications in terms of developing success knowledge management strategies, but also contain limitations. The authors acknowledge the limited scope of the research by focussing on Korean companies which, according to Choi et al. (2008), mostly concentrate on imitation rather than innovation. It is therefore questionable whether those results can be applied to innovative companies in highly developed countries.

Haas and Hansen (2007) developed a 'differentiated productivity model' based on 30 in-depth interviews within a large US consultancy firm (over 10,000 consultants in more than 100 offices in the US). Their model consists of a knowledge sharing dimension (process and content) incorporating electronic documents and personal advice; and a task performance dimension including "time saved on task", "quality of work", and "signal of competence" (Haas and Hansen, 2007, p.1136). Their findings suggest that "high-quality electronic documents" help save sale teams' time but do not affect the quality of work or "signal of competence to clients" (Haas and Hansen, 2007, p.1149). On the other hand, personal advice improves work quality and signals competence to clients, but does not help to save time. Their findings suggest that companies striving for quality outputs should emphasise personal advice rather than electronic document systems. Both forms of knowledge sharing, electronic documents and personal advice, require efforts in order to make knowledge usable.

Forstenlechner, Lettice, and Bourne (2009; also see Forstenlechner, 2005) analysed the impact of knowledge management on the financial performance of a law firm. The case study focused on specific cause-and-effect relationships, based on a balanced scorecard

model (see Kaplan and Norton, 1996) within a single organisation. The balanced scorecard reflects the success map of the firm's knowledge management function and, as suggested by Kaplan and Norton (1996), consists of four perspectives: i) finance; ii) lawyers (internal customers); iii) internal processes; and iv) culture and organisation. In addition to this, each perspective has two to four respective performance indicators: i) productivity, and transparency of cost performance; ii) usage, satisfaction, efficiency; iii) quality, transfer of knowledge, development of knowledge; and iv) standardisation, commitment of lawyers, KM organisation, innovative thinking.

Using stepwise regression and correlation analyses, Forstenlechner et al. (2009) found that 'value perception' of knowledge management services was the best predictor for fee income. Value perception refers to "the value lawyers placed on KM as part of their daily work" (Forstenlechner et al., 2009, p.61). Similarly, Forstenlechener et al. (2009) found that 'personal service from the knowledge management team' was identified as the main predictor for value perception. Forstenlechener et al. (2009) also found a relationship between the number of knowledge management lawyers and improved performance. The authors also stress the importance of human interaction to knowledge management strategies. In addition to this, Forstenlechner et al. (2009) also highlight that some resource types, such as 'news and current awareness' or 'counsel and legal opinions', were more important to fee earners than others.

2.4.7 Conclusion and relevance to the research

Knowledge is a key resource and success factor of many companies. Therefore, this valuable resource needs to be actively managed. Over the past years, the term 'knowledge management' has become popular, reflecting the importance of knowledge for companies.

One could argue that knowledge management activities have always been carried out in business, but under a different heading. This is certainly the case, but in order to be effective, knowledge management needs a holistic strategy, clear structures, resources, and an open corporate culture. These preconditions should turn knowledge management activities into a real proposition for the firm.

Professional service firms, which heavily rely on the knowledge of their employees to be successful in the market, are largely early adopters of the knowledge management philosophy. Many companies have invested significant resources into knowledge

management projects, but it is still unclear how to measure the success of knowledge management.

Several authors aimed to clarify the linkage between knowledge management and firm performance by discussing the issues from various angles and perspectives. However, Newell et al. (2002, p.143) argue that whilst many approaches "assume a positive relationship between the accumulation of knowledge and improvement in innovative capability and organizational performance, this relationship is rarely explored in much detail." The literature on knowledge management in law firms is steadily increasing, but again there is still a lack of academic research and literature in the particular field of knowledge management and organisational performance.

2.5   Combining market orientation, knowledge management, and performance

The aim of this section is to provide an overview of the academic contributions to date that have focused on the combination of market orientation and knowledge management literature and approaches. Although the number of relevant journal papers is rather limited (Darroch and McNaughton 2003; Sivaramakrishnan et al. 2004; Olavarrieta and Friedman 2008; Fugate et al. 2009; Wang et al. 2009), there appears to be a compatibility between the two concepts that may lead to advantageous findings and additional insights in the discipline of management research.

Following the resource based view of the firm (i.e. Penrose 1959; Wernerfelt 1984; Barney 1991) and dynamic capabilities literature (i.e. Teece et al. 1997; Eisenhardt and Martin 2000; Zollo and Winter 2002), the combined orchestration of both knowledge management (Zollo and Winter 2002; Cepeda and Vera, 2007; Easterby-Smith and Prieto 2008), and market orientation activities (Foley and Fahey 2009; Morgan et al. 2009) may lead to competitive advantages (Barney and Clark, 2007). Thus, this part of the thesis is divided into an introduction to the resource based view of the firm and dynamic capabilities, followed by a section on knowledge based assets, and a list of contributions on market orientation research in conjunction with knowledge management.

2.5.1 Market orientation and the resource based view (RBV)

In a recent commentary in the European Journal of Marketing, Foley and Fahey (2009; also see Foley and Fahey, 2004) acknowledge the contributions that have been made around market orientation to date and how the market orientation construct can help to operationalise the marketing concept. They believe that the constructs developed by Kohli and Jaworski (1990) and by Narver and Slater (1990) offer valuable tools to assess the market orientation of organisations.

Based on their perception, Foley and Fahey (2009, p.14) highlight the empirical support for a positive relationship between market orientation and performance as "equivocal" and consider a linear relationship with performance to be unlikely. This is especially since the relationship is dependent on 'situational characteristics' such as the type of market orientation scale, cultural factors, the size and type of sample, and industry-specific factors. In this context, Foley and Fahay (2009) also refer to Day (1998) when they argue that the 'specific context', like the industry, culture, or type of firm, needs to be considered when analysing the linkage with performance.

In addition to the above, Foley and Fahey (2009) state that there is a lack in practical advice that would help managers to develop a market oriented organisation. In order to further develop the market orientation perspective, and to provide practical proposals, Foley and Fahey (2009, p.15) suggest taking resource-based view (RBV) literature into consideration (i.e. Penrose 1959; Wernerfelt 1984; Barney 1991; Teece et al. 1997) with "its focus on distinctive resources, which differentiate organisations".

The resource-based view of the firm identified firm resources, in particular organisational capabilities, as a key source for sustainable competitive advantage and superior performance. RBV logic suggests that firm-specific resources that are valued by customers, properly used by the organisation, and hard to imitate or substitute, are likely to provide the basis to competitive advantage (Barney 1991; Barney and Clark 2007). According to Hult et al. (2007, p.964) the resource-based view "is a rich, contingency-driven theory that will continue to be a primary source of conceptual foundation for strategic management studies".

The origins of the RBV date back to Penrose (1959) who acknowledged the importance of organisational resources and their impact on growth and performance. Wernerfelt (1984) picked up on this view and recognised the collective resources that resemble value creation capabilities of organisations. Barney (Barney 1991; Barney and Clark 2007) played a key role in describing strategic resources by defining their characteristics,

including the value of the resource, its inimitability and rareness, as well as the feature of being difficult to substitute.

In a meta-analysis examining 125 studies that, put together, encompassed more than 29,000 organisations, Crook et al. (2008) analysed the impact of strategic resources on performance. Crook et al. (2008) found strong evidence for the positive relationship between strategic resources and performance and thereby strengthened the case for resource-based theory and its explanation for the heterogeneity of organisational performance. Following Barney's (1991) description of strategic resources as being valuable (i.e. of value to clients or by reducing costs), rare, inimitable and difficult to substitute, Crook et al. (2008) revealed in a second step that studies that were based on the above mentioned characteristics of strategic resources show a stronger positive correlation with performance. In order to code inimitability, Crook et al. (2008) analysed whether the resource was protected by at least one isolating mechanism. The mechanisms focused on unique historical conditions and social complexity, as well as causal ambiguity.

In addition to the above, Crook et al. (2008) examined the role of value appropriation in studies on the resource-based view. Value appropriation describes the competition between key stakeholders of an organisation, such as its owners, top-management, or employees, for economic value (Coff, 1999). If stakeholders other than the owners extract the value, it may not be included in performance measures. In order to overcome this issue Crook et al. (2008) separated market share and sales growth indicators, which reflected the value before appropriation, and indicators such as accounting returns (like return on sales or return on assets) and stock measures (like share price), which showed the economic value after appropriation. Crook et al.'s (2008) analysis highlighted a modestly stronger relationship between strategic resources and performance when measures were used that were not affected by appropriateness. Interestingly, there were no significant differences in the relationship between resources and performance based on a post hoc analysis that took into account different firm attributes, such as the type of industry (manufacturing or service), firm size, and diversification. In addition to this, strategic resources in the various value chain functions (like marketing), and different types of strategic resources (human, tangible, or intangible) related positively to performance.

Newbert (2007), who explicitly acknowledges the theoretical strength of the resource-based view, however, comes to a more equivocal conclusion. Following an analysis of 55

journal papers containing multivariable statistical tests (n = 549) of the RBV, Newbert (2007) describes that only just above half of the tests (53%) empirically support the relationship between resource-related constructs and either performance or competitive advantage. Newbert (2007) criticises that many scholars use competitive advantage and performance interchangeably. According to Newbert (2007, p.141) the link between competitive advantage and performance is "unidirectional", meaning that competitive advantage improves performance, but not necessarily the other way round. Newbert's (2007) position draws on Coff's (1999) work on appropriation and particularly highlights that advantages based on tacit resources such as knowledge "may result in relatively little rent observable in measures of firm performance" (Coff, 1999, p.131). As stated by Hult et al. (2007, p.962), measuring competitive advantage "is difficult, but it is needed in order to completely test the RBV". In a further analysis of the selected papers, Newbert (2007) categorised the contributions based on the approaches to RBV that were used:

− Resource heterogeneity approach: This approach refers to the analysis of specific resources and their impact on competitive advantage

− Organising approach: This approach refers to the analysis of the conditions that need to be in place in order to be able to leverage off of the resources

− Conceptual-level approach: This approach refers to the analysis of the attributes (valuable, rare, inimitable, non-substitutable) that define resources (Barney, 1991)

− Dynamic capabilities approach: This approach refers to the analysis of the impact that a given resource-level process might have on an organisation's competitive advantage "by operationalizing the independent variable as the interaction of a specific resource and a specific dynamic capability" (Newbert, 2007, p.128)

According to Newbert (2007) the vast majority of the journal papers used a resource heterogeneity approach (91%), but highlighted an increase in the use of the dynamic capabilities approach over time. Newbert (2007, p.138) also discovered that a "breadth of resources" were tested and therefore identified a "lack of depth" in the analysis of independent variables. Newbert (2007) criticises the fact that most empirical papers on the RBV are deeply grounded on Barney's work (1991) and that the resource heterogeneity approach suggests that many scholars do not take into account the advancements made in the field to date. As a consequence, Newbert (2007, p.140) suggests a move towards alternative approaches, such as "the organizing approach or the

dynamic capabilities approach in order to test theoretical models that more closely reflect the current state of the RBV than does Barney's original model".

2.5.2 Dynamic capabilities

Several authors made important contributions to the dynamisation of capabilities and added to the increasing body of knowledge on the resource-based view (i.e. Teece et al. 1997; Eisenhardt and Martin 2000; Zollo and Winter 2002). Dynamic capabilities are generally seen to be required in order to succeed in changing markets and can be defined as "the capacity of an organization to purposefully create, extend, or modify its resource base" (Helfat et al., 2008, p.4). The 'resource base' can be described as the "tangible, intangible, and human assets (or resources) as well as capabilities which the organization owns, controls, or has access to on a preferential basis" (Helfat et al., 2008, p.4).

Peteraf and Barney (2003, p.314) describe competitive advantage as an organisation's ability "to create more economic value than the marginal (break even) competitor in its product market". The economic value, a key element of this definition, "created by an enterprise in the course of providing a good or service is the difference between the perceived benefits gained by the purchasers of the good and the economic cost to the enterprise" (Peteraf and Barney, 2003, p.314). There have been several approaches to dynamic capabilities by various researchers. According to Schreyögg and Kliesch-Eberl (2007) the approaches to dynamic capabilities can be put into three main categories: (i) the radical dynamisation approach; (ii) the integrative approach; and (iii) the innovation routine approach.

The 'radical dynamisation' approach (see Eisenhardt and Martin, 2000) describes dynamic capabilities as conventional capabilities, such as processes or rules that are impacted by dynamic environments. According to the 'integrative approach' (see Teece et al. 1997; Teece 2009), dynamic capabilities allow organisations to "shape, reshape, configure, and reconfigure assets so as to respond to changing technologies and markets and escape the zero-profit condition [as well as to] sense, seize, and adapt in order to generate and exploit internal and external enterprise-specific competences, and to address the enterprise's changing environment" (Teece 2009, pp.87-88). The 'innovation routine' approach (see Zollo and Winter, 2002) introduces innovation routines that promote the dynamisation and the rate of change of capabilities.

The various definitions above illustrate that there are still a number of competing models and viewpoints that need to be integrated and consolidated. Easterby-Smith and Prieto (2008, p.237), however, see "an emergent consensus". In an attempt to improve and focus the discussion on dynamic capabilities, Easterby-Smith and Prieto (2008) highlight areas of consensus and common understanding. According to Easterby-Smith and Prieto (2008), there is a consensus that there needs to be a distinction between operational capabilities and dynamic capabilities. Easterby-Smith and Prieto (2008) state that operational capabilities are influenced by dynamic capabilities and can lead to competitive advantage. This distinction also helps to overcome the potential tautology of resource based view theory (Barney and Clark, 2007). Cepeda and Vera (2007, p.427) explain the dilemma as follows: "if the firm has a dynamic capability, it must perform well, and if the firm is performing well, it should have a dynamic capability." Consequently, it is important to define the key elements in a coherent fashion in order to avoid tautology. As Barney and Clark (2007, p.253) put it: "Can resource-based theory be stated as if it was tautological? Yes. Is resource-based theory tautological? No."

According to Easterby-Smith and Prieto (2008) there is also consensus that dynamic capabilities can have the potential to change routines, competences, and resources. Capabilities reflect the 'ability' to do something rather than the act of carrying out an activity. Dynamic capabilities are, per se, evolutionary in nature as being 'dynamic' contains the notion of change. Dynamic capabilities do not reside in resources, but in routines. Finally, learning is seen to be a key element in the evolution of dynamic resources (Helfat et al. 2008; Teece 2009). It is also worth noting that dynamic capabilities cannot directly create a competitive advantage (Eisenhardt and Martin, 2000). As described above, dynamic capabilities influence or change operational capabilities, which in turn can lead to superior firm performance.

Schreyögg and Kliesch-Eberl (2007, p.914) agree with the notion that dynamic capabilities are important for competitive advantage, but argue that some of the current approaches to dynamization are "likely to crowd out the genuine essence of an organizational capability" and flag that this discrepancy has not yet been sufficiently discussed. Menguc and Auh (2006, p.72) also state that it would be useful to define "the internal structures that enhance or impede…dynamic capability creation". In their conceptual paper, published in the Strategic Management Journal, Schreyögg and Kliesch-Eberl (2007, p.914) define "dynamic", in relation to dynamic capabilities, as "the continuous renewal of organizational capabilities, thereby matching the demands of (rapidly) changing environments" and state that "capabilities" not only represent one

resource but instead "a distinctive and superior way of allocating resources". The authors also define three characteristics that are typical for capabilities. First, capabilities need to help to solve problems in a complex environment (i.e. decision making under uncertainty). Second, capabilities need to be embedded in practicing and used successfully. Third, capabilities need be reliable, which excludes one-off successes; and evolve over time, which requires an organisational learning process.

Schreyögg and Kliesch-Eberl (2007, p.919) describe that once organisations have successfully built up their capabilities, they might be prone to the risk of getting locked into those capabilities by drivers such as "path dependency, structural inertia, and psychological commitment (cognitive traps)". This could lead to organisations that get stuck in their way of doing things and therefore risk excluding potential alternatives. Schreyögg and Kliesch-Eberl (2007, p.925) believe that the above approaches are either not sufficiently taking into account the very nature of capabilities, in particular that capabilities still need to refer to replicable and patterned tasks, or that the suggested innovation processes are too incremental and therefore restricting change. In order to overcome these issues, Schreyögg and Kliesch-Eberl (2007) suggest the implementation of a dual model of capability management, consisting of two simultaneously run processes.

The first of these countervailing processes comprises "the recursive practicing of distinctive organizational capabilities aiming at excellence and efficiency" (Schreyögg and Kliesch-Eberl, 2007, p.930). The second process comprises "the reflexive monitoring of these capabilities in order to check their ongoing workability in the light of a potentially changing unpredictable environment" (Schreyögg and Kliesch-Eberl, 2007, p.930). According to Schreyögg and Kliesch-Eberl (2007, p.930), the latter (monitoring) process "provides the missing dynamization of the system" and will, when required, initiate changes to organisational capabilities.

2.5.3 Market-based capabilities

Based on the work of Teece et al. (1997) and Helfat et al. (2007), Foley and Fahey (2009, p.17) describe dynamic capabilities as capabilities that "enable the effective management of resources to allow the organisation to cope with a changing environment", thus leading to sustainable competitive advantage. Since market orientation may "have its effects demonstrated through the strategic actions of an organisation", Foley and Fahey (2009, p.16) argue "to acknowledge the broader, holistic nature" of market orientation. The

research agenda should therefore focus "on identifying key capabilities that the organisation must develop in order to be market-driven" (Foley and Fahey, 2009, p.16). Based on Day (1994, p.38), capabilities are defined as "complex bundles of skills and collective learning, exercised through organisational processes that ensure superior coordination of functional activities".

In a study that draws on the resource-based view, Menguc and Auh (2006), for example, have recently found that the combination of market orientation and 'transformational constructs', such as innovativeness, can turn market orientation into a dynamic capability. Menguc and Auh (2006) acknowledge the vital function of market orientation and its impact on firm performance and present insights into the nature of market orientation and its potential as a dynamic capability-generating capacity. In order to turn market orientation into a dynamic capability, Menguc and Auh (2006, p.66) suggest bundling market orientation together with innovativeness and believe that this will lead to "more value and exhibit greater rarity and inimitability". Their empirical findings support this hypotheses and leads them to the conclusion to foster the combination of market orientation and "internal transformational resources" (Menguc and Auh, 2006, p.66). The authors also state that bundling together market orientation and innovativeness implies a certain proactiveness, which is why Menguc and Auh (2006) suggest that this combination is compatible with the market-driven approach.

In a similar vein to the above, Foley and Fahey (2009, p.16) suggest undertaking further research with a focus on market-sensing capabilities (Day, 1994 and 1999): "a model of market orientation based on the key market-sensing capability may facilitate further understanding of the construct" (Foley and Fahey, 2009, p.17).

Based on the work of Vorhies and Morgan (2003), marketing's organisational characteristics can be divided into structural and task-related features. Structural characteristics (also see Jaworski and Kohli, 1993) encompass centralisation, which is defined by the hierarchical position of the decision-maker; formalisation, which reflects the intensity of standardised processes and rules; and specialisation, which refers to the fragmentation of tasks. Task-related characteristics include task complexity, work group interdependence, and marketing capabilities. According to Vorhies and Morgan (2003, p.103) the latter can be defined as an organisation's "ability to perform common marketing work routines through which available resources are transformed into valuable outputs" and cover architectural capabilities and marketing-mix based work routines.

Market sensing can be defined as "an anticipatory capability which enables the firm to track the way that the market is moving advance of its competitors through an open approach to market information development and interpretation, and the capture of market insights" (Foley and Fahey, 2009, p.16). Day (1999, p.85), who acknowledges that these capabilities have, to a certain extent, already been included in the market orientation construct (both Jaworski/Kohli's and Narver/Slater's model), also describes market-sensing as a "superior market learning capability".

In Day's model (1994, p.41), market sensing is an outside-in process with external emphasis, such as customer linking channel bonding, and technology monitoring. On the other hand, inside-out processes with internal emphasis comprise financial management, cost control, technology development, integrated logistics, manufacturing and transformation processes, human resources management, and environment health and safety. The processes combining internal and external focused capabilities are referred to as 'spanning processes' and include customer order fulfilment, pricing, purchasing, customer service delivery, new product/service development, and strategy development.

According to Day (1994, p.43) market sensing follows a sequence that is started by an inquiry, which then leads to information acquisition and information distribution. The information is then interpreted and utilised. For future reference and in order to create a learning loop, the outcomes need to be evaluated. Day (1994) also highlights the role of organisational memory, which is important in both the initiation and information acquisition phase, as well as in the interpretation of information. In addition to this, Day (1994) believes that it is important to not only rely on usual sources, but to look outside the periphery.

Market-sensing capabilities can consequently be deemed to be important processes within an organisation. However, according to Day (1994, p.47), these "processes are likely to be fragmented, obscured by the dispersal of critical activities throughout the organization, and woven into other processes". This makes it difficult to uncover and analyse these processes. Day (1994, p.47) therefore suggests categorizing market-sensing process by grouping processes that are routine activities, inquiry processes that are of continuous nature but support other ongoing processes, and "nonrecurring inquiries into new opportunities or threats".

According to Day's (1994, p.44) definition: "Market-driven firms are distinguished by an ability to sense events and trends in their markets ahead of their competitors. They can anticipate more accurately the response to actions designed to retain or attract customers,

improve channel relations, or thwart competitors. They can act on information in a timely, coherent manner because the assumptions about the market are broadly shared". Day (1994) believes that in order to achieve an anticipatory capability, firms need to make open-minded inquiries (i.e. active scanning, benchmarking, experimentation and improvement, informed imitation), ensure synergistic information distribution, work towards mutually informed interpretations, and develop an accessible organisational memory.

In addition to market-sensing capabilities, Day (1999) also highlights the importance of market relating and strategic thinking. The market relating capability covers the creation and maintenance of client relationships. Strategic thinking is defined as the ability to predict market trends and to align an organisation's strategy to the market. Market-driven organisations not only posses these capabilities, but are also able to orchestrate them effectively, which leads to a "superior ability to understand attract and keep valuable customers" (Day 1999, p.5).

In an attempt to examine the marketing capabilities of market-driven firms, Vorhies et al. (1999) analysed the marketing function of 87 large Australian manufacturing companies by surveying their top marketing executives. In a first stage, Vorhies et al. (1999) separated market-driven and non-market-driven companies based on their results on the MARKOR questionnaire (Jaworski and Kohli, 1993) and a business strategy measure, using Ward's method of hierarchical cluster analysis. In a second stage, Vorhies et al. (1999) analysed the following marketing capabilities of the two groups of companies: market research, pricing, product development, channels/distribution, promotional management, and market management.

The group of market-driven companies demonstrated higher levels on all of the marketing capabilities mentioned above. In addition to this the market-driven firms also outperformed the non-market-driven firms in terms of adaptability, customer satisfaction, growth, and profitability measures. The findings of Vorhies et al. (1999) thus support Day's (1994) theoretical work on market-driven firms and the capabilities of market-driven organisations. Similarly, Homburg and Pflesser (2000) found that market oriented culture indirectly affects financial performance through market performance and argue that customer satisfaction and customer loyalty are suitable indicators for the effect of market orientation.

In a more recent empirical study, Morgan, Vorhies, and Mason (Morgan et al., 2009) analysed the interrelationships between market orientation and marketing capabilities,

based on the resource-based view and dynamic capabilities literature. According to Vorhies and Morgan (2005), marketing capabilities can be distinguished between their relevance to the development of a marketing strategy and its execution, as well as between processes concerning the marketing mix, such as pricing and channel management.

Morgan et al. (2009) explain that in their study, market orientation was directly linked to return on assets, but not to subjective performance. Their research also supports the RBV and DC view that economies of scope and asset complementarity impact firm performance. Morgan et al. (2009, p.917) conclude that even though market orientation and marketing capabilities may not be classified as dynamic capabilities, they certainly "would logically constitute necessary conditions for a firm's dynamic capabilities."

Based on their findings Morgan et al. (2009, p.17) believe that market orientation and marketing capabilities complement each other and highlight "that market-based knowledge assets such as MO require complementary organizational capabilities if their value to the firm is to be fully realized." In this respect it is also worth noting that valuable organisational capabilities are often also the product of the creation and recombination of knowledge (Kogut and Zander, 1992). Hence, the interaction of market orientation and marketing capabilities should give a firm a competitive advantage over its rival. Morgan et al. (2009) therefore argue that more research is to be done in order to find out what other resources might be complementary to market orientation and how they can be developed and deployed.

Morgan et al. (2009, p.17) also state that "in addition to the level of responsiveness observed, firms' ability to respond to market intelligence is also a key determinant of the value of firm's investments in building market knowledge" and thus argue that future research should also focus on the quality of a firm's market orientation (see Jaworski and Kohli, 1996). Foley and Fahey (2009, p.17) call for "fine-grained research" into the relationship between market orientation and performance "for empirical analysis of marketing resources". Foley and Fahey (2009, p.17) also state that empirical research "should be within the specific firm and industry context" in order to take into account the "particular setting", which is "important to ensure relevance for practitioners".

According to Schlosser and McNaughton (2009), market orientation's value as a dynamic capability stems from the combination of information sharing routines and inter-functional co-ordination. Market orientation therefore requires the "ability to prompt reconfiguration of resources through the processing and use of market orientation,

specifically through: (a) the recognition of the information's value to the firm; (b) resulting information sharing and inter-functional coordination; and finally, (c) employee/ employer's use of the information to shape reactions" (Schlosser and McNaughton, 2007, p.309).

2.5.4   Knowledge-based assets

Easterby-Smith and Prieto (2008) highlight that dynamic capabilities theory and knowledge management share common conceptions, but argue that the link between the two areas has not yet been sufficiently discussed in academic literature. Zollo and Winter's (2002) 'knowledge evolution cycle', for example, draws attention to the role of knowledge in the creation and evolution of dynamic capabilities. The framework describes how the generation, evaluation, selection, codification, and subsequent dissemination of ideas leads to the implementation of changes that become embedded in a firm's routines and that might eventually trigger another evolution cycle.

Dynamic capabilities theory is grounded in the resource-based view of the firm and encompasses the changes in routines that reconfigure resources (i.e. Teece et al., 1997). Dynamic capabilities are also impacted by market and environmental dynamics (i.e. Eisenhardt and Martin, 2000). Knowledge management theory, in contrast, draws on the knowledge-based view of the firm (Grant, 1996) and generally encompasses technological solutions for managing explicit knowledge, as well as social processes for the management of tacit knowledge. Knowledge management strategy and tactics are largely impacted by internal factors, rather than by market or environmental influences.

According to Easterby-Smith and Prieto (2008) there are overlaps in that both theories are underpinned by learning (also see Cepeda and Vera, 2007). Easterby-Smith and Prieto (2008) argue that learning capabilities are sources for dynamic capabilities and highlight that organisational learning is a key component of knowledge management, which they also describe as 'managed learning'. Another overlap suggested by Easterby-Smith and Prieto (2008, p.242) concerns exploration and exploitation activities that are of great importance to both dynamic capabilities and knowledge management (Zollo and Winter 2002; Cepeda and Vera 2007). Exploration refers to the generation and selection of new ideas which is an innovative process. Exploitation, on the other hand, "involves the replication of existing methods into new contexts and their wider dissemination", which may lead to increased efficiencies (Easterby-Smith and Prieto, 2008, p.242). An overview of knowledge management strategies in the US pharmaceutical industry, including

exploration and exploitation, as well as 'loners' and 'innovators' can be found in the work of Bierly and Chakrabarti (1996). Finally, Easterby-Smith and Prieto (2008, p.242) believe that a knowledge infrastructure, which encompasses human and culture related personalisation strategies, as well as structural technological strategies, is a key enabler for dynamic capabilities. The authors conclude that further research on their integrative framework is needed and suggest empirical research to test the proposed relationships. In addition to this, Easterby-Smith and Prieto (2008) also highlight the potential mediating effect of dynamic capabilities in the relationship between knowledge management and business performance.

The role of a knowledge management infrastructure is also at the core of Cepeda and Vera's (2007) research paper on the relationship between operational and dynamic capabilities from a knowledge management view. Cepeda and Vera (2007) examined 107 companies in Spain's information technology and communication (ITC) industry. The study was preceded by a case study of one ITC with input from a panel of experts, in order to establish the industries knowledge areas. In accordance with Easterby-Smith (2008) and Zollo and Winter (2002), Cepeda and Vera's (2007) findings highlight the role of learning and knowledge management processes, such as the codification of knowledge and personalisation strategies in the creation and evolution of dynamic capabilities. Cepeda and Vera (2007) also determine the importance of articulation of an organisation's mission and value proposition on the identification of the desired breadth and depth of an organisation's knowledge configuration. Cepeda and Vera (2007, p.430) describe that "…through knowledge transformation processes, executives generate, articulate, and codify new available knowledge configurations, which are the foundation for improvements in the way firms operate." Put simply, "what the firm gets to know changes what it can do" (Cepeda and Vera, 2007, p.430). This in turn leads to new operational capabilities. Cepeda and Vera's (2007) research suggests that functional capabilities (i.e. know-how of supplier and customers) and knowledge-based value creation capabilities (i.e. embedding knowledge into new services) are especially impacted by knowledge-enabled dynamic capabilities.

Another way to approach the implications of knowledge assets and dynamic capabilities is by looking through the lens of economics. Coff (2003), who explored knowledge-based advantages from both an economics and management point of view, argues that the combination of economics and management theory will continue to improve the understanding of how firms outperform others. Coff (2003, p.248) assumes that management teams may have limited information in volatile or turbulent environments

and argues that "the nature and dispersion of knowledge in an industry may determine the degree of differentiation among firms and/or the fragmentation of the industry".

2.5.5 Market orientation and knowledge management

As discussed in the sections above, market orientation literature is rich and there have been many studies that proved the initial model, as well as a large number of studies that improved the model and presented new insights (see i.e. Kirca et al., 2005). The market orientation construct shows a strong emphasis on the management of market related intelligence and can also be described as a market-based knowledge asset (Morgan et al., 2009). Many activities that are subsumed under Jaworksi and Kohli's (1993) market intelligence gathering and market intelligence dissemination perspective have references to information and knowledge management related tasks and processes.

Given the aim and the research question of this study, the author carried out an extensive literature review in order to locate and evaluate papers that investigate the linkage between market orientation and knowledge management. To the surprise of the author, at the time of the study there were only a very limited number of journal papers available that discussed the linkage between knowledge management, market orientation, and firm performance (Darroch and McNaughton 2003; Wang et al. 2009). The table below summarises the contribution to date in chronological order:

Authors	Focus/Method	Key findings
Wang et al. (2009)	Analysis of the relationships between knowledge management, market orientation and performance using the MARKOR questionnaire and a construct called 'knowledge management orientation'. 213 usable responses of UK-based companies (46.5% in service industries and 53.5% in manufacturing industries). Effective response rate of 14.2%.	– Market orientation is described as the 'missing link' connecting knowledge management and performance. – MO shows a positive relationship with knowledge management orientation (KMO) and mediates the relationship between KMO and organisational performance.

Authors	Focus/Method	Key findings
Fugate, Stank, and Mentzer (2009)	Analysis of the impact of KM related behaviours on operations- and organisational performance using MARKOR methodology. 336 respondents in a logistics operations environment.	– The shared interpretation of data is mediating the relationship between disseminating knowledge and responsiveness. – A shared interpretation is therefore seen as being highly important to responding quickly and in a unified fashion.
Olavarrieta and Friedman (2008)	Analysis of the links between market orientation, knowledge-related resources and firm performance. Survey of Chilean publicly traded firms. 116 responses.	– Significant impact of MO on firm performance. – Knowledge-related resources (i.e. market-sensing, innovation, imitation capabilities) have a mediating effect on the MO-firm performance relationship.
Sivaramakrishnan, Delbaere, and Bruning (2004)	Analysis of the relationships between knowledge management, market orientation, performance, and customer loyalty. 165 top- and middle-level managers across several Canadian industries.	– KM plays a partially mediating role in the relationship between MO and customer loyalty. – MO did not directly affect a firm's relative financial performance. Its impact was only through KM and customer loyalty.
Darroch and McNaughton (2003)	Analysis of knowledge management and the innovativeness of New Zealand firms, using a knowledge management orientation framework based on the MARKOR scale.	– KM oriented firms outperformed market-oriented firms. – Findings suggest that market orientation is a subset of KM orientation.

Table 10 Market orientation and knowledge management studies

Wang, Hult, Ketchen, and Ahmed (2009) analysed the relationships between knowledge management, market orientation and performance. The authors state that although knowledge management has been believed to improve performance, there has been little empirical research to support this notion. Wang et al. (2009) use a construct called 'knowledge management orientation' (KMO), which consists of organizational memory, knowledge sharing, knowledge absorption and knowledge receptivity, to investigate the links between marketing orientation and firm performance. In their methodology, the authors use a behavioural definition of market orientation and apply Jaworski and Kohli's (1993) MARKOR questionnaire.

Knowledge management is defined as an 'inside-out' process, whereas market orientation is defined as an 'outside-in' process (see Day 1994, and 1999). Market orientation is consequently described as the "missing link" (Wang et al., 2009, p.100) connecting knowledge management and performance. According to their findings, market orientation shows a positive relationship with the higher order construct of knowledge management orientation and mediates the relationship between knowledge management orientation and firm performance.

Wang et al. (2009) call for the integration of KM and MO, but also clearly identify a gap in knowledge and a need for further research, which justifies this thesis. In particular, Wang et al. (2009, p.112) state that "…the use of multiple respondent designs in subsequent studies would allow researchers to uncover the extent to which views of KMO and MO are shared across executives. The relative level of shared perceptions about KMO and MO within firms might be found to influence the degree to which these antecedents to performance matter".

Sivaramakrishnan et al. (2004) carried out a research in Canada, surveying top- and middle-level managers (n=165) across several industries. Structural equation modelling was used to analyse the data. Sivaramakrishnan et al.'s (2004) key findings suggest that knowledge management plays a partially mediating role in the relationship between market orientation and customer loyalty. Market orientation, however, did not directly affect a firm's relative financial performance; its impact was only through knowledge management and customer loyalty.

Sivaramakrishnan et al. (2004) also state that being market oriented may generally lead to a higher probability to commit to knowledge management activities, which would then result in increased customer loyalty. More emphasis on knowledge management was also seen as leading to increased customer loyalty and hence in turn to better financial results. Sivaramakrishnan et al. (2004) thus conclude that customer orientation or competitor orientation, on their own, would not produce higher financial performance. It would need to be connected to knowledge management activities in order to allow a better understanding of a company's environment. Sivaramakrishnan et al. (2004) emphasised that there was no previous research, which examined the linkages between market orientation, knowledge management, and performance in the market. There is a clear gap in the literature, which will be addressed by this study.

Darroch and McNaughton's (2003) paper on knowledge management and the innovativeness of New Zealand firms introduces a knowledge management orientation

framework, which is based on the MARKOR construct (Kohli et al. 1993). They define knowledge management orientation "as a distinctive capability that supports the creation of sustainable competitive advantages such as innovation" (Darroch and McNaughton, 2003, p.572). Their knowledge orientation framework is wider than the original market orientation framework of Jaworski and Kohli (Kohli et al. 1993), and includes additional information gathering activities in order to increase knowledge on the market environment, internal processes, and/or technological developments. The framework consists of three factors:

Categories	Description of factors
Knowledge acquisition	– valuing employees attitudes and opinions and encouraging employees to up-skill; – having a well-developed financial reporting system; – being market-focused by actively obtaining customer and industry information; – being sensitive to information about changes in the marketplace; – employing and retaining a large number of people trained in science, engineering or maths; – working in partnership with international customers; and – getting information from market surveys.
Knowledge dissemination	– readily disseminating market information around the organisation; – disseminating knowledge on-the-job; – using techniques such as quality circles, case notes, mentoring and coaching to disseminate knowledge; – using technology (such as teleconferencing, videoconferencing and Groupware) to facilitate communication; and – preferring written communication to disseminate knowledge.
Responsiveness to knowledge	– responding to knowledge about customers, competitors and technology; – being flexible and opportunistic by readily changing products, processes and strategies; and – having a well-developed marketing function.

Table 11 Knowledge management orientation (Darroch and McNaughton, 2003)

Darroch and McNaughton (2003, p.572) found that the surveyed companies that were classified as knowledge management oriented firms outperformed companies that were classified as being market-oriented. They also highlighted that market orientation is a "subset" of knowledge management orientation and believe that the linkage between superior financial performance and knowledge management orientation shows that "firms with well developed knowledge management practices develop knowledge embedded products that better target the needs of consumers and are more difficult for competitors to imitate" (Darroch and McNaughton, 2003, p.589).

Their findings are quite revealing and shed some light on the interrelationships between knowledge management, market orientation and performance. Nevertheless, Darroch and McNaughton (2003) also conclude that more research needs to be done in this area. In particular, due to the fact that many of the surveyed firms in New Zealand were relatively small companies, they claim that further research needs to be carried out in larger international companies and knowledge intensive firms.

Olavarrieta and Friedman (2008) surveyed Chilean publicly traded firms in order to analyse the links between market orientation, knowledge-related resources and firm performance. Their analysis of 116 responses, using structural equation modelling, showed a significant impact of market orientation on firm performance. It also led to the conclusion that knowledge-related resources such as market-sensing, innovation, and imitation capabilities have a mediating effect on the market orientation and firm performance relationship.

In their study, Olavarrieta and Friedman (2008) measured market-sensing capabilities by distinguishing between information acquisition activities, information dissemination activities, information interpretation activities, and information storage-retrieval. The innovativeness construct focused on new technological content of products, first-to-market new products/services, process innovativeness, and industry leadership. Imitation capabilities captured the willingness and readiness to imitate. Based on their findings, Olavarrieta and Friedman (2008) suggested that organisational innovativeness appears to be the most important resource as it has significant associations with overall firm performance and new product development.

Fugate et al. (2009) used the MARKOR methodology to analyse the impact of knowledge management related behaviours on operations- and organisational performance in a logistics operations environment. Using structural equation modelling (n=336), the authors found that having a 'shared interpretation' of the data mediates the relationship between disseminating knowledge and responsiveness. Having a common understanding of the underlying information thus appears to be highly important in order to be able to respond both quickly and in a 'unified' fashion. Fugate et al. (2009) state that previous research studies have not taken into account the interrelations between knowledge-related behaviours .

2.5.6 Performance measures, job satisfaction and self-efficacy

The previous sections of the literature review provide an overview of the relevant contributions to knowledge management and market orientation theory. This part of the literature review focuses on how to measure performance in the context of this case study. In addition to this, it also provides an overview of job satisfaction and self-efficacy literature and how these areas are related to the case study research.

Scholars assessing the impact of market orientation on performance use a magnitude of performance measures, including subjective and objective indicators such as overall business performance, profits, return on assets, sales measures, and market share (i.e. Kirca et al., 2005). Some researchers suggest that the relationship between market orientation and performance is stronger when measured using subjective performance measures. The impact of culture on the relationship between market orientation and performance remains equivocal (i.e. Cano et al. 2004; Kirca et al. 2005), even though some researchers have also found evidence of the moderating impact of contextual factors such as country or region (i.e. Ellis, 2006).

Hult et al. (2008), who analysed the measurement of performance in international business research, developed an 'action plan' for enhancing the measurement of performance in business research. The authors assessed 96 papers from leading business research journals with an international focus, covering the years 1995 to 2005. Venkatraman and Ramanujam's (1986) framework forms the basis for Hult et al.'s (2008, p.1065) performance measurement dimensions, which include type of data, type of measure, and level of analysis. Type of data can be primary data (subjective) and secondary (objective). The level of analysis included firm, strategic business units, and inter-organisational levels. The type of measure was distinguished between financial measures, operational measures, and overall effectiveness. The definition of types of measures and examples can be found in the table below. The table also shows the application of the three types of performance measures in this thesis.

Type of measure/definition	Examples	Application in thesis
– Financial performance Centres on outcome-based indicators assumed to reflect economic goals, inclusive of accounting-based and market-based metrics	Overall profitability (i.e. return on investment, return on sales, return on assets, return on equity), profit margin, earnings per share, stock price, sales growth, growth of foreign sales, Tobin's Q	Profit per partner and revenue statistics (objective/secondary data)
– Operational performance Refers to non-financial dimensions, and focuses on operational success factors that might lead to financial performance	– Product–market outcomes (i.e. market share, efficiency, new product introduction innovation, product/service quality) – Internal process outcomes (productivity, employee retention and satisfaction, and cycle time)	Job satisfaction measure (subjective/primary data)
– Overall effectiveness Reflects a wider conceptualisation of performance	Reputation, survival, perceived overall performance, achievement of goals, perceived overall performance relative to competitors	Performance relative to competitors (subjective/primary data)

Table 12 Performance measures and definitions (Hult et al., 2008, p.1066)

Hult et al. (2008) recommend using measures from across the three measurement categories if they are in line with the research question and the theoretical model. The necessary set of data also needs to be accessible. Hult et al. (2008) also argue that both primary and secondary data should be used. According to Hult et al. (2008), a multilevel, multi-dimensional approach will help to deepen the understanding of the nature of performance and its antecedents. Hult et al. (2008, p.1070) also highlight the benefits of longitudinal measures and discuss issues around inferential specificity, endogeneity and selection.

In a study by Zhou et al. (2008), the authors analysed the relationships between market oriented culture, market oriented behaviour, leadership quality, job satisfaction, product quality, and performance. The authors found that job satisfaction mediates the relationship between market oriented behaviours and firm performance. They also found that job satisfaction has a positive effect on product quality and return on assets. Zhou et al. (2008), however, also state that further research is necessary in this particular field.

Similar to job satisfaction, researchers also found self efficacy to be an antecedent to performance which can have a positive influence on an organisation's success (i.e. Gardner and Pierce, 1998). Self efficacy can be described as "a person's belief in his or

her own capacity to perform a task" (Baruch et al., 2005). Bandura introduced the construct in 1977 and refined and extended the concept in numerous journal papers and books (i.e. 1982, 1986, 1997). Since professional service firms are relying on knowledge workers to carry out important market oriented and knowledge management related activities, it was found opportune to add self efficacy to the conceptual model of this research. The literature review highlights the value of knowledge workers to professional service firms (i.e. Starbuck, 1992; Alvesson, 2001; Swart and Kinnie, 2003) and self efficacy of professionals could thus well have an impact on market orientation, knowledge management, and performance. Previous research provided evidence of self efficacy's role as an antecedent of performance (i.e. Cole and Hopkins, 1995). Gist and Mitchell (1992), for example, also found that increased self efficacy can lead to enhanced performance.

Since the respondents of this case study research are from different practice groups and hierarchies it is important to get a better understanding of their level of expertise and knowledge, which may impact the market orientation or performance scores. Self efficacy literature thus offers useful insights into how to analyse a respondent's view of their personal skills (i.e. Bandura, 1997). Harter et al. (2002, p.275), for example, state that "companies could learn a great deal about the management of talents and practices that drive business outcomes if they studied their own top-scoring employee engagement business units."

Zhou et al. (2008) used a cross-level, multiple-source, multiple-informant approach, analysing responses from more than 2,700 employees from 180 manufacturing companies in China. According to Zhou et al. (2008, p.987) a market orientation framework needs to cover both culture and behaviours. They believe that there is a "sequential link" link in which market oriented behaviours succeed culture. As a consequence, Zhou et al. (2008) distinguish between market oriented culture as an organisational-level phenomenon and market oriented behaviours as an operational or unit-level phenomenon. Similarly Zhou et al. (2008) analyse job satisfaction at an employee-level and performance on an organisational-level. The table below provides an overview of their conceptualisation of the study and the key findings:

Measure	Level of analysis / Informant	RBV concept	Key findings
MO culture	Organisation / Senior marketing managers	Strategic resource	Positively affects MO behaviour, job satisfaction, product quality, and ROA.
Leadership quality	Organisation / Senior personnel managers	Strategic resource	Interaction with MO culture positively influences MO behaviour.
MO behaviour	Unit-level / Middle managers from different units	Strategic action	Fully mediates MO culture's effects on employee satisfaction, product quality, and performance. Positively affects job satisfaction, product quality, and ROA.
Job satisfaction	Employee-level / Frontline workers	Competitive advantage	Fully mediates the relationship between MO behaviours and firm performance. Positively effects product quality and ROA.
Product quality	Product-level / Senior marketing managers	Competitive advantage	Fully mediates the relationship between MO behaviours and firm performance. Relates positively to performance. Partially mediates employee satisfaction – ROA relationship.
Firm performance	Organisation / Return on assets (ROA)	Organisation performance	Positively affected by MO culture and behaviour, job satisfaction and product quality.

Table 13 Summary of Zhou et al.'s (2008) findings on market orientation

Grounded in the resource-based view on the firm, Zhou et al. (2008) state that a market oriented culture in conjunction with leadership can be classified as a strategic resource, as it is valuable, difficult to imitate and not substitutable (Barney, 1991). According to Barney (1997), a firm must also be in a position (i.e. organised) to exploit its resources. Zhou et al. (2008) define this 'organisation' as market oriented behaviours at the unit-level. According to their findings, market oriented culture and leadership drives market oriented behaviours, which in turn positively affect performance.

Zhou et al. (2008) used a variety of measures, including market oriented culture (based on Narver and Slater, 1990), market oriented behaviour (based on Jaworski and Kohli, 1993), leadership and product quality, and job satisfaction (based on Wood, Chonko, and Hunt, 1986). The job satisfaction scale consisted of five items including salary level, the level of importance that a supervisor places on an individual, opportunity for promotion, fairness, and sense of job accomplishment (Zhou et al., 2008). As stated above, Zhou et al. (2008) aggregated job satisfaction on an organisational level. Harter et al. (2002,

p.276) used a similar approach to their study on overall satisfaction and employee engagement: "we averaged the employee responses across individuals within business units, making our overall satisfaction and employee engagement measures indicators of business-unit performance-related culture rather than indicators of individual employee satisfaction." A benefit of this approach is that "the process of averaging across individuals removes trait-related individual differences, leaving business-unit characteristics as the construct measured" (Harter et al. 2002, p.276).

The authors subsequently found that job satisfaction fully mediates the relationship between market oriented behaviours and firm performance, and also has positive effects on product quality and return on assets (Zhou et al., 2008). It is worth noting that the relationship between job satisfaction and performance, on an individual level, is somewhat ambiguous (Iaffaldano and Muchinsky 1985; Ostroff 1992).

Zhou et al.'s (2008) study follows similar approaches by other scholars (Ostroff 1992; Harter et al. 2002; Schneider et al. 2003) who found support for the relationship between employee satisfaction and organisational performance. Ostroff (1992), for example, found positive relationships between employee satisfaction, employee attitudes, and organisational performance in schools using teachers as respondents. Harter et al.'s (2002) meta analysis, examining more than 198,000 respondents from over 7,900 business units in 36 companies between 1976 and 2000, revealed similar results. Harter et al. (2002) found generalisable relationships between employee satisfaction and engagement on a business unit level, and employee satisfaction and business unit outcomes, such as profit, productivity, customer satisfaction, staff turnover, and accidents.

Schneider, Hanges, Smith, and Salvaggio's (2003) elaborate lagged study revealed positive relationships between employee attitudes and return on assets and earnings per share. Again, attitudes and performance were aggregated and measured on an organisational level. 'Employee attitude' contained six employee satisfaction measures (i.e. satisfaction with empowerment) and an overall job satisfaction measure. Satisfaction with security, satisfaction with pay, and overall job satisfaction were significantly positively related to the performance measures. Interestingly, satisfaction with security and overall job satisfaction appeared to be caused by performance rather than the other way round. On the other hand, the relationship between satisfaction with pay and the two performance measures appeared to be reciprocal.

Wanous, Reichers, and Hudy (1997) carried out a meta-analysis into the correlation between overall job satisfaction, measured with scales, and overall job satisfaction, measured with single-item measures. Wanous et al. (1997, p.250) found a correlation between the types of measurement of r=0.63 and a corrected mean correlation of r=0.67. Wanous et al. (1997) subsequently conclude that researchers may use a single-item measure if it is required by the research situation. Reasons for choosing a single-item measure pertaining to the research situation include issues concerning the length of the questionnaire, cost, or "face validity" in that "respondents may resent being asked questions that appear to be repetitious" (Wanous et al., 1997, p.250).

Nagy (2002) carried out a similar analysis into the correlation between facet job satisfaction, measured with single-item measures, and facet job satisfaction, measured with scales. His findings indicate a significant correlation between the two measures, which strongly supports Wanous et al.'s (1997) results. Thus, Nagy (2002, p.84) argues that the single-item measure "should receive strong consideration when choosing a measure of facet satisfaction". Based on the findings above, in particular the length of the questionnaire and face validity issues, it deemed to be appropriate to use a single-item measure for job satisfaction in this thesis.

2.5.7 Conclusion of and relevance to the research

The sections above provided an overview of the research and literature contributions to date, which attempt to integrate market orientation and knowledge management concepts. Although information and knowledge related processes are at the core of the market orientation concept (Jaworski and Kohli, 1993), only a limited number of studies investigated the interrelations between market orientation, knowledge management, and performance in the market (Darroch and McNaughton 2003; Sivaramakrishnan et al. 2004; Olavarrieta and Friedman 2008). Several authors examined antecedents of market orientation, as well as mediating factors such as learning orientation and strategy type, but there still appears to be a clear gap in the literature.

The findings of the few papers on market orientation and knowledge management remain ambiguous. Sivaramakrishnan et al. (2004), for example, suggest that knowledge management plays a partially mediating role in the relationship between market orientation and customer loyalty. According to the authors, market orientation leads to a higher inclination to use knowledge management, which in turns leads to higher customer loyalty and financial returns. Olavarrieta and Friedman (2008) describe that knowledge-

related resources, such as market-sensing, innovation, and imitation capabilities, have a mediating effect on the market orientation and firm performance relationship. In summary, the work of the scholars cited in the sections above, reveal not only interesting insights, but also significant gaps in the literature. It is an aim of this study to fill in these gaps, and in addition to focus in particular on the professional service firm environment.

This section introduced Hult et al.'s (2008) performance measurement framework, which is based on Venkatraman and Ramanujam's (1986) contribution. The framework distinguishes between financial performance, operational performance, and overall effectiveness and is based on different performance measurement dimensions, including type of data, type of measure, and level of analysis. As described in Chapter 5, the three performance measures above form the basis for the correlation and regression analysis, which investigates the relationship between market orientation and knowledge management.

As the literature review brought to light the importance of knowledge workers for professional service firms (i.e. Alvesson 2001; Swart and Kinnie 2003), it was found opportune to also measure and integrate the employees' self efficacy into the conceptual framework. Self efficacy can be defined as "a person's belief in his or her own capacity to perform a task" (Baruch et al., 2005, p.56). Given the reliance of professional service firms on knowledge workers carrying out vital market oriented and knowledge management related tasks, self efficacy may well have an impact on market orientation, knowledge management, and subsequent performance. The following section provides a summary of the literature review and an analysis of gaps in the literature.

2.6   Gap analysis and hypotheses

The literature review has covered the main research areas, which were identified as professional service firms, market orientation, and knowledge management. In addition to this, there are also important sub-areas, such as law firm management, the measurement of knowledge management, and the role of dynamic capabilities.

It is generally agreed that market orientation has a positive impact on the firm's performance (Narver and Slater 1990; Jaworski and Kohli 1993). The theory emerged in the early 1990s and has been thoroughly tested and developed since then. There are, however, still some issues around the definition, the measurement, the cause and effects, and the implementation of market orientation that need to be addressed in future research (Van Raaij and Stoelhorst, 2008).

Foley and Fahey (2009) argue that future studies on market orientation should be carried out within a specific firm and industry context, with the goal to increase the relevance for practitioners. Kirca et al. (2005) and Zhou et al. (2008) believe that future research needs to focus on the impact of market orientation on job satisfaction. Another common complaint is that most studies on market orientation focus on manufacturing firms (Langerak 2003; Cano 2004) or do not distinguish between sectors. Therefore, future research also needs to address services firms (Esteban et al., 2002) and in particular, take into account the organisational characteristics of professional service firms (Helfert et al., 2002). As Esteban et al. (2002) point out, this will also require the adaptation of the market orientation questionnaire, in order to make sense in a professional service firm environment. This research will therefore also suggest a market orientation scale that accounts for law firm specific characteristics.

Several authors (Homburg et al. 2004; Gebhardt et al. 2006; Van Raaij and Stoelhorst 2008) argue that more attention needs to be paid to the implementation of market orientation. The analysis of marketing capabilities (Day 1999; Morgan et al. 2009), for example market sensing capabilities (Day 1999; Foley and Fahy 2009), of market oriented companies seems to be one promising way to learn more about the implementation of market orientation.

Professional service firms are knowledge-intensive companies that aim to solve the problems of a client. Their key assets are employees, client relationships and reputation (Maister, 1993). Law firms are a typical example of professional service firms. Many PSFs need to find new ways to overcome the increasing challenges of globalisation, increased client pressure and the war for talent (Stumpf et al., 2002). There is a growing trend towards an increased use of technology, as well as a high number of mergers and acquisitions within the PSF sector. The growth of professional service firms and their reactions to other market changes resulted in the creation of organisational archetypes (Greenwood and Hinings 1993; Brock 2006) and new organisational structures (Cooper et al. 1996; Greenwood and Empson 2003). These developments, especially the internationalisation of professional service firms, need to be assessed (Hitt et al., 2006).

Based on the gaps in market orientation literature identified above and taking into account the characteristics of professional service firm, the first set of hypotheses are as followed:

– Market orientation has a positive impact on practice group performance in terms of subjective performance (H1a), profitability (H1b), and job satisfaction (H1c).

As described in Chapter 4, this study focuses on law firms that also struggle with similar organisational issues as other professional service firms (see Morgan and Quack 2005; Faulconbridge and Muzio 2008). Their organisational structures and business models (see Galanter and Palay, 1991), for example, need to be adjusted to changing market conditions (see Segal-Horn and Dean 2007; Galanter and Henderson 2008). Ackroyd and Muzio (2008) believe that comparative research and qualitative analyses may lead to new insights and should also take into account the role of staff levels and jurisdictions. Per definition, employees are key success factors for law firms and professional service firms alike. Hitt et al. (2006) and Kor and Leblebici (2005), to name but a few, argue that future research needs to pay more attention to these assets. Given the importance of knowledge workers in professional service firms (Alvesson, 2000 and 2001) this study will also take into account the self efficacy (see Bandura, 1982, 1986, 1997) of partners and senior associates. Both roles carry out essential market oriented tasks (Jaworski and Kohli, 1990) that may impact performance. This leads to the following set of hypotheses:

– Self efficacy has a positive impact on practice group performance in terms of subjective performance (H2a), profitability (H2b), and job satisfaction (H2c).

Similar to market orientation, knowledge management can be seen as a possible strategy to enhance a firm's performance (Drucker, 1988, 1993, 2001). Knowledge management is a relatively new discipline and still needs to find a proper theoretical focus (Darroch, 2005). Nonetheless, there is a growing amount of literature on KM, with contributions from a wide range of research areas. In practice, there is a trend towards higher KM budgets and more formalised KM structures within organisations.

Nevertheless, there are still gaps in literature on the topic of knowledge management. A frequent complaint by both researcher and practitioners is the lack of a common measurement framework for knowledge management. There have been several attempts by researchers and practitioners, but a commonly used method or approach for measuring the impact of knowledge management on a firm's performance is yet to be found. Hence, this study also aims to contribute to a better understanding of the return on investment of knowledge management (Darroch 2005) and hopes to contribute towards finding ways of measuring its value.

It can be argued that KM is still a new discipline and that a common understanding and theoretical focus will evolve over time. Consequently, it is worth looking into other disciplines and how they managed to cope with measurement and impact issues. The combined analysis of market orientation and knowledge management, as suggested in this

paper, may therefore lead to new insights into the value of specific knowledge management related activities and their potential impact on an organisation's performance (Sivaramakrishnan et al., 2004).

From an organisational point of view, analysing the effects of knowledge management processes on market oriented behaviours, such as market intelligence gathering, dissemination, and responsiveness, can therefore lead to fresh insights into how to organise both knowledge management (Rusanow 2003; Parsons 2004) and practice development functions in international professional service firms. This could also help to establish paths to greater marketing process efficiency and effectiveness (Vorhies and Morgan, 2003).

As mentioned in section 2.5.5, only a small number of academic papers analysed the link between market orientation and knowledge management (Darroch and McNaughton 2003; Sivaramakrishnan et al. 2004; Fugate et al. 2009; Olavarrieta and Friedman, 2008). Their findings were equivocal and there is a clear need for further research into this issue. There is no literature that combines knowledge management, market orientation, and performance in the market, in a structured way, within the specific context of an international law firm. As a consequence, the following set of hypotheses will address this specific issue:

– Knowledge management has a positive impact on practice group performance in terms of subjective performance (H3a), profitability (H3b), and job satisfaction (H3c).

The following conceptual model provides an overview of the hypotheses of this research. As described above it covers the impact of market orientation, self efficacy, and knowledge management on performance. Performance is conceptualised using Hult et al.'s (2008) performance measurement framework. It distinguishes between overall effectiveness (subjective performance), financial performance (profitability), and operational performance (job satisfaction).
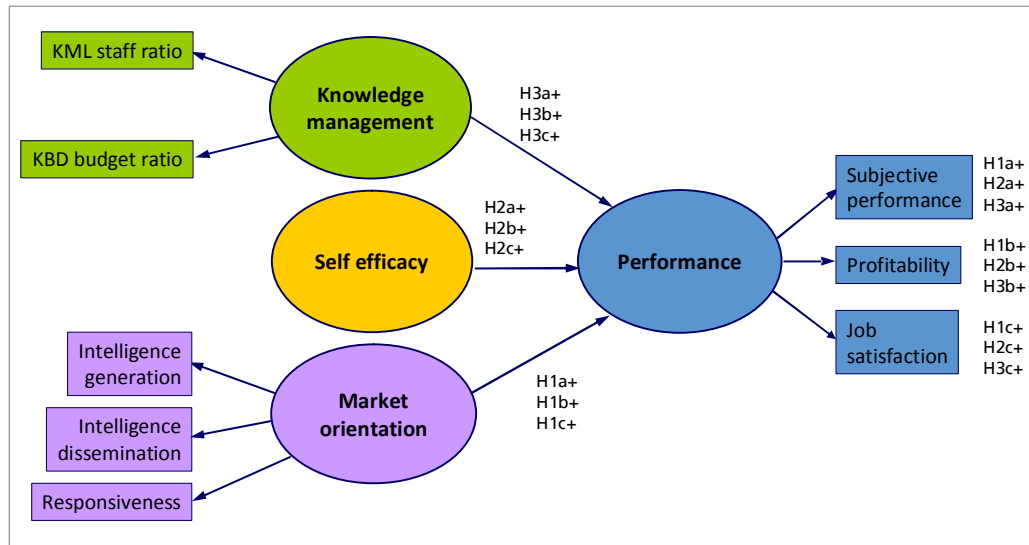
Figure 6 Conceptual model

Besides the gaps in knowledge mentioned above, there are also gaps in the research approaches that are addressed as part of this research. Market orientation research is largely conducted using quantitative research methods. Several authors (Bhuian et al. 2003; Gebhardt et al. 2006; Van Raaij and Stoelhorst 2008) argue that qualitative approaches may lead to new insights, especially on the implementation of market orientation. The case study approach of this research, including both empirical research and semi-structured interviews, should therefore also result in qualitative information on market orientation.

Zhou et al. (2008) believe that a cross-level analysis (with multi-level and multi-informants) may lead to additional insights. Similarly, Wang et al. (2009) argue that multi respondent designs may help to reveal new insights into the relationships between knowledge management, market orientation, and performance. In order to provide additional insights, this research uses multiple cases and analyses differences in practice groups (e.g. practice group size), the seniority of fee earners, and their function within the organisation. Market orientation data will also be analysed using geographical diversification indices.

Summarising the issues above, it is evident that there are clear gaps in the existing literature, and that new research approaches and methodologies, suggested by respected researchers need to be tested. Using different and enhanced research methods may thus create substantial value for both researchers and practitioners. Consequently, this research will contribute to knowledge by helping to fill the gaps identified above and by testing the suggested research approaches in practice.

3 Research methodology

3.1 Introduction

This chapter describes the research strategy and its research methodology, including the research design, data collection methods and analysis, and interpretation and reporting. The chapter introduces the case study methodology, the cases, instruments and protocols, the relation to the research question and hypotheses, and the link to existing literature.

3.2 Research strategy and design

A successful research strategy not only needs to take into account the research questions and hypotheses, but also previous research on the subject. The research objective of this study is to explore the relationship between market orientation and performance in the context of an international professional service firm. In particular, the study also aims to contribute to a better understanding of the impact of organisational characteristics, such as hierarchies, sub-units, and knowledge management processes.

Previous research into market orientation literature (i.e. Diamantopoulos and Cadogan 1996; Bhuian et al. 2003; Gebhardt et al. 2006; Van Raaij and Stoelhorst 2008) argues for research into qualitative aspects of market orientation and its implementation. Other researchers also recommend the use of multi-level, multi-approaches in order to explore the relationships between market orientation and firm performance (i.e. Zhou et al., 2008). Foley and Fahay (2009, p.14), for example, also state that the "specific context" of organisations, such as the sector or type of firm, needs to be taken into account when analysing the relationship between market orientation and performance.

Although case studies on market orientation are available, they either lack the sector focus (professional service firms and law firms) or contextual focus (market orientation and knowledge management) that is required for the particular research question of this thesis. For example, previous case studies on market orientation focused on export orientation (Diamantopoulos and Cadogan, 1996); the role of entrepreneurship and market-driving behaviours (Schindehutte, Morris and Kocak, 2008); the internationalisation of retailing firms (Rogers et al., 2005); the effect of internationalisation (Ruokonen et al., 2008) or relationship management on software firms (Helfert et. al, 2002); or the impact of information technology on market orientation in e-business (Borges, Hoppen and Luce, 2009).

Following emerging changes in the professional service firm industry (Brock 2006; Galanter and Henderson 2008), qualitative analyses and in-depth studies might help to provide new insights into this field of research including issues such as organisational structures and the role of knowledge workers (Hitt el al. 2006; Ackroyd and Muzio 2008). Knowledge management is a relatively new discipline and still needs to be brought into a clear theoretical framework (Darroch, 2005). In particular, the impact of knowledge management strategies on performance still needs to be discussed in greater detail (Newell et al. 2002; Forstenlechner, Lettice and Bourne, 2009).

Based on the research objectives, a literature review of the subject areas, and an analysis of alternative research strategies, a rigorous case study approach appears to be a sensible and legitimate method to achieve the aim of this research. A case study approach also promises to facilitate the required contribution to market orientation, professional service firms, and knowledge management literature. According to Yin (2009), using case studies is a sensible approach to answer 'how' and 'why' questions.

As outlined in the next sections, a mixed method approach (see Teddlie and Tashakkori 2003; Creswell et al. 2008) will aim to help fill the gaps in knowledge through a combination of quantitative and qualitative methods, using questionnaires, statistical analysis, interviews, and document analysis techniques. To date there are no structured case studies on the role of market orientation and knowledge management in a professional service firm environment using this particular set of methods.

Following Yin's (see Yin, 2009) contribution to case study research, Robson (2002, p.178) defines a case study as "a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real life context using multiple sources of evidence". Taking this definition into account, the research broadly follows the eight steps of case study design as developed by Eisenhardt (1989), which also guides the structure of this chapter: (i) getting started (i.e. outlining the research focus); (ii) selecting cases; (iii) crafting instruments and protocols; (iv) entering the field; (v) analysing the data; (vi) refining the conceptual model (i.e. shaping hypothesis); (vii) enfolding literature; (viii) reaching closure.

3.2.1 Research focus

Eisenhardt describes case study research as "a research strategy which focuses on understanding the dynamics present within single settings" and states that it is essential to

start with a broad definition of research questions: "Without a research focus, it is easy to become overwhelmed by the volume of data" (Eisenhardt, 1989, p.534). After exploring a real world problem, in this case the impact of market orientation and knowledge management on international professional service firms, and then assessing to what extent the issue has been discussed in academic literature, the research question can be stated as follows:

How do market orientation, knowledge management, and self efficacy affect the performance of professional service firms?

A conceptual model, based on the literature review and the data gathering exercise, was developed in order to answer the research question. The model is outlined below and contains the following hypotheses:

− Market orientation has a positive impact on practice group performance in terms of subjective performance (H1a), profitability (H1b), and job satisfaction (H1c).

− Self efficacy has a positive impact on practice group performance in terms of subjective performance (H2a), profitability (H2b), and job satisfaction (H2c).

− Knowledge management has a positive impact on practice group performance in terms of subjective performance (H3a), profitability (H3b), and job satisfaction (H3c).
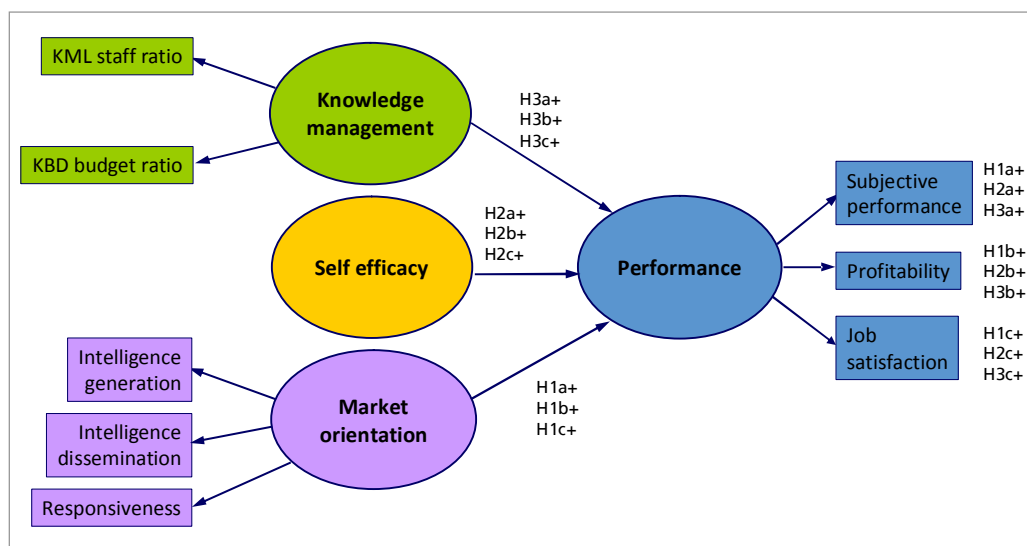
Figure 7 Conceptual model

As described in the sections below, a mixed method approach (see Teddlie and Tashakkori, 2003) will be used to answer the research question. The mixed method

approach to social sciences evolved out of quantitative (i.e. positivism) and qualitative (i.e. constructivism) research methods, combining the strengths of both approaches. According to Teddlie and Tashakkori (2003, p.11) mixed method studies can be characterised through the application of "qualitative and quantitative data collection and analysis techniques in either parallel or sequential phases". The approach, which developed from the triangulation of information from different data sources, is therefore often also referred to as the 'third methodological movement'.

The recent introduction of an academic journal entirely dedicated to mixed method research (Journal of Mixed Methods Research) highlights the growing importance and acceptance of mixed method inquiries. It also draws attention to the fact that although some progress on the conceptualisation of the approach has been made (i.e. Cresswell et al., 2003), this is still an evolving methodology that needs further clarity on its typology and nomenclature (Teddlie and Tashakkori, 2003). Nevertheless, this 'pragmatic' approach to social inquiries "*distinctively* offers deep and potentially inspirational and catalytic opportunities to meaningfully engage with the differences that matter in today's troubled world" (Greene, 2008, p.20, emphasis in the original).

The benefit of using mixed method research is that it allows scholars "to simultaneously answer confirmatory and exploratory questions, and therefore verify and generate theory in the same study" (Teddlie and Tashakkori, 2003, p.15). According to Greene (2008, p.16), the third methodological approach has the potential to "generate some important insights or understandings that would not have been accomplished with one method or one methodology alone". Currall and Towler (2003) provide an overview of how mixed method approaches were successfully used in management and organisational research. The following sections provide a more detailed overview of the research design and the instruments and protocols used. The actual findings can be found in Chapters 4 and 5.

3.2.1.1 Exploratory, explanatory, and descriptive

Eisenhardt (1989) suggests clarifying whether the purpose of the research is of an exploratory, explanatory, or descriptive nature, or a combination of the three approaches. A large part of this research is of explanatory nature, aiming to explain the relationship between market orientation, knowledge management and the performance in the market. The analysis of internal data is more of a descriptive nature and helps to get a richer picture of the contextual environment. To a certain degree, the study is also based on an exploratory approach (see Robson, 2002), in order to assess the phenomenon of market

orientation and its interrelationship in a different light, and to eventually discover and explore hypotheses. In summary, the method can be described as a mixed method approach (see Greene, 2008). Teddlie and Tashakkori (2003, p.15) describe that mixed method approaches should be used in doctoral dissertations, where researchers aim to "simultaneously accomplish two goals: (a) to demonstrate that a particular variable will have a predicted relationship with another variable, and (b) to answer exploratory questions about how that predicted (or some other related) relationship actually happens". The table below demonstrates the research purpose, according to the research context:

Purpose	Description	Research context
Exploratory	To find out what is happening To seek new insights To ask questions To assess phenomena in a new light Usually Qualitative	Semi-structured interviews, analysis of internal data
Descriptive	To portray an accurate profile of events Requires extensive knowledge of the situation to guide data collection May be Quantitative and/or Qualitative	Analysis of internal data
Explanatory	Seeks causal explanation of a situation May be Quantitative or Qualitative	Market orientation survey, statistical analysis of findings

Table 14 Research purpose according to Robson (2002)

3.2.1.2 Existing theory or new theory

Academic research aims to contribute to knowledge by either testing and/or enhancing existing theories, or by developing new theories and models (Eisenhardt, 1989). Mixed method approaches to social inquires can be used to combine these two goals (i.e. Teddlie and Tashakkori, 2003). One aim of this study is to test existing market orientation theory in the specific context of an international law firm. The study also seeks to contribute to the development of new theories in connection with the impact of knowledge management and the organisational characteristics of professional service firms. Consequently, the thesis will contribute to knowledge by testing existing theories and by establishing new insights based on a case study approach.

In this instance, it is also necessary to articulate whether the research is based on deduction or induction. Based on the above, and linking back to the combination of exploratory, explanatory, and descriptive methods, a mixed approach of deductive and inductive research seems to be appropriate in order to meet the research objectives.

The research is therefore driven by both a deductive approach and inductive approach to gain a better and deeper understanding of the quantitative findings. The table below by Young (2003, p.13) compares two different research philosophies combining the contributions by Gill and Johnson (1991) and Easterby-Smith et al. (1991):

	Positivism – Deduction	Phenomenology – Induction
Basic beliefs	– Explanation via analysis of causal relationships and fundamental laws. – Generation and use of quantitative data. – World is external and objective. – Observer is independent. – Science is value free.	– Explanation of subjective meaning held by subjects through understanding. – Generation and use of qualitative data. – World is socially constructed and subjective. – Observer is part of what is observed. – Human interests drive science.
Researcher should	– Use various controls, physical or statistical, to allow the testing of hypotheses. – Use highly structured research methodology to ensure above. – Formulate hypotheses and test them. – Reduce phenomena to simplest of elements.	– Be committed to research everyday settings, to allow access to, and to minimise reactivity among the research subjects. – Use minimum structure in research methodology to ensure above. – Develop ideas through induction from data. – Look at the totality of each situation.

Table 15 Comparison of positivism and phenomenology research philosophy

3.2.1.3 Quantitative or Qualitative

One common characteristic of case studies is the use of "multiple sources of evidence" (Robson, 2002, p.178). The same holds true for this research paper and ultimately leads to the application of both quantitative and qualitative research approaches, which can be referred to as a mixed method approach (see Cresswell et al. 2003; Teddlie and Tashakkori 2003).

The participating company granted access to internal cost and revenue statistics, time recording data, various databases, previous internal surveys, and strategy documents, and also agreed to support the facilitation of staff surveys and interviews. A quantitative approach will be used in order to test whether market orientation has a positive impact on a law firm's performance. Based on a market orientation questionnaire (MARKOR) and internal organisational data, empirical results will help to determine the attributes of the potential relationship. A qualitative approach, using semi-structured interviews and data

analysis techniques appears to be a legitimate method to assess the outcomes and analyse and describe the real life context of the study.

The combination of quantitative and qualitative data (see Eisenhardt, 1989), or systematic and anecdotal data (see Mintzberg, 1979), can help to demonstrate and explain relationships. The table below provides an overview of the assumptions, purpose and approaches of the two techniques:

	Quantitative	**Qualitative**
Assumptions	– The social world has objective reality (Positivist) – The method is the focus – Variables are identifiable & relationships measurable – Etic (outsider perspective)	– Reality is socially constructed (Constructivist) – The subject matter is the focus – Variables are complex and often not measurable – Emic (insider perspective)
Purpose	– Generalisability – Prediction – Causal explanations	– Contextualisation – Interpretation – Understanding actors' perspectives
Approach	– Begins with hypothesis and theories – Manipulation and control – Uses formal instruments – Experimentation – Deductive – Component analysis – Seeks consensus, the norm – Reduces data to numerical indices	– Ends in hypothesis & grounded theory – Emergence and portrayal – Researcher as instrument – Naturalistic – Inductive – Searches for patterns – Seeks pluralism, complexity – Makes minor use of numerical indices
Researcher role	– Detachment and impartiality – Objective portrayal	– Personal involvement and partiality – Empathic understand

Table 16 Quantitative and qualitative modes of inquiry (adapted from Glesne and Peshkin, 1992)

3.2.2 Selecting cases

As mentioned above, Robson (2002, p.178) defines a case study as "a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real life context using multiple sources of evidence". The previous sections have already briefly outlined the 'empirical investigation', including qualitative aspects and the 'multiple sources of evidence'. The specific tools and techniques used will be discussed in the next section. This section therefore focuses on the 'real life context' and the selection of cases, which ought to reflect the real world.

Yin (2009) distinguishes between single-case studies and multiple-case designs. Both methods can follow holistic or embedded approaches. The holistic approach is characterised by a single unit of analysis. The embedded approach covers multiple units of analysis or sub-units. Yin (2009) explains that a single-case study design is suitable for use with critical cases, extreme or unique cases, representative or typical cases, revelatory cases, or longitudinal cases.

Meeting the objective of this study requires the discussion of market orientation in a professional service firm context. Professional service firms, such as advertising agencies and consulting firms, are knowledge-intensive organisations with specific organisational characteristics and challenges (Maister 1993; Brock 2006). Law firms fall under this category and share the same common characteristics as other professional service firms, such as the importance of reputation, employees, and client relationships to the success of the firm (Galanter and Palay 1991; Kor and Leblebici 2005).

Based on the above, choosing an international law firm as the case study company appears to be reasonable. According to Yin (2009) LawCo can be classified as a representative or typical case. Due to the novelty of the in-depth research into market orientation and knowledge management in an international law firm, it may also be defined as a revelatory case. A detailed description of LawCo, the international law firm, and its organisational characteristics follows in Chapter 4.

It also needs to be defined whether the single-case design should follow a holistic or embedded approach. Yin (2009, p.50) describes that embedded designs facilitate the investigation of a "specific phenomenon in operational detail" and help to avoid carrying out a research "at an unduly abstract level, lacking sufficiently clear measures or data". Several scholars in the market orientation field argue that more research is needed into 'how' and 'why' market orientation is put into practice (i.e. Diamantopoulos and Cadogan 1996; Gebhardt et al. 2006; Morgan 2009). Thus, an embedded case study design may lead to a better understanding of market orientation in the context of a professional service firm. Yin (2009, p.51), however, also highlights the risk that analysing sub-units may lead to a negligence of the larger unit of analysis, and states that placing too much focus on the sub-units may turn the "original phenomenon of interest" into the "context" instead of the "target" of the research.

It is also worth noting that "the goal of the theoretical sampling is to choose cases which are likely to replicate or extend the emergent theory" (Eisenhardt, 1989, p.537). Or, as Robson (2002, p.183) states, "cases are selected where the theory would suggest either

that the same result is obtained, or that predictably different results will be obtained." As a consequence, random sampling or convenience sampling should be avoided (Robson, 2002).

The organisational structure of LawCo allows multiple cases within one company. The case company is set up as a matrix organisation, divided into eight practice groups, nine sector groups, and five regions, which allows the researcher to analyse several sub-cases within the company; this structure is similar to other professional service firms (see Scott, 2001). The eight firmwide practice groups are based on the legal domain that they attend to: Competition, Corporate, Litigation, Employment, Finance, Intellectual Property, Real Estate and Tax. The practice groups are placed across 25 offices in 15 countries. Sector groups, on the other hand, relate to the industry sector of the client and run across all practice groups and regions (e.g. a client in the telecommunication sector may be involved in corporate, finance, employment or litigation work). The countries are categorised into the following 5 regions: UK, US, Asia, Continental Europe I (German speaking countries and Central Eastern Europe), Continental Europe II (remaining European countries) and Middle East. In summary, given the matrix structure of professional service firms (see Müller-Stewens, 1999), it is possible to use a multitude of sub-cases. However, based on the research objective it will be necessary to focus on particular cases (see section 3.2.1).

Practice groups are the main organisational units within LawCo. They have their own management structure (i.e. practice group leader), budget, business plan, billing processes, resource allocation and planning processes, practice development, knowledge management, training, recruiting and professional development practices. There is a clear distinction between practice groups based on the subject area of the law. It is also possible to benchmark against competitors as the subject areas are established in the market (i.e. with clients; in trade journals).

Sector groups focus on industries and are becoming more important in professional service firms (Scott, 2001). LawCo is currently in a transition phase and is placing more emphasis on sector groups. In the future, marketing and practice development efforts will increasingly be taken over by sector groups; however, this shift is still in its initial stages. Some sector groups are further ahead in this transformational process than others. Since the transformation described above is still in its infancy and practice groups are still doing the bulk of the managerial work, it was deemed appropriate to choose the eight practice groups as the logical embedded units of analysis, to describe the operational detail of the

case (see Yin, 2009). Practice groups are also more formalised in that every fee earner belongs to one practice group (with only limited exceptions who are assigned to two practice groups). It is also difficult to establish which partner belongs to which sector group. Membership is voluntary and partners usually work across sectors and are thus affiliated to several sector groups.

Zhou et al. (2008) recommend carrying out cross-level analyses with multi-level, multi-informant responses in order to generate new insights into market orientation theory; in this case practice groups, seniority, and function within the firm. Similarly, the target group (partners and senior associates) was selected to allow for the examination of predicted hierarchical differences, based on seniority levels. Zhou et al. (2008) suggest that this distinction may lead to additional findings on market oriented behaviours and their effect on other measures, such as subjective performance and job satisfaction. Analysing the multi-practice environment and its subsequent differences in geographical spread and size of practice groups meets calls for research into these areas (Muzio and Ackroyd 2005; Ellis 2006; Ackroyd and Muzio 2008; Galanter and Henderson 2008).

Following the identified gaps in literature, as concluded in the literature review section and the subsequent research objectives, it appears to be legitimate to select the eight practice groups as individual cases and, in addition to this, to also analyse the firm in its entirety as a separate case. Thus, the case study looks at both the company at a firmwide level, in order to get an overall picture and to establish whether the findings can be generalised, and at a practice group level, analysing the eight practice groups in more detail, including practice group size and geographical diversification. Following Zhou et al.'s (2008) and Wang et al.'s. (2009) recommended cross-level, multi-level, multi-informants approach, it is also of value to distinguish between the seniority level of fee-earners. A more detailed description of the eight practice groups follows in the next chapter.

3.2.3 Crafting instruments and protocols

The sections below cover the instruments and protocols that are used in this case study. The following table provides a simplified chronological overview of the development of research instruments and procedures used in this survey including: (i) the literature and document review; (ii) the survey based on a market orientation questionnaire; (iii) the phased roll-out of the survey; (iv) the analysis of data; and (v) semi-structured interviews.

The table also shows the participants and contributors during the various stages. The advisory group consisted of the LawCo's Director of Knowledge Management and Practice Development (KMPD), Senior Client Relationship Managers, and a changing number of senior employees, depending on the subject area. The pilot group consisted of the advisory group and a cross-selection of fee-earner and KMPD staff covering the various regions, practice groups, and seniority levels.

As Eisenhardt (1989, p.539) states, it is legitimate to make alterations and additions during the data collection process and to adjust data collection instruments and methods in order "to probe emergent themes or to take advantage of special opportunities which may be present in a given situation". As illustrated in the simplified overview below, Eisenhardt's recommendations have been taken into account by using iterative processes with regards to document analysis, literature review, and interviews.

Stages	Participants	Description
Literature and document review	Advisory group	Following a literature review, the identification of gaps in knowledge and the introduction of a research question, a list of internal documents were selected to be subject to an in-depth review.
Questionnaire	Pilot group and advisory group	Similar to other market orientation studies, the MARKOR questionnaire had to be adapted to suit the law firm environment and then tested. A pilot group and the advisory group supported this process.
Phased roll-out	Partners and associates	The survey was rolled-out along the firm's matrix structure, which allowed a phased roll-out.
Analysis and comparison of data	Advisory group	The survey data was analysed using statistical methods. The results were subsequently compared with findings from the literature and document review, which triggered a further literature and document review.
Semi-structured interviews	Advisory group and interviewees	Based on the findings above and a mixed method case study approach, semi-structured interviews were carried out in order to add some context to the findings and to challenge the results.

Table 17 Data collection process and instruments

Based on Creswell et al. (2003, p.210), the mixed method approach used in this study can be described as a "sequential explanatory design", which is characterised by "a triangulation of data collection, separate data analysis, and the integration of databases at the interpretation or discussion stage" of the thesis. The quantitative part of the study is

predominant. A qualitative method, in this case semi-structured interviews, is then used to help explain the quantitative findings.

3.2.3.1 Document analysis

In addition to the possibility to conduct staff surveys and interviews, LawCo kindly granted access to internal documents providing information on budgets, revenues, profitability, time recording data, headcount, strategies, and previous internal surveys. The chronological stages of this part of the research can be illustrated as followed:

Literature & document review	Participants	Description
1. Literature review	Researcher	A literature review helped to identify the gaps in knowledge and to shape the research objectives.
2. Selection of documents	Advisory group	After having been introduced to the research objectives, the advisory group helped to select and to organise the necessary internal documents.
3. Document analysis	Researcher	Subsequently an analysis of the internal document was carried out.

Table 18 Literature and document review

The initial document analysis was carried out after the literature review. A subsequent document analysis process was also carried out after the analysis of survey data, which meets Eisenhardt's (1989) call for overlapping data analysis and data collection. The findings of the literature review were discussed in Chapter 2.

The table below describes the documents that were analysed as part of this research. The author would like to acknowledge the time and effort that was devoted by LawCo employees to gather this data. The documents include: (i) KM and PD budgets; (ii) revenue and profitability statistics; (iii) headcount figures; (iv) firmwide strategy documents; (v) KM and PD strategy documents; (vi) time recording statistics; and (vii) a number of various other relevant internal surveys and reports. A more detailed description of the document review and its outcome can be found in the case analysis chapter (see Chapter 6).

Focus	Type of document and (period)
KM and PD budgets	Excel spreadsheets showing budget, actual spend, and variance in percent for the various central and practice group based teams. Word documents providing narratives for the budget items and reports analysing the variance between actual spend and budget. (Financial years 2005/06 to 2009/10)
Revenue and profitability statistics	Excel spreadsheets providing information on revenues broken down by practice groups and offices. Additional details on profitability per practice group and office including information on costs. Annual reports containing the information above as well as some further analysis and indicators. (Financial years 2005/06 to 2008/09)
Headcount development charts	Excel report derived from the firm's human resources database showing headcount figures per teams and offices, including full time equivalents going back to 2005. (Financial years 2005/06 to 2008/09)
Firmwide strategy	Two PDF documents of the firm's strategy for 2005 and 2008. A presentation outlining the strategy for 2005, including a webcast video of the CEO. (2005 and 2008)
KM and PD strategy	Word documents and presentations outlining the three KM and PD strategies. Further information on team strategies and objectives. Additional reports and statistics that were compiled in order to inform the strategy development process. (2003, 2007, and 2009)
Time recording statistics	Summary of non-billable fee earner time, showing KM and PD activities. Detailed set of KMPD time recording data, which allows multiple slicing and dicing using pivot tables. (Financial years 2007/08 for fee earner and 2008/09 for fee earner and KMPD)
Internal research and surveys	Several documents and reports on specific issues, such as current awareness and systems usage. Less impact on the research due to the narrow scope of the reports or limited reporting functionalities on the systems side. (2002 to 2009)

Table 19 Document analysis – list of documents

3.2.3.2 Questionnaire

Based on the research objectives, the literature review, and the initial document analysis, it deemed appropriate to carry out a survey based on a well-established market orientation questionnaire. The MARKOR scale, as developed by Jaworski and Kohli (1993; see literature review), appeared to have the right characteristics to contribute to answering the research question.

As confirmed by several meta-analyses (i.e. Esteban et al. 2002; Cano et al. 2004; Kirca et al. 2005; Shoham, A. et al. 2005), the MARKOR scale also proved to be of great value

in practice. Most researchers, however, had to adapt the questionnaire to their research needs. Esteban et al. (2002), for example, specifically call for enhancements to the questionnaire in order to reflect the organisational environments of various industries.

Churchill's (1979) framework appears to be a conventional method for validating marketing measures and has also been used for enhancing market orientation scales (Homburg and Pflesser 2000; Schlosser 2004; Sin et al. 2005). Homburg and Pflesser (2000), for example, developed a multiple-layer model of market-oriented organisational culture. Schlosser (2004) created a questionnaire for surveying individuals' market orientation and Sin et al. (2005) developed a scale for the cross-cultural validation of relationship marketing orientation.

Consequently, in order to answer the research question, the original MARKOR scale, which can be found in the appendix, had to be adapted. The following table illustrates the steps that were necessary in order to adapt the questionnaire:

Questionnaire	Participants	Description
1. Adapt to LawCo environment	Researcher	Based on the research objectives, the literature review, and the document review it was decided to adapt the MARKOR questionnaire in order to reflect LawCo's organisational environment.
2. Recommendations	Advisory group	The advisory group reviewed the draft of the newly created questionnaire and provided feedback.
3. Further adaptation	Researcher	The questionnaire was then further adapted to reflect the suggested changes.
4. Final recommendations	Pilot group and advisory group	The next round saw the circulation of the adapted questionnaire to a larger pilot group (including the advisory group), which consisted of employees from different organisational backgrounds (practice group, region, seniority).
5. Final changes and tests	Researcher	Final changes with regards to content and layout were made. The sample data was also used to run statistical tests.

Table 20 Questionnaire development

Several questions had to be amended in order to make them clearer for the suggested audience. In particular, specific terms were replaced by common internal methodologies that would be familiar to the sample group. Given the international reach of the survey, it

also had to be taken into account that the questionnaire would be sent to employees whose first language was not English.

As stated above, several authors criticised that the MARKOR scale in its original form is not entirely suitable for service organisations, and highlighted the lack in adaptations to the service industry (Van Egeren and O'Connor 1998; Esteban et al. 2002). However, Kara et al.'s (2005) version of the MARKOR scale, used to examine small-sized service retailers, proved to be a useful model for wording the first draft version of the questionnaire as it had a style and tone appropriate to the LawCo target group.

Following feedback from the advisory and panel group, the questionnaire had to be shortened, due to fee earners' time constraints. Based on previous online surveys within the firm, questionnaires that require more than 10 minutes of time are likely to have a lower response rate due to fee earners prematurely opting-out before the end of the survey.

There were, however, genuinely practical reasons for eliminating questions. For example, a question in Jaworski and Kohli's original scale (1993) asked whether the organisation carries out surveys to establish the quality of its products and services. Another question focussed on the dissemination of customer satisfaction data. In both cases it was recommended to delete the questions, since there are no formal or structured processes in place to capture client satisfaction data. In fact, an internal review had already picked up on this issue and recommended the introduction of a client satisfaction survey across practice groups and offices. As highlighted in the literature review (see section 2.2.5), meeting the needs of clients is genuinely important for professional service firms.

In addition to the changes above, the author added some further questions in order to obtain demographic and organisational information, such as the name of the practice group and the level of seniority. It was also necessary to allow for control questions for data analysis purposes. In order to demonstrate the development of the survey, the original questionnaire and the final questionnaire can be found in the appendix. The table below presents three examples of changes (in italics) that were required to customise the MARKOR questionnaire for the internal audience:

Dimension	MARKOR questionnaire	Adapted for LawCo
Intelligence gathering	We are slow to detect changes in our *customers' product* preferences.	We are slow to detect changes in our *client's product/service* preferences.
Intelligence dissemination	A lot of informal *"hall talk"* in this *business unit* concerns our competitors' tactics or strategies.	A lot of informal *talks* in this *practice group* concern our competitors' tactics or strategies.
Responsiveness	The *product lines* we *sell* depend more on *internal politics* than real market needs.	The *products and services* we *market* depend more on *internal considerations* than real market needs.

Table 21 Questionnaire – adaptation of questions

Conventional tests (Churchill, 1979) using coefficient alphas, correlation analysis, and factor analysis were applied to determine the validity and reliability of the measurement instrument. The market orientation survey was then sent to partners and senior associates (n=558), who in total represent three quarters of the combined population of partners and senior associates. The survey was circulated by the firm's Director of Knowledge Management and Practice Development using the firm's internal email systems and subsequently followed up by an email reminder. The survey was not "administered" (see Baruch, 1999, p.434); it was entirely at the recipients' own discretion as to whether to respond or not. The table below summarises the phased roll-out of the survey:

Phased roll-out	Participants	Description
1. Limited roll-out I	Partners and associates	The survey was rolled-out along the matrix structure of the firm, which allowed for a phased roll-out in order to test reactions and to collect additional feedback to the survey; in this instance to one practice group in one region.
2. Limited roll-out II	Partners and associates	Similar to 'Limited roll-out I', this was an opportunity to test the reaction of another practice group in another region.
3. Roll-out I	Partners and associates	Following the positive feedback of the limited roll-outs, the survey was sent out in two batches (roll-out I and roll-out II)
4. Roll-out II	Partners and associates	Roll-out II concluded the roll-out of the survey, which reached three quarters of partners and senior associates.

Table 22 Questionnaire roll-out

The questionnaire was designed with a tool called 'Surveymonkey' and sent out as an online survey. The online survey tool is commonly used within the firm and employees are familiar with its design and structure. The author also has extensive experience in setting up questionnaires using Surveymonkey, as well as extracting and analysing data from Surveymonkey results. As mentioned above, it is worth noting that the original MARKOR questionnaire had been adapted to the case company's terminology and had also been tested in a pilot. Theses changes assisted in making the completion of the questionnaire as easy and straightforward as possible.

Baruch (1999; also see Baruch and Holtom 2008), who analysed the response rates of 175 studies published in top business journals, provides a set of recommendations and guidelines for scholars who utilise questionnaires in their research. Baruch (1999, p.434) argues that the response rate "should be within 1 SD [standard deviation] from the average". According to Baruch (1999, p.434) it is necessary to distinguish between two types of respondents; namely "top management" personnel "or representatives of organizations" on the one hand, and "conventional population", such as "rank and file" or "mid-level managers" on the other. Baruch (1999, p.434) states that the norm response rate for the first group would be 36 +/-13, and 60 +/-20 for the latter.

Given the time pressures many lawyers are facing, as well as their notoriously poor work/life-balance (Galanter and Palay 1991; Muzio and Ackroyd 2005; Hitt et al. 2007; Galanter and Henderson 2008), one could argue that lawyers, and in particular partners and senior associates, can be categorised as "top management" personnel (Baruch, 1999:434). Partners own a stake in the law firm and also represent it. Although senior associates do not hold equity, they are still involved in representative activities, especially around client relationship management. Based on the threshold stated above (36 +/-13), the acceptable response rate for top management personnel ranges between 23% and 49%. According to Baruch (1999, p.434) "any deviation from this norm, especially downward, must be explained".

Of the 202 people who started the online survey, 189 responses could be used for the statistical analysis. The difference of 13 responses was due to people dropping out of the survey half way through the process. There might be various reasons for the early exit, including time constraints, technical issues, or lack of interest. One respondent also stated that he did not have enough insight into the topic that would be necessary to answer the questions. This issue, however, did not come up during any pilot or pre-tests during the

design stage of the questionnaire. The response rates by practice groups are set out below. 'Population' refers to partners and senior associates within the case company:

Group	Total population	Contacted population	Useable responses	Response rate
PG1	76	58	24	41.4
PG2	246	197	67	34.0
PG3	115	69	16	23.2
PG4	32	23	11	47.8
PG5	133	99	31	31.4
PG6	39	27	8	29.6
PG7	37	33	16	48.5
PG8	68	52	16	30.6
Total	746	558	189	33.9

Table 23 Response rate by practice group

The combined response rate of 33.9 falls within the required range (36 +/-13) for top management personnel, as postulated by Baruch (1999, p.434, also see Baruch and Holtom 2008) and therefore does not represent an extreme case. Based on anecdotal evidence, the response rate of the MARKOR questionnaire does also exceed the response rates of similar types of online surveys within LawCo, the case company. It is worth highlighting that the response rates differ between practice groups. PG 7 (48.5) and PG4 (47.8), for example, show relatively high response rates; whereas the response rates of PG3 (23.2) and PG6 (29.6) are lower. Similarly, there are also differences between the two populations of respondents, partners (30.5) and senior associates (40.3):

Group	Total population	Contacted population	Useable responses	Response rate
Senior Associates	276	191	77	40.3
Partners	470	367	112	30.5
Total	746	558	189	33.9

Table 24 Response rate by type of respondent

As is the case with many surveys, not every single respondent answered every single question; this also holds true for this survey. In particular, the questions on subjective performance (177 responses) and self efficacy (175) were not answered by every single individual. This can be explained by the nature of the questions, which focused on the respondents' personal ability and their rating of the firm's performance. Although the survey was anonymous, it may well be that those respondents did not want to divulge their personal views on these matters. Another explanation could be the position of the questions, which were towards the end of the questionnaire. Again, time constraints could

also be a reason for not answering these questions. Further information on the analysis can be found in the "Analysing the data" section (3.2.5) of this chapter. The actual results are laid out in the findings chapter and referenced in the case analysis (Chapter 6) and discussion chapters (Chapter 7).

3.2.3.3 Semi-structured interviews

In order to obtain feedback on the previous findings, semi-structured interviews were conducted with different groups within the firm. The interviewees were selected from a pool of knowledge management and practice development experts in practice groups and central business functions. The interviews were designed to gather a clear and holistic feedback on the research findings.

According to Robson (2002, p.270), a semi-structured interview: "has predetermined questions, but the order can be modified based upon the interviewer's perception of what seems most appropriate. Question wording can be changed and explanations given; particular questions which seem inappropriate with a particular interviewee can be omitted, or additional ones included". In contrast, he states that 'fully structured interviews' have "predetermined questions with fixed wording, usually in a pre-set order" (Robson, 2002, p.270). Robson (2002, p.270) adds that "the use of mainly open-response questions is the only essential difference from an interview-based survey questionnaire." The third type of interview is the 'unstructured interview', where "the interviewer has a general area of interest and concern, but lets the conversation develop within this area. It can be completely informal" (Robson, 2002, p.270).

As Eisenhardt (1989, p.538) put it, "the qualitative data are useful for understanding the rationale or theory underlying relationships revealed in the quantitative data or may suggest directly theory which can then be strengthened by quantitative support". There are consequently certain circumstances in which a qualitative research interview is most appropriate (abridged from King 1994, p.16-17, quoted in Robson, 2002, p.271):

– Where a study focuses on the meaning of particular phenomena to the participants.

– Where individual perceptions of processes within a social unit – such as a work-group, department or whole organization – are to be studied prospectively, using a series of interviews.

– Where individual historical accounts are required of how a particular phenomenon developed – for instance, a new shift system.

- Where exploratory work is required before a quantitative study can be carried out. For example, research examining the impact of new technology on social relationships in a workplace might use qualitative interviews to identify the range of different types of experience, which a subsequent quantitative study should address.

- Where a quantitative study has been carried out, and qualitative data are required to validate particular measures or to clarify and illustrate the meaning of the findings.

Comparing structured interviews with semi-structured interviews, Wengraf (2001) concluded that the latter need the same preparation, but more creativity and discipline and subsequently, more time for analysis. Similarly, Robson (2002) also distinguishes between respondent interviews and informant interviews. The first refers to fully and semi-structured interviews, where the respondent is in control of the interview; whereas. the latter is unstructured from the interviewer's point of view, as the main concern is to focus on the interviewee's information.

The table below presents the stages of the interview process. Further information on the interview process, as well as the actual results, can be found in the case analysis chapter (Chapter 6) and in the appendix.

Semi-structured interviews	Participants	Description
1. Define scope and scale	Advisory group	Following the research strategy and its mixed method case study approach, the advisory group helped in the selection of interviewees, in order to get some further information and feedback on the findings.
2. Interviews and analyses	Interviewees	An iterative process of semi-structured interviews and the analyses thereof aimed to provide more context to the findings.

Table 25 Semi-structured interviews

3.2.3.4 Triangulation

Triangulation "involves the use of multiple sources to enhance the rigour of the research" (Robson, 2002, p.174). The combination of several research strategies shall not only lead to the optimal research design for this kind of research question, but shall also improve the research in terms of its validity. Using different methods and tools could, however, also lead to contradictions and other difficulties of a logical and practical nature.

Following Eisenhardt (1989), Denzin and Lincoln (1994), and Robson (2002), it is possible to distinguish four types of triangulation: (i) data triangulation using multiple

methods of data collection, such as observation, interviews, and documents; (ii) observer triangulation using multiple observers in the study; (iii) methodological triangulation by combining quantitative and qualitative approaches; and (iv) theory triangulation using multiple theories or perspectives. The application of triangulation in this study is as follows:

Types of triangulation	Application in thesis
Data triangulation	Use of internal documents, surveys and interviews.
Observer triangulation	The findings were not only evaluated by the researcher, but also discussed by interviewees.
Methodological triangulation	Using internal budget and revenue information, statistical analysis, and qualitative interviews.
Theory triangulation	Knowledge management theory, marketing theory, professional service firm theory, and resource based theory.

Table 26 Types of triangulation

3.2.4 Entering the field

Eisenhardt (1989) believes that an overlap of data analysis with data collection is useful in case study research and suggests that keeping field notes is a preferable way to achieve this. Besides keeping a research diary, using a content management system (Interwoven Desksite) for managing the thesis document and other research documents proved to be highly beneficial during the course of this research. In particular, the function to save different document versions and the possibility to tag versions with comment narratives was of great advantage. Looking through the history of a document, often with dozens of versions, was helpful for reconstructing thought processes and shaping ideas.

As the author is already in the field and has been working with LawCo for several years, keeping a research diary is also a means of overcoming research bias (see Podsakoff et al., 2003). According to Silverman and Marvasti (2008), in qualitative research it is not unusual to use existing contacts or relationships. Working within the case company has advantages around data gathering and data analysis; it provides a researcher with better access to internal data and helps to understand the way information is structured and maintained. Previous experience with the firm and an understanding of the needs and working practices of the employees also helped to better plan and design the questionnaire. An already established personal network within the company also provided direct access to a pool of experts, allowing immediate feedback on specific questions, which was especially beneficial during the document analysis exercise.

A researcher in the field also needs to be aware that he is part of the system he studies and that there may be preconceived opinions based on theory and previous experiences. However, by applying a structured research approach, keeping field notes, and using all means possible to eliminate research bias, it appears to be possible to eventually overcome the bias and to reduce its potential influence on the research. Similarly, triangulation (data, observer, methodological and theory) also helps to minimise this risk (Podsakoff et al., 2003).

3.2.5 Analysing the data

Eisenhardt (1989, p.541) recommends within-case and cross-case techniques, which will "force investigators to go beyond initial impressions, especially through the use of structured and diverse lenses on the data". This will also help to overcome common data analysis errors, such as (i) basing conclusions on limited data; (ii) being overly influenced by vividness or (iii) elite respondents; (iv) ignoring basic statistical properties; and; (v) dropping disconfirming evidence (Eisenhardt, 1989, p.540).

Although there is no standard format for within-case analysis, Eisenhardt (1989, p.540) states that: "the overall idea is to become intimately familiar with each case as a stand-alone entity. This process allows the unique patterns of each case to emerge before investigators push to generalize patterns across cases". In order to search for cross-case patterns, Eisenhardt (1989, p.540) recommends to "select categories or dimensions, and then to look for within-group similarities coupled with intergroup differences". Dimensions can be based on existing literature or driven by the research objective.

Following the description above, the firmwide-level analysis can be described as the main 'case'. The practice group level, i.e. the eight practice groups that are analysed in more detail, can be described as 'within-cases'. Consequently, practice group size, level of seniority, and geographical diversification are the 'dimensions' of the cross-case analysis.

Analysis of data	Participants	Description
1. Analysis and comparison of data	Researcher	The survey results were analysed using a range of statistical methods. The results were subsequently compared with the findings from the literature and document review.
2. Literature review	Researcher	The results of the statistical analysis lead to a further literature review, in order to clarify the meaning of some of the findings.
3. Selection of documents	Advisory group	Following the analysis of the survey data, the literature review, and the previous document review, it was necessary to analyse additional internal documents. Again, the advisory group helped in selecting and gathering the documents.
4. Comparison of findings	Researcher	The additional internal documents were subsequently analysed and compared to the other findings.

Table 27 Data analysis processes

3.2.5.1 Statistical analysis

Research on market orientation frequently applies structural equation modelling techniques (SEM). The goal of SEM is to determine how well the hypothesized model fits the observed data and whether the hypothesized causal structure is consistent with the correlation or covariance matrix of the data being considered (Henley et al., 2006). Structural equation models (SEMs) are flexible statistical models that allow estimates of the relationship between the latent variables to be made. These models are therefore also often referred to as latent variable models, LISREL models or covariance structure analysis. According to Henley et al. (2006), the application of SEMs in strategic management research has increased substantially over the past few years. One of the main advantages of using SEMs is the ability to allow correction for measurement error. Another advantage of SEMs is the ability to test a model and the fit of a model. SEMs, however, are usually designed for larger surveys and high populations. Consequently, sample sizes under 100 are not suitable for this kind of analysis (Kline, 2005). According to Loehlin (1992) the sample size should at least be between 100 and 200.

The market orientation survey was sent to partners and senior associates (n=558). In total, 202 questionnaires were returned and 189 of these responses could be used for the data analysis exercise. This equals a response rate of 33.9% for usable questionnaires. The response rate falls within the required range (36 +/-13) for top management personnel, as recommended by Baruch (1999, p.434). Based on anecdotal evidence, the response rate is

higher than that of similar types of surveys within the case company. Following the return of 189 usable questionnaires, Loehlin's (1992) recommended minimum sample size for SEM (between 100 and 200) has been reached. Kline (2005, p.15), however, refers to a sample size of less than 200 as "a better minimum" for SEM.

Although the number of responses appears to be sufficiently high to justify the application of SEM techniques, it is worth highlighting that more conventional statistical methods are equally suitable for testing the hypotheses of this particular research (Field, 2009). Correlation and regression analysis techniques were thus selected to test the conceptual model in order to verify whether market orientation, knowledge management, and self efficacy have a positive impact on practice group performance. The mixed method case study approach (see Teddlie and Tashakkori 2003; Yin 2009) to this research and its sequential explanatory design (Creswell et al., 2003) also allows for further analysis of 'how' and 'why' market orientation is put into practice using 'within-cases' (i.e. eight practice groups) and 'cross-case dimensions' (practice group size, seniority, and geographical diversification).

Correlation analysis is a technique used to analyse the relationships between variables (Field, 2009). In particular, correlation analysis measures the degree of a relationship and thus helps to provide an understanding of the interdependence between variables. As correlation analysis only measures the extent of a relationship between variables, it is not suitable for testing cause and effect statements; this can be done using regression analysis. In this study, correlation analysis is used to measure the strength of the relationships between variables such as information gathering, information dissemination, responsiveness, knowledge management variables, and variables relating to performance.

Regression analysis is a statistical tool that is frequently used in business research and based on a similar statistical method as correlation analysis (Field, 2009). In this study it is used to help analyse the potential relationship between market orientation and performance measures. Regression analysis is used to predict the dependent variable based on one or more independent variables. For example, a key account manager's yearly revenue (dependent variable) could be predicted by his years of experience, his age, and his qualifications (independent variables). However, it is worth noting that regression analysis does not indicate cause and effect relationships but that it merely implies them.

Regression analysis can be distinguished between simple and multiple regression (see Field, 2009). Simple regression models involve only two variables: one independent and

one dependent variable. Multiple regression models, on the other hand, can involve multiple variables: multiple independent variables and one dependent variable. The aim is to predict a dependent variable using one or more independent variables. In this thesis, regression analysis is used to measure the effect of market orientation, knowledge management, and self efficacy (independent variable) on performance related measures such as profit per partner and subjective overall performance (dependent variables). More details of the analysis techniques are given in Chapter 5.

3.2.5.2 Qualitative analysis

The qualitative data analysis follows Miles and Huberman's (1994) approach on data reduction, data display, and conclusion drawing and verification. In the qualitative part of the research, the author aimed to survey a purposeful sample of staff by carrying out an iterative process of interviews and analysis until a point of saturation was reached (see Eisenhardt 1989; Robson 2002). This process led to a total of 10 interviews, including six practice group based interviewees and four interviewees who were working in a central knowledge or practice development function. As the number of interviews and additional data was manageable, the use of specialised software applications such as Nvivo7, which is useful for deep level analysis of rich information, was not required. The semi-structured interviews were recorded and subsequently typed and coded for later reuse. The aim of the interviews was to collect additional qualitative information and feedback, which was then analysed.

The author approached interviews in line with Cooper and Schindler's (2003) view that "content analysis is useful for measuring the semantic content or the what aspect of a message". The content was therefore analysed according to subject area and responses. Answers were coded and analysed on a question by question basis and quotes were tagged for future use. A research log was also kept as recommended by Cooper and Schindler (2003), in addition to the general research log recommended by Eisenhardt (1989). The answers to the coded questions were analysed according to subject area. Further information on the qualitative analysis can be found in Chapter 6.

Similar to quantitative research, qualitative methods should also take into account the validity and reliability of the results (Robson, 2002). 'Validity' relates to whether the study measures what it intended to measure and how truthful the findings are (see Neuman 2006; Yin 2009). According to Neuman (2006, p.197), "empirical claims gain validity when supported by numerous pieces of diverse empirical data." 'Reliable' results

are consistent over time and can be repeated using a similar kind of methodology (see Neuman 2006; Yin 2009). The following table presents characteristics of validity and measurement validity as defined by Neuman (2006, p.197):

Qualitative research	Validity and measurement validity
Validity	– "Validity arises out of the cumulative impact of hundreds of small diverse details that only together create a heavy weight of evidence." – Validity "increases as researchers search continuously in diverse data and consider the connections among them." – "Validity grows as a researcher recognizes a dense connectivity in disparate details. It grows with the creation of a web of dynamic connections across diverse realms and not only with the number of specifics that are connected."
Measurement validity	"Measurement validity in qualitative research does not require demonstrating a fixed correspondence between a carefully defined abstract concept and a precisely calibrated measure of its empirical appearance."

Table 28 Validity and measurement validity (adapted from Neuman, 2006, p.197)

The table below provides an overview of Yin's (2009) case study tactics for qualitative research that take into account construct validity, internal validity, external validity, and reliability:

Tests	Case Study Tactic (phase)
Reliability: Demonstrating that the operations of a study (i.e. data collection procedures) can be repeated, with the same results	– Use case study protocol (data collection) – Develop case study database (data collection)
Construct validity: Identifying correct operational measures for the concepts being studied	– Use multiple sources of evidence (data collection) – Establish chain of evidence (data collection) – Have key informants review draft case study report (composition)
Internal validity: Seeking to establish a causal relationship, whereby certain conditions are believed to lead to other conditions as distinguished from spurious relationships	– Do pattern matching (data analysis) – Do explanation building (data analysis) – Address rival explanations (data analysis) – Use logic models (data analysis)
External validity: Defining the domain to which a study's findings can be generalized	– Use theory in single-case studies (research design) – Use replication logic in multiple-case studies (research design)

Table 29 Case study tactics (Yin, 2009, p.40-41)

3.2.6 Refining the conceptual model

According to Eisenhardt (1989, p.541), shaping hypotheses is a "highly iterative process" with the goal to "compare systematically the emergent frame with the evidence from each case in order to assess how well or poorly it fits with case study data". Although the development of hypotheses is not the focus of this research, Eisenhardt's (1989) recommendations were still useful for developing and improving the conceptual model, which is the basis for the quantitative part of this research. The empirical analysis follows in Chapter 5.

The research approach to this thesis has consequently been developed with the goal to test the hypotheses in the conceptual model in Figure 7 (section 3.2.1) in order to fill existing gaps in knowledge and refine the model. Analysing the aforementioned gaps in knowledge of market orientation and knowledge management in international professional service firms may be of great value to researchers and practitioners in the field. The research methodology combines both correlation analysis and regression modelling with semi-structured interviews and internal data on performance and market intelligence process-related indicators. The case study approach should therefore not only lead to quantitative results, but also to much needed qualitative information on how market orientation is implemented (see Diamantopoulos and Cadogan 1996; Bhuian et al. 2003; Gebhardt et al. 2006; Van Raaij and Stoelhorst 2008). In summary, the research design can thus be described as a mixed method approach (Teddlie and Tashakkori, 2003) that is characterised by a sequential explanatory design (Creswell et al., 2003).

Eisenhardt (1989, p.542) also noted that "qualitative data are particularly useful for understanding why or why not emergent relationships hold". Consequently, the findings from empirical analysis and the semi-structured interviews should lead to promising outcomes regarding the interrelations between market orientation, knowledge management, and organisational performance. The qualitative case analysis can be found in Chapter 6, whereas a discussion of both quantitative and qualitative findings is presented in Chapter 7.

3.2.7 Enfolding literature

The author was not only carrying out a broad ongoing literature review during the research, but was also open to any related literature fields that emerged during the course of the study. "Tying the emergent theory to existing literature enhances the internal

validity, generalizibilty, and theoretical level of theory building from case study research" (Eisenhardt, 1989, p.545). In qualitative research, according to Strauss and Corbin (1990), existing literature can be used for the following purposes:

− To stimulate theoretical sensitivity – with the help of concepts and relationships that can be compared to the actual data collected.

− To provide secondary sources of data – to give ideas and help the researcher focus.

− To stimulate questions during data gathering and data analysis.

− To direct theoretical sampling – to guide the researcher as to where to go to uncover phenomena that are important for theory development.

− To be used as supplementary validation – to explain why the findings support or differ from the existing literature.

Eisenhardt (1989, p.544) highlights that "conflicting results forces researchers into a more creative, framebreaking mode of thinking than they might otherwise be able to achieve". Again, the author is open to conflicting literature and to discussing the differences. According to Eisenhardt (1989) it is essential to tie existing literature to the findings, particularly as case study research is often based on a rather limited number of cases. Therefore, linking the findings to existing literature will improve the quality of the outcome. In this research, the literature was used to both clarify the research question and then to help reflect on the findings.

3.2.8 Reaching closure

Eisenhardt (1989, p.545) states that "when to stop adding cases, and when to stop iterating between theory and data" are the two key issues in reaching closure and refer to theoretical saturation as the signal for reaching closure. "Theoretical saturation" can be described as "the point at which incremental learning is minimal because the researchers are observing phenomena seen before" (Eisenhardt, 1989, p.545; also see Glaser and Strauss 1967).

For this research, no additional empirical, quantitative data on market orientation or knowledge management were available to the researcher. The interviews that were subsequently conducted to deepen the understanding of the data were held until no further insights on the findings were being elicited. This signalled to the researcher that theoretical saturation and closure had been reached.

3.3   Conclusion

The research design is based on a series of structured strategic decisions that were made during the course of the study; summarised in this chapter. The research design is largely based on Eisenhardt's (1989) framework, which proved to be highly useful in structuring the research in an adequate way. As discussed in the introduction, the research is split into two practical parts. Firstly, a quantitative approach clarifies the relationship between market orientation and firm performance in the law firm environment. In addition to this the role of knowledge management will also be analysed, through the testing of hypotheses. Secondly, the outcome of the quantitative research will be played back to experts within the case company by means of semi-structured interviews. The research methodology thus follows a mixed method approach (Teddlie and Tashakkori, 2003) that can be characterised by a sequential explanatory design (Creswell et al., 2003)

The aim of this mixed method approach is to provide a detailed description of the relationship between market orientation, knowledge management and firm performance in the particular law firm environment. As it is a case study approach (see Yin, 2009), and uses real world data, the research approach can also be described as an operational research method. Triangulation (data, observer, methodological and theory) will enhance the quality of the research and help to reduce research bias.

As recommended by Zhou et al. (2008) and Wang et al. (2009), a cross-level analysis with multi-level, multi-informant responses (in this case practice groups, seniority, and function within the firm) may offer new insights into market orientation theory. The target group was chosen in order to allow for the analysis of potential hierarchical differences, based on seniority (partners, associates), in relation to the perception of market oriented behaviours and other measures, such as subjective performance and job satisfaction. In addition to this the research approach allows for the analysis of both fee-earner (based on the survey) and business services staff (based on interviews). The international environment allows for investigations into geographical diversification, and its impact on legal systems, and jurisdictions (see Ellis 2006; Ackroyd and Muzio 2008). The multi-practice environment allows for investigations into differences based on practice group size and the practice of law in general (see Muzio and Ackroyd 2005; Galanter and Henderson 2008).

The assessment of the impact of knowledge management processes on market intelligence gathering, dissemination, and responsiveness can offer new insights into how

to set up effective knowledge management processes (Rusanow 2003; Parsons 2004) and practice development functions in international law firms or professional service firms. More generally it may also deliver insights into marketing's organisational characteristics and their impact on marketing effectiveness and efficiency (Vorhies and Morgan, 2003).

In additional to its contribution to academic knowledge, the thesis can also deliver recommendations for LawCo and highlight practical implications, which may also hold true for similarly structured law firms. As law firms can be characterised as archetypal professional service firms this research could be beneficial to other professional service firms with similar organisational structures. Scott (2001, p.180), for example, concludes that professional service firms "have much more in common with each other than they do with the notional areas of business activity with which they are commonly classified". Chapter 4 provides a detailed overview of the case study company.

4　Case study description

4.1　Introduction

The aim of this chapter is to present the case study organisation ('LawCo') and its eight embedded sub-cases, as well as additional firm-specific information on the topics discussed in this thesis. The objective is to provide the reader with a better understanding and a richer picture of the structure, challenges, and opportunities of LawCo, including a description of the knowledge management and practice development department, which carries out a variety of market oriented tasks. The findings of the document analysis also aim to facilitate the clarification and illustration of the meaning of the empirical results. The initial findings of the document review thus sets the scene for the case analysis and discussion chapters. As stated in the research methodology section it is worth noting that both the document and literature review consisted of iterative process in order to overlap data gathering and data analysis activities (see Eisenhardt, 1989).

The author would like to thank LawCo for their cooperation and commitment to this study. LawCo granted unrestricted access to strategy documents and budget spreadsheets and the author was able to request further information and directly approach the firm's personnel whenever required. However, the author is not permitted to cite directly from the aforementioned documents or state absolute budget, revenue, or headcount figures.

4.2　LawCo description

The case company in this study is an international law firm with over 2,000 lawyers in 25 offices around the world. The firm provides a comprehensive worldwide service to national and multinational corporations, financial institutions and governments. For the purpose of this research the firm is referred to as 'LawCo' to retain anonymity.

LawCo's organisational structure adopts a typical matrix-style professional service firm structure with product and sector specialisations (Scott, 2001). It follows the matrix structure described by Müller-Stewens (1999) with three main dimensions; namely service lines/functions, industries/markets, and regions. As with many other law firms, the 'service lines or functions' are called 'practice groups' and relate to the technical legal areas of lawyers. Lawyers usually choose to work in one of those practice groups although occasionally may work in two. There are eight practice groups at the studied company: Competition, Corporate, Employment, Finance, Intellectual Property,

Litigation, Real Estate, and Tax. Due to confidentiality issues regarding some of the internal data that was used in the practical part of this study, for the remainder of this document the practice groups will be referred to using aliases 'PG1' through to 'PG8', which were randomly assigned. The dimension "industries or markets" in Müller-Stewens's (1999, p.86) generic structural chart are referred to as 'sector groups' in LawCo. Sector groups relate to the industry sector of the client and run across all practice groups and regions (e.g. a client in the telecommunication sector may be involved in corporate, finance, employment or litigation work).

Partners have volunteered for membership of sector groups based on their knowledge and experience within a particular industry. The lawyers in a sector group come from a wide range of practice areas and aim to keep up to date on developments within a sector, so that they can capitalise on any potential opportunities. The firm's sector groups cover the following areas: technology, media and telecoms; energy and natural resources; private equity; financial institutions and insurance; pharmaceuticals and life sciences; family-owned businesses; automotive; transport and logistics; construction and engineering; and chemicals.

The final dimension of this matrix structure is 'regions': UK, US, Asia, Continental Europe I (German speaking countries and Central Eastern Europe), and Continental Europe II (rest of Europe) and Middle East. This particular company currently has a strong emphasis on the UK, German, Austrian and Central/Eastern European markets (Continental Europe I). The firm's 2,540 fee earners are distributed as follows: London (35%), Continental Europe I (26%), Continental Europe II (28%), Asia (8%), US (4%). As with other international law firms, the Asian and other emerging markets have been identified as having the potential to help the firm to grow. In summary, the three dimensions look as follows:

Practice Groups	Sector Groups	Regions
Competition	Consumer Products and Healthcare	Asia
Corporate	Energy and Natural Resources	Continental
Employment	Financial Institutions Group	Europe I
Finance	General Industries Group	Continental
Intellectual	Infrastructure and Transport	Europe II
property	Leisure	UK
Litigation	Private Equity	US
Real estate	Real Estate	
Tax	Telecommunications, Media and Technology	

Table 30 LawCo structure

4.2.1 Knowledge management function

Within the firm, knowledge management is seen as an important business services unit and it has been recognised that a cohesive approach to knowledge management is necessary in order to cope with the challenges in a knowledge-intensive business environment. Its worldwide knowledge management network consists of more than 200 people and is lead by a joint Director of Knowledge Management and Practice Development. The firm invests considerable amounts of money in knowledge management and as a result the knowledge management team has grown into a large department of highly skilled specialists and is often considered to be leading in the law firm industry.

Based on the firm's internal resources and consultation with the firm's staff, the approach to knowledge management can be described as a hybrid approach, which is defined by Rusanow (2003, p.148) as follows:

> *"The firm sets the direction for knowledge management and provides an infrastructure to facilitate knowledge management among practice groups. KM methodologies are created at the firm level, which can then be applied directly to practice group knowledge management initiatives. Core KM functions, such as precedents, library, legal research, and professional development, are managed at the firm level, and also provide assistance to practice groups in addressing practice group specific KM needs. This approach enables practice groups to achieve their KM objectives while benefiting from a firm-wide strategy-resulting in a cost efficient, flexible approach to KM".*

Everyone in the firm is expected to partake in knowledge management, such as submitting precedents to the know-how database, participating in team meetings or sharing their knowledge and best practice. There is also a team of knowledge management specialists (knowledge management lawyers and assistants) and library and information service (LIS) specialists who are responsible for facilitating the sharing of knowledge amongst fee-earners. These teams identify, create and distribute knowledge and provide research and information services and training to the lawyers. Although much research has been done internally, such as fee-earner surveys on knowledge management services, little has been done to measure the impact of knowledge management on the performance of the firm.

4.2.2   Practice development function

Practice development involves generating new business and developing existing client relationships in line with the firm's client strategy and the practice or sector group business plans. Although fee-earners are increasingly involved in developing the business, the firm has dedicated practice development specialists who work with the practice and sector groups to determine strategy and provide practice development expertise. Practice development activities include strategic marketing planning, communication and branding, pitches, directory submissions, publications and mailings, strategic research into clients and economic/regional developments, conferences, seminars, training sessions and corporate hospitality.

4.2.3   The introduction of a combined KMPD function

The legal know-how and practice development functions have recently been merged into one department, which is lead by the Director of Knowledge Management and Practice Development. The firm carried out a restructuring in London, out of which the combined Knowledge Management and Practice Development (KMPD) team emerged. Although KM and PD continue to have specific areas of expertise, they now work more closely together to ensure that knowledge is exploited in a timely and efficient way, in alignment with the practice or sector group strategy. A similar restructuring has also taken place in China and Central Europe I.

Core KMPD Services include: client and firm-wide communications; the development of client plans and reviews; client relationship management; client seminars and events; client briefings; current awareness including hot topics; development and skills training; development of new legal products; KMPD systems and support; know how management; legal, business and strategic research; monitoring new opportunities and markets; project and change management; strategic marketing planning; and supporting pitches.

4.3   LawCo cases

LawCo's eight practice groups form the embedded sub-cases of this case study (see Yin, 2009). Practice groups can be defined as "the basic unit of organizing in the typical PSF" (Gardner et al., 2008, p.1103). Lawyers develop a 'shared identity' through their relationships within practice groups (Faulconbridge, 2007). The organisation, shape, and

culture of practice groups also has an impact on lawyers' professionalism, which is influenced by daily routines in the law practice (Wallace and Kay, 2008).

Practice groups are responsible for budget delivery, work allocation, and, together with central units, are also responsible for training and development, practice development, and marketing, knowledge management, and recruiting. From a management point of view, the importance of practice groups in ever growing law firms, both in terms of the number of employees and the number of offices, is also increasing.

LawCo's functional structure comprises eight practice groups, which hone the firm's legal expertise in specialist areas and evolve continuously to meet clients' needs. The practice groups are: Competition, Corporate, Employment, Finance, Intellectual Property, Litigation, Real estate, and Tax. The practice groups are also represented in most of the firm's offices, which is why the firm is in a position to successfully manage complex deals spanning multiple jurisdictions and legal specialist areas. The following eight sub-section provide an overview of the individual practice groups. The descriptions are based on information provided by LawCo.

4.3.1 Competition

The antitrust, competition and trade practice is widely recognised as being at the forefront of this practice area. With over 50 partners and more than 200 specialists in total, it is one of the world's largest practices in this field. The legal specialists are based in Austria, Belgium, China, France, Germany, Italy, Japan, the Netherlands, Russia, Slovakia, Spain, the UK, and the US. The coverage of Asia, Europe and the US puts the team in an unrivalled position to be able to advise clients in competition cases involving many jurisdictions around the world.

The practice group's clients are companies in the industrial, commercial and service sectors, financial institutions, governments and governmental organisations. They are advised on a complete range of competition/antitrust, regulatory and trade issues, spanning: merger control; licensing and distribution; intellectual property; restrictive practices; market dominance; state aid; cartel investigations; liberalisation; privatisation; public procurement; and trade. The practice group has substantial experience in co-ordinating multinational merger notification filings, and in defending clients involved in investigations into conduct in multiple jurisdictions.

4.3.2 Corporate

LawCo is widely acknowledged as having one of the leading international corporate practices, advising on all aspects of corporate law including: mergers and acquisitions; joint ventures; securities and capital market transactions; financial services; and restructurings and reorganisations. The corporate group is the firm's largest practice group. Its clients include private and public companies, banks, governments and states. The corporate team acts for both unlisted and listed companies.

The practice group comprises one of the leading M&A practices in the world and advises on all aspects of both public and private M&A transactions, whether for the buyer, seller, target, management or financial adviser. The team also regularly advises on joint ventures, both as single transactions and as part of a wider restructuring or reorganisation. The internationally renowned securities practice combines corporate and finance lawyers across the network of offices. The financial services practice is one of the leading international practices for specialist financial services advice and has one of the strongest integrated regulatory practices, which is working on complex and challenging regulatory issues, financial services transactions, litigation and regulatory investigations and disputes. Corporate restructuring forms an integral part of the practice group's work and includes stand-alone transaction or restructurings as a part of a wider transaction, such as an IPO or merger, joint venture arrangement, alliance or collaboration.

4.3.3 Employment

The employment, pensions and benefits practice group advises on domestic and international employment law, pensions, share plans and other employee benefits. The team comprises more than 15 partners and over 100 lawyers worldwide, covering key jurisdictions across Europe, Middle East and Asia. The practice group deals with all aspects of employment and industrial relations law, including: the individual and collective employment aspects of mergers and acquisitions, joint ventures, demergers and corporate reorganisations; workforce reduction programmes; negotiations with unions; executive remuneration; service contracts; works councils; individual and group severance arrangements; and the contracting out of services. In addition to this, the practice group also deals with: pension schemes; share plans; corporate governance issues; age discrimination issues affecting share plans and related tax; and company and securities law issues.

4.3.4 Finance

The finance practice group comprises asset finance, banking, restructuring and insolvency, and project finance (covering energy and infrastructure). The banking team acts for lenders and borrowers on a wide range of banking facilities and in relation to regulatory issues for financial institutions. Its clients include international banks, domestic and multinational borrowers, equity sponsors, central banks, supranational organisations, governmental institutions and regulators.

The asset finance team's experience includes: operating and financing leases; leveraged leases; capital market funding; tax driven and off-balance sheet structures; pre-delivery finance; purchase agreements, and residual value guarantees; and specialist insurance products. The project finance team is one of the largest and most experienced project finance groups of the world's major law firms. There are more than 150 lawyers in the group, based across the international network. In addition to transactional lawyers the group includes specialists from areas such as mergers and acquisitions, public international, regulatory, public procurement, property, environmental law, tax, and sector specialists.

The restructuring and insolvency group acts for corporations, creditors, regulators, borrowers, lenders and insolvency practitioners on a broad range of advisory and restructuring work. Its experience includes out of court refinancings, distressed acquisitions/sales, contingency planning for distressed companies as well as more formal insolvency assignments across the insolvency spectrum.

4.3.5 Intellectual property

The Intellectual Property and Information Technology practice group works on matters such as national and international acquisitions, the disposal and exploitation of IP rights, negotiating licensing and collaboration agreements and the negotiation of patent and know-how licences. These agreements may be negotiated on a stand-alone basis or in the context of larger transactions, such as IPOs, M&A deals, joint ventures, demergers, corporate reorganisations, tax-based schemes, or securitisations.

Other intellectual property work includes: patent litigation; brand protection and enforcement; trade mark litigation; licensing; franchising; distribution agreements; worldwide corporate branding; and internet and domain name work. The practice group

has also got extensive experience of advising on all aspects of a company's commercial contracts.

In addition to the IT outsourcing practice, the practice group also advises on all other types of major IT transactions, including: software development deals; licensing arrangements (technology transfer); systems procurement and integration; research and development (R&D) collaborations; IT separations arising from spin-off transactions; and IT disputes.

4.3.6 Litigation

The dispute resolution group is highly regarded internationally for its services in domestic and international litigation, arbitration and alternative dispute resolution. It has been involved in some of the most high-profile commercial disputes in the world; many of which involved cutting-edge legal issues. The team is very experienced in multi-jurisdictional work, including experience in specialist areas such as: banking and financial services; construction and engineering; energy; EU and antitrust; fraud; human rights; insurance and reinsurance; intellectual property and information technology; product liability; professional negligence; property; public international law; and restructuring and insolvency.

The practice group comprises: the commercial disputes group, which deals with the commercial, industrial and public client base; the financial institutions disputes group, which deals with the banking and insurance sector; the international arbitration group; and the environment, planning and regulatory practice. The dispute resolution team consists of more than 300 specialists throughout Austria, Belgium, France, Germany, Hungary, Italy, the Netherlands, Russia, Spain, the US, the UK and Asia. This team regularly advise on multi-jurisdictional disputes both throughout the network and with affiliated law firms. Many of the practice group's lawyers are recognised as leading practitioners in their fields, sitting on industry panels and publishing books and articles.

4.3.7 Real estate

The international real estate team provides an integrated service to clients working in all aspects of commercial real estate. Areas of specialisation include: the real estate aspects of major acquisitions and disposals; complex investment structures including real estate investment trusts, Limited Partnerships, unit trusts, open and closed ended funds;

innovative financing methods; opportunities for tax efficiency; real estate outsourcing; and complex development projects, including construction, planning and environmental issues.

The practice group has considerable expertise in the establishment, structuring and listing of real estate funds, as well as in the investment and asset management arrangements of such funds. It has experience in advising on the establishment, flotation and investment of real estate investment trusts (REITs). In addition to this, the practice group is also working on regeneration projects and mixed-use development schemes.

4.3.8   Tax

The international tax group offers clients innovative tax solutions across all areas of their business. The team comprises more than 150 tax practitioners, including over 40 partners and principal consultants, who have extensive experience of the most complex, challenging and innovative domestic and cross-border transactions. The composition and geographical spread puts the team in a unique position to provide seamless and integrated advice, from a single source, on both complex multinational transactions and non-transactional advice, including tax dispute resolution. The lawyers specialising in finance deal with a range of often innovative debt-based work, including property and asset financing, derivatives, securitisation, and various securities products. In all these areas the tax lawyers advise on implementation, on how to optimise tax structuring and avoid tax pitfalls, and on the documentation required to reduce or eliminate tax risk.

The practice group has a strong reputation for its work on corporate restructuring and reorganisations, and public and private mergers and acquisitions, including private equity, demergers, floatations and joint ventures. The team is frequently ranked in the top tier of legal league tables and is consistently recommended as a leading tax firm by the major tax directories.

4.4   Document review

According to Miles and Huberman (1994) the data analysis process comprises data reduction and data display, as well as the drawing and verification of conclusions. Data reduction aims to summarise and simplify the data, including as required, the selective focus on certain sets of data. Miles and Huberman (1994) list various tools for data reduction, including summaries of interviews, observations, or documents; and the

subsequent coding or categorising of data, including the development of narratives. Data display is the organisation of data into visual displays, such as matrices or networks, which can be developed or adapted to fit the gathered data to support the analysis and interpretation process. Visual displays also help to compare data and facilitate the identification of themes, trends or patterns, and relationships.

Miles and Huberman's (1994) framework for data analysis and display is compatible with both inductive and deductive research strategies. The framework allows for flexible approaches as it does not list precise steps that need to be followed (Saunders et al., 2009). The table below presents the findings of the document analyses and outlines: (i) KM and PD budgets; (ii) revenue and profitability statistics; (iii) headcount figures; (iv) firmwide strategy documents; (v) KM and PD strategy documents; (vi) time recording statistics; and (vii) a number of various other relevant internal surveys and reports. For reasons of confidentiality, only general themes will be presented, rather than detailed figures and analyses. The case analysis chapter provides further and more detailed information derived from the document analysis and aims to put these findings into context.

Type of document / period	Content	Impact on research
KM and PD budgets Financial years 2005/06 to 2009/10	The KMPD team is the firm's largest business service function. Salary costs and payroll fringe costs account for a majority of the combined KMPD budget. Other major expenses include: external content costs; software maintenance and purchases, including intranet and website expenses; marketing costs, including design and print, hospitality and events, advertising and sponsorships, and publications; and consultancy costs.	A year-by-year comparison of budget figures and actual spend revealed that the total costs were generally within a 10% variance when compared to the previous year. However, there were changes within the cost structure, suggesting changes in priorities based on strategic initiatives. For example, increases and decreases were seen in software and consultancy costs. Compared to the total budget figure, these changes were not material. Scott (2001) and Parson (2005) provide good overviews of PSF's cost structures, which are in line with LawCo's structure.
Revenue and profitability statistics Financial years 2005/06 to 2008/09	Revenue and profitability statistics provide a detailed overview of the firm's financial status, broken down by practice groups, sector groups, regions, and offices. For reasons of confidentiality, no detailed revenue or profitability figures must be presented in this	Based on comparisons using information from trade journals (i.e. The Lawyer, American Lawyer), the firm's revenue and profitability figures appear to be in line with its peers among the Top 10 law firms in the UK and the US. By and large, the firm's figures also followed the industry

Type of document / period	Content	Impact on research
	document. The firm's revenue and profit per equity partner appear to be similar to its peers.	trends as indicated in the legal industry journals throughout the period in scope.
		The structure of the business model is similar to other professional service firms (Maister 1993; Scott 2001; Parson 2005)
Headcount development charts Financial years 2005/06 to 2008/09	The headcount development charts show actual headcount and full time equivalents of both fee-earner and business services staff. Headcount figures, full time equivalents, staff turnover, and retention rates appear to be within the industry range and similar to other professional service firms.	It is worth noting that the ratio of KMPD staff in practice groups compared to fee earners differ fairly significantly. A more detailed analysis follows in the findings section. Besides the difference in the ratios of KMPD staff to fee earner, the analysis of headcount information did not return any unexpected or noteworthy insights.
Firmwide strategy 2005 and 2008	The firm's management team developed strategy documents that laid out the firm's aspired position in the market and stated clear goals that will help to reach the desired state. The strategy documents also discuss the required values and quality standards that are necessary to meet the goals.	The strategy documents address the changing market conditions (see Galanter and Henderson, 2008) and the firm's key success factors (see Maister, 1993) with the goal to position itself in the market (see Brock, 2006). The strategies also consider service delivery (see Segal-Horn and Dean, 2009) and the role of knowledge sharing (see Rusanow 2003; Parsons 2005).

Type of document / period	Content	Impact on research
KM and PD strategy 2003, 2007, and 2009	A comprehensive KM review in 2002/03 led to the development of a detailed KM strategy with a focus on adding value to internal clients, by connecting people to people and people to information, and by actively seeking buy-in to the KM mission. The subsequent KM roadmap was implemented in stages between 2003 and 2007. A review of business services in 2006/07 highlighted the potential value in combining KM and PD related systems and processes. 2007 thus saw the integration of the two functions and the introduction of a combined strategy. The strategy was aligned with the new firm strategy in 2009, reflecting the importance of client development.	The documents demonstrate the evolution from scattered KM initiatives into a coherent hybrid approach to knowledge management (see Rusanow, 2003). The KM programmes on services, people and technology initiatives show a clear focus and consistency, but avoid restrictive uniformity by taking practice groups' needs into account. To date, the latest stage of the process saw the combination of the expanding and overlapping KM and PD functions, by integrating related activities. This led to an extension of the KM domain by not only including internal know-how, but also market related know-how.
Time recording statistics Financial years 2007/08 (fee earner) and 2008/09 (fee earner and KMPD)	The business model and billing processes of law firms require that lawyers record the time they spend on client files. In addition to this, lawyers are also requested to record their non-billable time such as practice development activities or contributions to knowledge. Similar to fee earners, KMPD staff are requested to record their time. The main goal, however, is not to bill clients, but to get a better understanding of the day-to-day activities for resource planning. This process has been recently introduced, which is why only statistics for 2008/09 exist.	An analysis of non-billable fee earner time showed some differences between practice groups. It appears that these differences are not just due to time recording habits. Moreover, the differences may help to indicate the importance of knowledge management and practice development activities to practice groups. KMPD staff time recording data also proved to be highly valuable and will be introduced in greater detail in the section below.

Type of document / period	Content	Impact on research
Internal research and surveys 2002 to 2009	A number of documents provided information on the usage of KMPD products and services, such as know-how databases, current awareness services, or enquiries. Other documents contained the findings of internal surveys on issues such as the satisfaction with KM services.	Although usage data of systems and services proved to be interesting, it is worth noting that the reporting functionality did not allow the author to make distinctions based on the cut of information, which is needed to answer the research question. The KM services survey covered important issues, however, it was carried out in 2002 and related to systems and specific services that have since been either decommissioned or restructured. Thus the findings appeared to be of less relevance to this research.

Table 31 Document review and its impact on the research

4.4.1 Knowledge management and practice development

LawCo follows a hybrid approach to knowledge management and practice development (see Rusanow, 2003). This approach encompasses the setting of objectives and methodologies on a firm-level and provides the practice groups with the necessary knowledge management infrastructure, supported by central teams, to carry out their knowledge management initiatives; thus helping them to reach their business goals. In addition to this, a central library and information services (LIS) team supports all the practice groups and practice development teams, providing legal and business research and training on information systems.

LawCo was the first major law firm to merge its legal knowledge management and practice development functions. Before the merger, the two groups operated as separate departments. Knowledge management was based in the practice groups with an additional central unit, and practice development was run centrally. In recent years, however, the traditional divide in the legal market between knowledge management and practice development has narrowed. As well as providing legal know-how and training for lawyers, knowledge management teams became increasingly client-focused, providing clients with legal briefings, technical training programmes and direct access to internal know-how. With such a significant overlap with practice development activities, it made strategic sense for the two functions to formally work more closely together.

Knowledge management in the LawCo setting involves getting the right information to the right people at the right time. Legal knowledge is the firm's primary asset. Each practice group has a team of KM specialists who are responsible for facilitating the sharing of knowledge among fee-earners. The team identifies, creates and distributes knowledge within the practice group. Key activities include drafting precedents and standard forms, analysing legal developments, researching, writing client briefings, and running technical team training sessions and client seminars. As described in more detail below, the team includes practice development lawyers (PDLs), knowledge management lawyers (KMLs), practice development executives (PDEs), knowledge management assistants (KMAs), and practice group researchers (LIS).

Practice development involves generating new business and growing existing client relationships, as well as developing the practice or sector group business plans. Practice development personnel include: practice development managers (PDMs); development executives (PDEs); sector group development managers (SG DMs); sector group development executives (SG DEs); and strategic researchers, as well as marketing, communications, and public relations experts. Practice development activities include: strategic marketing planning; communication and branding; pitches; directory submissions; publications and mailings; strategic research into clients and economic developments; conferences; seminars; training sessions and corporate hospitality.

The combined team's core services include: client and firm-wide communications; client plans and reviews; client relationship management; client seminars and events; client briefings; current awareness, including hot topics; development and skills training; development of new legal products; systems design and support; know how management; legal, business and strategic research; monitoring new opportunities/markets; project and change management; strategic marketing planning; and support pitches.

4.4.2 KMPD staff information

Knowledge management staff in practice groups provide fee earners with an infrastructure of various knowledge management tools and knowledge resources. Knowledge Management Lawyers (KML), also often referred to as Professional Support Lawyers (PSL) or Practice Development Lawyers (PDL) depending on the characteristics of their role, play a key role in a practice group's KM function. KML are qualified lawyers who ensure that the practice group's knowledge assets and knowledge

management systems meet the needs of the users. KML draft standard forms and templates (precedents), answer legal queries, and provide current awareness information.

KML are usually supported by junior KM staff with a legal background, such as Knowledge Management Assistants (KMA) or Executives (KME). Again, depending on the characteristics of their role, junior KM staff are often also referred to as Professional Support Assistants (PSA) or Practice Development Executives (PDE). KML are also supported by Paralegals, Librarians or Researchers, and they also usually have access to the practice group's pool of legal secretaries.

Practice Development Managers (PDM) provide practice groups with practice development support and tend to work closely with their Practice Group Leader and other partners. PDMs design and develop detailed practice development and communications plans, and also actively support their implementation. PDMs are supported by Practice Development Assistants or Executives (PDA, PDE).

Although all practice groups are provided with the same infrastructure and methodology by the central team, the structure within the various practice group KMPD teams differ to some degree. Some practice groups, for example, have introduced the role of a Senior KML (PG1, PG5, PG8), who manages the KM function (i.e. KMLs, KMAs) of the practice group, but is still involved in day-to-day KM tasks. Other practice groups (PG4, PG5, PG6) established Head of Practice Development roles that look after the KM function, as well as the practice development function. PG4 and PG6 are small-sized practice groups and their Heads of Practice Development manage the global practice groups. The Head of Practice Development of PG5 focuses on London. PG5 is a medium-sized practice group. This structure may explain why PG4 and PG6 do not have separate PDM roles in their practice groups. Similarly, PG8 does not have a PDM role, which can be explained by its relative small size, which is similar to that of PG4 and PG6. As mentioned above, PG8 also employ a Senior KML who is partly involved with practice development issues.

The KMPD teams in practice groups are frequently also supported by seconded associates, who put their fee-earning activities on hold for an agreed period (i.e. 3 to 6 months) in order to work on specific knowledge management (i.e. the development of precedents) or practice development tasks (i.e. developing client related services). Sometimes, seconded associates also cover for maternity leavers. The use of seconded associates is therefore driven by know-how matters, projects, or general capacity issues.

Consequently, the number of seconded associates per practice group can differ significantly throughout the year.

The chart below shows a snapshot of the KMPD functions of the eight practice groups as of May 2009. It provides an indication of the structure of the teams showing the percentage of KMPD roles based on the actual headcount. It shows, for example, that PG4, PG5, and PG6 do not employ dedicated Practice Development Managers. It also shows junior KMPD staff, Knowledge Management Lawyers and seconded Associates, which account for approximately 20% of PG4's KMPD team; whereas PG2, PG6, and PG8 did not use seconded associates at that point in time.
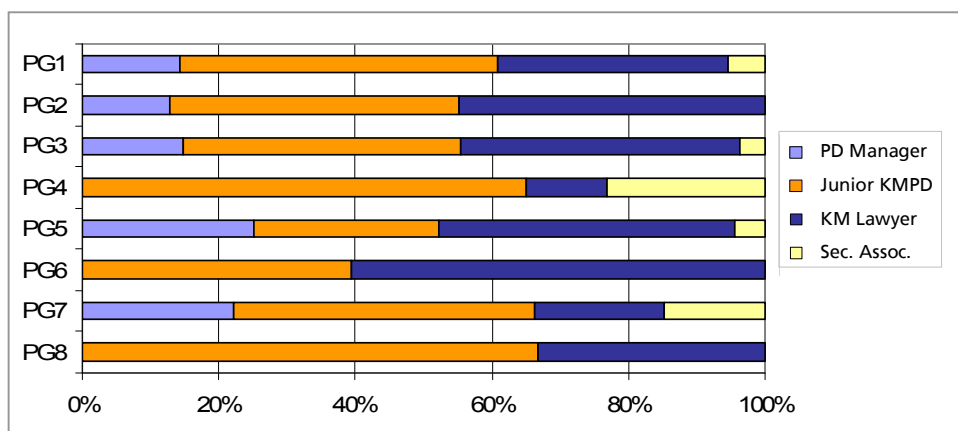
Figure 8 Knowledge management and practice development staff by practice group

As mentioned above, the structure of KMPD teams differ among practice groups. As a consequence, the ratio of KMPD staff to fee earners can vary quite significantly. In order to demonstrate this imbalance, it is worth looking at the average number of fee earners that one member of the KMPD team is supporting. The ratio is calculated by dividing the total number of fee earners per practice group by their total number of KMPD staff, irrespective of their seniority or job role. The ratios per practice groups will be discussed in the qualitative case analysis chapter (section 6.4).

In summary, the KMPD teams within practice groups are structured quite differently, and their ratio to fee earners, in absolute headcount figures, varies. As a result, this may be impacting the quality and quantity of intelligence gathering and dissemination activities related to the market orientation construct.

4.4.3   Time recording statistics

Table 32 below provides data from the LawCo time recording system used by Knowledge Management and Practice Development personnel, covering the firm's financial year 2008/09. It indicates the percentage of time spent on each of the team's routine activities broken down by each practice group's KMPD team. 'Avg' indicates the average across PGs and is a weighted average, reflecting total hours recorded in each practice group per key routine task.

The team's routine activities include: answering legal and business queries; current awareness services; the development and maintenance of know how, such as precedents and standard forms; various data management tasks; the preparation and development of pitch materials and presentations; as well as directory submissions and awards:

– 'Pitch support' covers the collection of information on relevant experience and lawyer profiles and conducting research on prospective clients as part of proposals to engage LawCo in legal work.

– 'Current awareness' tasks include the provision of information and generating updates and newsletters on significant business or legal developments.

– 'Directory and award submissions' require the monitoring of deadlines, the assessment of parameters, as well as gathering and updating information for submission.

– 'Legal research' covers responding to requests for legal answers.

– 'Business research' queries covers responding to requests for business answers.

– 'Data management' tasks include, for example, identifying and managing contact information to support mailing lists and relationship management activities, as well as supporting a database of firm experience in different matters.

– 'Know-how' relates to the development and maintenance of know-how, including precedents, standard forms, and practice notes, using the internal know-how database.

– 'Training' covers all activities with regards to training fee earners, including the preparation of course materials and presentations.

The remaining time for the KMPD team is spent on activities not within the routine knowledge management and practice development tasks (i.e. work on specific projects, some client billable work, internal meetings, purely administrative tasks, or personal development). During the period in scope (fiscal year 2008/09) most practice groups were

heavily engaged in the roll-out of an online internal communications platform (wiki), which required time commitments in order to test the platform, to develop an information architecture, and to move and structure the content.

Many members of the central team also perform tasks such as systems and web development, work on specific public relations and marketing projects, or data management and reporting tasks and projects that are not within the scope of this thesis due to their firmwide nature (i.e. across all practice groups and regions). Even though KMPD staff aim to record their time accurately, there is still an inherent subjectivity in the time recording process, which leads to the potential for material variation in the data. These figures should therefore be viewed only as approximates.

Activity	Practice Groups							
	PG1	PG2	PG3	PG4	PG5	PG6	PG7	PG8
Business queries	3%	9%	5%	8%	3%	12%	13%	5%
Current awareness	16%	13%	20%	20%	10%	8%	13%	21%
Data management	17%	8%	2%	6%	9%	24%	2%	20%
Directory entries	5%	3%	7%	1%	2%	7%	2%	3%
Know-how	8%	14%	9%	6%	5%	1%	13%	15%
Legal queries	10%	9%	6%	13%	13%	9%	5%	5%
Pitches	13%	3%	7%	6%	16%	18%	8%	3%
Training	13%	11%	10%	7%	19%	10%	13%	5%

Table 32 Knowledge management and practice development time by activities

4.5   Conclusion

This chapter provided an overview of the case study organisation ('LawCo'), including its eight practice groups. In addition to this, information on the firm's knowledge management and practice development activities were provided. The aim of this chapter was to give the reader an enriched understanding of LawCo and the similarities and differences between the practice groups, which are used as the sub-cases of this case study research. The following chapters will refer back to specific LawCo characteristics and the results of the document analysis in order to embed and illustrate certain findings.

The author would like to thank LawCo for the access to documents and for the time invested in answering queries.

5 Quantitative findings

5.1 Introduction

Chapter 3 introduced the research methodology that was chosen to investigate the research question. The research methodology encompasses both quantitative and qualitative approaches. The aim of this chapter is to provide an overview of the empirical findings. It introduces the conceptual model, hypotheses, variables, and compounds. The chapter then focuses on the outcomes of the correlation and regression analyses.

As part of the mixed method case study approach (see Teddlie and Tashakkori 2003; Yin 2009), an extensive, iterative document analysis was carried out in order to provide additional insights and context to the empirical findings. The outcome of the document analysis, which was conducted before and after the market orientation survey, can be found in Chapter 4. Semi-structured interviews were then carried out to validate particular aspects of the empirical investigations and the document review. This qualitative approach also helped to clarify and illustrate the meaning of the findings. The findings of the semi-structured interviews are presented in chapter 6. Chapter 7 then provides a discussion of the results and embeds the findings into existing literature. The table below, from the research methodology section, recaps the stages of the data gathering process:

Stages	Description
Literature and document review	Following a literature review, the identification of gaps in knowledge, and the introduction of a research question, a list of internal documents were selected for an in-depth review.
Questionnaire	Similar to other market orientation studies, the MARKOR questionnaire had to be adapted and tested to suit the law firm environment. A pilot group and the advisory group supported this process.
Phased roll-out	The survey was rolled-out along the firm's matrix structure, allowing for a phased roll-out.
Analysis and comparison of data	The survey data was analysed using statistical methods. The results were subsequently compared with findings from the literature and document review, which then triggered a further literature and document review.
Semi-structured interviews	Based on the findings above and the mixed method case study approach, semi-structured interviews were carried out in order to add context to the findings and to challenge the results.

Table 33 Data gathering process

5.2   Conceptual model and hypotheses

As stated in the research methodology chapter (Chapter 3) and the gap analysis section (2.6), the aim of the quantitative part of the study is to test the following hypotheses:

− Market orientation has a positive impact on practice group performance in terms of subjective performance (H1a), profitability (H1b), and job satisfaction (H1c).

− Self efficacy has a positive impact on practice group performance in terms of subjective performance (H2a), profitability (H2b), and job satisfaction (H2c).

− Knowledge management has a positive impact on practice group performance in terms of subjective performance (H3a), profitability (H3b), and job satisfaction (H3c).

The hypotheses were derived from the literature review and in particular, from the identified gaps in knowledge, as stated in Chapter 2. The conceptual model below provides a graphical overview of the hypotheses (also see section 3.2.6). The variables and compounds will be introduced in section 5.4. The next section provides an overview of the questionnaire and the response rate.
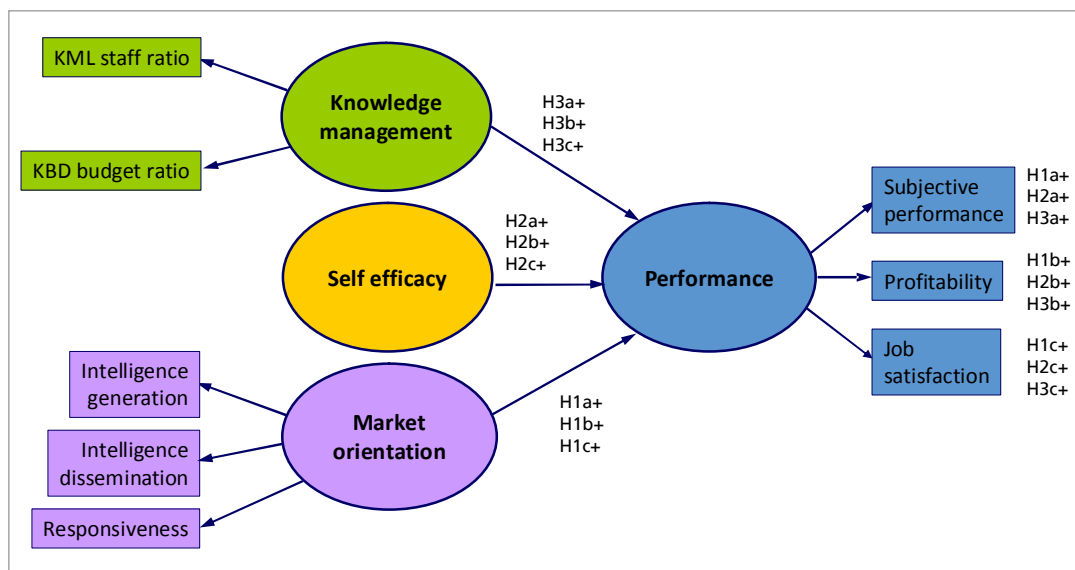
Figure 9 Conceptual model

5.3   Market orientation questionnaire

The level of a practice group's market orientation was measured using a survey that was sent to partners and senior associates of the firm. As stated in the research methodology section (3.2.3.2), the questionnaire is based on a market orientation scale developed by Jaworski and Kohli (1993). The questionnaire also contains items on subjective

performance, job satisfaction, and self efficacy. In addition to this, personal data (i.e. job role) was gathered to allow further analyses.

The survey covered all of LawCo's practice groups. An internet based survey tool (Surveymonkey), which is frequently used for LawCo's internal surveys, helped to facilitate the launch of the questionnaire. The questionnaire was sent to 367 partners and 191 associates, totalling 558 recipients; representing three quarters of the combined population of partners and senior associates. In total, 202 people filled in the survey, leading to 189 usable responses, and a response rate of 33.9%. 13 questionnaires were not useable due to missing data. The table below outlines the number of responses and the response rates by practice groups. The term 'population' refers to LawCo's partners and senior associates:

Group	Total population	Contacted population	Useable responses	Response rate
PG1	76	58	24	41.4
PG2	246	197	67	34.0
PG3	115	69	16	23.2
PG4	32	23	11	47.8
PG5	133	99	31	31.4
PG6	39	27	8	29.6
PG7	37	33	16	48.5
PG8	68	52	16	30.6
Total	746	558	189	33.9

Table 34 Response rate by practice group

As described in the research methodology section, the total response rate of 33.9 is within the required range (36 +/-13) for "top management personnel" as stated by Baruch (1999, p.434; also see Baruch and Holtom 2008) and, based on anecdotal evidence, does also exceed the average response rates of similar types of online surveys within the case company. There are, however, differences between the response rates of practice groups (i.e. PG7, 48.5; PG3, 23.2) and partners (30.5) and senior associates (40.3):

Group	Total population	Contacted population	Useable responses	Response rate
Senior Associates	276	191	77	40.3
Partners	470	367	112	30.5
Total	746	558	189	33.9

Table 35 Response rate by type of respondent

As the total response rate does not represent an extreme case, it is appropriate to apply statistical methods to analyse the data in greater detail (Baruch 1999; Baruch and Holtom 2008; Field 2009). The empirical findings section is divided into four sub-sections. The first section provides an overview of all responses from a global perspective; it shows the aggregated data from all responses. The second section focuses on the differences between partners and senior associates (seniority perspective). The third section discusses the implications of the geographical diversification of practice groups and its impact on the market orientation and performance linkage. And finally, the practice group size section analyses the differences in practice group size in relation to market orientation and performance.

5.4   Variables and compounds

This section discusses the variables and scales used in the survey and presents findings of the statistical analysis. In order to draw conclusions based on the findings, it is worth examining the analysis process, which contains the initial screening of data, the analysis of the reliability, and the validity of the scales (Kline 2005; Field 2009).

As described in the research methodology and literature review chapters, the market orientation variables were derived from a questionnaire based on the MARKOR framework developed by Jaworski and Kohli (1993). The questionnaire also contained questions on self efficacy, job satisfaction, and subjective practice group performance, which can be found in the appendix. The objective practice group performance measure is based on the average profit per partner (PPP) over the past two financial years. As highlighted in the literature on professional service firm economics, PPP appears to be a key indicator in the legal market (Maister 1993; Scott 2001; Parson 2005) that is frequently used for benchmarking purposes and published in trade journals, such as The Lawyer and Legal Week. 'KMPD staff ratio' refers to the number of knowledge management lawyers per fee earner in a practice group. 'KMPD budget ratio' relates to the knowledge management and practice development budget per fee earner within a practice group. The two KMPD ratios aim to describe the level of knowledge management and practice development intensity of practice groups.

Multivariate normality can be determined by examining univariate distributions, which can be established by looking at the skewness and kurtosis of variables (Kline 2005; Field 2009). Although there is no standard threshold that indicates extreme univariate non-normality, a rule of thumb states an absolute value of kurtosis greater than 5 and an

absolute value of skewness greater than 3, suggest non-normal distributions (Kline, 2005). The table below presents the key variables and their minimum, maximum, and mean values, as well as their standard deviation, skewness, and kurtosis values. Following Kline's (2005) thresholds, both skewness and kurtosis are within the limits. Skewness values range from -1.271 to .941. Kurtosis values vary between -.547 and 4.310. The values indicate that the scales are distributed normally.

Variable	N	Min	Max	Mean	Std. Dev.	Skewness		Kurtosis	
						Stat	Std. Err.	Stat	Std. Err.
Intell. gathering	189	2,00	7,00	4,86	1,021	-,154	,177	-,350	,352
Intell. dissem.	189	1,67	7,00	4,00	1,057	,019	,177	-,347	,352
Responsiveness	182	1,00	6,83	4,64	,869	-,671	,180	1,823	,358
Market orient.	189	1,80	6,54	4,50	,817	-,090	,177	,067	,352
Self efficacy	175	2,00	7,00	5,72	,800	-1,271	,184	4,310	,365
KMPD staff ratio[a]	189	-23,79	-11,41	-20,53	3,948	,881	,177	-,421	,352
KMPD budget ratio[b]	189	450,37	1320,20	7,46E2	299,590	,941	,177	-,541	,352
Subj. perform,	177	1	7	5,54	1,168	-,862	,183	,931	,363
Obj. perform.[b]	189	25,65	37,18	32,09	3,438	-,771	,177	-,547	,352
Job satisfaction	175	1	7	5,65	1,023	-1,167	,184	2,621	,365

Table 36 Descriptive analysis of key variables

a.   Reverse coded

b.   For reasons of confidentiality, the currency had to be changed and must not be disclosed.

In addition to analysing multivariate normality, it is also important to test reliability and validity (Kline 2005; Field 2009). Reliability refers to the internal consistency of scales and is tested using Cronbach's alpha. According to Nunnally (1978), Cronbach's alpha needs to be above 0.7 to ensure appropriate reliability of the scale. The table below shows the reliability of the market orientation (MO) compound and the three constructs: intelligence gathering (IG), intelligence dissemination (ID), and responsiveness (R). Another metric used in the statistical analysis is self efficacy (SE), which consists of three items (edu, role, goals). Cronbach's alpha is consistently above 0.7, which suggests that the market orientation compounds are reliable (Nunnally, 1978).

Compounds	N of items	Cronbach's Alpha
Intelligence gathering	5	.767
Intelligence dissemination	6	.726
Responsiveness	9	.763
Market Orientation	3	.779
Self Efficacy	3	.864

Table 37 Reliability analysis of compounds

5.5   Correlation analysis

Correlation analysis is a technique used to analyse the relationships between variables (Field, 2009). It measures the degree of a relationship in order to provide a better understanding of the interdependence between variables. As it only measures the extent of a relationship between variables, it is not suitable to test cause and effect statements. This can be done using regression analysis.

Correlation analysis is used in this study to measure the strength of the relationships between 10 variables, including intelligence gathering (IG), intelligence dissemination (ID), and responsiveness (R), which are averaged to create a market orientation (MO) variable. Other variables include knowledge management staff per lawyer (KS) and knowledge management and practice development budget per lawyer (KB). Variables relating to performance are objective performance (OB) using profit per partner, and subjective performance (SP) and job satisfaction (JS), which were derived from the questionnaire. Self efficacy (SE), which measures lawyer's perceived skills and qualification, was also derived from the questionnaire.

The figures indicate significant relationships between the market orientation variables (IG, ID, R, MO) at the 0.01 level. Similarly, the relationships between the MO variables and job satisfaction (JS), self efficacy (SE), and the subjective performance measure (SP) were also significant at the 0.01 level. Objective performance (OP), on the other hand, does not appear to be related to any of the market orientation measures. It is, however, related to subjective performance (.330) at the 0.01 level. Job satisfaction (.226) and self efficacy (.362) are positively related to subjective performance, but not to objective performance.

Although the knowledge management variables (KS and KB) do not seem to be related to any of the MO variables, KS and KB are significantly related to subjective and objective performance. However, it is worth noting that KS is positively related to SP and OP;

whereas KB is negatively related to SP and OP. KB does not appear to be related to job satisfaction or self efficacy. KS appears to be moderately related to self efficacy (.174) at the 0.01 level but does not seem to be related to job satisfaction. The table below provides an overview of the correlation statistics.

Variable		IG	ID	R	MO	SP	OP	JS	SE	KS	KB
Intelligence Gathering (IG)	P. Correl.	1,00									
	Sig.										
	N	189									
Intelligence Dissem. (ID)	P. Correl.	,626**	1,00								
	Sig.	,000									
	N	189	189								
Responsive (R)	P. Correl.	,510**	,454**	1,00							
	Sig.	,000	,000								
	N	182	182	182							
Market Orientation (MO)	P. Correl.	,868**	,854**	,761**	1,00						
	Sig.	,000	,000	,000							
	N	189	189	182	189						
Subjective Performance (SP)	P. Correl.	,340**	,204**	,391**	,366**	1,00					
	Sig.	,000	,007	,000	,000						
	N	177	177	177	177	177					
Objective Performance (OP)	P. Correl.	,102	,019	,141	,090	,330**	1,00				
	Sig.	,161	,793	,057	,220	,000					
	N	189	189	182	189	177	189				
Job Satisfaction (JS)	P. Correl.	,250**	,216**	,365**	,323**	,226**	,045	1,00			
	Sig.	,001	,004	,000	,000	,003	,557				
	N	175	175	175	175	171	175	175			
Self Efficacy (SE)	P. Correl.	,257**	,164*	,421**	,323**	,362**	,110	,577**	1,00		
	Sig.	,001	,030	,000	,000	,000	,146	,000			
	N	175	175	175	175	171	175	175	175		
KMPD staff ratio (KS)	P. Correl.	,000	,016	,141	,051	,237**	,403**	,091	,174*	1,00	
	Sig.	,996	,827	,058	,489	,002	,000	,231	,021		
	N	189	189	182	189	177	189	175	175	189	
KMPD budget ratio (KB)	P. Correl.	-,127	,097	-,145	-,056	-,335**	-,572**	-,015	-,010	,056	1,00
	Sig.	,081	,184	,051	,447	,000	,000	,842	,899	,443	
	N	189	189	182	189	177	189	175	175	189	189

Table 38 Outcome of correlation analysis

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

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

5.5.1 Analysis of firm-specific characteristics and correlations

In order to get a better understanding of the responses and relationships, it might be worth investigating some firm-specific characteristics, including the job groups of the respondents, the size of practice groups, and the geographical distribution of lawyers within practice groups (Hitt et al., 2001).

The respondents can be divided into two seniority levels: partners and senior associates. Partners own a stake in the firm and usually manage a team of associates. Senior associates are salaried lawyers with more experience and responsibility than associates. New partners are mostly selected from a firm's pool of senior associates.

The Herfindahl-Hirschman Index (HHI) in its original form measures the size of firms in relation to the sector or industry. It is therefore used as an indicator of the amount of competition among the companies within a sector or industry. The index is commonly defined as the sum of the squares of the market shares of the largest firms within an industry or sector. The market shares are expressed as percentages. Decreases in the Herfindahl-Hirschman index generally indicate a decrease of market power and an increase in competition. Increases indicate an opposite market structure. The index is frequently used in antitrust cases and competition law, in order to determine the presence of monopolies, but has also been used to investigate internal characteristics of organisations, including professional service firms (see Hitt et al, 2001).

Two HHIs have been created for the LawCo example. The first index (HHIC) describes the composition of practice groups, based on the number of lawyers in different countries. The second index (HHIO) indicates the distribution of lawyers across offices. Generally speaking, the higher the index, the higher the concentration in a number of countries or offices. It is worth noting that the company has several offices in countries, such as Germany, China, and the US.

The lawyers working in PG1 and PG2, for example, are distributed across many countries and offices. The index indicates that there are no particular clusters, which act as hubs for these two practice groups. PG6, on the other hand, is spread across many offices within a small number of countries. Lower HHIC scores indicate that this practice group is spread relatively evenly across several countries. The chart below aims to give a graphical representation of the practice groups' composition.
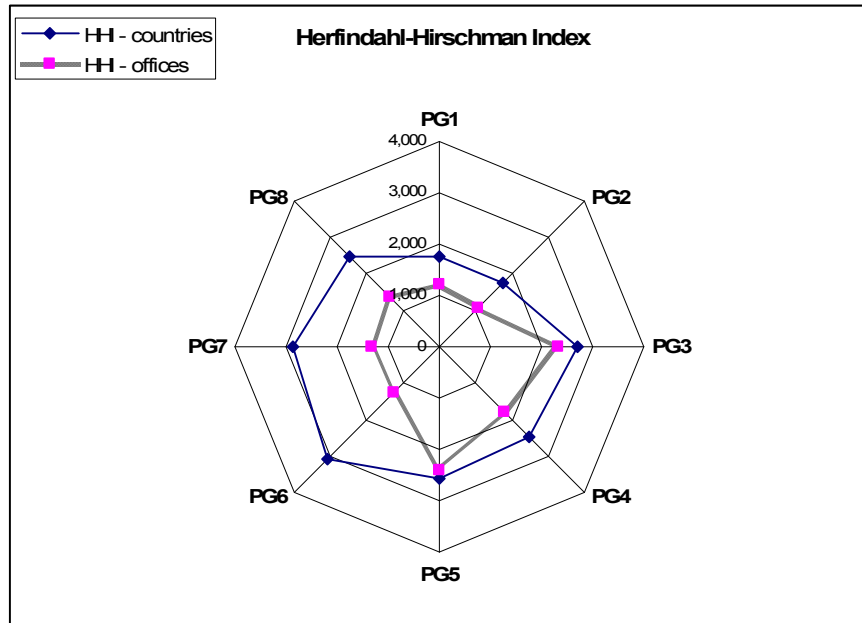
Figure 10 Herfindahl-Hirschman index by practice group

LawCo's eight practice groups differ not only in terms of geographical diversification, but also in size. Based on the number of lawyers per practice group, and in line with the company's internal view of the classification, the practice groups were divided into three categories. There are four 'small' practice groups (PG4, PG6, PG7, PG8) with less than 160 lawyers each. 'Medium' sized practice groups (PG1, PG3, PG5) employ between 250 and 460 lawyers worldwide. There is only one practice group (PG2) that is classified as 'large', which employs more than 850 lawyers worldwide.

The bar charts below present the correlation between market orientation (MO) and the subjective performance measure. The charts also show the MO constructs: intelligence gathering (IG), intelligence dissemination (ID), and responsiveness (R). It also presents the relationship between market orientation (MO) and performance. The bar charts show the differences between practice group size (SML=small, MED=medium, LRG=large), seniority level (JG1=partner, JG2=senior associate), and geographical diversification of practice groups (HHIC1=diversified across several countries, HHIC2=higher concentration in specific countries). The first chart shows the correlation between market orientation and subjective performance measure:
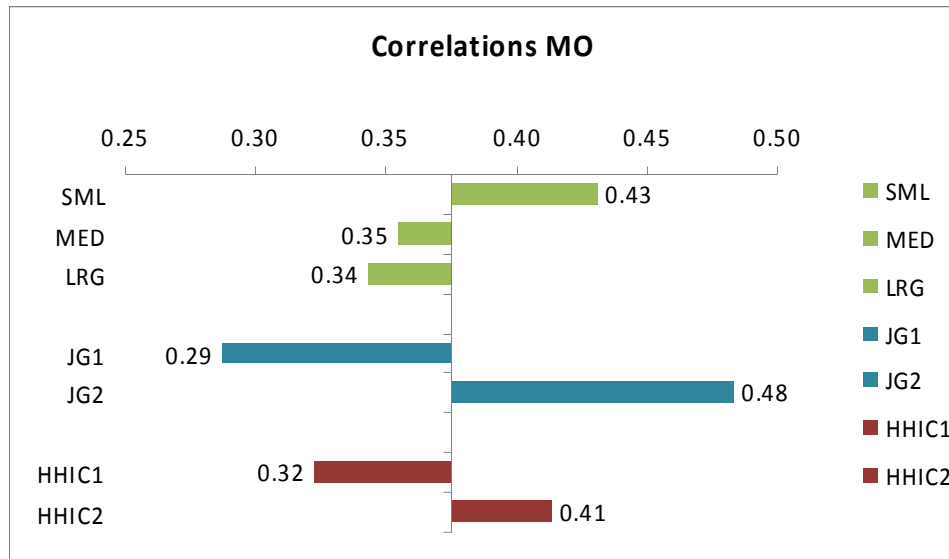
Figure 11 MO correlation with subjective performance by PG size, seniority and HHIC

The following chart provides additional information on the correlation between information gathering and subjective performance measure:
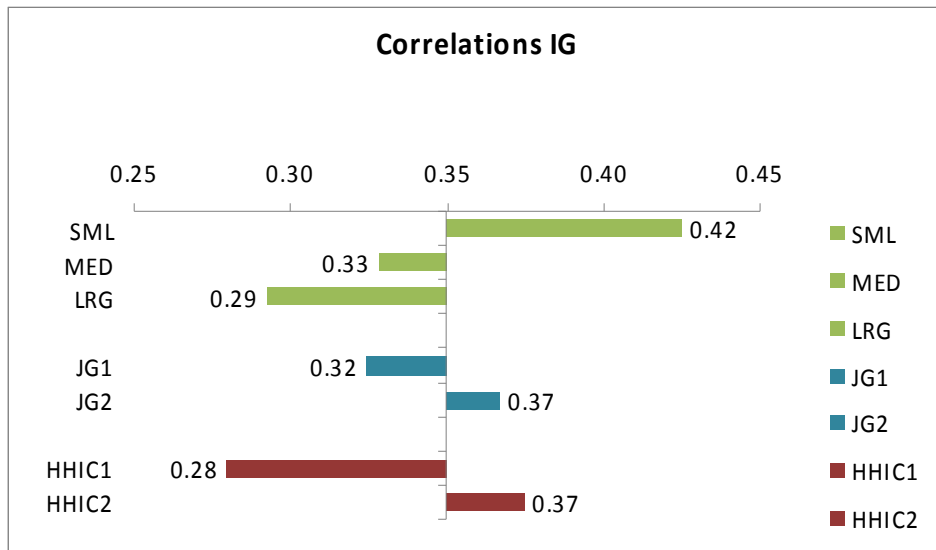
Figure 12 IG correlation with subjective performance by PG size, seniority and HHIC

The chart below presents further information on the correlation between information dissemination and subjective performance measure:

Figure 13 ID correlation with subjective performance by PG size, seniority and HHIC

Similar to the charts above, the following graph provides on overview of the differences in correlation between responsiveness and subjective performance measure:
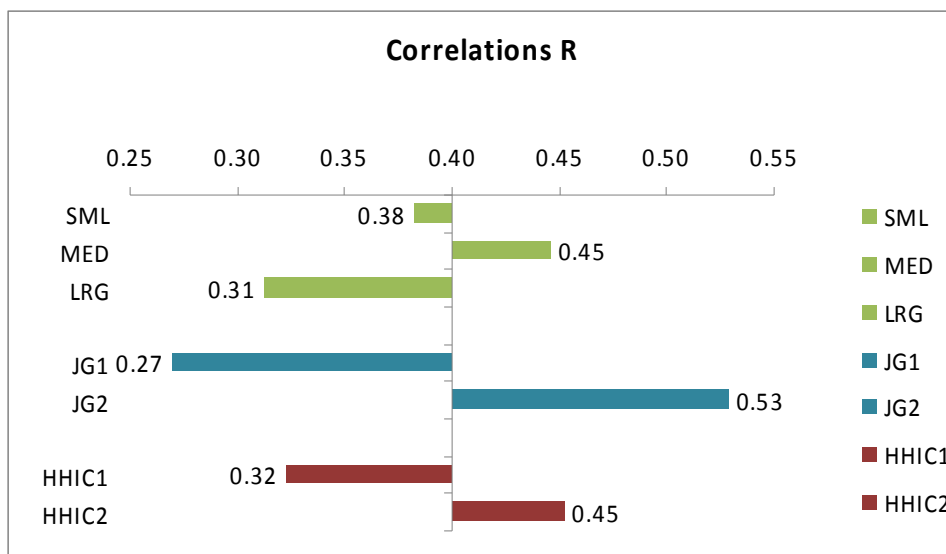
Figure 14 R correlation with subjective performance by PG size, seniority and HHIC

5.6   Regression analysis

Regression analysis is a statistical tool that is frequently used in business research in order to predict the dependent variable based on one or more independent variables (Field, 2009). In this study it is used to analyse the relationships between market orientation, knowledge management, self efficacy, and performance measures. The nature

of the enquiry requires the use of multiple regression analysis instead of simple regression analysis. Multiple regression analysis can involve multiple variables (multiple independent variables and one dependent variable); whereas simple regression models involve only two variables (one independent and one dependent variable). The theoretical model was reproduced by means of a stepwise regression using the "enter" method (Field, 2009).

The aim of the analysis, therefore, is to measure the effect of market orientation, knowledge management, and self efficacy (independent variable) on performance related measures such as profit per partner and subjective overall performance (dependent variables). Following Hult et al. (2008) performance is analysed using financial, operational, and overall effectiveness measures. Financial performance indicators focus on metrics that are assumed to show economic outcomes. In this study, financial performance is measured using the profit per partner (PPP). Operational performance indicators refer to non-financial aspects relating to operational success factors that may in turn bring about financial performance. In this study operational performance is measured using a job satisfaction indicator, which was gathered using the questionnaire. Overall effectiveness measures is a wider conceptualisation of performance that can, for example, include measures focusing on reputation or perceived overall performance. In this study operational performance is measured using a subjective performance indicator, which was gathered using the questionnaire. In particular, it covers the performance relative to competitors.

Significant relationships between independent variables and performance measures were found. The findings, which may help to explain differences in performance, are presented in the following sections and divided into the impact on subjective performance, objective performance, and job satisfaction.

When analysing regression models it is also necessary to check for multicollinearity of variables (Kline 2005; Field 2009). Multicollinearity, which can occur when variables are measuring the same phenomenon, is problematic as it can impede particular mathematical operations. According to Kline (2005, p.57), tolerance levels below .10 and variance inflation factor (VIF) values above 10, indicate multicollinearity. The tolerance and VIF values in this study, however, are within the thresholds postulated by Kline (2005), which leads to the conclusion that multicollinearity is not a concern and is not affecting the regression model.

5.6.1 Impact on subjective performance

The first regression model analyses the impact of independent variables on subjective performance (dependent variable). According to Hult et al. (2008), subjective performance indicators can be used as measures for a firm's overall effectiveness. In order to determine the subjective performance, a question was added to the market orientation questionnaire with the aim to establish how partners and senior associates evaluate the group's overall performance over the last two years, relative to their main competitors.

The independent variables were entered in successive steps. Control variables (gender, office, batch, job group) were entered first. In the second stage the self efficacy variable was entered. The knowledge management and practice development (KMPD) variables were entered in the third stage. In the fourth and final step, the market orientation variable was added to the model. Table 38 below shows the steps and the related changes to R square.

The first step of including the control variables gender, office, batch, and job group only led to an R square change of .021, which was not significant. However, the second step, including self efficacy, was significant and showed an adjusted R square of .112; the R square change was .117. Step three, including the knowledge management staff and budget ratios, led to an adjusted R square of .251, which represents an R square change of .144. Finally, in step four, including market orientation, the adjusted R square was .313, which corresponds to an R square change of .063.

The final model, which was significant at the .000 level, shows that the standardised coefficients (Beta) of market orientation and self efficacy were .276 and .223. The Beta of knowledge management staff ratio was .193; whereas the Beta of KMPD budget ratio was -.323. As described above, mulitcollinearity was not an issue, as the VIF and tolerance values were within the thresholds proposed by Kline (2005).

The table below provides an overview of the variables entered. No variables were removed:

Model	Variables Entered	Method
1	Gender, Office, Batch, Job Group[a]	Enter
2	Self Efficacy[a]	Enter
3	KMPD budget ratio, KMPD staff ratio[a]	Enter
4	Market Orientation[a]	Enter

Table 39 Subjective performance analysis – variables entered

c. All requested variables entered

d. Dependent Variable: Subjective Performance

The following table summarises statistical information on the four stages using subjective performance as the dependent variable:

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,144[a]	,021	-,003	1,172	,021	,880	4	166	,477
2	,371[b]	,138	,112	1,103	,117	22,387	1	165	,000
3	,531[c]	,282	,251	1,012	,144	16,379	2	163	,000
4	,588[d]	,345	,313	,970	,063	15,694	1	162	,000

Table 40 Subjective performance analysis – model summary

a. Predictors: (Constant), Gender, Office, Batch, Job Group

b. Predictors: (Constant), Gender, Office, Batch, Job Group, Self Efficacy

c. Predictors: (Constant), Gender, Office, Batch, Job Group, Self Efficacy, KMPD budget ratio, KMPD staff ratio

d. Predictors: (Constant), Gender, Office, Batch, Job Group, Self Efficacy, KMPD budget ratio, KMPD staff ratio, Market Orientation

The table below gives an overview of the findings of the analysis of variance (ANOVA):

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4,832	4	1,208	,880	,477[a]
	Residual	227,881	166	1,373		
	Total	232,713	170			
2	Regression	32,057	5	6,411	5,272	,000[b]
	Residual	200,657	165	1,216		
	Total	232,713	170			
3	Regression	65,634	7	9,376	9,147	,000[c]
	Residual	167,079	163	1,025		
	Total	232,713	170			
4	Regression	80,391	8	10,049	10,687	,000[d]
	Residual	152,323	162	,940		
	Total	232,713	170			

Table 41 Subjective performance analysis – ANOVA

a. Predictors: (Constant), Gender, Office, Batch, Job Group

b. Predictors: (Constant), Gender, Office, Batch, Job Group, Self Efficacy

c. Predictors: (Constant), Gender, Office, Batch, Job Group, Self Efficacy, KMPD budget ratio, KMPD staff Ratio

d. Predictors: (Constant), Gender, Office, Batch, Job Group, Self Efficacy, KMPD budget ratio, KMPD staff ratio, Market Orientation

e. Dependent Variable: Subjective Performance

The following table presents additional information on coefficients and collinearity:

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.	Collinearity Statistics Tolerance	VIF
1	(Constant)	5,930	,667		8,896	,000		
	Batch	-,115	,202	-,044	-,566	,572	,971	1,030
	Job Group	,030	,188	,012	,157	,875	,939	1,065
	Office	-,029	,017	-,131	-1,697	,092	,984	1,017
	Gender	,046	,233	,016	,199	,842	,946	1,057
2	(Constant)	2,651	,935		2,836	,005		
	Batch	,000	,192	,000	,002	,998	,955	1,047
	Job Group	,023	,177	,010	,130	,897	,939	1,065
	Office	-,017	,016	-,076	-1,029	,305	,959	1,043
	Gender	,068	,220	,023	,310	,757	,945	1,058
	Self Efficacy	,511	,108	,350	4,731	,000	,957	1,045

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
3	(Constant)	4,937	,970		5,090	,000		
	Batch	,192	,180	,074	1,068	,287	,917	1,090
	Job Group	-,020	,165	-,008	-,122	,903	,916	1,091
	Office	-,013	,015	-,061	-,882	,379	,933	1,072
	Gender	,044	,203	,015	,219	,827	,933	1,071
	Self Efficacy	,470	,100	,322	4,700	,000	,940	1,063
	KMPD staff ratio	,060	,020	,204	2,920	,004	,906	1,104
	KMPD budget ratio	-,001	,000	-,347	-5,131	,000	,963	1,039
4	(Constant)	3,939	,962		4,094	,000		
	Batch	,088	,174	,034	,502	,616	,896	1,116
	Job Group	,098	,161	,041	,611	,542	,885	1,130
	Office	-,019	,015	-,086	-1,299	,196	,924	1,082
	Gender	,025	,195	,008	,127	,899	,933	1,072
	Self Efficacy	,326	,103	,223	3,180	,002	,822	1,217
	KMPD staff ratio	,056	,020	,193	2,887	,004	,904	1,106
	KMPD budget ratio	-,001	,000	-,323	-4,960	,000	,954	1,048
	Market Orientat.	,392	,099	,276	3,962	,000	,830	1,205

Table 42 Subjective performance analysis – coefficients

Dependent Variable: Subjective Performance

The chart below provides a graphical representation of the regression model showing subjective performance (R square = .345):

Figure 15 Regression model – subjective performance measure

5.6.2 Impact on financial performance

The second regression model analyses the impact of the same independent variables on financial performance. According to Hult et al. (2008), financial performance indicators are outcome-based measures that indicate economic goals. In order to determine the financial performance of LawCo, a variable was created that reflects the average profit per partner (PPP) over the past two financial years. PPP appears to be a key indicator in the legal industry and in professional law firms in general (Maister 1993; Scott 2001; Parson 2005). Galanter and Henderson (2008) also state that the financial information most frequently used for benchmarking law firms include revenue and profit figures with a strong focus on PPP.

As described above, the independent variables were entered in different steps starting with the control variables (gender, office, batch, job group), followed by self efficacy, the knowledge management and practice development (KMPD) variables, and finally market orientation. In contrast to subjective performance only the models three and four were significant (.000). Model one, including control variables, and model two, including control variables and the self efficacy variable, did not lead to significant results. Model three, however, was significant with an adjusted R square of .526. The inclusion of market orientation in model four only led to a small and not significant R square change of .002, resulting in an adjusted R square of .525.

Similar to the subjective performance model, the VIF and tolerance values were within the thresholds recommended by Kline (2005), meaning that mulitcollinearity is nonexistent. The fourth model shows that only the knowledge management staff ratio and the KMPD budget ratio were significant (.000), showing Beta values of .455 and -.611 respectively. The details are set out in the tables below.

The table below gives an overview of the variables entered. No variables were removed:

Model	Variables Entered	Method
1	Gender, Office, Batch, Job Group[a]	Enter
2	Self Efficacy[a]	Enter
3	KMPD budget ratio, KMPD staff ratio[a]	Enter
4	Market Orientation[a]	Enter

Table 43 Financial performance analysis – variables entered

a. All requested variables entered.

b. Dependent Variable: Objective Performance

The table below summarises the four stages using objective performance as the dependent variable:

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,159[a]	,025	,002	3,43216	,025	1,098	4	170	,359
2	,179[b]	,032	,004	3,42995	,007	1,219	1	169	,271
3	,738[c]	,545	,526	2,36593	,513	94,095	2	167	,000
4	,739[d]	,547	,525	2,36855	,002	,631	1	166	,428

Table 44 Financial performance analysis – model summary

a. Predictors: (Constant), Gender, Office, Batch, Job Group

b. Predictors: (Constant), Gender, Office, Batch, Job Group, Self Efficacy

c. Predictors: (Constant), Gender, Office, Batch, Job Group, Self Efficacy, KMPD budget ratio, KMPD staff ratio

d. Predictors: (Constant), Gender, Office, Batch, Job Group, Self Efficacy, KMPD budget ratio, KMPD staff ratio, Market Orientation

The following table provides an overview of the findings of the analysis of variance (ANOVA):

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	51,743	4	12,936	1,098	,359[a]
	Residual	2002,558	170	11,780		
	Total	2054,301	174			
2	Regression	66,086	5	13,217	1,123	,350[b]
	Residual	1988,215	169	11,765		
	Total	2054,301	174			
3	Regression	1119,501	7	159,929	28,571	,000[c]
	Residual	934,800	167	5,598		
	Total	2054,301	174			
4	Regression	1123,040	8	140,380	25,023	,000[d]
	Residual	931,261	166	5,610		
	Total	2054,301	174			

Table 45 Financial performance analysis – ANOVA

a. Predictors: (Constant), Gender, Office, Batch, Job Group

b. Predictors: (Constant), Gender, Office, Batch, Job Group, Self Efficacy

c. Predictors: (Constant), Gender, Office, Batch, Job Group, Self Efficacy, KMPD budget ratio, KMPD staff ratio

d. Predictors: (Constant), Gender, Office, Batch, Job Group, Self Efficacy, KMPD budget ratio, KMPD staff ratio, Market Orientation

e. Dependent Variable: Objective Performance

The table below provides additional information on coefficients and collinearity:

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	33,671	1,935		17,400	,000		
	Batch	-1,113	,579	-,148	-1,924	,056	,974	1,027
	Job Group	,053	,547	,008	,098	,922	,937	1,067
	Office	-,029	,050	-,045	-,585	,559	,981	1,019
	Gender	,129	,681	,015	,189	,851	,948	1,055
2	(Constant)	31,306	2,886		10,847	,000		
	Batch	-1,027	,583	-,136	-1,759	,080	,956	1,046
	Job Group	,040	,547	,006	,073	,942	,937	1,068
	Office	-,019	,050	-,030	-,384	,701	,952	1,051
	Gender	,146	,681	,017	,214	,831	,947	1,055
	Self Efficacy	,368	,334	,086	1,104	,271	,949	1,054
3	(Constant)	44,805	2,252		19,899	,000		
	Batch	,004	,411	,001	,011	,992	,918	1,089
	Job Group	-,091	,382	-,013	-,239	,811	,915	1,093
	Office	,007	,035	,010	,191	,849	,927	1,079
	Gender	,061	,473	,007	,128	,898	,934	1,071
	Self Efficacy	,116	,232	,027	,502	,617	,933	1,072
	KMPD staff ratio	,395	,048	,457	8,296	,000	,898	1,113
	KMPD budget ratio	-,007	,001	-,615	-11,587	,000	,967	1,034
4	(Constant)	44,304	2,341		18,929	,000		
	Batch	-,041	,415	-,005	-,099	,921	,901	1,110
	Job Group	-,031	,390	-,004	-,080	,936	,880	1,136
	Office	,004	,035	,007	,121	,904	,920	1,087
	Gender	,055	,474	,006	,116	,908	,934	1,071
	Self Efficacy	,047	,248	,011	,191	,849	,818	1,222
	KMPD staff ratio	,393	,048	,455	8,247	,000	,897	1,115
	KMPD budget ratio	-,007	,001	-,611	-11,463	,000	,960	1,042
	Market Orientat.	,189	,238	,045	,794	,428	,836	1,197

Table 46 Financial performance analysis – coefficients

a.   Dependent Variable: Objective Performance

The chart below provides a graphical representation of the regression model showing objective performance (R square = .547):
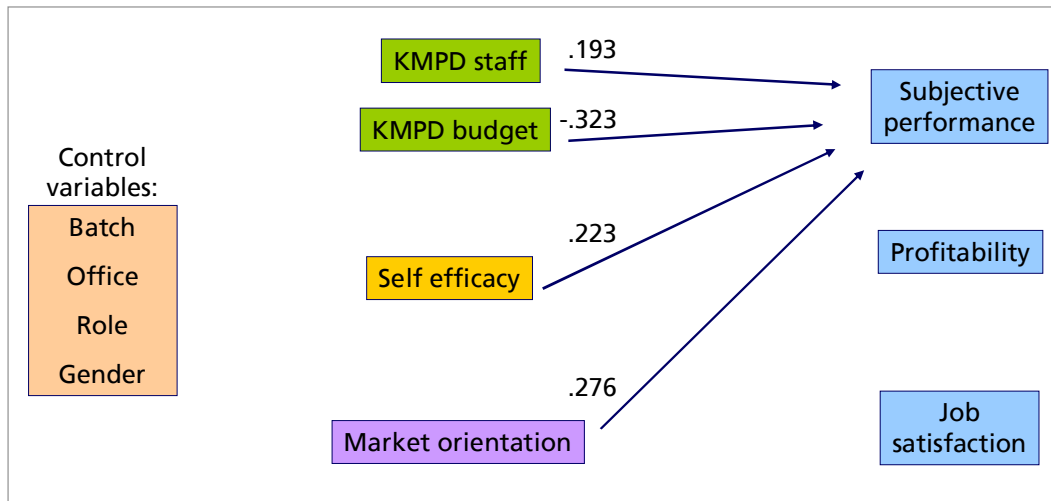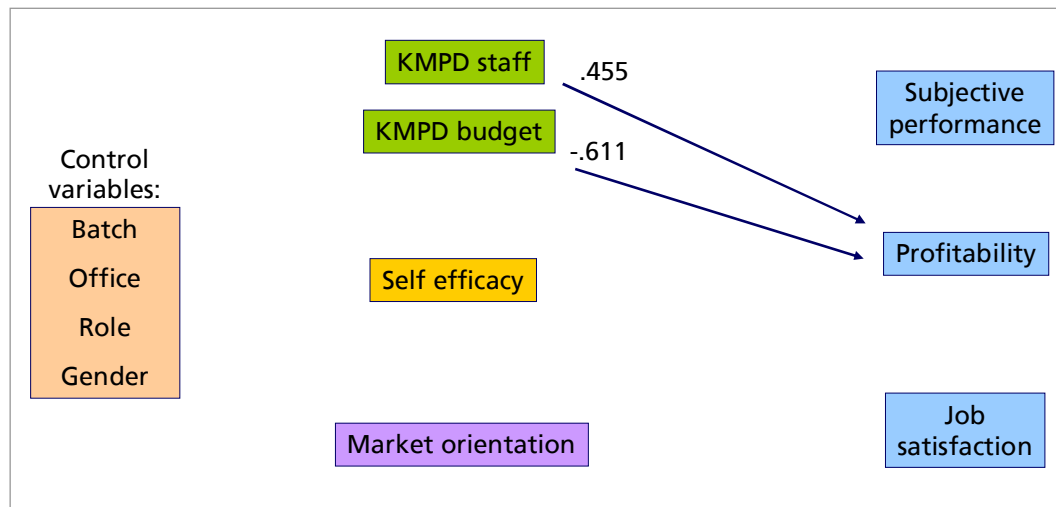

Figure 16 Regression model – objective performance measure (profitability)

5.6.3 Impact on job satisfaction

The third and final regression model analyses the impact of the independent variables described above on job satisfaction, which is the dependent variable. Hult et al. (2008) state that job satisfaction is an appropriate indicator for a firm's operational performance. A single-item measure (see Wanous et al. 1997; Nagy 2002) was added to the market orientation questionnaire with the goal to establish whether LawCo's lawyers were generally satisfied with the kind of work they do in their job.

Again, the stepwise regression model started with the inclusion of the control variables (gender, office, batch, job group). Subsequently, the self efficacy variable, the knowledge management and practice development (KMPD) variables, and the market orientation variable were entered. The inclusion of the control variables gender, office, batch, and job group in first step led to an adjusted R square of .036; showing an R square change of .058, which was also significant (.037). The self efficacy variable was added in step two, which resulted in an adjusted R square of .353; representing a R square change of .314. Step three, the inclusion of the two KMPD variables, only led to a small R square change of .001; showing an adjusted R square of .346. Finally, the fourth model, including market orientation, resulted in an adjusted R square of .358 and an R square change of .016. Each of the four models was significant.

The fourth model shows that self efficacy (.000) and market orientation (.041) were significant with Beta values of .529 and .136. The KMPD variables, however, were not

significant. The control variable gender was also significant (0.47), with a Beta value of .126, showing that female lawyers rated job satisfaction lower than their male colleagues. The mean job satisfaction scores (scale 1-7) are 5.33 for female lawyers and 5.72 for male lawyers. The tolerance and VIF values were within the thresholds put forward by Kline (2005), which suggests that mulitcollinearity is not present. The tables below present additional information on the regression model and the variables.

The table below provides an overview of the variables entered. No variables were removed:

Model	Variables Entered	Method
1	Gender, Office, Batch, Job Group[a]	Enter
2	Self Efficacy[a]	Enter
3	KMPD budget ratio, KMPD staff ratio[a]	Enter
4	Market Orientation[a]	Enter

Table 47 Job satisfaction analysis – variables entered

a. All requested variables entered.

b. Dependent Variable: Job Satisfaction

The table below summarises the four stages using job satisfaction as the dependent variable:

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics R Square Change	F Change	df1	df2	Sig. F Change
1	,241[a]	,058	,036	1,004	,058	2,618	4	170	,037
2	,610[b]	,372	,353	,823	,314	84,396	1	169	,000
3	,610[c]	,372	,346	,827	,001	,068	2	167	,934
4	,623[d]	,388	,358	,819	,016	4,221	1	166	,041

Table 48 Job satisfaction analysis – model summary

a. Predictors: (Constant), Gender, Office, Batch, Job Group

b. Predictors: (Constant), Gender, Office, Batch, Job Group, Self Efficacy

c. Predictors: (Constant), Gender, Office, Batch, Job Group, Self Efficacy, KMPD budget ratio, KMPD staff ratio

d. Predictors: (Constant), Gender, Office, Batch, Job Group, Self Efficacy, KMPD budget ratio, KMPD staff ratio, Market Orientation

The following table gives an overview of the findings of the analysis of variance (ANOVA):

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10,564	4	2,641	2,618	,037[a]
	Residual	171,470	170	1,009		
	Total	182,034	174			
2	Regression	67,674	5	13,535	20,002	,000[b]
	Residual	114,360	169	,677		
	Total	182,034	174			
3	Regression	67,768	7	9,681	14,149	,000[c]
	Residual	114,267	167	,684		
	Total	182,034	174			
4	Regression	70,601	8	8,825	13,147	,000[d]
	Residual	111,433	166	,671		
	Total	182,034	174			

Table 49 Job satisfaction analysis – ANOVA

a. Predictors: (Constant), Gender, Office, Batch, Job Group

b. Predictors: (Constant), Gender, Office, Batch, Job Group, Self Efficacy

c. Predictors: (Constant), Gender, Office, Batch, Job Group, Self Efficacy, KMPD budget ratio, KMPD staff ratio

d. Predictors: (Constant), Gender, Office, Batch, Job Group, Self Efficacy, KMPD budget ratio, KMPD staff ratio, Market Orientation

e. Dependent Variable: Job Satisfaction

The table below provides further information on coefficients and collinearity:

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	5,892	,566		10,406	,000		
	Batch	-,059	,169	-,026	-,346	,730	,974	1,027
	Job Group	-,198	,160	-,095	-1,234	,219	,937	1,067
	Office	-,033	,015	-,172	-2,284	,024	,981	1,019
	Gender	,307	,199	,118	1,538	,126	,948	1,055
2	(Constant)	1,172	,692		1,693	,092		
	Batch	,115	,140	,051	,819	,414	,956	1,046
	Job Group	-,225	,131	-,108	-1,713	,089	,937	1,068
	Office	-,014	,012	-,072	-1,149	,252	,952	1,051
	Gender	,341	,163	,131	2,087	,038	,947	1,055
	Self Efficacy	,735	,080	,575	9,187	,000	,949	1,054

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
3	(Constant)	1,143	,787		1,452	,148		
	Batch	,112	,144	,050	,780	,437	,918	1,089
	Job Group	-,232	,133	-,112	-1,740	,084	,915	1,093
	Office	-,015	,012	-,075	-1,180	,240	,927	1,079
	Gender	,333	,165	,128	2,016	,045	,934	1,071
	Self Efficacy	,738	,081	,577	9,093	,000	,933	1,072
	KMPD staff ratio	-,004	,017	-,017	-,258	,797	,898	1,113
	KMPD budget ratio	-5,150E-5	,000	-,015	-,242	,809	,967	1,034
4	(Constant)	,695	,810		,859	,392		
	Batch	,071	,144	,032	,497	,620	,901	1,110
	Job Group	-,179	,135	-,086	-1,326	,187	,880	1,136
	Office	-,017	,012	-,086	-1,366	,174	,920	1,087
	Gender	,328	,164	,126	2,004	,047	,934	1,071
	Self Efficacy	,676	,086	,529	7,877	,000	,818	1,222
	KMPD staff ratio	-,006	,016	-,022	-,345	,731	,897	1,115
	KMPD budget ratio	-1,417E-5	,000	-,004	-,067	,947	,960	1,042
	Market Orientat.	,169	,082	,136	2,055	,041	,836	1,197

Table 50 Job satisfaction analysis – coefficients

a. Dependent Variable: Job Satisfaction

The chart below provides a graphical representation of the regression model showing job satisfaction (R square = .388):
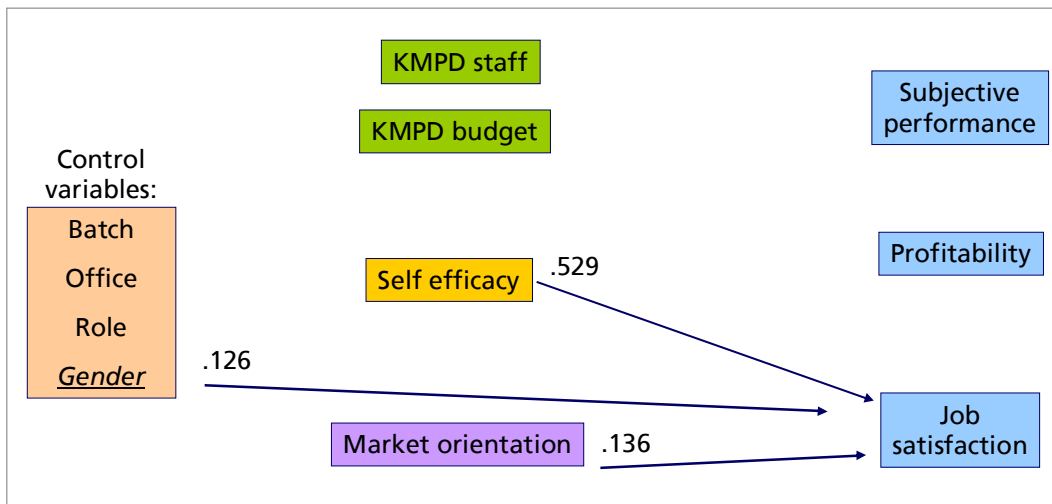
Figure 17 Regression model – job satisfaction measure

5.7 Market orientation scores

In addition to the correlation and regression analyses described in the previous sections, it might also be worth analysing the actual scores of the market orientation questionnaire. As described above, the questionnaire also included items on self efficacy, job satisfaction, and performance. The actual scores derived from the market orientation questionnaire, which can be found in the appendix, are based on a 7-point Likert scale.

As laid out in Chapter 4, practice groups are the main organisational entities within LawCo. Each lawyer belongs to one or, in some limited circumstances, to two practice groups. The eight practice groups cover different areas of the law and are managed by practice group leaders. The practice groups also have separate knowledge management and practice development strategies and processes, which may have an impact on how lawyers perceive market orientation. The following chart shows the mean actual scores (scale of 1-7) per practice group (PG1-PG8) for intelligence gathering (IG), intelligence dissemination (ID), responsiveness (R), market orientation (MO), self efficacy (SE), job satisfaction (JS), and subjective performance (Perf):
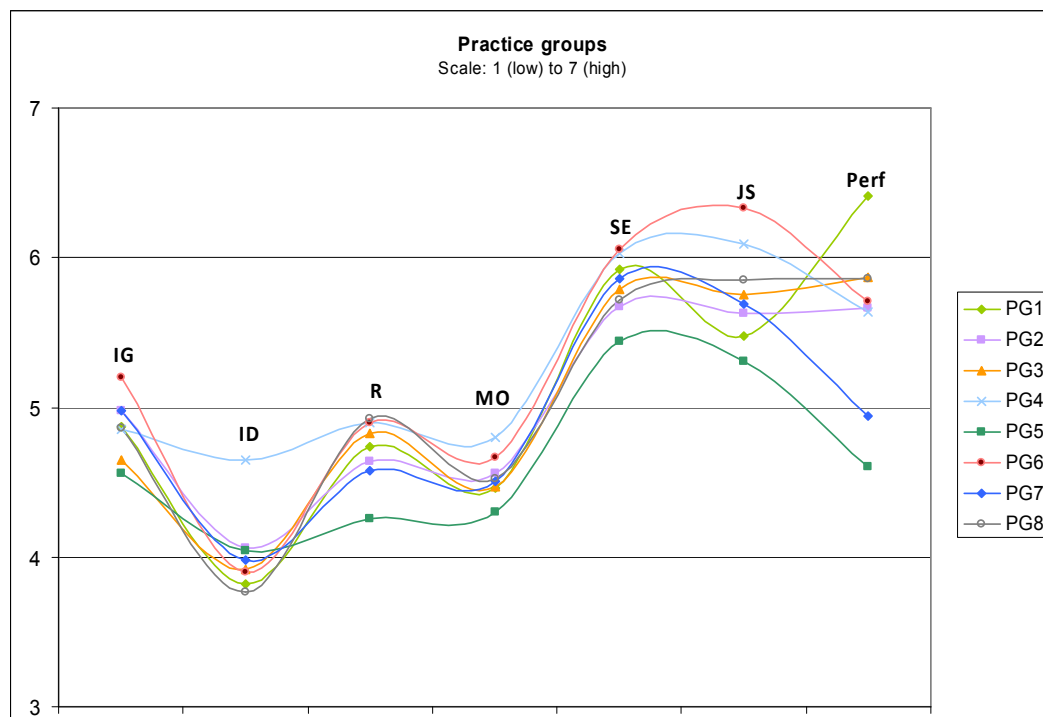
Figure 18 Actual market orientation scores by practice groups

The chart below provides an additional perspective of the information presented above. It gives an overview of the mean actual scores (scale of 1-7) per practice group (PG1-PG8)

for market orientation (MO), self efficacy (SE), job satisfaction (JS), and subjective performance (Perf). The ranking follows the subjective performance scores.
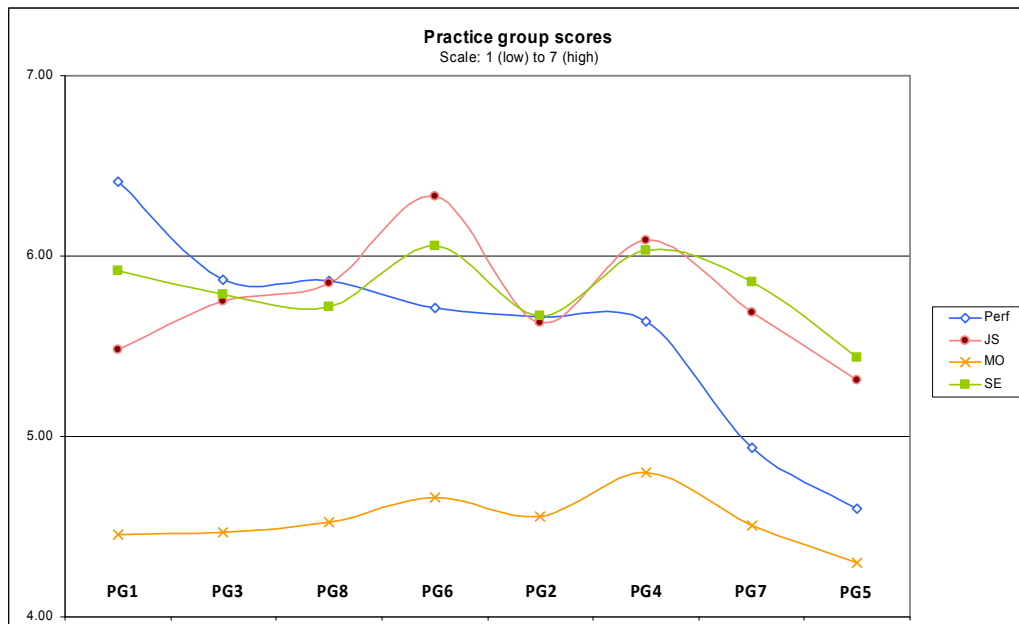
Figure 19 Actual scores by practice groups

5.7.1   Seniority

The questionnaire was sent to partners and senior associates and thus represents two seniority levels. LawCo is a limited liability partnership with partners owning a stake in the company. Partners are highly experienced lawyers who manage transactions and teams of associates. Senior associates, on the other hand, are salaried lawyers. They are more experienced and have more responsibilities than associates or trainees. Depending on the practice group and the individual, senior associates may take on a more client-facing role or may lead certain aspects of a transaction. New partners are mostly selected from the firm's pool of senior associates.

The chart below shows the mean actual scores (scale of 1-7) per seniority level (partners, senior associates) for intelligence gathering (IG), intelligence dissemination (ID), responsiveness (R), market orientation (MO), self efficacy (SE), job satisfaction (JS), and subjective performance (Perf). The actual market orientation scores of senior associates are lower than the partner scores. The subjective performance score, however, is very similar. Partners have higher job satisfaction and self efficacy scores.
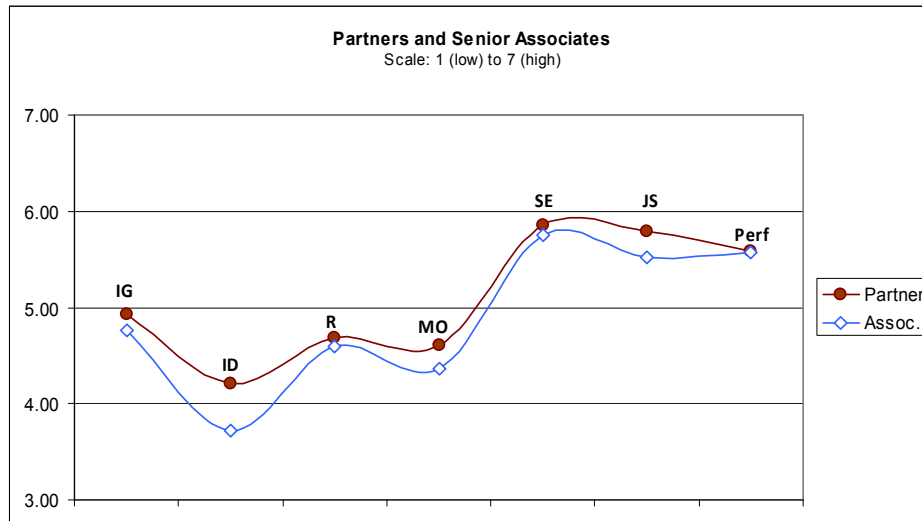
Figure 20 Actual scores by seniority

5.7.2   Practice group size

The size of LawCo's eight practice groups differs to some extent. Using the number of lawyers per practice group as a basis, the practice groups can be divided into three categories. There are four 'small' practice groups (size 1: PG4, PG6, PG7, PG8) with less than 160 lawyers each. 'Medium' sized practice groups (size 2: PG1, PG3, PG5) employ between 250 and 460 lawyers worldwide. One practice group (size 3: PG2) can be classified as 'large' as it employs more than 850 lawyers worldwide. The chart below represents the mean actual scores (scale of 1-7) per practice group size (small, medium, large) for intelligence gathering (IG), intelligence dissemination (ID), responsiveness (R), market orientation (MO) self efficacy (SE), job satisfaction (JS), and subjective performance (Perf). Smaller and larger practice groups have high IG scores; whereas the ID scores are relatively similar across the three categories. Small practice groups have the highest responsiveness scores, followed by the largest practice group and the medium-sized practice groups. Smaller practice groups are also consequently leading the combined market orientation score, just ahead of the largest practice group. Middle-sized practice groups show the lowest market orientation score.
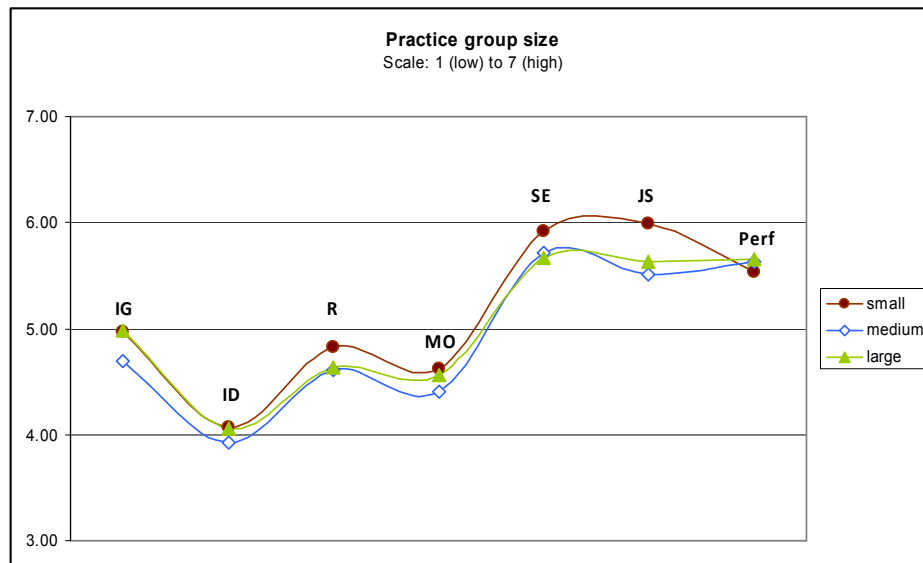
Figure 21 Actual scores by practice group size

5.7.3   Geographical dispersion

The table below shows the mean actual scores (scale of 1-7) per geographical dispersion score (high diversification HHIC1, low diversification HHIC2) for intelligence gathering (IG), intelligence dissemination (ID), responsiveness (R), market orientation (MO), self efficacy (SE), job satisfaction (JS), and subjective performance (Perf). The geographical dispersion of lawyers within their practice groups was deemed important as some practice groups are truly international in scope, whereas others only operate in certain jurisdictions, or work out of regional hubs. In order to establish the geographical dispersion of lawyers, the Herfindahl-Hirschman Index (HHI) was applied for this study (see Hitt et al., 2001).

HHI, in its original form, measures the size of firms in relation to other companies in its sector or industry. It is used as an indicator of competition among the companies within a sector or industry and generally defined as the sum of the squares of the market shares of the largest firms within an industry or sector. Expressed as percentages, decreases in the HHI market share value commonly indicate a decrease of market power and an increase in competition. Increases indicate an opposite market structure. The HHIC index below describes the composition of practice groups based on the number of lawyers in different countries. It was possible to divide the practice groups into two HHIC groups. PG1 and PG2 show low HHIC scores, which means that the practice groups are spread relatively evenly across several countries. The remaining practice groups have higher HHIC scores,

indicating a concentration of lawyers in a certain countries. The results suggest that the market orientation (MO) scores of the two groups are almost identical.

Geographical dispersion
Scale: 1 (low) to 7 (high)
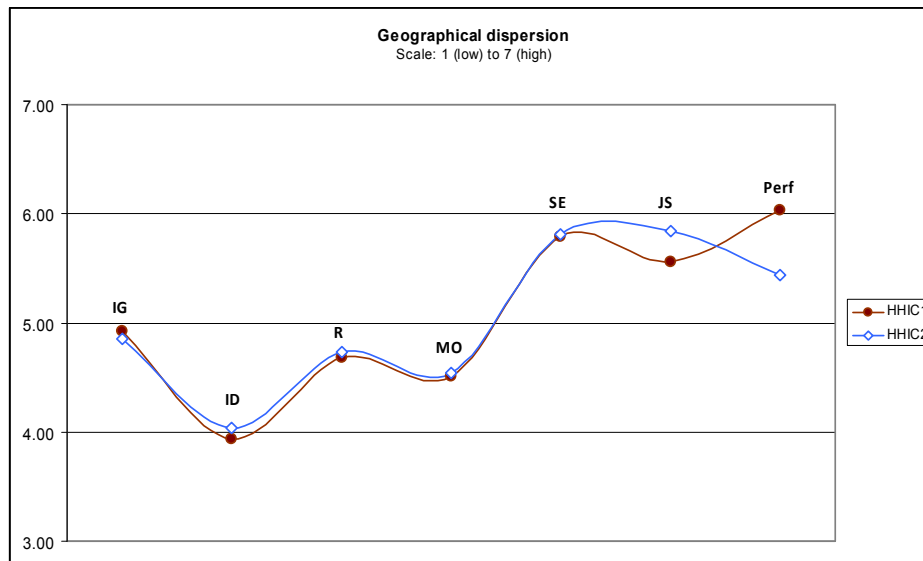
Figure 22 Actual scores by geographical diversification index (HHI)

5.8   Conclusion

The aim of this chapter was to summarise the quantitative findings of this research. In particular, the purpose of the chapter was to test the conceptual model and hypotheses as introduced in section 2.6. The chapter thus discusses the outcome of the analysis of the market orientation questionnaire. The total response rate (33.9) of the survey is within the suggested range as recommended by Baruch (1999) and does not represent an extreme case. An initial screening of the data and the additional analysis of the reliability and the validity of the scales (see Kline 2005; Field 2009) and market orientation compounds (Nunnally, 1978) led to the conclusion that it was appropriate to carry out further statistical analyses, including correlation and regression analysis.

The correlation analysis, a technique used to analyse the degree of relationships between variables in order to better understand any interdependences (Field, 2009), found significant positive relationships between the market orientation variables (IG, ID, R, MO) and job satisfaction (JS), self efficacy (SE), and the subjective performance measure (SP). Similarly, the market orientation variables (IG, ID, R) also showed strong correlations between them. It is worth noting that out of the market orientation variables, responsiveness shows the strongest correlation with subjective performance (.391), job

satisfaction (.365), and self efficacy (.421). The responsiveness correlation is also higher than that of the combined market orientation.

Although objective performance (OP) correlates with subjective performance (.330) at the 0.01 level, it does not have any significant relationships with any of the market orientation measures. Self efficacy (.362) and job satisfaction (.226) correlate positively with subjective performance, but not with objective performance. The correlation between self efficacy and job satisfaction is .577. The knowledge management variables (KS and KB) do not correlate with any of the market orientation variables, but they correlate significantly with both subjective and objective performance. The staff related knowledge management variable (KS) is positively related to subjective performance and objective performance; whereas the budget related knowledge management variable (KB) is negatively related to both subjective and objective performance. The results do not indicate relationships of any importance between KS and KB and self efficacy or job satisfaction. KS only shows a moderate correlation with self efficacy (.174) at the 0.01 level.

In contrast to correlation models, which only measure correlations between variables, regression models can be used to analyse cause and effect relations (Field, 2009). Using a stepwise regression method, a multiple regression analysis was carried out to test three theoretical models, which contained multiple independent variables and one dependent variable. All of the three models consisted of the same independent variables (market orientation, self efficacy, and two knowledge management variables), the same control variables (gender, office, batch, and job group), but different dependent variables representing different types of performance. As recommended by Hult et al. (2008), performance measures should be taken from across the three measurement categories (financial performance, operational performance, overall effectiveness). In this study, the financial performance variable refers to the profit per partner ('objective performance' or 'PPPmeasure'). Overall effectiveness is a subjective measure of the firm's performance against its main competitors ('subjective performance' or 'perf'). Operational performance reflects the job satisfaction scores of employees ('job satisfaction' or 'job'). Both overall effectiveness and operational performance measures were established as part of the MARKOR survey.

The first model, the analysis of subjective performance, showed an adjusted R square of .313 (significant at the .000 level). The standardised coefficients (Beta) of market orientation (.276) and self efficacy (.223) were positive. The Beta of knowledge

management staff ratio was .193; whereas the Beta of KMPD budget ratio was -.323. Although the analysis of financial performance resulted in an adjusted R square of .525, only the knowledge management staff ratio and the KMPD budget ratio were significant (.000) with Beta values of .455 and -.611. Finally, the model including job satisfaction led to an adjusted R square of .358. Both self efficacy (.529) and market orientation (.136) were significant antecedents to job satisfaction. Although the inclusion of the knowledge management variables did not have an impact on the relationship, the control variable gender was also significant (0.47) in relation to job satisfaction, with a Beta value of .126, showing lower job satisfaction scores for female lawyers. The tolerance and VIF values of all of the three models were within the thresholds put forward by Kline (2005), which suggests that mulitcollinearity is not present.

The findings thus support hypotheses H1a and H1b, in that market orientation has a positive impact on practice group performance in terms of subjective performance (H1a) and job satisfaction (H1c). However, hypothesis H1b cannot be supported as no significant relationship between market orientation and profitability was found. Similarly, self efficacy has a positive impact on practice group performance in terms of subjective performance (H2a) and job satisfaction (H2c), but not on profitability (H2b). The effect of knowledge management remains ambiguous. Although staff related knowledge management indicators appear to have a positive impact on subjective performance (H3a) and profitability (H3b), budget related knowledge management indicators show a negative relationship with subjective performance (H3a) and profitability (H3b). Neither staff, nor budget related knowledge management indicators appear to have an impact on job satisfaction (H3c). The following table provides an overview of whether hypotheses were supported, not supported or partially supported by this analysis:

Hyp.	Description	Outcome
H1a	Market orientation has a positive impact on practice group performance in terms of subjective performance.	Supported.
H1b	Market orientation has a positive impact on practice group performance in terms of profitability.	Not supported: no significant relationship between MO and profitability.
H1c	Market orientation has a positive impact on practice group performance in terms of job satisfaction.	Supported.
H2a	Self efficacy has a positive impact on practice group performance in terms of subjective performance.	Supported.
H2b	Self efficacy has a positive impact on practice group performance in terms of profitability.	Not supported: no significant relationship between self efficacy and profitability.
H2c	Self efficacy has a positive impact on practice group performance in terms of job satisfaction.	Supported.
H3a	Knowledge management has a positive impact on practice group performance in terms of subjective performance.	Partially supported: staff related variable has a positive impact on subjective performance; whereas the budget related variable has a negative impact.
H3b	Knowledge management has a positive impact on practice group performance in terms of profitability.	Partially supported: staff related variable has a positive impact on profitability; whereas the budget related variable has a negative impact.
H3c	Knowledge management has a positive impact on practice group performance in terms of job satisfaction.	Not supported: no significant relationship between knowledge management and job satisfaction.

Table 51 Hypotheses (outcome of quantitative analysis)

The results above support the findings of Cano et al. (2004), Kirca et al. (2005) and Shoham et al. (2005), whose meta-analyses led them to conclude that there is a stronger relationship between market orientation and subjective performance measures than objective performance measures. These findings will be discussed in more detail in Chapter 7.

6   Qualitative case analysis

6.1   Introduction

The aim of this section is to provide an overview of the relationships between market orientation, knowledge management, and performance by practice groups, based on qualitative findings of this study. According to Silverman and Marvasti (2008, p.50), the data collection process in qualitative studies can be described as "an open-ended process that encompasses all the contextual information related to the research topic and the research site". The breadth and depth of information gathered help to provide a rounded and informative picture of LawCo and the processes related to the research question and the empirical findings. The chapter draws on the findings of the data gathering process, including the document and literature review, the market orientation survey, and the semi-structured interviews:

Stages	Description
Literature and document review	Following a literature review, the identification of gaps in knowledge and the introduction of a research question, a list of internal documents were selected for an in-depth review.
Questionnaire	Similar to other market orientation studies, the MARKOR questionnaire had to be adapted and tested to suit the law firm environment. A pilot group and the advisory group supported this process.
Phased roll-out	The survey was rolled-out along the firm's matrix structure, allowing a phased roll-out.
Analysis and comparison of data	The survey data was analysed using statistical methods. The results were subsequently compared with findings from the literature and document review, which triggered a further literature and document review.
Semi-structured Interviews	Based on the findings above and the mixed method case study approach, semi-structured interviews were carried out in order to add context to the findings and to challenge the results.

Table 52 Data gathering process

According to Eisenhardt (1989, p.541), researchers using a case study method should use both within-case and cross-case techniques in order to "force investigators to go beyond initial impressions, especially through the use of structured and diverse lenses on the data". As stated in the research methodology section, this will also help to overcome common data analysis errors (Eisenhardt, 1989, p.540) such as (i) basing conclusions on

limited data; (ii) being overly influenced by vividness or (iii) elite respondents; (iv) ignoring basic statistical properties; and, (v) dropping disconfirming evidence.

LawCo's eight practice groups are analysed in more detail in this chapter, using 'within-cases' and "cross-cases" techniques. Categories such as practice group size, level of seniority, and geographical diversification form the 'dimensions' of the cross-case analysis. As described previously, practice groups develop their yearly business plans and are responsible for putting the firm's strategy into practice. In addition to this, practice groups also have dedicated staff to design and implement knowledge management and practice development structures and processes, in order to meet the practice group's business needs.

Using the firm as the unit of analysis could help to generalise the findings, but may not reveal valid results because of differences due to the matrix structure of the firm. In contrast, using practice groups as units of analysis may hinder the generalisibilty of results, but will help to guarantee that the study takes into account the mainly decentralised management structure and hybrid approach to knowledge management and practice development. Although choosing an appropriate unit of analysis may often lead to a trade off between generalisability, reliability, and validity, the characteristics and responsibilities of practice groups described above help to justify the selection of practice groups as embedded cases (Neuman 2006; Yin 2009).

6.2   Semi-structured interviews

Following the mixed method case study approach (see Teddlie and Tashakkori 2003; Creswell et al. 2008; Yin 2009), an extensive document analysis was carried out in order to provide additional insights and to provide context to the empirical findings (see Yin, 2009). Semi-structured interviews were selected to validate particular aspects of the empirical investigations and the document review (see Robson, 2002). The interviews were semi-structured to allow a flexible approach when asking interviewees questions. This way, respondents were encouraged to provide further details on matters that arose during the interview or from prior interviews. This qualitative approach also helped to clarify and illustrate the meaning of the findings, as well as enrich the quality of the answers. Theoretical saturation (Robson, 2002) was reached after 10 interviews.

Each of the interviews was recorded and fully transcribed. The transcripts of the interviews were then coded and tabularised (see Glaser and Strauss 1967; Miles and

Huberman 1994; Yin 2009). The code frame was based on the themes that emerged from the empirical analysis, the document review, and from the analysis of the interview data itself. Exemplary extracts of the interviews are used throughout this section to illustrate the findings and to present a richer picture of the organisational setting.

The semi-structured interviews started with a quick introduction. The interviewer provided a brief overview of the study and the methodology used. He then documented the background of the interviewee, including number of years with the firm, role, and qualifications. Following the initial steps above, the interviewer presented the key findings and main trends to date. The interview started with a discussion of the overall picture and practice group specific differences. It also covered the knowledge management and practice development orientation of the practice group, including the impact of investments (i.e. budget, staffing), priorities, and important processes on market orientation.

The focus was also on the quality of market orientation, including the practice group's approach to intelligence generation, the speed and focus of intelligence dissemination, and the level of responsiveness. In addition to this, differences and similarities between partners' and senior associates' responses were discussed. It was also of importance to discuss practice group size differences and the impact of market orientation and performance on job satisfaction. The interviewee was asked to name factors that may influence market orientation. Where the interviewee could not think of any factors the interviewer would prompt potential influencing factors, such as jurisdiction/country, nature of the law, working practices in practice groups, culture, client expectations, or top management priorities.

The interviewee was also asked to describe the current market conditions and the impact of turbulences and changes, such as economic crisis, market turbulences, and changes in technology, or legal aspect. Summarising the interview, the respondent was asked to examine the overall trend and to discuss the findings from a firmwide point of view.

Similar to any data collection process, it is difficult to know when to stop approaching additional interviewees in order to gather further information. Robson (2002, p.1999) suggests to "keep going until you reach 'saturation'; this is when further data collection appears to add little or nothing to what you have already learned". Interviews were subsequently conducted until theoretical saturation was reached.

The table below shows the list of interviewees providing information on their department, job title, and background. In total, 10 interviews were carried out, with six respondents from practice groups and four senior managers from central knowledge management and practice development (KMPD) teams. One central KMPD respondent (Centr3-IV) could also provide additional insights into PG8 as she had previously spent several years as a knowledge management lawyer in that practice group.

Area: Interview-ID / Job title*	Additional information
PG1: PG1-IV Practice Development Manager	Previously also Practice Development Manager for PG6. Based in London. More than 5 years with the firm.
PG2: PG2-IV Practice Development Manager	Based in London. More than 2 years with the firm. Previously a Business Development Manager in investment banking.
PG3: PG3-IV Practice Development Lawyer	Previously also an associate with PG3. Based in London. More than 17 years with the firm.
PG4: PG4-IV Practice Development Lawyer	Based in 'Central Europe II'. More than 2 years with the firm. Responsible for the practice group's global knowledge management and practice development function.
PG5: PG5-IV Head of Practice Development	Based in London. More than 5 years with the firm. Trained lawyer. Responsible for the practice group's global knowledge management and practice development function.
PG6: PG6-IV Head of Practice Development	Based in 'Central Europe I'. More than 8 years with the firm. Trained lawyer. Responsible for the practice group's global knowledge management and practice development function.
Central KMPD: Centr1-IV Director of Knowledge Management and Practice Development	Responsible for all Knowledge Management and Practice Development areas. Based in London. Qualified lawyer and former partner of an international US law firm. More than 4 years with the firm.
Central KMPD: Centr2-IV Library and Information Services Manager	Responsible for the Library and Information Services function. Based in London. More than 6 years with the firm.
Central KMPD: Centr3-IV Senior Client Relationship Manager	Based in London. More than 15 years with the firm. Trained lawyer and previously also a professional support lawyer with PG8.
Central KMPD: Centr4-IV Senior Client Relationship Manager	Based in London. Previously a lawyer with PG3. More than 15 years with the firm.

Table 53 Semi-structured interviews – list of interviewees

* The job titles had to be amended in order to retain anonymity.

6.3 Within-case analysis

Several scholars highlight that there is no standard format for case analysis (i.e. Eisenhardt 1989; Yin 2009,). Eisenhardt (1989, p.540), however, states that the goal of within-case analysis "is to become intimately familiar with each case as a stand-alone entity. This process allows the unique patterns of each case to emerge before investigators push to generalize patterns across cases". Cross-case patterns might be found by choosing dimensions, which can be based on existing literature, or driven by the research objective. This requires examining "within-group similarities coupled with intergroup differences" (Eisenhardt, 1989, p.540).

The sections below set out the results of the within-case analyses of the eight practice groups and provide information on: the practice group's size and performance, its job satisfaction and self efficacy scores; the market orientation scores; the Knowledge Management and Practice Development (KMPD) function and its focus; and a synopsis of the relevant semi-structured interviews.

6.3.1 Practice group 1 (PG1)

PG1 is a medium sized practice group with more than 200 lawyers. Its fee earners are spread relatively evenly across many offices and jurisdictions.

> "PG1 people understand the market place. It is part of the work – more than in any other practice area. PG1 can be characterised by the high number of extrovert, outgoing lawyers" (PG1-IV.)

> "PG1 is very integrated. It is an international practice" (PG1-IV).

The practice group's performance is characterised by high revenue figures over the past two financial years and an improved profitability in the last year. PG1 is recognised in the market as the leading team in its field. The subjective performance score is the highest within LawCo and truly stands apart from the other practice groups.

> "PG1 has a fantastic reputation in the market, which is also reflected in league tables and client feedback. It is known for its high quality work. It is actually quite easy to market this practice" (PG1-IV).

Although the practice group's performance is outstanding, the job satisfaction scores are the second lowest.

"Lawyers in PG1 work long hours and do multi-jurisdictional work. This may impact the job satisfaction scores. The status of the practice, however, should give them high job satisfaction scores" (PG1-IV).

"Maybe lawyers think that they have fewer [partnership] opportunities because they work in a smaller practice group" (PG1-IV).

"It is astonishing that the job satisfaction score of PG1 is that low" (PG6-IV).

The self efficacy score is above average. Looking at market orientation, the intelligence gathering and responsiveness scores are only average. The intelligence dissemination score is the second lowest score within the firm.

"I believe that PG1 is top in sharing information across the practice. Maybe there is a bit of a silo mentality when it comes to sharing information with other practice groups" (PG1-IV).

"There is a dedicated team in Brussels that deals with information gathering and dissemination. Maybe there are scale issue because it is a small practice" (PG1-IV).

The knowledge management and practice development (KMPD) function follows a 'people-driven' approach with a high number of KMPD staff per fee earner. The high KMPD budget per lawyer relates to staff costs with less emphasis on investments in infrastructure, systems, or marketing. The team mainly consists of knowledge management lawyers (including seconded associates) and junior staff. Given its size, there are only a small number of practice development managers working for this practice group. Based on the time recording statistics, the KMPD team focuses on data management services (17%) and current awareness (16%), followed by pitching (13%) and training (13%) activities. Legal queries account for 10% of KMPD time; whereas business queries only account for 3%.

"PD staff in smaller practice groups are getting more involved in the business. Practice development staff in bigger practice groups are getting more involved in mid-level organisational issues" (PG1-IV).

6.3.2 Practice group 2 (PG2)

PG2 is the firm's largest practice group with more than 700 lawyers. Similar to PG1 its fee earners are spread relatively evenly across many offices and jurisdictions. The practice group's performance figures indicate a medium rise in revenue and a high increase in profitability over the last three years.

The practice group's self efficacy scores are the second lowest. Job satisfaction and performance scores are average. PG2, the firm's largest practice group, has the second highest intelligence gathering and intelligence dissemination scores. Although the intelligence dissemination score is better than average, it is still far below that of PG4. The responsiveness score is only average. The interviewee (PG2-IV) was pleased with the results:

> *"I am actually quite satisfied with the results. Especially given the resource-constraints – the KMPD team is understaffed – and that this is the largest practice group. I am quite happy with this result and thought it to be worse. It is not surprising that smaller, integrated teams where everyone knows everyone have higher market orientation scores" (PG2-IV).*

> *"Within the KMPD team communication is much better and the available communication tools (i.e. knowledge database, newsletters, emails) are used frequently. It is not the case that lawyers don't get enough information" (PG2-IV.)*

The knowledge management and practice development (KMPD) function's costs per fee earner are average. Given its size, the practice group's practice development and content spend is relatively low. Compared to other practice groups fee earners record a significant amount of KMPD time. Based on the group's time recording statistics, the KMPD team focuses on know-how (14%), current awareness (13%) and training activities (11%). Legal and business queries account for 9% each. Time spent on preparing pitches is relatively low with 3%.

The interviewee noted that the firm, and especially this practice group, appear to be too de-centralised. According to the interviewee, the structure also needs to be streamlined to help improve internal communications:

"There are several teams and sub-teams within the practice group that provide and circulate market intelligence. Maybe this needs to be centralised" (PG2-IV).

"The management and client focus should come from practice groups and sector groups. The technical legal issues will still need to be discussed on a country level" (PG2-IV).

"Internal communications is a big issue. There is a lack of transparency. This issue has been recognised and initial measures have been taken over the past two years. It is difficult to change the mindset and it will take constant efforts to change behaviours and the communication culture. This requires tenacity" (PG2-IV).

During the downturn the practice group focused on internal things, such as improving systems and basic processes, and data. The group also used the time to train lawyers, in order to cope with the change in demand. According to the interviewee the practice group was able to adapt.

6.3.3 Practice group 3 (PG3)

PG3 is a medium-sized practice group with more than 300 lawyers worldwide. The Herfindahl-Hirschman Index indicates that the group is not evenly spread across offices. The practice group has the second highest subjective performance score. Over the past three fiscal years the practice group saw a consistent rise in its revenue and profitability. It appears that PG3 is profiting from counter-cyclical demand:

"The good performance of the practice group can be explained by the economic downturn, which leads to a higher demand for PG3's products and services" (PG3-IV).

Both the job satisfaction and the self efficacy scores are average. However, the market orientation scores are quite mixed; the practice group has a low intelligence gathering score, an average intelligence dissemination score, and a relatively high responsiveness score. The total market orientation score is therefore average when compared to the other practice groups. In this instance, the interviewee highlighted that there are different sub-teams within PG3:

"Some of the teams are closely aligned to client relationship teams. Other teams, however, are not that aware of the firm's client relationships. This might explain the low intelligence gathering score." (PG3-IV)

The interviewee also highlighted the importance of direct client contact and the different levels of relationship management activities:

"Partners who are not on client review boards usually only have direct contact to their own clients and not a broader overview. This holds even more true for senior associates. Being part of the core client relationship team makes it easy to go out to clients in order to gather market intelligence and to understand the situation they are in. If you are not part of the core team the access to market intelligence is limited" (PG3-IV).

The knowledge management and practice development (KMPD) function's costs per fee earner are high, with a strong focus on KMPD staff costs. Similar to PG1 and PG2 the practice group invests in knowledge management lawyers and junior knowledge management staff. The number of practice development staff is relatively low. The time recording statistics indicate that the KMPD team members spend significant time on current awareness activities (20%), followed by training (10%), and know-how (9%). Compared to other teams the KMPD group spends hardly any time on data management (2%).

"The KMPD strategy of PG3 can be described as practice development focused knowledge management. Of course we are also working on templates and standard forms but this technical [legal] oriented type of knowledge management is more the nuts and bolts work. Helping identify hot topics is one of the key activities. You need to understand the client to be able to carefully anticipate their needs. It is sometimes also necessary to educate clients [i.e. on upcoming legal developments and how they need to react]" (PG3-IV).

6.3.4   Practice group 4 (PG4)

PG4 is a small practice group with more than 100 lawyers. Similar to PG3 and PG5 the practice group does not operate in all offices. There is an emphasis on the European market. Based on the survey results, PG4 displays average performance. The financial figures show a medium increase in revenue. Parallel to the rise in revenue, the

profitability showed a low to medium rise over the previous three years. Although the practice group's financial performance is good, it is not surpassing other practice groups. Nevertheless it has the second highest job satisfaction and self efficacy scores.

> *"The downturn helped PG4 become a more prominent practice. PG4 is often referred to as a support practice, a side business that is less well considered. This changed in the last 18 months. Other practice groups look at PG4 differently now. In these challenging times PG4 lawyers have a lot to add and something interesting to say. This may also help to explain the high job satisfaction results" (PG4-IV).*

> *"Senior Associates' prospects of becoming partners are limited in this practice group. However, they are a part of the business and more involved than in larger practice groups where associates are sometimes far away from the centre. Associates within PG4 are closer to clients because there are less partner resources. There might be less pressure or competition than in other practice groups" (PG4-IV).*

PG4 is leading the combined market orientation scores as well as the intelligence dissemination scores. It also has a high responsiveness score, but only an average intelligence gathering score. The interviewee stated that the size of a practice group can be beneficial in developing a market orientation:

> *"The size of practice group helps. It is easy to implement strategy across the group. We have spent a lot of time integrating the different teams. Lawyers feel part of an international group now. PG4 is a specialist group. The scope and market are limited, which is why there is less information to share. It is a well defined practice" (PG4-IV).*

As mentioned above, PG4 has the highest intelligence dissemination scores. The interviewee describes the group's intelligence dissemination activities as followed:

> *"In terms of intelligence dissemination we use a variety of techniques. We have weekly internal newsletters which everyone has access to. Only highly confidential matters are kept within the partnership. We also have many lunches and breakfast meetings where we inform lawyers on what is happening in the group" (PG4-IV).*

The interviewee also stated that the market orientation findings are consistent with recent client feedback:

"According to a recent study, clients think that a differentiator is that we are perceived as a joined-up team. It is important to have someone in the centre structuring strategies. Our organisation is similar to PG6" (PG4-IV).

The knowledge management and practice development (KMPD) function of the practice group has a high KMPD people to fee earner ratio. The group operates a model where an international head of practice development leads the group's KMPD efforts. He is supported by seconded associates and junior staff. However, the average KMPD costs per fee earner is low. The emphasis on practice development costs is not that strong but the external content costs are very high compared to other practice groups. The KMPD team's time recording statistics show that the group spends significant time on current awareness (20%), followed by legal (13%) and business (8%) queries. The remaining time is spent relatively evenly on activities such as training (7%), pitches (6%), know-how (6%), and data management (6%).

"We focus on both legal and practice development issues. It is about getting the product line right and selling it. You need to understand client needs and take the market into account. We are also trying to get better connected to clients by understanding their environment rather than only the legal side. You need to know the issues your client has in mind" (PG4-IV).

"PG4 and PG6 are early adopters of the wiki technology – a web platform for easy and quick internal communications. Both teams also focus strongly on market intelligence rather than only legal information. PG4 is using web technology not only for internal communications, but also for their communication with clients" (Centr3-IV).

6.3.5 Practice group 5 (PG5)

PG5 is a medium-sized practice group with more than 400 lawyers worldwide. The Herfindahl-Hirschman Index indicates that the group is not evenly spread across offices. The practice group was severely affected by the credit crunch and the subsequent financial crisis. Many of its clients were not in a position to carry out their usual level of transactional activity. Given the nature of its practice, the group could not effectively mitigate the challenges caused by economic turbulences. The practice group's financial

figures show a medium rise in revenues, but a consistently high increase in profitability. The subjective performance measure, however, was the lowest of all practice groups.

> *"The practice group has been badly hit by the economic crisis. The survey was taken deep in the crisis. Rather counter-intuitive, the crisis and the uncertainty in the market triggered new and better processes regarding knowledge generation and knowledge sharing" (PG5-IV).*

In line with the subjective performance measure, PG5's job satisfaction and self efficacy scores were the lowest among the practice groups. The group also has the lowest market orientation score, showing the lowest intelligence gathering and responsiveness scores. The intelligence dissemination score, however, is average. The interviewee also stated that the decentralisation of practice groups may have an impact on their market orientation scores:

> *"I am not surprised that practice group size does not lead to significantly different market orientation scores. The large practice groups tend to have sub-teams, which are of similar size to smaller and medium practice groups. This is why the results may be similar. The sub-teams are focused on their sub-team rather than the bigger PG. This practice group is split into teams and sub-teams, which leads to a lack of community sense. Some fee earners may feel isolated. I think this has to do with the team dynamic in human organisations" (PG5-IV).*

The interviewee also pointed out that the intelligence dissemination scores are generally lower than intelligence gathering and responsiveness scores across the practice groups. It is worth mentioning, however, that partner intelligence dissemination scores were also lower than intelligence gathering and responsiveness.

> *"The low intelligence dissemination scores across all practice groups can be explained by the perception among senior associates that they are not being kept in the loop and that important, more reliable information is kept among partners. These are common complaints, but I doubt whether this perceived imbalance is true. Of course, highly sensitive information regarding clients or the firm's strategy are kept among partners or the senior management. In reality, however, the vast majority of information including important confidential information is shared among fee earners and where necessary also between business services functions" (PG5-IV).*

The number of knowledge management and practice development (KMPD) staff per fee earner is low, but the group has high average KMPD costs per fee earner. This indicates that the practice group puts more emphasis on marketing and practice development spend than other practice groups. The practice group's fee earners record a significant amount of KMPD time. Based on the time recording statistics, the KMPD team focuses on training (19%), pitching (16%), and legal queries (13%). Current awareness accounts for 10% and data management activities for 9% of the team's recorded time.

> *"The level of KMPD support in this practice group differs in the regions. Regions outside London are generally struggling with covering the demand. Fee earners in the London practice group are the most privileged when it comes to KMPD support" (PG5-IV).*

6.3.6 Practice group 6 (PG6)

PG6 is a small-sized practice group with 120 lawyers. The practice group has a strong focus on Europe, in particular the UK and German markets. Although the financial indicators only show a medium rise in revenues, there are also consistently high increases in profitability over the past three years. The group's subjective performance scores are above average. The interviewee highlighted that economic developments can impact practices in various ways:

> *"Market developments can have different effects on partners, even within smaller practice groups. Many partners have developed an expertise in specific areas of the law and sector knowledge with strong personal client relationships. Even the market for smaller practice groups leaves enough room for partners to find a niche where they can develop a reputation in the market. These niches are usually not equally impacted by economic downturns" (PG6-IV).*

Similar to other interviewees (i.e. PG2-IV and PG5-IV), the respondent flagged the relationship between smaller and larger practice groups:

> *"There are no huge differences between smaller and larger practice groups since smaller practice groups deliver support services for the larger groups and are frequently linked into the communications processes. Many smaller practice groups are too strongly aligned with larger practice groups, but they should be more agile" (PG6-IV).*

PG6 leads the job satisfaction and self efficacy scores. The interviewee believes that this outstanding result could be explained by recent changes in strategy and product mix:

> *"We have managed to find a balance between support work for the larger practice groups and maintaining our standalone practice. This was a key issue within the group that caused concerns and that we addressed openly. We have got a clear strategy now, which is characterised by a large portfolio and a healthy mix between support work and standalone work. This clear strategy led to an increased self-confidence and less uncertainty. The satisfaction within the team was sharply increased and also appreciated by the group's clients" (PG6-IV).*

The practice group has the second highest market orientation score. It also has the highest intelligence gathering score. The intelligence dissemination score is average, but the group's responsiveness score is also high.

> *"The increased self-confidence may have also played a role in the relatively high intelligence gathering scores. Fee earners tend to take the initiative when it comes to acquiring market intelligence" (PG6-IV).*

The number of knowledge management and practice development (KMPD) staff per fee earner is average, with a focus on knowledge management lawyers. The KMPD spend per fee earner is just below the average. Similar to PG4, the group operates a model where an international head of practice development leads the group's KMPD efforts. The group's head of practice development is also carrying out the practice development management function, which means that there are no additional PD people employed. Although the model is similar to PG4, the group spends less on practice development and content costs, and more on KMPD staff, which is reflected in the staff costs per fee earner. The time recording statistics indicate that the KMPD team spends 24% of their time on data management activities, followed by pitching (18%), and business queries (12%). Legal queries account for 9%. Training activities represent 10% of the team's time. It is worth noting that know-how only accounts for 1%.

> *"The KMPD team focuses strongly on practice development activities rather than the management of legal know-how" (PG6-IV).*

> *"PG4 and PG6 are early adopters of the wiki technology – a web platform for easy and quick internal communications. Both teams also focus*

strongly on market intelligence rather than only legal information" (Centr3-IV).

6.3.7   Practice group 7 (PG7)

PG7 is a small-sized practice group with around 100 lawyers and a focus on the UK and the German market:

> *"PG7 is a localised practice because the law differs in the various jurisdictions" (PG5-IV).*

Similar to PG5, the practice group was badly hit by the credit crunch and the financial crisis. This might help to explain the second lowest subjective performance score. The financial figures indicate a low rise in revenue, with medium to low increases in profitability. The group's self efficacy and job satisfaction scores are just above average. Similarly, the market orientation score is average. Both intelligence gathering and dissemination scores are also average. The responsiveness score is the second lowest among the practice groups.

The number of knowledge management and practice development (KMPD) staff per fee earner is average. Especially the number of knowledge management lawyers is quite low. Only recently the group started to second associates into the knowledge management function. However, the KMPD costs per fee earner are high, with significant practice development costs. Fee earners record an average amount of time against knowledge management and practice development tasks. The time recording statistics indicate an even spread across know-how, current awareness, business queries, and training activities (all 13%). Pitches account for 8% of their recorded time and legal queries for 5%.

6.3.8   Practice group 8 (PG8)

PG8 is a small-sized practice group more than 100 lawyers and a strong basis in the European market.

> *"PG8 is seen as a collection of local teams rather than an integrated function. This is consistent with the findings in the market orientation study" (PG4-IV).*

The practice group has high subjective performance scores and shows a medium rise in revenue over the past three years, with a low to medium increase in profitability. The job

satisfaction and self efficacy scores are average. PG8 has an average market orientation score, but also has the lowest intelligence dissemination and the highest responsiveness scores. The intelligence gathering score is average.

The practice group has a medium knowledge management and practice development (KMPD) spend per fee earner. Its external content costs per fee earner are the second highest. The group's KMPD function consists of knowledge management lawyers and junior knowledge management staff. The practice development activities are part of the senior knowledge management lawyer's responsibilities. Compared to other practice groups, fee earners record a low amount of KMPD time. Based on the time recording statistics, the KMPD team focuses on current awareness (21%), data management (20%), and know-how activities (15%). Business queries, legal queries, and training activities account for 5% each.

> *"PG8 places a high value on its knowledge management function. The KMPD team is using the internal know-how database heavily. They also have regular team meetings and they circulate regular newsletters. Although the newsletter also contains market information the main focus is on technical legal issues. Generally speaking, PG8 focuses more on legal issues than market knowledge. This might be a reason for the low intelligence dissemination score" (Centr3-IV).*

6.4 Cross-case analysis

As described by Eisenhardt (1989) and Yin (2009), cross-case analysis can be performed by selecting and examining certain dimensions or characteristics of cases. Based on the research question and existing literature it was found opportune to analyse the practice groups based on their (i) size and geographical dispersion; (ii) financial and subjective performance; their (iii) knowledge management and practice development function; and their (iv) market orientation, (v) job satisfaction, and (vi) self efficacy scores. The dimensions and findings are described below. Section 6.5 will then cover the patterns that were emerging from the semi-structured interviews and other findings. It will provide an overview of the main trends across practice groups as described by the interviewees.

6.4.1 Practice group characteristics and financial indicators

The table below sets out the practice groups' size and the Herfindahl-Hirschman Index by countries and offices.

PG	PG size	HHI by countries	HHI by offices
1	Medium	1768	1229
2	Large	1750	1076
3	Medium	2699	2322
4	Small	2477	1798
5	Medium	2573	2399
6	Small	3107	1249
7	Small	2862	1332
8	Small	2492	1384

Table 54 Practice group characteristics

As outlined in the section on professional service firm economics (see 2.2.4), it is difficult to judge the performance of PSFs purely based on their billings. As Scott (2001) pointed out, put-through costs, such as external service providers working on a mandate, may appear on a client's bill, but may not increase the PSF's revenue. In order to compare PSFs' financial performance it is therefore useful to look at their revenue, operating profit, direct costs, and overheads.

Given the type of business ownership, i.e. limited liability partnerships, many PSFs are only required to publish limited reports on their performance. It is therefore quite challenging to obtain detailed financial information on individual PSFs. However, in the legal sector most major law firms submit financial figures to trade journals (i.e. The Lawyer, American Lawyer) or information service providers (i.e. Mergermarket). As Galanter and Henderson (2008) describe, the financial information most frequently used for benchmarking purposes include revenue and profit figures with a strong focus on profit per partner (PPP). PPP particularly appears to be a key indicator in the legal market (Maister 1993; Scott 2001; Parson 2005). LawCo provided detailed revenue and profitability statistics (i.e. PPP) broken down by practice groups, sector groups, regions, and offices. For reasons of confidentiality, no detailed revenue or profitability figures must be presented in this document. However, a comparison between LawCo's figures and those of its main competitors, based on information published in The Lawyer, revealed that LawCo's financial performance is similar to its peers among the top ten US and UK law firms.

6.4.2 Knowledge management and practice development characteristics

The table below outlines the practice groups' knowledge management and practice development characteristics. Similar to the table above, the categories (low, medium, high) are based on actual values and were checked and confirmed by LawCo staff.

The first column 'Fee earner KMPD time' reflects the time that fee earners from a particular practice group recorded against KMPD activities, such as 'contribution to know how' or 'pitches'. The categorisation is based on the average KMPD time per fee earner. 'Total KMPD staff ratio to fee earner' represents the number of fee earners that are supported by one member of the KMPD team of the respective practice group. The category 'low' therefore indicates that one KMPD staff member is only supporting a small number of fee earners. A low ratio could therefore infer higher quality, but may also result in higher KMPD costs for the practice group. Similarly, 'KML staff ratio to fee earner' represents the number of fee earners that are supported by one Knowledge Management Lawyer (KML) of the respective practice group. KMLs have been singled out because of their seniority, the significance of their role in KMPD teams, and their impact on the KMPD costs per practice group. Finally, 'KMPD spend per fee earner' indicates the average KMPD costs of a practice group, broken down by fee earner. The category 'high' therefore points towards a high KMPD spend per fee earner, compared to the average KMPD spend per fee earner.

The categories presented below are calculated by comparing the actual figures of the PG to the average figure for the entire firm. For reasons of confidentiality, actual figures cannot be revealed.

PG (size)	Fee earner KMPD time	KMPD staff ratio (r)	KML staff ratio (r)	KMPD spend per fee earner	Comments
1 (Med)	Med	Low	Low	High	High number of KMPD people and KMPD spend indicates a people driven approach, with less emphasis on, for example, systems and marketing databases.
2 (Lrg)	High	High	Med	Med	Due to the size of the practice group the costs per fee earner may seem low. Compared to other practice groups fee earners record a significant amount of KMPD time.
3 (Med)	Med	Med	Med	High	Average KMPD time recorded by fee earners and average KMPD staffing ratios. The KMPD costs per fee earner, however, are above average.
4 (Sml)	Med	Low	Low	Low	High KMPD people to fee earner ratio, but low average KMPD costs per fee earner.
5 (Med)	High	High	Med	High	Low number of KMPD people, but high average KMPD costs per fee earner. Indicates a marketing/external driven approach. Compared to other practice groups fee earners record a significant amount of KMPD time.
6 (Sml)	Med	Med	Low	Low	Average number of KMPD staff per fee earner, with a focus on KMLs. Low average KMPD spend per fee earner.
7 (Sml)	Med	Med	High	High	Average KMPD time recorded by fee earners and average KMPD staffing ratios (but a relatively low number of KMLs). The KMPD costs per fee earner are high.
8 (Sml)	Low	Med	High	Med	Compared to other practice groups fee earners record a low amount of KMPD time. The KMPD spend per fee earner is average.

Table 55 Knowledge management and practice development characteristics by practice group

(r) Reverse coded: a low ratio of KMPD staff versus fee earner indicates that one KMPD staff supports a small number of fee earner.

The chart below gives an overview of the firmwide Knowledge Management and Practice Development budgets per practice group. The KMPD budgets are divided into three

sections: practice development and marketing spend (BD costs), KMPD staff costs (Staff), and external content costs (Content). Due to reasons of confidentiality it was not possible to publish the actual financial values. The chart, however, provides a representation of the level of a practice group's KMPD budget by comparing it to the other practice groups. The ranking (high, medium, low) is based on the KMPD budget spend per fee earner in the respective practice group. Yellow bars represent practice development costs. Purple bars show staff related costs and blue bars represent external content costs.
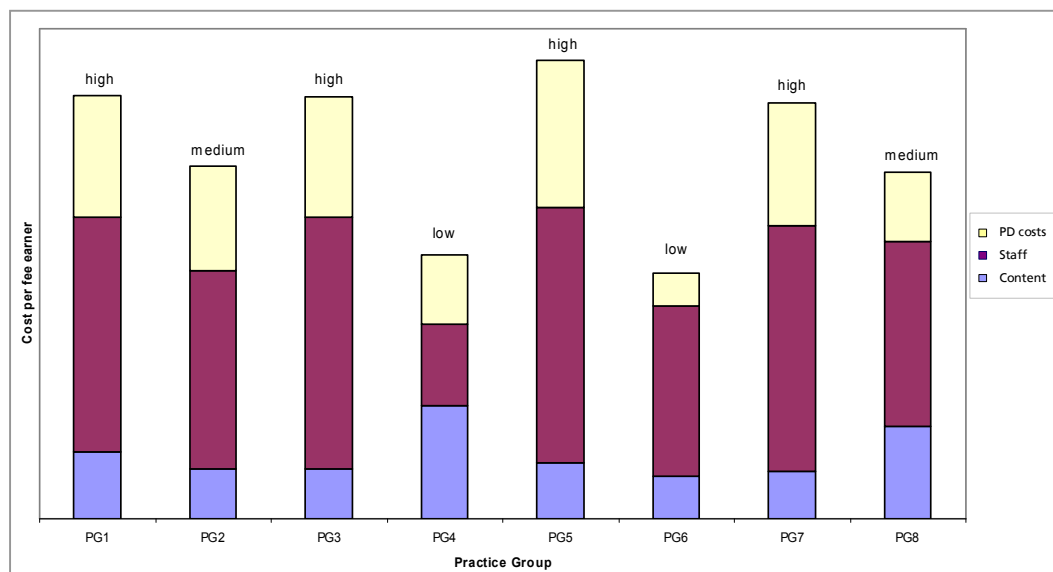
Figure 23 KMPD spend per fee earner by practice groups

The following table summarises the practice group characteristics including size, geographical spread, practice group (PG) structure, knowledge management and practice development (KMPD) management, KMPD focus (legal oriented, practice development focus, or a combination of the both), and KMPD style (see Hansen et al., 1999). It is worth noting that the classification of the practice groups' structure and KMPD function is not based on a genuinely scientific exercise. The classification is based on findings following the document review, the semi-structured interviews, and LawCo's internal description of the organisational structure; thus the categories are not altogether clear cut. The purpose of this table is to provide the reader with a rounded picture of the practice groups and their KMPD functions.

Topic	Type	PG1	PG2	PG3	PG4	PG5	PG6	PG7	PG8
Size	Small				X		X	X	X
	Medium	X		X		X			
	Large		X						
Geographical spread	Fragmented	X	X	X					
	Centralised				X	X	X	X	X
PG structure	Fragmented		X	X		X			
	Centralised	X			X		X	X	X
KMPD management	De-centralised	X	X	X		X		X	X
	Centralised				X		X		
KMPD focus	Legal		X					X	X
	Practice develop.	X				X			
	Combination			X		X	X		
KMPD style	Codification							X	X
	Personalisation								
	Combination	X	X	X	X	X	X		

Table 56 Practice group characteristics

6.4.3 Market orientation scores

The following chart shows the mean actual scores (scale of 1-7) per practice group (PG1-PG8) for intelligence gathering (IG), intelligence dissemination (ID), responsiveness (R), and market orientation (MO). PG6 has the highest IG score (5.20); whereas PG3 (4.65) and PG (4.55) are at the lower end of the range. The mean value for IG is 4.86. PG4 leads the ID scores (4.65) and PG8 holds the lowest score (3.76). The mean ID score is 4.01. Three practice groups are at the top of the responsiveness scale: PG8 (4.92), PG4 (4.90), and PG6 (4.90). PG5 has the lowest responsiveness score with 4.25. The mean responsiveness score is 4.65. In total, PG4 leads the combined market orientation score (4.80), followed by PG6 (4.66). The combined mean market orientation score is 4.51. The lowest combined market orientation score is 4.30 (PG5).
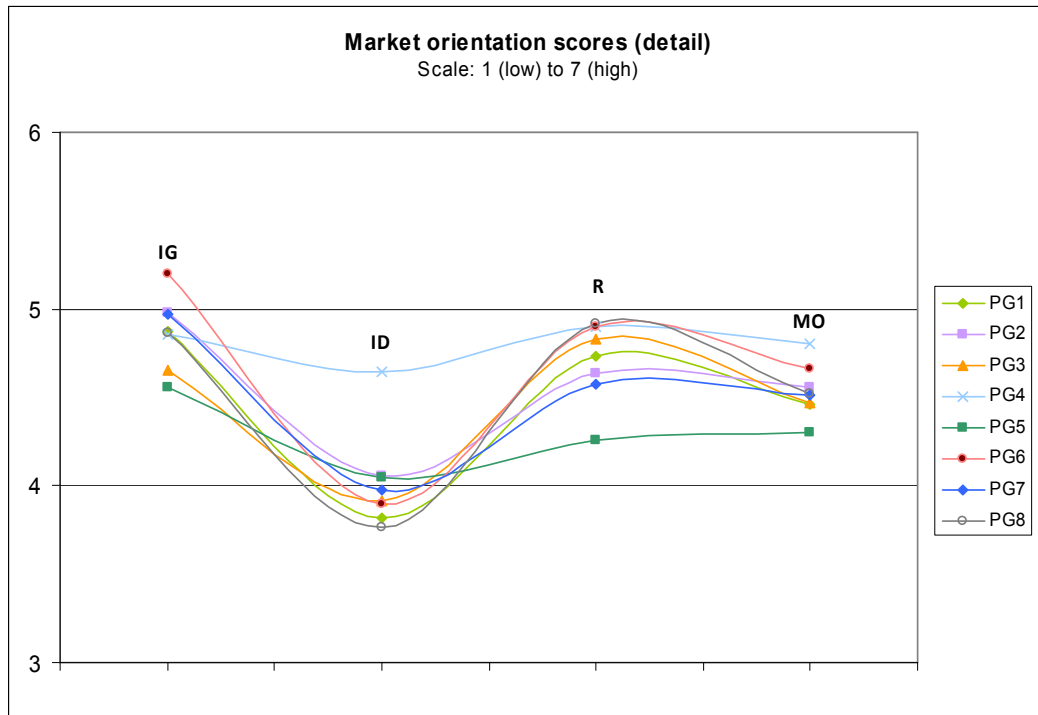
Figure 24 Actual market orientation scores by practice groups

Given the scale (1 to 7) of the questionnaire, the average market orientation scores (4.51) are just above the mean (4.0). Intelligence dissemination (4.01) is the lowest ranked compound. Intelligence gathering (4.86) and responsiveness (4.65) are both below 5. The list below shows the mean values per practice group:

− Although PG1 shows outstanding performance values, its IG (4.88) and R (4.74) scores are only average. It has the second lowest ID score (3.82) and a total MO score of 4.46.

− PG2, the largest practice group, has the second highest IG (4.98) and ID (4.06) scores, but only an average R score (4.64). PG2's ID score, however, is still far below PG4's. Its total market orientation score is (4.56).

− PG3 shows a low IG score (4.65), an average ID score (3.92), and a relatively high R score (4.83). The total MO score is average (4.47).

− PG4 has the highest MO (4.80) and ID (4.65) scores, a high R score (4.90), and an average IG score (4.85).

− PG5 shows the lowest IG (4.56) and R (4.25) scores. The ID score is average (4.05). It has the lowest MO score (4.30).

− PG6 has the highest IG score (5.20), an average ID score (3.90), and a high R score (4.90). PG6 has the second highest MO score (4.66).

− The IG (4.98) and ID (3.98) scores of PG7 are average, but the R (4.57) score is the second lowest. The market orientation score is average (4.51).

− PG8 has the lowest ID score (3.76), but the highest R score (4.92). Combined with an average IG score (4.87), this leads to an average MO score (4.52).

A detailed table showing the mean scores by practice groups, broken down by information gathering, information dissemination, responsiveness, and market orientation can be found in the appendix. Partners and senior associates were also given the opportunity to comment on the market orientation questionnaire using free-text boxes. A table in the market orientation section of the appendix lists their comments, which were submitted anonymously.

6.4.4 Job satisfaction and self efficacy scores

The following chart shows the mean actual scores (scale of 1-7) per practice group (PG1-PG8) for subjective performance (Perf), job satisfaction (JS), and self efficacy (SE). PG1 is leading the subjective performance score with a value of 6.41. The mean performance score is 5.54. PG7 (4.94) and PG5 (4.60) are at the lower end of the scale. PG6 (6.33) and PG4 (6.09) have the highest job satisfaction scores; whereas PG1 (5.48) and PG5 (5.31) are at the bottom of the range. The mean job satisfaction score is 5.65. PG6 (6.06) and PG4 (6.03) are also leading the self efficacy score. The mean self efficacy score is 5.72. PG5 has the lowest self efficacy score with a value of 5.44.
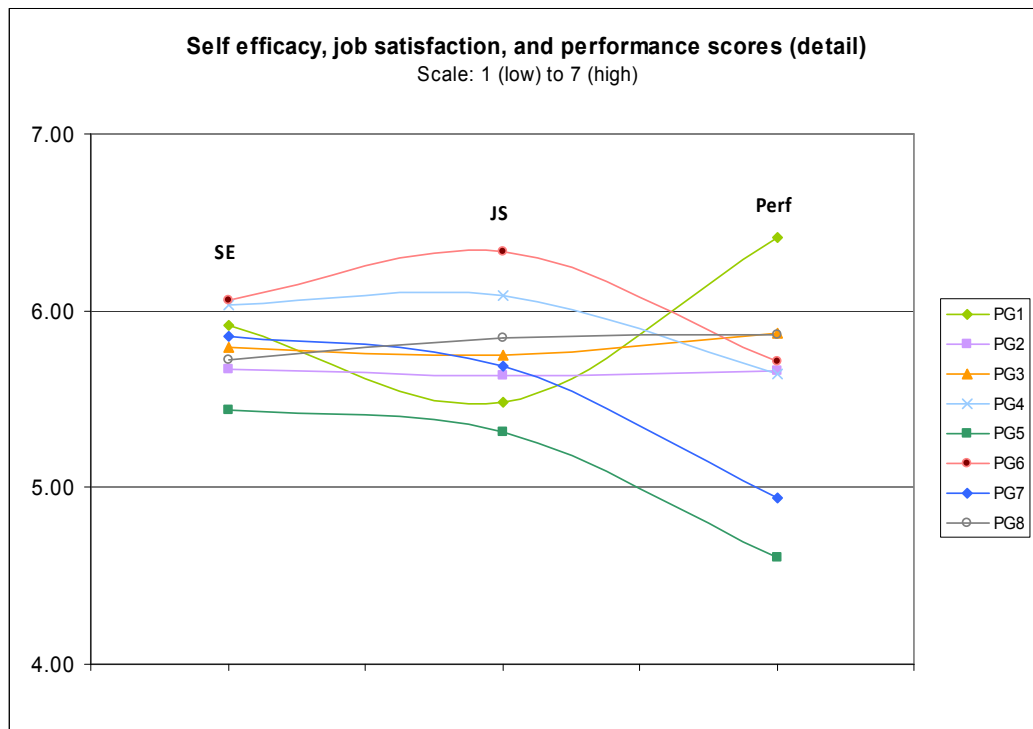
Figure 25 Performance, job satisfaction, and self efficacy scores by practice groups

Given the scale (1-7) of the questionnaire, the average self efficacy (5.72) and job satisfaction (5.65) scores are relatively high. The performance scores differ considerably, but are above the mean (4.0) of the questionnaire. The average performance score is 5.54. The list below shows the mean values per practice group:

− PG1 has the best performance score (6.41), which reflects the successes over the past years. The job satisfaction score (5.48) is the second lowest and self efficacy performs above average (5.93).

− PG2's self efficacy scores are the second lowest (5.67). Job satisfaction (5.63) and performance (5.66) scores are average.

− PG3 shows the second highest performance score (5.87) and average job satisfaction (5.75) and self efficacy (5.79) scores.

− PG4 has average performance scores (5.64), but the second highest job satisfaction (6.09) and self efficacy (6.03) scores.

− PG5 suffered severely from market turbulences and could not mitigate the downturn by offering different products or services. The performance (4.60), job satisfaction (5.31), and self efficacy (5.44) scores are the lowest of all practice groups.

- PG6 has above average performance scores (5.71) and leads the job satisfaction (6.33) and self efficacy (6.06) scores.

- PG7 has the second lowest performance score (4.94). Self efficacy (5.85) and job satisfaction (5.69) are just above average.

- PG8 shows a high performance score (5.86), but only average job satisfaction (5.85) and self efficacy (5.72) scores.

A detailed table showing the mean scores by practice groups, broken down by performance, job satisfaction, and self efficacy can be found in the appendix.

6.5   Patterns emerging from the semi-structured interviews

This section provides a summary of the patterns that emerged from the semi-structured interviews. The main themes are highlighted in bold.

The **scale** of practice groups appears to be of great importance when it comes to analysing market orientation in law firms. As described previously, LawCo's eight practice groups differ in terms of size. Based on the number of lawyers per practice group and in line with the company's internal view of the classification, the practice groups can be divided into three categories. 'Small' sized practice groups (PG4, PG6, PG7, PG8) employ less than 160 lawyers each. There are three 'medium' sized practice groups (PG1, PG3, PG5) with 250 to 460 lawyers worldwide. PG2 is the only group that can be classified as 'large', with more than 850 lawyers worldwide. Looking at the mean actual market orientation scores alone, the strength of this connection was not clearly visible at first. Although smaller practice groups showed higher market orientation scores, their mean actual values were still broadly in line with larger and medium-sized practice groups. The results of the semi-structured interviews suggest that smaller and **internationally integrated** practice groups have a higher market orientation.

> *"It appears that small international teams do a better a job when it comes to market orientation. There might be size effects and the fragmentation of teams may play a role" (Centr1-IV).*

> *"It is not surprising that smaller, integrated teams where everyone knows everyone have higher market orientation scores" (PG2-IV).*

> *"The size of practice group helps. It is easy to implement strategy across the group" (PG4-IV).*

"Smaller practice groups have improved communications. It is easier to push out information and content. It is also easier to get feedback" (Centr2-IV).

Using an analogy from the marine shipping industry, the Head of Practice Development with PG6 found a precise way to express the collaboration and dependence between smaller and larger practice groups:

"The relationship between larger practice groups and smaller practice groups can be compared to a tanker and its accompanying boats. The tanker cannot change directions quickly. The accompanying boats, however, can move more freely and can react quicker to changes but need to stay within a certain radius of the tanker and follow its route" (PG6-IV).

Integration relates not only to geographical integration across offices, but also to managerial integration and to content issues. PG4 and PG6, for example, operate in fewer countries than other practice groups which simplifies management tasks and internal communications. PG1 and PG3, on the other hand, have a more global reach with lawyers working in many offices across many countries and jurisdictions. There are also differences in the **internal organisation and governance of practice groups**. Some practice groups, mainly larger ones, have several sub-groups focussing on different aspects of the law. PG2, PG3, and PG5 fall in this category. These practice groups are de-centralised with practice group leaders managing the practice group and team leaders focusing on the sub-groups. This fragmentation plays a role when it comes to dealing with market intelligence. The KMPD function of the practice group mirrors the group's structure and is therefore also de-centralised in order to tailor their services to the sub-teams. This structure can lead to communication issues and overlaps.

"There are several teams and sub-teams within the practice group that provide and circulate market intelligence. Maybe this needs to be centralised" (PG2-IV).

"There are different teams within PG3. Some of the teams are closely aligned to client relationship teams. Other teams however are not that aware of the firm's client relationships" (PG3-IV).

As noted by some interviewees, the creation of formal and informal sub-teams within practice groups may explain why smaller practice groups do not outperform larger practice groups when it comes to market orientation. The sub teams of large practice

groups can be of a similar size to smaller and medium-sized practice groups themselves. Sometimes the sub-teams are more concerned with the success of their sub-team than with the development of the main practice group.

> *"The large practice groups tend to have sub teams, which are of similar size to smaller and medium practice groups. This is why the results may be similar. The sub-teams are focused on their sub-team rather than the bigger PG" (PG5-IV).*

> *"There are no huge differences between smaller and larger practice groups since smaller practice groups deliver support services for the larger groups and are frequently linked into the communications processes. Many smaller practice groups are too strongly aligned with larger practice groups but they should be more agile" (PG6-IV).*

Using the free-text field of the market orientation survey, a partner with PG2 based in Tokyo commented on the differences between formal and informal sub-teams, such as client relationship teams:

> *"Developments regarding specific top tier clients are shared quickly and widely within that client's teams but not across the whole practice group" (Partner, PG2, Tokyo).*

The interviews also highlighted that the majority of the practice development and knowledge management work is still being carried out in practice groups. It is envisaged that **sector groups** will take on a more prominent role in this area, but the transformation is still in its infancy and sector groups are not yet fully embedded in the organisational processes. The Senior Client Relationship Manager, who is also responsible for the sector groups, also confirmed that the analysis on market orientation still needs to focus on LawCo's practice groups.

> *"A lot of the firm's practice development efforts are carried out in the sector groups. Some sector groups also generate and disseminate market intelligence and think about how to respond to it. Some sector groups are ahead of others. The sector group development efforts will make an impact on the firm's direction on how to deal with know how. At the moment it is certainly correct to look at the practice groups since they are doing the bulk of the work" (Centr3-IV).*

"It seems like sector groups are not as tangible as practice groups"
(Centr2-IV).

Another important aspect is the **type of KMPD management**. The statistical findings, as well as the feedback from the semi-structured interviews, indicate that internationally integrated KMPD functions have higher market orientation scores. PG4 and PG6 introduced Head of Practice Development roles who lead their global KMPD team. Both practice groups are also small-sized, which may be advantageous from a management point of view.

> *"We focus on both legal and practice development issues. It is about getting the product line right and selling it. You need to understand client needs and take the market into account. We are also trying to get better connected to clients by understanding their environment rather than only the legal side" (PG4-IV).*

> *"It is important to have someone in the centre structuring strategies" (PG4-IV).*

> *"The KMPD team focuses strongly on practice development activities rather than the management of legal know-how" (PG6-IV).*

> *"PG4 and PG6 are early adopters of the wiki technology – a web platform for easy and quick internal communications. Both teams also focus strongly on market intelligence rather than only legal information" (Centr3-IV).*

The **focus of the KMPD function** may also impact the market orientation of practice groups. The main goal of the merger between the previously separate knowledge management and practice development function was to become more client-centric by moving from a legal technical focus of knowledge management to a practice development focus. Some practice groups are further ahead in this development than others. Although it is difficult to quantify the progress it appears that, for a variety of reasons, PG1, PG4, and PG6 are leading this development.

> *"The KMPD strategy of PG3 can be described as practice development focused knowledge management. Of course we are also working on templates and standard forms but this technical [legal] oriented type of knowledge management is more the nuts and bolts work. Helping identify hot topics is one of the key activities" (PG3-IV).*

"PG8 places a high value on its knowledge management function ... Generally speaking, PG8 focuses more on legal issues than market knowledge" (Centr3-IV).

LawCo follows a **hybrid approach** (see Rusanow, 2003) to knowledge management. This approach is characterised by the setting of objectives, frameworks and methodologies on a firm-level. The practice groups are provided with resources in terms of budgets, staff and a central knowledge management infrastructure. The practice groups are also supported by central teams who develop knowledge management initiatives that contribute to reaching the objectives set in the practice group's business plan. The same holds true for the practice development and marketing activities of the firm and the practice groups. This approach to knowledge management and practice development may explain why practice groups appear to have similar market orientation scores. There are also only a limited number of outliers. There is a trend, for example, that the intelligence dissemination scores are lower than intelligence gathering or responsiveness scores.

"The relatively low intelligence dissemination scores indicate that people are not sharing information - I have the feeling that people do not share intelligence beyond their local group" (Centr1-IV).

"The results suggest that things are working well across the practice groups ... and there are things that could be improved like information dissemination" (Centr2-IV).

Internal communications appears to be a big issue for the firm. According to the empirical findings, the intelligence dissemination scores are well below the intelligence gathering and responsiveness scores. Several interviewees highlighted the lack of communication both within practice groups and across the firm. It appears, however, that the communication within teams is still much better than across the firm. There is also a difference between partners and senior associates; senior associates scored intelligence dissemination lower than partners. Some channels of communication are only open to partners, which may hinder effective and wider dissemination of vital market intelligence. The low intelligence dissemination score also symbolises the lack in **cross-selling** that has been identified by interviewees. Interviewees argued that a lot more clients could be referred to other specialists within the organisation and that cross-selling opportunities are hardly ever taken.

"I believe that PG1 is top in sharing information across the practice. Maybe there is a bit of a silo mentality when it comes to sharing information with other practice groups" (PG1-IV).

"There is a perception that we are not great at cross-selling and that we are missing cross-selling opportunities. It might be worth looking into the distribution of intelligence within a practice group and across the firm" (Centr1-IV).

One interviewee argued that the low intelligence dissemination scores are more of a perceptual nature and highlighted the 'perceived imbalance' in terms of knowledge sharing between partners and senior associates:

"The low intelligence dissemination scores across all practice groups can be explained by the perception among senior associates that they are not being kept in the loop and that important, more reliable information is kept among partners. These are common complaints but I doubt whether this perceived imbalance is true. Of course, highly sensitive information regarding clients or the firm's strategy are kept among partners or the senior management. In reality, however, the vast majority of information including important confidential information is shared among fee earners and where necessary also between business services functions" (PG5-IV).

An example of the imbalance described above was given by a Senior Associate working with PG7 in London, who used the free-text field of the market orientation survey in order to comment on information dissemination issues:

"We have regular meetings but often they are more on technical issues than on market knowledge etc. I think much of the client information is disseminated among partners but not to associates, or only to a few associates whom a partner thinks of, rather than through an organised process of dissemination. A lot of this I just don't know about - pricing decisions, etc are kept among the partners, as is much of the strategy on addressing client needs. It would be interesting and valuable for this to be more widely disseminated" (Senior Associate, PG7, London.)

Similarly to the above, two other senior associates highlighted the **lack of communication and information** on the associate level. Referring to informal talks on competitors' tactics or strategies and interdepartmental meetings on market trends and

developments a senior associate with PG5, based in London noted that "…no such talks/meetings occur at the Senior Associate level". A senior associate with PG2 working in the London office believes that "… we could definitely improve short alerts on what our top clients are up to (big news items eg), particularly to associates".

During the interviews it emerged that **direct client contact** is one of the most effective ways to gather market intelligence. The intensity and frequency of client contact not only differs between partners and associates, but also among partners. Partners on client review panels have a better insight into client issues and also better access to market intelligence. KMPD staff, however, have hardly any direct client contact.

> *"Senior associates focus mainly on legal work and it is mostly not their business to get work in. Partners have a high exposure to the market and bring in market information from the frontline … Client needs and market information is filtered through and directed by partners to associates knowledge management and practice development staff " (PG1-IV).*

> *"You need to understand client needs and take the market into account. We are also trying to get better connected to clients by understanding their environment rather than only the legal side. You need to know the issues your client has in mind" (PG4-IV).*

> *"KMPD staff have got hardly any client contact. Other professional service firms may not have this kind of filter in place. LawCo is on one end of the scale – business services staff in other professional service firms have more direct client contact" (PG1-IV).*

The regression models indicate that the number of **knowledge management lawyers** has a positive impact on a practice group's subjective and financial performance. High knowledge management and practice development budgets, however, have a negative impact on a practice group's subjective and financial performance. The semi-structured interviews helped to put this unexpected relationship into perspective. Some interviewees argue that practice groups manage their **KMPD budgets** differently. Only one interviewee highlighted resource constraints in the knowledge management and practice development team. Similarly, only one interviewee mentioned regional differences within the particular practice group:

"I am actually quite satisfied with the results. Especially given the resource-constraints – the KMPD team is understaffed – and that this is the largest practice group" (PG2-IV).

"The level of KMPD support in this practice group differs in the regions" (PG5-IV).

The impact of KMPD managers on the budgeting process differs significantly from practice group to practice group. The KMPD budgets may also contain costs that are not exactly related to KMPD activities. It was suggested to treat the KMPD budget and performance relationship with caution. The interviewees, however, agreed that knowledge management staff and KMPD staff in general have a positive effect on a practice group's performance. It is also worth noting that some interviewees believe that size of the KMPD budget is not that important. The interviewees argue that it is not necessary to have high budgets in order to be able to carry out effective practice development and knowledge management activities.

"The regression analysis leads to the conclusion that staff costs can yield better results than investment in marketing or external content. The research may help to justify an increase in investment in knowledge management staff" (Centr1-IV).

"If you cannot afford marketing there is no impact, but it is possible to do effective things [business development activities] with relatively low costs ... It is an unusual environment but it is possible to do low cost / high impact marketing" (PG1-IV).

"The budget is often spent without marketing manager's input and sometimes on activities with dubious merit" (PG1-IV).

The **economic crisis**, which started with a credit crunch in Autumn 2007, had a huge impact on LawCo and its practice groups. The role of market orientation during an economic crisis is still under-researched (Grewal and Tansuhaj, 2001). Some interviewees argue that during a time of economic crisis it is particularly necessary to monitor the market and gather market intelligence. PG5, for example, invested in improving information gathering and information dissemination processes as a consequence of the economic crisis and the continued uncertainty in the market. The interviewees also stated that the crisis provided them with more time to focus on internal issues that could not be taken on during the past years of economic boom. In these times

of turbulence and uncertainty clients also require the firm's judgement on how the economy, and in particular the regulatory environment, will develop in the aftermath of the crisis. It is therefore necessary to gather and disseminate market intelligence in order to provide clients with an assessment of the likely developments. This not only requires market intelligence, but also extensive internal know how and expertise.

> *"During the downturn we focused on internal things like sorting out systems, doing the basics, clearing-out things, training lawyers to cope with the new demands. I think we were able to adapt" (PG2-IV).*

> *"The good performance of the practice group can be explained by the economic downturn, which leads to a higher demand for PG3's products and services" (PG3-IV).*

> *"The downturn helped PG4 become a more prominent practice" (PG4-IV).*

> *"The practice group has been badly hit by the economic crisis. The survey was taken deep in the crisis. Rather counter-intuitive, the crisis and the uncertainty in the market triggered new and better processes regarding knowledge generation and knowledge sharing" (PG5-IV).*

The Head of Practice Development with PG6 also offered insights into the sometimes unique ways the economic downturn can impact partners within one single practice group:

> *"Market developments can have different effects on partners, even within smaller practice groups. Many partners have developed an expertise in specific areas of the law and sector knowledge with strong personal client relationships. Even the market for smaller practice groups leaves enough room for partners to find a niche where they can develop a reputation in the market. These niches are usually not equally impacted by economic downturns" (PG6-IV).*

One finding of the empirical exercise was that partners and senior associates showed similar market orientation and performance scores. One interviewee pointed out that the **legal profession** is frequently subject to stereotypes, citing the high degree of standardisation in terms of training and education and a general lack of diversity. According to the interviewee, organisational culture adds to this "refinement". Partners also tend to recruit newly qualified lawyers with similar backgrounds or attitudes and

gradually form them "into their own image". In combination all of the above may explain why senior associate and partner results are very similar.

> *"It is an insular profession with a high degree of standardisation – especially in terms of training. Although there are corporate social responsibility programmes there is still no diversity. Lawyers are just a focused and refined cross-section of society. Corporate culture adds to this refinement. Partners, I guess mostly subconsciously, make newcomers into their own image. In combination all of the above may explain why senior associate and partner results are very similar" (PG5-IV).*

According to Parkin (2007), there is empirical evidence that coming from the same law school as existing partners in the same office increases the probability of promotion. This linkage can be explained by 'favouritism' rather than by 'efficient behaviour'. Although the **nature of the law** was frequently cited as a reason for variances in practice group performance during and economic downturn, the nature of the law and the legal specialisation of practice groups, however, were hardly mentioned with regards to the market orientation results. One exception being PG7, which appears to be a localised practice as the respective law differs in the various jurisdictions, leading to localisation. To a lesser degree this also holds true for PG8.

> *"PG7 is a localised practice because the law differs in the various jurisdictions" (PG5-IV).*

The impact of the **leadership style** of practice group leaders on marketing, practice development, and knowledge management activities was noted by two interviewees:

> *"The identity of the practice group leader is also important. Some practice group leaders are more involved and engaged when it comes to these issues. Others are more relaxed. Top partner involvement also plays a role" (PG4-IV).*

> *"The leadership style of the practice group leader is important when it comes to market orientation. A hands-on, outgoing leader may help to improve market orientation processes. Collegiality also helps to improve market orientation" (Centr4-IV).*

When presented with the **job satisfaction** results, the interviewees showed surprisingly different reactions and provided rather equivocal feedback and explanations of the outcome. Generally speaking, however, the interviewees stated that the job satisfaction

results were relatively high up the scale, given the pressure and working hours that come with being a lawyer in one of the world's leading international law firms. The listed reasons for the results, however, stretched from practice group size, partnership opportunities, working hours, social environment, type of work, and economic crisis, to the reputation of the law firm or the respective practice group. Although no general trend can be deducted it is worth listing some of the explanations given.

> *"Previous studies found that the firm's services are of high quality, but that this does not correlate with a high job satisfaction" (PG1-IV).*

> *"It is a partnership, which means that staff with less chances of becoming partner - for example in smaller practice groups – may be subject to motivational issues." (PG1-IV).*

> *"Lawyers in PG1 work long hours and do multi-jurisdictional work. This may impact the job satisfaction scores. The status of the practice, however, should give them high job satisfaction scores. Maybe lawyers think that they have fewer opportunities because they work in a smaller practice group" (PG1-IV).*

> *"The downturn helped PG4 become a more prominent practice. PG4 is often referred to as a support practice, a side business that is less well considered. This changed in the last 18 months. Other practice groups look at PG4 differently now. In these challenging times PG4 lawyers have a lot to add and something interesting to say. This may also help to explain the high job satisfaction results" (PG4-IV).*

> *"We have managed to find a balance between support work for the larger practice groups and maintaining our standalone practice. This was a key issue within the group that caused concerns and that we addressed openly. We have got a clear strategy now, which is characterised by a large portfolio and a healthy mix between support work and standalone work. This clear strategy led to an increased self-confidence and less uncertainty. The satisfaction within the team was sharply increased and also appreciated by the group's clients" (PG6-IV).*

> *"It is astonishing that the job satisfaction score of PG1 is that low" (PG6-IV).*

"It is not surprising that smaller practice groups have higher job satisfaction scores. I think communication is key. Smaller practice groups have improved communications. It is easier to push out information and content. It is also easier to get feedback. Co-location certainly helps too" (Centr2-IV).

"There is a lack of efficiency in practice groups that are dotted around the globe. Although their performance is better, the fragmentation may impact the job satisfaction scores. Being located closer to the lawyers you work with in your team might impact this score" (Centr2-IV).

"I did not expect the smaller practice groups to have higher job satisfaction scores. I would have predicted it to be the other way round. Some smaller practice groups appear to only do support work for the larger practice groups. Other practice groups, especially PG1, are stand-alone practices that can generate their own work. It could be that smaller practice groups have higher job satisfaction scores because their expertise is sought after. The larger practice groups have a higher status and value and are more important. They are also more in control of a deal, whereas smaller practice groups carry out support work and need to follow deadlines that are given to them. Maybe the job satisfaction scores are impacted by the economic crisis" (Centr4-IV).

Muzio and Ackroyd (2005, p.639) describe that the "competition over increasingly sparse promotions reinforces the possibility of the exploitation of associates, as it fuels processes of work intensification and internal competition." Based on the comments above it could be argued that partnership opportunities may well have an impact on senior associates' job satisfaction scores.

6.6   Conclusion

The aim of this chapter was to provide an overview of the qualitative findings of this study. In order to develop a deeper understanding of the relationships between market orientation, knowledge management, and performance, a number of qualitative research methods were used. The qualitative research methods included semi-structured interviews, and both within- and cross-case analysis.

Semi-structured interviews were used to test particular aspects of the empirical findings and the document review (see Robson, 2002). The interviews were not fully structured, which allowed for flexibility during the interviews. The 10 respondents were encouraged to provide further details on issues relating to the empirical results or other qualitative findings. The transcripts of the interviews were coded and tabularised based on emerging themes (see Glaser and Strauss 1967; Miles and Huberman 1994; Yin 2009).

As suggested by Eisenhardt (1989), within-case and cross-case analyses were carried out. Within-case analysis was useful to become familiar with each of the individual eight embedded sub-cases. The within-case analysis not only took into account the findings from the semi-structured interviews, but also the practice group specific characteristics such as size; financial performance; job satisfaction, self efficacy, and market orientation scores. Cross-case analysis was used to examine similar dimensions and characteristics across cases.

The chapter then provided an overview of the patterns that were emerging from the semi-structured interviews and the qualitative case analyses (see section 6.5). In combination with the quantitative analysis, the mixed method case study approach (see Teddlie and Tashakkori 2003; Creswell et al. 2008; Yin 2009) led to solid findings, which will be discussed in the next chapter.

7   Discussion

7.1   Introduction

The aim of this chapter is to discuss the findings of this research and to embed them in the literature. The chapter also shows the added value to the literature. Although it is difficult to put the findings into clear cut categories as some overlaps are inevitable, the chapter broadly follows the structure of the literature review. The sections thus cover market orientation, knowledge management, and professional service firms. In addition to this, given the significant change of market conditions during the course of this research, a section on market orientation in relation to the current economic crisis was added.

7.2   Market orientation and performance

As described in previous sections of this thesis, market orientation was measured based on the MARKOR questionnaire, which was originally developed by Jaworski and Kohli (1993). Esteban et al. (2002) highlight the importance of developing scales that are appropriate for different industries and types of services. Tailoring Jaworski and Kohli's (1993) framework to the activities of professional service firms is a key contribution of this thesis. The adapted questionnaire was designed to "be capable of representing the characteristics of different activities, but starting from a general measurement applicable to all of them so that a greater insight and better practical application of the concept of market orientation can be achieved" (Esteban et al., 2002, p.1017). The questionnaire could thus be used for future studies in the professional services arena.

The way performance is conceptualised and measured can have an impact on the relationship between market orientation and performance (Kirca et al., 2005). This thesis follows Hult et al.'s (2008) recommendations on how to conceptualise performance. Hult et al. (2008) suggest employing measures from the following three measurement categories, provided they are useful in the research context: (i) 'type of data' i.e. primary data (subjective) and secondary (objective); (ii) 'level of analysis' i.e. firm, strategic business units, and inter-organisational levels; and (iii) 'type of measure' i.e. financial measures, operational measures, and overall effectiveness. Taking these considerations into account, the thesis uses profit per partner and revenue statistics (objective/secondary data) as a measure of financial performance. This measures can be described as outcome-based indicators that are assumed to reflect economic goals (Hult et al. 2008). A job

satisfaction measure (subjective/primary data) was designed to find out the level of operational performance. This measure relates to non-financial dimensions and focuses on operational success factors that might lead to financial performance (Hult et al. 2008). Lastly, overall effectiveness, which reflects a wider conceptualisation of performance, was measured using performance relative to competitors (subjective/primary data) and scored by partners and senior associates.

The correlation analysis revealed significant relationships between the market orientation variables and job satisfaction, self efficacy, and the subjective performance variable. Following Jaworski and Kohli's approach (1990), the market orientation framework of this case study consists of three elements: intelligence gathering, intelligence dissemination, and responsiveness. Looking at the strength of the correlation, a pattern emerged; responsiveness showed the strongest correlation with subjective performance and job satisfaction, followed by intelligence gathering, and intelligence dissemination. The three market orientation variables also strongly correlated with each other. In addition, the combined market orientation metric also correlated significantly with job satisfaction, self efficacy, and subjective performance, but did not exceed that of responsiveness. None of the market orientation variables showed any significant correlation with objective performance, or with the two knowledge management variables.

In addition to the correlation analysis, a multiple regression analysis was used to test out three theoretical market orientation models. The first model relating to subjective performance resulted in a significant adjusted R square of .313 and standardised Beta coefficients of .276 for market orientation, .223 for self efficacy, -.323 for KMPD budget, and .193 for KMPD staff. The second analysis, of financial performance, showed an adjusted R square of .525, but only the knowledge management staff (.455) and the KMPD budget variables (-.611) were significant. The third, job satisfaction model, resulted in a significant adjusted R square of .358 and standardised Beta coefficients of .136 for market orientation, .529 for self efficacy, -.323 for KMPD budget, and .193 for KMPD staff. Although the knowledge management variables were not significant, the control variable 'gender' was significant (.47).

Based on Hult et al.'s (2008) multilevel, multi-dimensional approach using both primary and secondary data, the findings from the correlation and regression analysis of this thesis suggest that market orientation has a positive impact on job satisfaction and the subjective

performance measure. However, no significant correlation between market orientation and the financial performance measure could be found.

This result supports the findings of Cano et al. (2004), Kirca et al. (2005), and Shoham et al. (2005), whose meta-analyses found a stronger relationship between market orientation and performance when subjective performance measures as opposed to objective measures were used. It might be worth highlighting that Shoham et al. (2005) did not find any significant differences between the three types of market orientation scales (Jaworski & Kohli's MARKOR scale; Narver & Slater's MKTOR scale; other scales) in terms of the impact of market orientation on performance. On the other hand, Cano et al. (2004) and Ellis (2006) found that the relationship was stronger when using the MARKOR scale. Although Esteban et al.'s (2002) meta-analysis found that market orientation improves the results of services companies, this case study provides evidence that the type of performance measure has an impact on the measurement of the relationship between market orientation and performance. Scholars who are only employing one type of performance measure may thus draw false conclusion with regards to the impact of market orientation on the performance of professional service firms.

The following sections focus on intelligence gathering and dissemination, responsiveness, barriers to implementing market orientation, and job satisfaction.

7.2.1 Intelligence gathering and dissemination

Many interviewees referred to intelligence gathering and dissemination as two seamlessly interrelated set of activities. In order to keep in line with the reportedly intertwined nature of the two constructs, both intelligence gathering and dissemination findings are discussed in one section. The mean actual market orientation results show that the mean intelligence dissemination score (4.01) across all practice groups is lower than the intelligence gathering (4.86) and responsiveness score (4.65). The combined mean market orientation measure is 4.51. The semi-structured interviews led to the conclusion that internal communication is a key issue for LawCo. A number of interviewees mentioned the lack of interaction and information transfer between practice groups and other business functions across the firm. The findings also suggest that the communication processes within the individual practice groups or sub-groups are more effective than the communication between different groups.

The intelligence dissemination scores vary quite significantly between partners and senior associates. The intelligence dissemination scores of partners are generally still lower than the intelligence gathering or responsiveness scores. The intelligence dissemination scores of senior associates follow the same pattern, but are much lower than the partner scores. Feedback from associates suggests that they are not always being kept in the loop and that some information sources are restricted to partners. This structure impairs the effective dissemination of important market information. The information deficit of senior associates can partly be explained by the organisational structure and nature of a law firm (Muzio and Ackroyd 2005; Galanter and Henderson 2008). Partners own a stake in the firm and are more involved in organisational and strategic development processes. They also have access to sensitive information vital to the firm. Given the difference in age and practical experience between partners and senior associates one could argue that partners naturally have both a better understanding of internal processes and superior access to market related information through key relationships developed over time.

The semi-structured interviews clearly brought to light the importance of direct client contact, which is seen as the most effective way to gather market intelligence. As clients are a key source for market and industry information, it is worth noting that, according to Homburg, Wieseke, and Bornemann (2009), the length of the relationship between an employee and a client, as well as the age similarity, increases the employee's knowledge of customer need. This can also explain why partners have a better awareness of client needs than the less experienced senior associates. The intensity and frequency of client contact not only varies between partners, associates, and business services staff, but also between the roles. Partners in management functions or partners who serve on client review panels appear to have a better client and market knowledge. This knowledge is then cascaded down to other partners, associates and business support functions.

Improving intelligence dissemination processes could also lead to an increase in cross-selling opportunities, by referring clients to specialists within the law firm. The importance of interdepartmental connectedness was described in Kirca et al.'s (2005) meta-analysis as having the strongest impact on market orientation. However, Hansen (2009) tested the common notion that internal collaboration is beneficial for organisations. Internal collaboration is supposed to allow companies "to generate profits by exploiting existing assets" (Hansen, 2009, p.86) by fostering cross-selling, best-practice transfer, and cross-unit product innovation. However, Hansen (2009, p.85) also states that internal collaboration can create conflict between groups, competing objectives, and organisational challenges, which can lead to delays, overrunning budgets,

drops in sales, and even damaged customer relationships. Hansen (2009, p.85), thus recommends calculating a "collaboration premium", which can be derived by subtracting opportunity costs and collaboration costs from the projected return. Opportunity cost is defined as "the cash flow an organization passes up by devoting time, effort and resources to the collaboration project instead of to something else" (Hansen, 2009, p.85). Collaboration cost, on the other hand, is defined as the costs "arising from the challenges involved in working across organizational boundaries" (Hansen, 2009, p.85). As a consequence, Hansen (2009) suggests that executives should establish first whether an internal collaboration initiative will create or destroy value. He concludes that appropriate internal collaboration should help to achieve successes that would not be possible when working alone.

7.2.2 Responsiveness

Out of the three market orientation compounds the responsiveness variable showed the strongest correlation with subjective performance (.391), job satisfaction (.365), and self efficacy (.421). The responsiveness correlation was not only higher than that of intelligence gathering or dissemination but also exceeded the combined market orientation value. The mean actual responsiveness score (4.51) across all practice groups was lower than the intelligence gathering score (4.86), but higher than intelligence dissemination (4.01). Based on the findings of the regression analysis, it appears that responsiveness is an important antecedent to performance and job satisfaction. The results thus support Rexha et al.'s (2000) research into the consulting engineering profession, which highlights the importance of responsiveness to the performance of engineering services firms.

The actual questionnaire results show that respondents scored behaviours pertaining to responding to client needs higher than behaviours in response to competitor moves. Given the importance of client relationships in professional service firms (see Helfert et al. 2002; Maister 2008), this general trend is not too surprising. This result is also in line with Coyne and Horn's (2009) work that analysed the role of expected competitor reactions in the strategic decision making process.

Based on a survey conducted with McKinsey & Company of more than 1,800 managers, Coyne and Horn (2009) revealed some rather surprising results. For a start, only 23% of the respondents heard about a competitor's new service quick enough to allow a response before its launch. Based on their findings Coyne and Horn (2009) suggest that there is a

30% probability that competitors will not react to a move. Besides not learning about the innovation in time, competitors may not feel threatened by it, they may not see the change, they may not give it a priority, or they may not have the capability or resources to deal with it. This may explain why 17% of executives who were aware of a strategic move did not respond to it. Coyne and Horn (2009, p.92) conclude that when planning strategic moves, executives need to ask themselves whether (i) the competitors will react at all, (ii) what kind of options they will actively consider, and (iii) which options they will most probably choose. It is worth noting that Coyne and Horn (2009) also found out that only 15% of the respondents think more than four countermoves ahead when analysing strategic moves. Even though this percentage may vary depending on the region or industry, it is fair to say that most respondents think about strategic moves in the short term.

Taking the above into account it is not surprising that responsiveness questions related to competitor moves were rated lower than items related to clients or service development. The high correlation between responsiveness and the subjective performance and the job satisfaction measure suggest that increasing the responsiveness value could also have a positive impact on the other two measures. This theory can also be backed up by the results of the regression analyses, which lead to the conclusion that market orientation is an antecedent of job satisfaction and performance.

7.2.3 Barriers to implementing market orientation

Although the analysis of barriers to implementing a market orientation was not the focus of this study, the findings reveal some insights that can extend previous research in this area. Harris (2000, p.616), for example, identified barriers with regards to (i) organisational structure (connectedness, centralisation, and formalisation); (ii) strategic characteristics (service and cost focused); and (iii) system characteristics (communication systems, integration devices, and co-ordination systems). According to Rexha et al. (2000), a strong technical focus, a limited understanding of marketing, and a negative attitude towards marketing can act as barriers to implementing a market orientation in engineering service firms. Vickerstaff (2000), who examined market orientation in the legal sector in England and Wales, found that culture (24% of respondents), time (18%), resources (14%), internal communication (8%), awareness and understanding (7%), and expertise and skills (3%) can hinder the implementation of a market orientation.

Using Deng and Dart's (1994) market orientation scale, Vickerstaff (2000, p.357) also found that 20% of the surveyed law firms had a 'low' market orientation; whereas 63% of law firms showed a 'medium' market orientation and only 17% of law firms appeared to have a 'high' market orientation. Law firms showing a high market orientation demonstrated consistent high scores across the scale, rather than being outstanding in one particular area. Law firms generally scored highly on 'customer orientation' and 'long-term profit emphasis', followed by 'employee orientation' and 'competitor orientation'. Using the MARKOR scale, LawCo's average market orientation score was just above the mean of the questionnaire's scale, which is in line with Vickerstaff's findings (2000, p.357), who stated that the market orientation in the legal profession appears to be "limited". Vickerstaff (2000) also did not find any significant relationships between market orientation and firm size.

The qualitative findings of this thesis suggest that internal communications, in particular the communication across teams and offices, poses substantial problems for the effective dissemination of market intelligence. Organisational culture was seen as one explanation that could help to describe the market orientation results of practice groups. However, whether organisational culture acts as an enabler or barrier to market orientation could not be exhaustively ascertained during the semi-structured interviews. Organisational structure, on the other hand, in particular decentralisation and the formation of sub-teams, can hinder the development of a high level of intelligence dissemination across the firm. The implementation of client relationship teams appears to improve market orientation. In contrast to Vickerstaff (2000), time, resources, awareness and understanding of marketing or market orientation, and expertise and skills where not put forward by interviewees as being key barriers to implementing a market orientation.

Several researchers (i.e. Jaworski and Kohli 1993; Kirca et al. 2005) acknowledge the impact of top management engagement on market orientation. Similarly, the effect of leadership style of practice group leaders on market orientation was highlighted by several interviewees. The interviewees noted that enthusiastic and active practice group leaders help in nurturing market orientation processes.

7.2.4   Job satisfaction

The empirical findings suggest a positive relationship between market orientation, self efficacy and job satisfaction. The results are in line with Zhou et al.'s (2008) and Hampton and Hampton's (2004) research into market orientation and job satisfaction.

This research therefore contributes to a particular aspect of market orientation that still requires further investigation.

The results of this study show that the two practice groups with the highest market orientation (PG4, followed by PG6) also had the highest job satisfaction scores (PG6, followed by PG4). PG5, which has the lowest market orientation score also trails behind the other practice groups with regards to the job satisfaction scores. The semi-structured interviews, however, delivered different explanations as to why job satisfaction results differ between practice groups. Some interviewees argued that the changing organisation of law firms (see Hitt et al. 2001; Hitt et al. 2007; Galanter and Henderson, 2008) has an impact on job satisfaction. Other explanations included the effect of practice group size, partnership opportunities, working hours, work environment, team structure, type of work, economic crisis, and the reputation of the law firm and the respective practice group. Although the quantitative findings show a significant positive relationship between market orientation and job satisfaction, the reasons why job satisfaction results differ across practice groups remains ambiguous.

It is worth highlighting that female and male lawyers had significantly different job satisfaction scores; whereby female lawyers rated their job satisfaction lower. Information obtained during the semi-structured interviews, as well as previous research (i.e. Muzio and Ackroyd 2005; Hitt et al. 2007; Faulconbridge and Muzio 2008; Galanter and Henderson 2008) and anecdotal evidence leads to the conclusion that the work/life balance, career development opportunities and the general pressure and commitment associated with working in an international law firm may impact the job satisfaction scores of female lawyers.

7.3   Knowledge management and performance

Knowledge management can be defined "as the organized and systematic process of generating and disseminating information, and selecting, distilling, and deploying explicit and tacit knowledge to create unique value that can be used to achieve a competitive advantage in the marketplace by an organization" (Hult, 2003, p.190). Previous studies suggest that knowledge management can impact organisational performance, which in turn can lead to superior financial performance (i.e. Darroch and McNaughton 2003; Sabherwal and Becerra-Fernandes 2003; Zack, McKeen, and Singh 2009). Zack et al. (2009) found that the type and scope of knowledge management practices can have different effects on organisational performance measures, such as operational excellence,

product leadership, and customer intimacy. Knowledge management practices can include various activities such as sharing and communicating best practices, and developing knowledge repositories or reward systems.

Taking the above into account, this study conceptualised performance using Hult et al.'s framework (2008), including financial measures (profit), operational measures (job satisfaction), and overall effectiveness (subjective performance) of practice group performance. Knowledge management was conceptualised using two variables: knowledge management lawyers per fee earner and knowledge management and practice development budget per fee earner. Although both variables are significantly related to subjective and objective performance, it is worth highlighting that the first has a positive relationship and the latter a negative one. The knowledge management variables, however, do not appear to be related to job satisfaction or any of the market orientation variables. The staff related knowledge management variable is only moderately related to self efficacy.

In summary, the study delivered ambiguous results regarding the impact of knowledge management on performance. Some interviewees claimed that the budget variable may have blurred the results as the budget figure may not fully represent the level of knowledge management. Although these concerns were not raised during the initial data gathering exercise, it might be worth focusing on the staff related variable, which appeared to confirm interviewees' perceptions of the impact of knowledge management on organisational performance. The quantitative and qualitative findings may lead to the conclusion that a people-focused knowledge management strategy has a positive impact on performance.

As stated in the literature review, there are not many empirical contributions on the impact of knowledge management on organisational performance. In order to embed the findings above, it may be worth looking at the journal paper by Choi et al. (2008), which appears to be closely related. Choi et al. (2008), analysed the impact of knowledge management strategies on organisational performance, distinguishing between the focus of knowledge management (explicit- and tacit-oriented; see Hansen et al., 1999) and knowledge management sources (internal- and external-oriented). The four dimensions cover the use of information technology to codify and reuse knowledge (explicit-oriented), to communicate tacit knowledge using direct personal contact (tacit-oriented), to gather and disseminate knowledge from outside sources within an organisation

(external-oriented), and to generate and share knowledge within an organisation (internal-oriented).

According to Choi et al. (2008), high explicit-oriented strategies lead to a higher probability of superior performance. Tacit-oriented strategies, as well as a combination of explicit-oriented/tacit-oriented strategies achieve only a low probability of superior performance. External-oriented and internal-oriented strategies, however, result in a high probability of better performance. The combination of external- and internal-oriented strategies increases the likelihood of superior performance. Choi et al. (2008) also found that high tacit-internal-oriented strategies deliver a higher probability of superior performance than high explicit-external-oriented strategies, which only show a low probability of increased performance.

The two practice groups with the highest market orientation (PG4 and PG6) can be characterised by high tacit-oriented strategies, with a focus on both external and internal knowledge activities. The results of this thesis thus lead to the conclusion that high tacit-oriented strategies focusing on external and internal knowledge management can result in increased subjective performance and job satisfaction. This case study therefore not only puts Choi et al.'s (2008) findings into perspective, but also highlights the importance of combining external and internal knowledge management related activities.

Fugate et al. (2009), who analysed the impact of knowledge management related activities on operations performance and organisational performance using MARKOR methodology, found that a shared interpretation of data is a mediating factor in the relationship between disseminating knowledge and responsiveness. According to Fugate et al. (2009), a shared interpretation is highly important for organisations as it allows them to respond quickly and in a unified manner. Issues regarding shared interpretations did not come up during the data gathering exercise or empirical or qualitative analysis of this case study. Nevertheless, given the importance of responsiveness that was identified as part of this study, analysing the level of shared interpretation could prove beneficial to both scholars and practitioners. Although Fugate et al. (2009) carried out their research in a logistics operations environment it could also be relevant for professional service firms.

7.4 Self efficacy and performance

Previous research found that self efficacy, "a person's belief in his or her own capacity to perform a task" (Baruch et al., 2005), is an antecedent to organisational performance (i.e.

Gardner and Pierce, 1998). Evidence suggests that increased self efficacy can lead to enhanced performance (i.e. Gist and Mitchell, 1992).

The aim of this study was to analyse the impact of market orientation and knowledge management on performance using practice groups within a law firm as embedded sub-cases. Professional service firms, such as law firms, are knowledge intensive organisations that rely heavily on the skills and expertise of their employees (see Starbuck 1992; Alvesson 2001; Swart and Kinnie 2003). As there is a strong human component to both market orientation and knowledge management it was found opportune to establish the level of self efficacy per practice group. It was assumed that the level of self efficacy may have an impact on market orientation, knowledge management, and subsequent performance.

The findings of this case study suggest that self efficacy is an antecedent of subjective performance and job satisfaction. However, no significant relationship between self efficacy and profitability could be found. Self efficacy significantly correlates with the market orientation compounds, particularly with responsiveness, but does not appear to correlate with the budget based knowledge management variable. Similarly, the staff related knowledge management variable only shows a minimal correlation with self efficacy (.174 at the .05 level).

Although the interviewees did not attach great importance to the differences in self efficacy levels between practice groups, it is worth highlighting that the practice groups with the highest (PG4 and PG6) and lowest (PG5) market orientation and job satisfaction scores also showed the highest (PG4 and PG6) and lowest (PG5) self efficacy scores. Given its impact on subjective performance, job satisfaction, and market orientation, enhancing the self efficacy of their employees may help professional service firms to deliver an improved performance.

7.5 Professional service firms

The evolution of professional service firms from simple partnership models to more elaborate Managed Partnership Businesses (MPB) or Global Professional Networks (GPN) has been the subject of various books and journal papers (i.e. Cooper et al. 1996; Brock and Powell 2005; Segal-Horn and Dean 2009). LawCo, an international law firm and the subject of this study can be described as being one of the newly emerging business-oriented archetypes. It is characterised by commercialism and the

standardisation of processes, as well as a high level of managerial processes. There is a growing centralisation of decision-making and control. Quality, efficiency and effectiveness of service delivery are key success factors for the firm.

According to Segal-Horn and Dean (2009) internal processes, such as protocols, communication and trust that are required to produce a firm's services are also the key factors for becoming a globalised law firm. Segal-Horn and Dean's (2009) examples include unified profit centres, global client relationship teams, and a clear decision-making process across the firm. The investment in the activities and structures above are prerequisites for competitive advantage, through the servicing of clients with an 'effortless experience'. According to Segal-Horn and Dean (2009), a truly integrated firm would therefore be faster in delivering services, more flexible and responsive, and able to share knowledge across the firm.

The following sections focus on specific characteristics of professional service firms including practice group size and centralisation; geographic location; and differences between partners and senior associates. Section 7.6 will then discuss the impact of the economic crisis on the results of this study.

7.5.1 Practice group size and centralisation

Segal-Horn and Dean's (2009) call for an increased integration of business support activities is in stark contrast to the belief that the centralisation of the decision-making process and the formalisation "of roles, procedures, and authority through rules" (Kirca, 2005, p.25) are negatively related to market orientation (Jaworski and Kohli 1993; Matsuno et al. 2002). Formalisation is supposed to "inhibit a firms' information utilization and thus the development of effective responses to changes in the marketplace"; whereas centralisation "inhibits a firm's information dissemination and utilization" (Kirca, 2005, p.25). However, Jaworski and Kohli (1993) argue whether the extent of formal rules may be of less importance than the nature of formal rules, thus questioning the impact of formalisation on market orientation. The consideration being that rules may also help to improve market orientation processes such as intelligence dissemination. In line with this thought, Kirca et al.'s (2005) meta-analysis of previous market orientation studies shows no significant relationship between market orientation and formalisation. Similarly, Kirca et al. (2005, p.37) found that centralisation may not impair market orientation processes: "by ensuring top management emphasis, interdepartmental connectedness, and appropriate reward systems, market orientation can

be effectively implemented even in organizations with centralized decision-making structures".

The results of this case study suggest that both Segal-Horn and Dean's (2009) and Kirca et al.'s (2005) assumptions above hold true. Internationally integrated practice groups within LawCo (in terms of governance, management, and information processes) appear to have a higher market orientation. It was also found that market orientation can lead to higher subjective performance and higher job satisfaction ratings. It is worth noting that internationally integrated practice groups were also smaller in terms of the number of fee earners, which may impact the results. However, larger practice groups also contain several sub-groups focussing on specific client services or aspects of the law. Some sub-groups are formally embedded in the organisation; whereas others can be described as loose communities of interest. The former is characterised by a clear de-centralisation of management activities overseen by a practice group leader, who is responsible for the entire practice group and additional team leaders, focusing on the sub-groups.

7.5.2   Geographic location

Based on the findings of this study it appears that the geographical dispersion of lawyers within a practice group does not have an impact on the market orientation of the group. The market orientation scores of the two more dispersed practice groups where surprisingly similar to those of the remaining practice groups. It is therefore worth noting that there is a difference between the international integration of a practice group in terms of management and market orientation processes; and the physical geographical dispersion of lawyers within a practice group. The former appears to have a positive effect on market orientation; whereas the latter does not seem to impact market orientation scores.

As highlighted in the semi-structured interviews, the organisational fragmentation within practice groups also has an impact on market orientation activities. The KMPD functions of practice groups frequently mirror the group's structure and are subsequently often also de-centralised. Although the de-centralisation helps to be more in line with lawyers' needs it also has the potential to create communication issues and overlaps. There appears to be a trade-off between the centralisation and integration of KMPD management functions on the one hand and the replication of practice group structures on the other. Both the statistical findings and the feedback from the semi-structured interviews lead to the conclusion that PG4 and PG6 have higher market orientation scores. Both

departments developed internationally integrated KMPD functions, led by newly introduced Head of Practice Development roles.

7.5.3   Partners and senior associates

Apart from intelligence dissemination, which could be classified as an exception and has already been described above, it is notable that the market orientation and performance scores of partners and senior associates were very much aligned. This general trend was also picked up by most interviewees. One interviewee noted that the high degree of standardisation of training and legal education may be a reason for the similar responses. The interviewee also highlighted that partners often recruit newly qualified lawyers from similar backgrounds, who may have similar attitudes and views. In this respect, the interviewee also noted a general lack of diversity in law firms. Organisational culture may also add to this 'refinement'. Parkin's (2007) research delivers empirical evidence for this theory, stating that coming from the same law school as existing partners in the same office increases the probability of promotion. Parkin describes that this relationship is based on 'favouritism' rather than 'efficient behaviour' (2007).

Although intelligence gathering and responsiveness scores are somewhat similar, there is a significant gap between partners and senior associates when it comes to the dissemination of market intelligence. This can be explained by organisational structure and the nature of a law firm (see Muzio and Ackroyd 2005; Galanter and Henderson 2008) in that partners have a better understanding of internal processes and better access to market related information. According to Homburg, Wieseke, and Bornemann (2009) the length of the relationship between an employee and a client, as well as the age similarity, increases the employee's knowledge of customer need. This can also explain why partners have a better awareness of client needs than the less experienced senior associates. Partners and senior associates rated performance and self efficacy almost identical. The job satisfaction score of partners, however, is higher than that of senior associates.

7.6   Economic crisis

It may be worth highlighting that this case study was set in the midst of an economic crisis. The credit crunch, triggered by a sub-prime crisis in 2007, subsequently saw the collapse of established companies and unprecedented fluctuations in stock, housing and

currency markets and called for internationally coordinated actions by governments and central banks. The cause and effects of this financial crisis will be the subject of many publications and will certainly occupy economists and historians for decades to come. A market situation that is characterised by government bail-outs, the collapse of household company names, increasing repossessions, as well as unprecedented interest cuts, can without exaggeration be described as highly volatile.

According to Quelch and Jocz (2009), recessions have a great impact on consumer spending patterns. The change in buying behaviours during an economic downturn leads to decreases, postponements, and unusual increases in the purchase of certain goods and services. One factor that impacts purchasing decisions is whether consumers consider the products or services as essentials, treats, postponables, or expendables (Quelch and Jocz, 2009). Customers then tend to carefully evaluate the quality, quantity, price, and timing of their purchase. Common examples for changes in purchasing habits are the increased cancellation of gym memberships, repair rather than replace, eat-in instead of eat-out, or increased sales of frozen food products, and security systems. Quelch and Jocz (2009) developed a framework that helps to distinguish between several types of reactions to a recession. Quelch and Jocz (2009) aligned customers to four customer groups, highlighting their changing values and behaviours during an economic downturn: (i) slam-on-the-brakes; (ii) pained-but-patient; (iii) comfortably well-off; and (iv) live-for-today.

In the customer market, there is typically a group of less well off customers who decrease all types of expenditures by either reducing their spend, eliminating, deferring or substituting purchases (slam-on-the-brakes). Another large group of customers would remain optimistic about the general long term outlook, but worry about the short term developments (pained-but-patient). Similar to the first group, price is a key factor when deciding on purchases. In contrast to the two aforementioned groups, the third, small group is relatively confident about their ability to go through the recession without suffering setbacks (comfortably well-off). They will keep their purchasing habits at more or less the same level, but may be more selective. The fourth, and last group is probably the riskiest as it is not overly concerned about savings (live-for-today). Again, this group would keep purchasing habits to pre-recession levels, but there may also be postponements of purchases.

Each of the groups mentioned above will have different purchasing patterns during an economic crisis, which has an impact on companies and their marketing efforts. A similar

segmentation may be of value for professional service firms and their clients. Quelch and Jocz (2009, p.62) point out that "there is a good possibility that consumer attitudes and behavior shaped during this recession will linger substantially beyond its end." The same may hold true for professional service firms and their clients.

Grewal and Tansuhaj (2001, p.68) argue that due to globalisation and interconnected markets "sooner or later economic crisis are going to have a direct or indirect effect on almost every firm". A crisis can be defined as "a low probability, high impact situation that is perceived by critical stakeholders to threaten the viability of the organization" (Pearson and Clair, 1998, p.66). Grewal et al. (2007) distinguish between several types of crisis, based on the timing and geo-graphical aspects. In particular they differentiate between slow-evolving and immediate crisis, as well as between localised and pervasive impact. As their study focuses on interfirm relationships, Grewal et al. (2007) also distinguish between the endogenous and exogenous nature of a crisis.

Based on their elaborate qualitative study, Grewal et al. (2007) propose a structure of four different types of responses to a crisis, also referred to as crisis management tactics. Based on the nature of the crisis (pervasive or localised) and the diversity of the response design (high or low), the responses can be classified as hedging (pervasive/high), cautious (localised/high), focusing (pervasive/low) or maintenance (localized/low). The lower the diversity of the response design (i.e. the number of planned response proposals) the higher the readiness to assume risk. According to Grewal et al.'s (2007, p.410) findings, "high-quality IRs [interfirm relationships] characterized by trust and commitment are more durable in the face of stress than are market-driven, arm's-length relationships".

From a management research point of view it is interesting to test whether well established concepts and models hold true, given the extraordinary circumstances and severe market changes. Taking the turbulent market conditions portrayed above into account, it is worth analysing whether companies are actually able to accomplish their main purpose, which Drucker (1954, 2001) describes as the attraction of customers and the fulfilment of their needs. In the context of this case study it is fair to say that the economic downturn had a huge impact on LawCo and its practice groups. The role of market orientation during an economic crisis, however, is still under-researched (Grewal and Tansuhaj, 2001).

Grewal and Tansuhaj (2001, p.71), who analysed the role of market orientation and strategic flexibility during the Asian economic crisis in Thailand, take into account the economic environment by focusing on competitive intensity ("the degree of competition

that a firm faces"), demand uncertainty ("the variability in customer populations and preferences"), and technological uncertainty ("the pace and degree of innovations and changes in technology"). Strategic flexibility is defined as a firm's ability to respond quickly to both technological changes and market opportunities in order to meet the needs of clients.

In highly competitive environments, Grewal and Tansuhaj (2001, p.71) believe that market oriented companies could easily be "locked into institutionalized thinking about competitive behaviours". Their results suggest emphasizing strategic flexibility and deemphasizing market orientation in conditions of a highly competitive market intensity. Market orientation, however, is important in times of high demand and technological uncertainty. As a conclusion, Grewal and Tansuhaj (2001, p.77) suggest developing both a market orientation and strategic flexibility with a focus on reactive movements during a time of crisis. Grewal and Tansuhaj also highlight the need for further research in this area.

In contrast to Grewal and Tansuhaj's (2001) findings, some interviewees argue that it is particularly necessary to monitor the market and gather market intelligence during a time of economic crisis. The interviewees provided details on programmes and processes that were initiated in order to deal with the new situation and in order ensure an appropriate flow of information. Following Diamantopoulos and Cadogan's (1996) classification of the magnitude of market orientation, LawCo's reaction in terms of market oriented behaviour during the midst of the recession can be characterised by a broad approach to intelligence generation; a rapid and multidirectional form of intelligence dissemination, high responsiveness, and strong coordinating mechanisms. This observation also supports Ottesen and Grønhaug's (2004) findings, who carried out a case study into market orientation in turbulent environments. Ottesen and Grønhaug (2004, p.969) discovered that during times of turbulence, companies may experience an increased number "of externally-initiated interactions by different types of market actors focusing on a range of different issues". Companies thus need to react to these kinds of 'disturbances', which requires an increased responsiveness on a broad level. Interviewees of the LawCo study also highlighted that clients actively requested the firm's view on market developments and the regulatory environment, which can lead to an increase in information gathering and information dissemination processes. In addition to improving market orientation processes, interviewees also noted that they had more time to concentrate on developing formal and information communication channels as a result of the downturn.

One Head of Practice Development noted that although the economic crisis affected nearly all sectors and regions it may impact individual practice groups and partners quite differently. Not only are practice groups specialised in legal areas that may be of a counter-cyclical nature, but partners are also often highly specialised either in a specific subject area or sector, with a unique portfolio of clients. This combination of technical specialism and client mix can act as a counterbalance within a practice group or region. The nature of the law and the technical specialisation of a practice group may also impact the market orientation processes of the group. One practice group, for example, was classified as a localised practice, because of the considerably differing laws in the various jurisdictions.

7.7   Summary of key findings

The table below outlines a summary of the key findings:

Topic	Findings
Relationship between market orientation and performance	The study confirms previous research, which suggests a positive relationship between market orientation and performance (Esteban et al. 2002; Cano et al. 2004; Kirca et al. 2005; Shoham et al. 2005; Ellis 2006). Although research into the strength of the relationship between market orientation and performance in manufacturing and services companies delivered equivocal results (Cano et al. 2004; Kirca et al. 2005) this study shows that the relationship also holds true in the context of an international professional service firm.
Intelligence gathering	The findings of this study suggest that the intelligence gathering scores are positively correlated with subjective performance, job satisfaction, and self efficacy. It appears that direct client contact is an effective way to gather market intelligence. According to Homburg, Wieseke, and Bornemann (2009), the length of the relationship between an employee and a client, as well as their age similarity, increases the employee's knowledge of customer need. Therefore, partners may find it easier than senior associates to gather market and industry knowledge.

Topic	Findings
Intelligence dissemination	The intelligence dissemination scores of partners and senior associates are lower than the intelligence gathering and responsiveness scores, but are still positively correlated with subjective performance, job satisfaction, and self efficacy. The intelligence dissemination scores also vary between partners and senior associates; whereby the scores of senior associates are lower than the partner scores. There appears to be an information deficit (or perceived information deficit) among senior associate groups, partners who are not in management functions, and partners holding management functions. Although the communication within a practice group (or sub-team) appears to be functioning well, the dissemination of intelligence across practice groups could be improved. The results of this research provides evidence for this discrepancy.
Responsiveness	Out of the market orientation variables, responsiveness showed the highest positive correlation with both subjective performance and job satisfaction, as well as with the self efficacy measure. Responding to client needs is seen to be more important than responding to competitor movements (see Coyne and Horn, 2009). For example, a lawyer stated in the survey that it is not easy to find out if competitors are targeting clients in a concerted way. LawCo sets its own rates and does not appear to be greatly influenced by competitors. These results offer new insights into the role of responsiveness in professional service firms and support Rexha et al.'s (2000) respective findings on the importance of responsiveness in engineering service firms.
Types of performance measures	Previous research suggests that the relationship between market orientation and performance is stronger when using subjective performance measures instead of objective measures, such as return on assets (Cano et al. 2004; Kirca et al. 2005; Shoham et al. 2006). The findings of this study are in line with previous research in that the subjective performance measure indicated a significant positive relationship with market orientation. However, no significant relationship was found using an objective financial performance measure (profit per partner).
Job satisfaction	Previous research suggests that market orientation has a positive impact on esprit de corps and organisational commitment (Kirca et al. 2005; Shoham et al. 2006) as well as on job satisfaction (Kirca et al. 2005; Zhou et al. 2008). The results of this study confirm the positive relationship between market orientation and job satisfaction. The findings, however, also indicate that gender plays a role in the evaluation of job satisfaction.
Knowledge management	The number of knowledge management support staff per fee earner appears to have a significant positive impact on subjective and financial performance. The knowledge management and practice development budget per fee earner, however, appears to be significantly and negatively related to subjective and financial performance. One possible explanation being that the budgets are structured differently in the various practice groups. The findings add to existing literature on knowledge management. In particular, it provides evidence for the importance of market knowledge and tacit-oriented knowledge management strategies.

Topic	Findings
Self efficacy	The findings suggest that self efficacy is an antecedent of subjective performance and job satisfaction. The results are in line with previous research (i.e. Gist and Mitchell 1992; Gardner and Pierce 1998). However, no significant relationship between self efficacy and profitability could be found. Self efficacy significantly correlates with the market orientation compounds, particularly with responsiveness. Self efficacy does not appear to correlate with the budget based knowledge management variable and only shows a minimal correlation with the staff related knowledge management variable.
Seniority	Although intelligence gathering and responsiveness scores are somewhat similar between the two groups, there is a significant gap between partners and senior associates when it comes to the dissemination of market intelligence. This can be explained by organisational structure and the nature of a law firm (Muzio and Ackroyd 2005; Galanter and Henderson 2008) in that partners have an better understanding of internal processes and better access to market related information (Homburg, Wieseke, and Bornemann, 2009). Partners and senior associates rated performance and self efficacy almost identically. The job satisfaction score of partners, however, is higher than that of senior associates.
Geographical dispersion	It appears that the geographical dispersion of lawyers within a practice group does not have an impact on the market orientation of the practice group. The market orientation of the two more dispersed practice groups (PG1 and PG2) where similar to those of the remaining practice groups. These findings could be used to further enhance implementation strategies of market orientation.
Department size	Looking at the actual market orientation scores alone, the strength of the relationship between market orientation and practice group size was not clearly visible at first. Although smaller practice groups showed higher market orientation scores, their mean scores were still broadly in line with larger and medium-sized practice groups. The results of the semi-structured interviews, however, suggest that smaller and internationally integrated practice groups have a higher market orientation. Building on Kirca et al.'s (2005) findings, one could argue that larger practice groups may find it difficult to develop effective market orientation processes centrally. The findings provide valuable insights into the role of centralisation in the implementation of market orientation.

Topic	Findings
Economic crisis	Grewal and Tansuhaj (2001) argue that market orientation may be less important during an economic downturn because of a general turbulence in the market. The findings of this study, however, which was carried out during an economic crisis, suggest that market orientation can have a positive impact on performance. It needs to be highlighted though that the practice group with the worst performance also had the lowest market orientation score. According to Ottesen and Grønhaug (2004, p.969) during times of turbulence companies may experience an increased number "of externally-initiated interactions by different types of market actors focusing on a range of different issues". Companies thus need to react to these kinds of 'disturbances'. This requires an increased responsiveness on a broad level, which can also lead to an increase in information gathering and information dissemination activities. The findings of this research offer new insights into the role of market orientation during and economic crisis, a subject that is still under-researched.

Table 57 Summary of outcomes

8   Conclusions

8.1   Introduction

The aim of this research was to contribute to the understanding of the relationship between market orientation, knowledge management, and performance in the context of professional service firms. Several authors identified particular gaps in knowledge in terms of the implementation and quality of market orientation (i.e. Gebhardt 2006; Morgan et al. 2009) and the connection with knowledge management (i.e. Wang et al., 2009). Foley and Fahey (2009, p.17) argue that more "fine-grained research" into the relationship between market orientation and performance is needed and call for empirical research that takes into account "the specific firm and industry context".

Taking the above into account, this research examined whether the generally positive relationship between market orientation and performance (see Kirca et al., 2005) holds true in the context of an international professional service firm. Subsequently the study also analysed how knowledge management and market orientation influence the performance of practice groups. Based on the research question, the study followed a mixed method approach (see Teddlie and Tashakkori, 2003) characterised by a sequential explanatory design (see Creswell et al., 2003). In particular, an embedded case study design (see Yin, 2009) was used, with the eight practice groups of an international law firm serving as sub-cases.

The findings from the literature review (see Chapter 2) and the data gathering exercise (Chapter 4) were used to develop a conceptual model outlining the hypothesised relationships between the variables. The conceptual model suggested that market orientation and knowledge management positively impact the performance of the case study organisation. Performance was conceptualised using Hult et al.'s (2008) performance measurement framework, distinguishing between financial performance, operational performance, and overall effectiveness. The framework also takes into account different performance measurement dimensions, including type of data, type of measure, and level of analysis.

In addition to market orientation and knowledge management, self efficacy was also added to the conceptual model as an antecedent to performance. As knowledge workers carry out market oriented and knowledge management related tasks and are therefore highly important to professional service firms (see Alvesson 2001; Swart and Kinnie

2003), it seemed essential to also incorporate self efficacy, which describes "a person's belief in his or her own capacity to perform a task" (Baruch et al., 2005).

The actual level of practice groups' market orientation was established using an existing market orientation framework (see Jaworski and Kohli, 1993). The questionnaire, however, had to be adapted in order to work in a professional service firm setting (see Churchill 1979; Esteban et al. 2002; Kara et al. 2005). The questionnaire also contained questions covering self efficacy, operational performance, and overall effectiveness (i.e. job satisfaction). Following successful testing and pilot runs, the questionnaire was sent to partners and senior associates within the case company using an established online survey tool. The average profit per partner by practice group was used as a measure of financial performance (see Maister 1993; Scott 2001; Parsons 2005). The practice groups' knowledge management intensity was measured using two ratios: knowledge management lawyers per fee earner and knowledge management and practice development budget per fee earner.

The 189 useable responses (response rate of 33.9%) were subsequently analysed in great detail using the statistical methods of correlation and regression analysis. The empirical findings suggest that market orientation has a positive impact on subjective performance and job satisfaction and is therefore in line with previous research from different sectors (see Cano et al. 2004; Shoham et al. 2005). Similarly self efficacy is positively related to performance. The knowledge management findings, however, are ambiguous as the staff related variable was positively correlated, but the budget related variable had a negative correlation. The quantitative findings are presented in Chapter 5.

The empirical findings were then played back to knowledge management and practice development professionals within the case company in order to gain a better and deeper understanding of the various interrelationships. Based on 10 semi-structured interviews and by using case study techniques as suggested by Eisenhardt (1989) and Yin (2009), further insights into market orientation and knowledge management in a professional service firm context were derived. Chapter 6 provides an overview of the qualitative findings.

The qualitative and quantitative findings were subsequently discussed (see Chapter 7), taking into account previous research and the original research question and hypotheses. The findings suggest that responsiveness has a significant impact on both subjective performance and job satisfaction. The results also highlight deficiencies in terms of

intelligence dissemination between practice groups. Direct client contact appears to be a highly effective approach to gathering market intelligence.

This research revealed that internationally integrated practice groups appear to have a higher market orientation, confirming previous assumptions (Kirca et al. 2005; Segal-Horn and Dean 2009). However, the geographical dispersion of lawyers across offices does not appear to have a major impact on market orientation. Contrary to prior research (Grewal and Tansuhaj's, 2001), the findings from the semi-structured interviews lead to the conclusion that market orientation also has an important role during an economic crisis.

A full discussion of the findings can be found in Chapter 7. The following sections provide an overview of the theoretical contribution, management implications, limitations of the research, and potential avenues for future research.

8.2   Theoretical contribution

The findings of this research add to existing literature on market orientation, professional service firms, and knowledge management. Given its mixed method approach (see Teddlie and Tashakkori, 2003), the in-depth case study of a single law firm with multiple embedded sub-cases provided new and unique insights into the areas in scope. Previous research into market orientation, for example, was relying heavily on quantitative rather than qualitative or mixed research methods (see Kirca et al., 2005).

The research design thus followed Zhou et al.'s (2008) call for cross-level analyses with multi-level, multi-informants responses. In this case, practice groups, seniority, and function within the firm provided original insights into market orientation and professional service firm theory. In particular, the study helped to shed light on the relationship between market orientation and professional service firm characteristics, in terms of knowledge management related processes and differences between roles. During the course of this research, an existing market orientation questionnaire was enhanced to be suitable for use in professional service firms (see Esteban et al., 2002).

The findings also provide new insight into the implementation of market orientation (see Gebhardt et al., 2006). The findings show, for example, that the responsiveness to market intelligence appears to have a significant positive impact on the relationship between market orientation and subjective performance as well as job satisfaction. Having established the importance of responsiveness to market intelligence for professional

service firms, future research should focus on this particular set of market orientation processes. The results also indicate that the intelligence dissemination processes within the case company could be improved, which in turn could have a positive impact on the firm's performance. The relatively low intelligence dissemination scores could also be a symptom of general structural issues within professional service firms. The findings of this dissertation also add to existing literature on the measurement of market orientation (see Shoham et al., 2005). The results highlight that the conceptualisation of the performance measure can have an impact on the relationship between market orientation and performance. Whereas market orientation and self efficacy appear to have a significant positive impact on subjective performance and job satisfaction there does not seem to be a relationship with the objective performance measure using the average profit per partner.

Whereas knowledge management strategies and literature frequently emphasise the value of technical knowledge, this research also highlights the importance of market knowledge for professional service firms (Edwards and Mahling 1997; Gottschalk and Khandelwal 2004; Choi et al. 2008; Homburg et al., 2009). The findings also show that organisational strategies and structures pertaining to knowledge management can have a positive impact on practice group performance. The results also indicate that tacit-oriented and external-oriented knowledge management strategies (see Choi et al., 2008) appear to be particularly effective in a professional service firm setting and thus complement existing literature.

This study also confirms the role of self efficacy as an antecedent of performance (Cole and Hopkins 1995; Gist and Mitchell 1992). The results of this research also contribute to the understanding of the implications of an economic crisis on market oriented behaviours (see Grewal and Tansuhaj 2001; Ottesen and Grønhaug 2004), knowledge management, and self efficacy. The findings from the semi-structured interviews, for example, provide evidence for the importance of market orientation processes during an economic crisis.

In addition to its original theoretical contribution to knowledge, the research also delivers recommendations for LawCo and highlights practical implications, which could well be applied to similarly structured organisations. An overview of managerial implications follows below.

8.3   Management implications

Similar to research in other business sectors, the findings suggest that the market orientation concept also plays an important role in professional service firms. Both the empirical investigation and the qualitative analyses led to this conclusion. Managers are therefore encouraged to actively foster market oriented behaviours.

Knowledge management, a function carried out in many knowledge intensive firms, provides tools and techniques that can help to improve the market orientation of organisations. LawCo, and professional service firms in general, should consider continuing improving client relationship management as a means of getting better market intelligence and improving relationship marketing (Grönroos 1989; O'Malley and Harris 1999; Sin et al. 2005; Maister 2008) and thus performance. These activities can be supported by better communication and collaboration tools and more community based approaches to knowledge management in law firms. In the past, more emphasis has been on codifying knowledge and the use of information technology (see i.e. Gottschalk and Khandelwal 2004; Gottschalk 2005). Investigating the feasibility of establishing communities of practice (Wenger et al. 2002), for example, would be beneficial to further improve performance by allowing and encouraging more professional development, more innovation, and faster gathering and dissemination of market knowledge.

The results of this study show that internationally integrated practice groups show higher market orientation scores. These practice groups can be characterised by integrated governance and management of their respective knowledge management and practice development functions. Although the two outstanding practice groups are also smaller in size, there is no reason to believe that this kind of management could not be transferred and applied to other practice groups.

The findings show that market oriented behaviours related to intelligence dissemination were ranked lower than those related to intelligence gathering or responsiveness. The results suggest that this was mainly due to a lack in interdepartmental communications rather than a lack in intradepartmental communications. The findings also suggest that larger practice groups with specialised sub-groups can struggle from intelligence dissemination issues across their sub-groups. Investments in improving interdepartmental communications and intelligence dissemination between the sub-groups of larger practice groups may improve the organisation's market orientation, which in turn can lead to improved performance and job satisfaction. Similarly, widening the audience of intelligence communication could lead to improved intelligence dissemination scores.

Senior associates of this particular case company indicated that they receive less information than may be required for carrying out their tasks.

It is worth noting that responsiveness was the highest scoring market orientation compound. Responsiveness also had the biggest impact on the subjective performance and job satisfaction measures. Given its apparent importance, managers of professional service firms should be encouraged to look into this particular area as a means of improving their organisation's performance.

This case study showed that practice groups were generally better at responding to client needs than competitor movements or changes in the market. As discussed in the previous chapter, companies may find it difficult to spot competitor movements or to react to them in time. It may therefore be beneficial to focus at least on general market changes in order to improve an organisation's responsiveness. Given the pressures and low work/life balance many professional service firm employees face, improving a firm's responsiveness and involving employees in designing and implementing responses to client and market needs could increase the organisation's job satisfaction levels.

8.4   Limitations and further research

"Scientists have known for centuries that a single study will not resolve a major issue. Indeed, a small sample study will not even resolve a minor issue. Thus, the foundation of science is the cumulation of knowledge from the results of many studies." (Hunter and Schmidt, 1990, p.13)

In line with Hunter and Schmidt's (1990) notion on science, the aim of this study was to add to the knowledge on market orientation and to help fill particular gaps in relation to the implementation of market orientation and the connections with knowledge management in the context of a professional service firm environment. The main focus of the study was not generalisability, but rather explicating specific relationships within a professional service firm. Based on a literature review and a mixed-method research design, the findings enable conclusions to be drawn beyond the specific case discussed (see Miles and Huberman, 1994). Besides its contributions, the study exhibits a number of limitations that also provide potential avenues for further research.

Firstly, since the main unit of analysis of this study were practice groups within a single law firm it was unfeasible to analyse the role of culture in relation to market orientation. Several scholars (Slater and Narver 1995; Homburg and Pflesser 2000; Singh 2004; Ellis

2005) highlight the potential importance of culture in this context. Shoham et al. (2005) state that the location of the study has a significant impact on market orientation. Similarly, Kirca et al. (2005) conclude that the relationship between market orientation and performance was stronger in low power distance and uncertainty-avoidance cultures. Ellis (2006) found that the relationship is moderated by measurement and contextual factors, such as market size and the level of economic development, explaining that the relationships were stronger in large, mature markets. Although Cano et al. (2004) found that the significant positive relationship between market orientation and performance across countries is not influenced by socioeconomic factors or national cultures, it would be worth taking these factors into account in future studies. Given the specific nature of this particular inquiry, a meaningful examination into the influence of organisational or national culture could not be carried out.

The self reported market orientation questionnaire was also used to establish self efficacy, job satisfaction, and practice group performance levels. The findings are thus subject to common method variance (Podsakoff et al., 2003). This was partly mitigated by using additional measures for performance and knowledge management from different sources. Furthermore, an extensive data gathering exercise was carried out to provide context for the findings.

Although the response rate of 33.9% is within the threshold suggested by Baruch (1999; also see Baruch and Holtom 2008), a larger sample may have further increased the reliability of the statistical tests. This response rate could only be achieved by substantially reducing the market orientation questionnaire developed by Jaworski and Kohli (1993, 1996) and by having top management's commitment to this case study. Future research into this subject matter could therefore also deploy an extended questionnaire in order to gather more detailed information.

The collection and in-depth analysis of a large amount of multi-level data, including surveys, interviews, and internal documents, was only possible by working closely together with one law firm. This, however, might have affected some of the findings. Although the structure of LawCo is characteristic for the legal industry, future research should examine the cross-industry stability of the results. Some strategies, activities, or process, for example, may be firm-specific, rather than industry standards. In addition to this, quantitative, qualitative, and mixed method research methods covering multiple professional service firms could be deployed to test and complement the findings of this research.

The use of staff and budget related knowledge management variables led to ambiguous results. Future research could benefit from well established and tested variables indicating the level of knowledge management intensity. Darroch and McNaughton's (2003) knowledge management framework, for example, could be adapted for future studies on organisational knowledge management.

The findings on market orientation suggest that responsiveness plays an outstanding role in professional service firms. Future research should therefore focus on responsiveness in order to unveil best practices. Similarly, based on the findings, researchers should also investigate the role of direct client contact in regards to market intelligence gathering, as well as how to improve intelligence dissemination within professional service firms. The impact of certain communications technologies on intelligence dissemination might also be worth investigating.

It is worth highlighting that this study was carried out during an economic crisis. It would therefore be useful to replicate this study in a more stable economic environment. Likewise, a longitudinal study over a longer period would be valuable to test the conceptual model and the findings of this research.

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10 Appendix

10.1 Legal market

The table below presents financial information and other key indicators of the legal market in the United Kingdom:

Rank (07-08)	Firm	Revenue (£m)	Revenue change	PEP (£k)	PEP change	Rev per lawyer (£k)
1 (2)	Linklaters	1,298.0	0.4%	1,302.0	-9.6%	589.5
2 (3)	Freshfields Bruckhaus Deringer	1,287.0	9.3%	1,443.0	0.6%	586.6
3 (1)	Clifford Chance	1,262.0	-5.0%	733.0	-36.6%	434.7
4 (4)	Allen & Overy	1,091.0	7.4%	1,000.0	-10.9%	531.7
5 (5)	DLA Piper	585.0	16.3%	645.0	-6.4%	251.4
6 (6)	Lovells	531.0	10.9%	586.0	-11.3%	354.0
7 (7)	Herbert Smith	444.0	5.3%	845.0	-18.4%	427.8
8 (8)	Slaughter and May	431.6	3.0%	1,540.0	-5.0%	784.7
9 (9)	Eversheds	365.9	-6.3%	404.0	-26.8%	293.4
10 (11)	Norton Rose	314.0	5.7%	517.0	-17.3%	315.3

Table 58 Top 50 special 2008-09 in numbers: firm by firm (revenue and PEP)

Rank (07-08)	Firm	Total partners	Partners change	Total equity partners	Leverage ratio: 1
1 (2)	Linklaters	499	-4.0%	422	4.2
2 (3)	Freshfields Bruckhaus Deringer	442	4.7%	415	4.3
3 (1)	Clifford Chance	637	3.9%	412	6.0
4 (4)	Allen & Overy	486	2.7%	370	4.5
5 (5)	DLA Piper	593	3.0%	176	12.2
6 (6)	Lovells	352	3.2%	240	5.3
7 (7)	Herbert Smith	238	3.9%	137	6.6
8 (8)	Slaughter and May	130	-1.5%	124	3.4
9 (9)	Eversheds	334	-2.9%	145	7.6
10 (11)	Norton Rose	264	7.3%	172	4.8

Table 59 Top 50 special 2008-09 in numbers: firm by firm (fee earner numbers)

Source: Legal Week. (2009). Top 50 special: 2008-09 in numbers: firm by firm. [Internet]. <http://www.legalweek.com/protected/digital_assets/57/Top50table.pdf>. [Accessed: 30 July 2009].

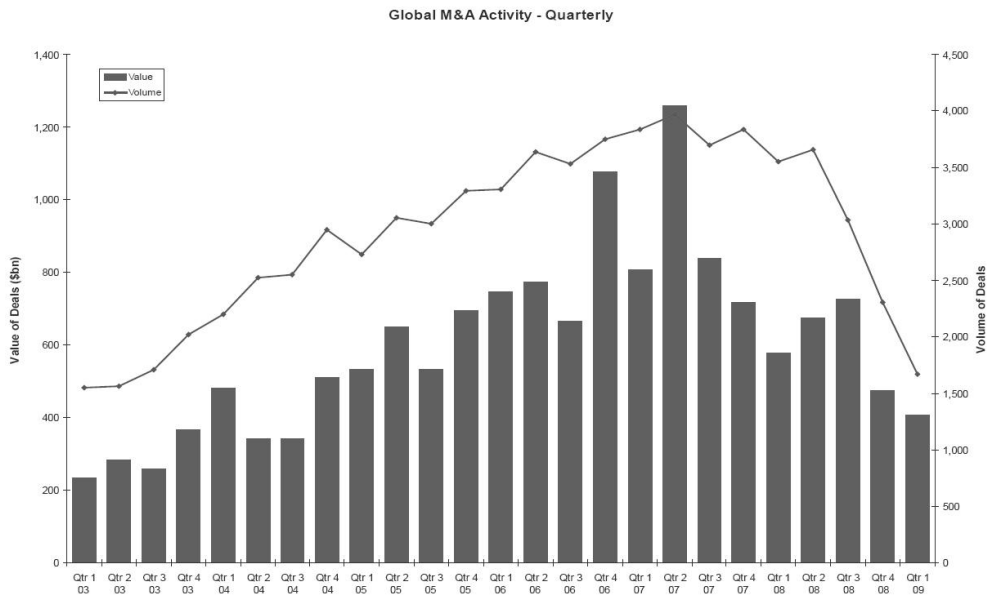The following chart shows the development of the global merger and acquisition activity over the past six years:

Figure 26 Development of global M&A activity (by Mergermarket, 2009)

10.2 MARKOR questionnaire (original)

Market orientation scale as developed by Jaworski and Kohli (1993):

Intelligence Generation

1. In this business unit, we meet with customers at least once a year to find out what products or services they will need in the future.

2. Individuals from our manufacturing department interact directly with customers to learn how to serve them better.

3. In this business unit, we do a lot of in-house market research.

4. We are slow to detect changes in our customers' product preferences.

5. We poll end users at least once a year to assess the quality of our products and services.

6. We often talk with or survey those who can influence our end users' purchases (e.g., retailers, distributors).

7. We collect industry information through informal means (e.g., lunch with industry friends, talks with trade partners).

8. In our business unit, intelligence on our competitors is generated independently by several departments.

9. We are slow to detect fundamental shifts in our industry (e.g., competition, technology, regulation).

10. We periodically review the likely effect of changes in our business environment (e.g. regulation) on customers.

Intelligence Dissemination

1. A lot of informal "hall talk" in this business unit concerns our competitor's tactics or strategies.

2. We have interdepartmental meetings at least once a quarter to discuss market trends and developments.

3. Marketing personnel in our business unit spend time discussing customers' future needs with other functional departments.

4. Our business unit periodically circulates documents (e.g., reports, newsletters) that provide information on our customers.

5. When something important happens to a major customer or market, the whole business unit knows about it in a short period.

6. Data on customer satisfaction are disseminated at all levels in this business unit on a regular basis.

7. There is minimal communication between marketing and manufacturing departments concerning market developments.

8. When one department finds out something important about competitors, it is slow to alert other departments.

Responsiveness

1. It takes us forever to decide how to respond to our competitors' price changes.

2. Principles of market segmentation drive new product development efforts in this business unit.

3. For one reason or another we tend to ignore changes in our customers' product or service needs.

4. We periodically review our product development efforts to ensure that they are in line with what customers want.

5. Our business plans are driven more by technological advances than by market research.

6. Several departments get together periodically to plan a response to changes taking place in our business environment.

7. The product lines we sell depend more on internal politics than real market needs.

8. If a major competitor were to launch an intensive campaign targeted at our customers, we would implement a response immediately.

9. The activities of the different departments in this business unit are well coordinated.

10. Customer complaints fall on deaf ears in this business unit.

11. Even if we came up with a great marketing plan, we probably would not be able to implement it in a timely fashion.

12. We are quick to respond to significant changes in our competitors' pricing structures.

13. When we find out that customers are unhappy with the quality of our service, we take corrective action immediately.

14. When we find that customers would like us to modify a product or service, the

departments involved make concerted efforts to do so.

10.3   MARKOR questionnaire (adapted for LawCo)

Final version after pilot. Initial draft based on Kara, Spillan, and DeShields's (2005) adapted version of the MARKOR questionnaire.

Intelligence Generation

Select from 'strongly disagree' to 'strongly agree' (1-7)

1. Individuals from our practice group interact directly with clients to learn how to serve their needs better.

2. In our practice group, we do a lot of in-house market research.

3. We are slow to detect changes in our client's product/service preferences.

4. We are slow to detect fundamental shifts and trends in our industry such as competition, technology, and regulation.

5. We periodically review the likely effect of changes in our business environment, such as market developments, regulations and technology, on clients.

Intelligence Dissemination

Select from 'strongly disagree' to 'strongly agree' (1-7)

6. A lot of informal talks in my practice group concern our competitors' tactics or strategies.

7. We have interdepartmental meetings at least once a quarter to discuss market trends and developments.

8. Our practice group periodically circulates documents (for example, reports and newsletters) that provide information on our clients.

9. We periodically review our product and service development efforts to ensure that they are in line with what clients want.

10. When something important happens to our top tier clients, the whole practice group knows about it within a short period.

11. When one practice group finds out something important about competitors, it is slow to alert other practice groups or functional departments.

Responsiveness

Select from 'strongly disagree' to 'strongly agree' (1-7)

12. It takes us forever to decide how to respond to our competitors' price changes.

13. In our practice group, principles of market segmentation drive new product and service development efforts.

14. For one reason or another we tend to ignore changes in our clients' product/service needs.

15. The products and services we market depend more on internal considerations than real market needs.

16. If a major competitor were to launch an intensive campaign targeted at our clients, we would implement a response immediately.

17. The activities of the different practice groups in this firm are well coordinated.

18. Even if we came up with a great marketing plan, we probably would not be able to implement it in a timely fashion.

19. When we find out that clients are unhappy with the quality of our service, we take corrective action immediately.

20. When we find that clients would like us to modify our services or processes, the departments involved make concerted efforts to do so.

Performance

Select from 'Much worse than our competition' to 'Much better than our competition' (1-7)

21. Please evaluate your practice group's overall performance over the last two years relative to your main competitors.

Self efficacy

Select from 'To no extent' to 'A very great extent' (1-7)

22. I have the knowledge and skills necessary to perform well in my job.

23. I can excel in the roles I need to perform in my job.

24. I will be able to achieve most of the goals that I have set for myself.

Job satisfaction

Select from 'To no extent' to 'A very great extent' (1-7)

25. I am generally satisfied with the kind of work I do in my job.

10.4 Market orientation scores and comments

The table below shows the mean scores (scale of 1-7) by practice groups (PG1-PG8) for intelligence gathering (IG), intelligence dissemination (ID), responsiveness (R), and market orientation (MO):

PG		IG	ID	R	MO	Comments
1	Mean	4,88	3,82	4,74	4,46	Although PG1 shows outstanding performance values, its IG and R scores are only average. It has the second lowest ID score.
	N	24	24	22	24	
	Std. Deviat.	1,01	,99	,99	,82	
2	Mean	4,98	4,06	4,64	4,56	PG2, the largest practice group, has the second highest IG and ID scores but only an average R score. ID, however, is still far below PG4.
	N	67	67	65	67	
	Std. Deviat.	1,00	1,17	,77	,83	
3	Mean	4,65	3,92	4,83	4,47	PG3 shows a low IG score, an average ID score, and a relatively high R score. The total MO score is average.
	N	16	16	16	16	
	Std. Deviat.	1,06	,84	,62	,73	
4	Mean	4,85	4,65	4,90	4,80	PG4 has the highest market orientation and info dissemination score, a high responsiveness score and an average info gathering score.
	N	11	11	11	11	
	Std. Deviat.	,86	1,05	,71	,74	
5	Mean	4,56	4,05	4,25	4,30	PG5 shows the lowest info gathering and responsiveness scores. The info dissemination score is average. It has the lowest market orientation score.
	N	31	31	30	31	
	Std. Deviat.	1,10	1,10	1,08	,95	
6	Mean	5,20	3,90	4,90	4,66	PG6 has the highest info gathering score, an average info dissemination score and a high responsiveness score. PG6 has the second highest MO score.
	N	8	8	8	8	
	Std. Deviat.	,69	,68	,95	,50	
7	Mean	4,98	3,98	4,57	4,51	The IG and ID scores are average but the R score is the only the second lowest. In total, the MO score is average.
	N	16	16	16	16	
	Std. Deviat.	1,20	1,08	,99	,96	
8	Mean	4,87	3,76	4,92	4,52	PG8 has the lowest info dissemination but the highest response score. In combination with an average info gathering this leads to an average MO score.
	N	16	16	14	16	
	Std. Deviat.	1,00	,89	,59	,63	
Total	Mean	4,86	4,01	4,65	4,51	Given the scale (1 to 7) of the questionnaire, the average MO scores are just above the mean. Especially ID, which is the lowest ranked compound,
	N	189	189	182	189	
	Std. Deviat.	1,02	1,06	,87	,81	

Table 60 Market orientation review by practice group

Partners and senior associates were given the opportunity to comment on the market orientation questionnaire using free-text boxes. The table below lists the comments that were submitted in an anonymised form:

PG / Office	Role	Comments
PG1 Brussels	Partner	In [PG1], the products and services need are pretty clear and do not develop much over time. However, we need to stay on top of regulatory developments and maintain close contacts to the regulators.

PG / Office	Role	Comments
PG1 London	Senior Associate	It isn't easy to find out if competitors are targeting our clients in a concerted way.
PG2 Amsterdam	Partner	We set our own rates and are not so influenced by others (unless in a pitch scenario)
PG2 Düsseldorf	Partner	To ask for practice groups is not quite correct because a lot of the things asked for above are now being dealt with on Sector Group Level
PG2 Tokyo	Partner	Developments regarding specific top tier clients are shared quickly and widely within that client's teams but not across the whole practice group. I think the emphasis on sector groups makes this [coordinating activities of the different practice groups in this firm well] much more effective than it was (say) 5 years ago.
PG2 London	Senior Associate	I think we could definitely improve short alerts on what our top clients are up to (big news items eg), particularly to associates. Indifferent to most of these questions, I am not involved enough in these issues.
PG2 Vienna	Senior Associate	We do not really react [to our competitors' price changes]
PG3 Frankfurt	Partner	Questions 13 to 17 and 22 do not apply in my view to [PG3]
PG5 London	Senior Associate	No such talks/meetings [informal talks on competitors' tactics or strategies and interdepartmental meetings on market trends and developments] occur at the Senior Associate level
PG5 London	Senior Associate	We are not responsive to what the client actually wants. We try to put our clients in a LawCo box.
PG7 London	Partner	[Our practice group periodically circulates documents that provide information on our clients:] news alerts only
PG7 London	Senior Associate	We have regular meetings but often they are more on technical issues than on market knowledge etc. I think much of the client information is disseminated among partners but not to associates, or only to a few associates whom a partner thinks of, rather than through an organised process of dissemination. A lot of this I just don't know about - pricing decisions, etc are kept among the partners, as is much of the strategy on addressing client needs. It would be interesting and valuable for this to be more widely disseminated.
PG8 Washington	Partner	Within [PG8], most communication is by email and tends to be frequent and immediate. So far, pricing competition and other types of competition with major wall street firms and Top 10 law firms has not impacted [PG8].

Table 61 Market orientation survey - comments

One respondent above referred to questions 12, 15, and 20, which are listed below. The complete questionnaire can also be found in the appendix:

– Q12: It takes us forever to decide how to respond to our competitors' price changes.

– Q15:The products and services we market depend more on internal considerations than real market needs.

– Q20. When we find that clients would like us to modify our services or processes, the departments involved make concerted efforts to do so.

10.5 Performance, job satisfaction and self efficacy scores

The table below shows the mean scores (scale of 1-7) by practice groups (PG1-PG8) for subjective performance (Perf), job satisfaction (Job S), and self efficacy (SE):

PG		Perf.	Job S	SE	Comments
1	Mean	6,41	5,48	5,92	PG1 has the best performance score which reflects the successes over the past years. The job sat score is the second lowest and SE is above average.
	N	22	21	21	
	Std. Deviat.	,67	,93	,60	
2	Mean	5,66	5,63	5,67	The largest practice group's SE scores are the second lowest. Job S and performance scores are average.
	N	62	63	63	
	Std. Deviat.	1,02	1,11	,85	
3	Mean	5,87	5,75	5,79	PG shows the second highest performance score and average Job S and self efficacy scores.
	N	15	16	16	
	Std. Deviat.	1,06	1,00	,67	
4	Mean	5,64	6,09	6,03	PG4 has average performance scores but the second highest job satisfaction and self efficacy scores.
	N	11	11	11	
	Std. Deviat.	,81	,70	,67	
5	Mean	4,60	5,31	5,44	PG5 suffered severely from market turbulences and could not mitigate the downturn by offering different products or services. The performance, job s, and self efficacy scores are the lowest.
	N	30	29	29	
	Std. Deviat.	1,35	1,20	1,00	
6	Mean	5,71	6,33	6,06	PG6 has above average performance scores and leads the job s and self efficacy scores.
	N	7	6	6	
	Std. Deviat.	,76	,52	,65	
7	Mean	4,94	5,69	5,85	PG7 has only the second lowest performance score. Self efficacy and job satisfaction are just above average.
	N	16	16	16	
	Std. Deviat.	1,29	,95	,83	
8	Mean	5,86	5,85	5,72	PG8 shows a high performance score but only average job satisfaction and self efficacy scores.
	N	14	13	13	
	Std. Deviat.	,86	,56	,36	
Total	Mean	5,54	5,65	5,73	Given the scale (1-7) the self efficacy and job satisfaction scores are relatively high. The performance scores differ considerably but are above the mean.
	N	177	175	175	
	Std. Deviat.	1,17	1,02	,80	

Table 62 Performance, job satisfaction, and self efficacy review by practice group

10.6   Semi-structured interviews - topics and questions

This section provides further information on the semi-structured interviews that were carried out as part of this research. The following list gives an overview of the topics that were covered in the interviews. Additional information, including a table showing the list of interviewees, and an analysis of the interviews can be found in section 6.2.

− Background of the interviewee including years with the firm, role, and qualification.

− Overview of the study and methodology. Presentation of the key findings to date and trends.

− Discuss the general trend and practice group specific differences.

− Discuss knowledge management and practice development orientation of the practice group. Discuss the impact of investments (i.e. budget, staffing), priorities, and important processes on market orientation.

− Discuss the quality of market orientation including the practice group's approach to intelligence generation, the speed and focus of intelligence dissemination, and the level of responsiveness.

− Differences and similarities between partners and senior associates [especially MO, ID, and job satisfaction; note that performance rating is similar].

− Discuss practice group size differences.

− What are the factors that may influence market orientation? [If the interviewee cannot think of any factors prompt potential influencing factors like jurisdiction/country, nature of the law, working practices in practice groups, culture, client expectations, or other factors like top management priorities]

− Discuss the role and impact of clients and competitors on practice development and performance. [For example, how important is it to anticipate changing client needs?]

− Discuss the current market conditions. Discuss and describe the impact of turbulences and changes [i.e. economic crisis, market turbulences, changes in technology, legal aspects].

− Discuss the impact of market orientation and performance on job satisfaction.

− Examine the general trend and discuss the firmwide view.