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School of Business

Market orientation in Finnish pharmacies

Marketing

Master's thesis

Mikko Lähdevuori

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Department of Marketing
Aalto University
School of Business

Aalto University
School of Business

Aalto University, P.O. BOX 11000, 00076 AALTO
www.aalto.fi

Abstract of master's thesis

Author	Mikko Lähdevuori
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Abstract

Purpose of study

The concept of market orientation has been studied since 1970's. The dimensions of this concept have been described slightly differently by different researchers. Though this concept has been studied also among SMEs, even in Finland, there has not been a single-industry study focusing on Finnish pharmacies. The main objective of this study was to gain research information of market orientation within Finnish pharmacies, and whether this strategic paradigm can be related to Finnish pharmacists' strategy work.

Methodology

Online survey was conducted in fall 2013 to collect the research data of this study. Invitation to this survey was sent to 584 pharmacists throughout Finland. 118 effective responses with response rate 20.2 per cent were received. Data analysis was conducted in two phases. In the first phase Exploratory factor analysis was used to identify the importance of market orientation to Finnish pharmacy owners. In the second phase *t* test and One-way Anova were used to test differences between demography variables sub groups among respondents.

Findings

One of the key findings of this study was that Finnish pharmacists did recognize dimensions of market orientation important to their strategy work. This study shows that these entrepreneurs were most active in responsiveness, while in information generation and dissemination they were slightly less active. This outcome is in line with the findings of previous research done among Finnish SMEs. Another key finding was that those pharmacists who possess PD education were less market oriented compared to those who do not have this further education. This would be somewhat unexpected result. The results of this study suggest that market orientation is relevant concept in the context of Finnish pharmacies. Such concept and related frameworks, e.g. MARKOR, could offer a guideline for entrepreneurs in this field of business as it confronts the competitive challenges of 21st century.

Keywords Market orientation, MARKOR, SMEs, PD

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1 Introduction

In Finland, as well as in other European countries, retailing of medicines has changed significantly during past decade due to the generic medicines. Generic medicines were first introduced in Finland year 2003. Generic product is a medicine which includes same amount of the active ingredient as the original product and biological similarity has been verified (Fimea 2013). Introduction of the generic medicines and especially the reference price system in year 2009 has lowered prices on medicines significantly in Finland. In some cases price level on certain medicine has dropped even to one third of the price before the introduction of this new system. These significant changes in the income logics have forced pharmacies in Finland to adjust their processes in such way that they can still operate in profitable manner.

The research idea of this study is to gain more marketing knowledge concerning the pharmacies and especially pharmacists' attitudes toward market orientation concept. This concept has been studied among small and medium-sized companies (hereafter called SMEs) in general in Finland (cf. Reijonen and Komppula 2010) but this study concentrates purely on one section of SME companies, i.e. pharmacies. Aim of this study is to reveal whether pharmacists are able to recognize elements market orientation concept in their strategies and whether this concept could offer them a guiding line when coping with the new situation in medicine market.

1.1 Background

Association of Finnish Pharmacies (2013) has estimated that generic medicines created consumers EUR 433 million worth savings since year 2003. Savings for the Finnish society have been approximately EUR 117 million during that period (*ibid.*). It has been estimated that two-thirds of these savings are due to price competition and one-third of the actual changing of the initially prescribed medicine (Paldán and Martikainen 2005).

According to Martikainen et al. (2013) since year 2000, the price development in prescription medicines has changed from annual growth of 9 per cent to annual growth of 0.7 per cent.

The tools used by Finnish authorities have included medicine price rate cuts, introduction of generic medicines, and the reference price system. During the first two years after introduction of generic medicines, prices on medicines began to fall as 57 per cent of those medicines that belonged to generic medicines system had become cheaper. Within same period only 7 per cent the medicines belonging to this category had become more expensive and 36 per cent remained unchanged. (Paldán and Martikainen 2005). During year 2009, when the reference price system was introduced, the cost savings were approximately EUR 110 million, of which EUR 34 million were saved by consumers using generic medicines (Martikainen et al. 2013). Cost savings of Finnish society represented approximately 6 per cent of the total medicine reimbursement cost in year 2009 (*ibid*.).

Hartikainen-Herranen and Ahonen (2005) reported already after the first two years of the introduction of generic medicines that 62 per cent of the pharmacists had considered their sales margin smaller due to the generic medicines. Mean drop in sales margin was 2.3 per cent in those pharmacies that had faced diminishing sales margins. Also, worth considering is the capital invested in medicine stocks. According to Hartikainen-Herranen and Ahonen (2005) in 57 per cent of the pharmacies the value of stocks had grown, the mean growth being 7.3 per cent.

Koskinen et al. (2011) reported in their case analysis of the price cuts of two generic medicine molecules. Authors found that costs on mental disorder medicine olanzapin had dropped to one-third during the first year after olanzapin was introduced in generic medicines system.

It is justifiable to claim that the business environment of Finnish pharmacies has changed dramatically during the early 21st century. Pharmacies are forced to consider substitutive sources of incomes as the revenues and profits on medicine sales are jeopardized. While pharmacies look into possibilities of expanding their product offerings, they at the same time are exposing themselves to competition they previously have been able to avoid. When entering into competition with grocery or cosmetics sector, marketing capabilities become relevant for also the medicine professionals.

The concept of market orientation has been studied since 1970's. The dimensions of this concept have been described slightly differently by different researchers (cf. Barksdale and

Darden 1971; Kohli and Jaworski 1990; Lafferty and Hult 2001). Though this concept has also been studied among SMEs (cf. Blankson and Cheng 2005; Raju et al. 2011; Hoq and Chauhan 2011) even in Finland (Reijonen and Komppula 2010), there has not been a study that has focused in Finnish pharmacies during past years.

Blankson and Cheng (2005) argue that it is not clear to what extent the market orientation concept is appreciated in the small businesses. Horng and Cheng-Hsui Chen (1998) note that market orientation has been studied empirically mainly on large businesses and U.S. based firms. Thus, investigating SMEs operating in context other than U.S. is beneficial for this research scheme (*ibid*.). Also Jaakkola et al. (2010) consider market orientation research to benefit from studies in different business contexts. Reijonen and Komppula (2010) remind that even though market orientation has been studied among SMEs (e.g. Appiah-Adu and Singh 1998; Pelham 1999), number of these studies has remained small (Blankson and Cheng 2005). Worth noting is that these studies have concentrated on limited part (i.e. not all dimensions of the concept) of market orientation (Reijonen and Komppula 2010).

Kara et al. (2005) remind that although there have been studies investigating market orientation−performance relationship in SMEs, most of these studies have concentrated on small manufacturing firms. Authors suggested that in order to find whether there are discrepancies among different service industries, a more focused set of service retailers should be further studied. Raju et al. (2011), contrary to Kara et al. (2005), consider that even though there have been many studies focusing on the market orientation−performance relationship, efforts synthesizing the findings in the context of smaller companies is very limited. Thus, efforts advancing this knowledge should be worthwhile. Jaakkola et al. (2010) remind that positive relationship between market orientation and performance have been reported by several research studies (e.g. Narver and Slater 1990; Jaworski and Kohli 1993; Han et al. 1998; Matsuno et al. 2002), even though this was not supported by the study these authors conducted. As pharmacies can be classified as medicine retailers, notions from Kara et al. (2005), Jaakkola et al. (2010), Reijonen and Komppula (2010), and Raju et al. (2011) support the relevance of the present study. Retailers differ from manufacturing firms in terms of e.g. having closer customer contact. Raju et al. (2011) found customer focus to be a key dimension for service retailers. This notion has been related also to Finnish pharmacies and is proven by customers satisfaction surveys which have for several years shown high satisfaction on pharmacies customer service (e.g. Taloustutkimus 2011).

1.2 Research objective and problem

The objective of this study is to continue revealing the attitudes of SME companies' entrepreneurs toward market orientation in the context of Finnish pharmacies. Thus, this study contributes to the existing knowledge on market orientation concept in SME context.

Research problem of this study questions: *Do the Finnish pharmacists recognize the elements of market orientation concept in their strategy work and how could market orientation provide a guide line for pharmacists as they confront the challenges of 21st century?*

1.3 Research methodology and scope

This study aims to continue previous market orientation research focusing on single-industry, namely Finnish pharmacies. Focal to this study is the use of previously validated research framework MARKOR (Kohli et al. 1993). Findings of this study contribute to market orientation research among small and medium sized companies. The empirical part of this study is based on data gathered from the Finnish pharmacy owners using online survey during fall 2013.

Data analysis consists of reliability analysis, assuring that exclusion of individual scale items in modified MARKOR scale was not needed. Further analysis was two-fold as in the first phase Exploratory factor analysis (EFA) was applied in order to reveal whether Finnish pharmacists considered market orientation important in their strategy work. Also, refinement of MARKOR scale was taken into consideration based on this factor analysis. In the second phase *t* test and One-way Anova were used to differentiate respondent demography sub groups from each other.

1.4 Key concepts

Marketing orientation

Wrenn (1997) reminds that the use of such terms as marketing concept, marketing orientation, and market orientation has been somewhat confusing. Generally, Wrenn considers marketing concept to relate to organizational attitude, while marketing orientation refers to the implementation of marketing concept. Wrenn separates marketing orientation and market orientation by claiming that market orientation involves a concern with both customers and competitors whereas marketing orientation focuses on focal organizations products and customers. Horng and Cheng-Hsui Chen (1998) note that though the topic of marketing orientation is not new, the extent to which firms adopt it is being revisited as a major subject in business research.

Market orientation

Market orientation is organization wide *generation* of market intelligence pertaining to current and future customer needs, *dissemination* of the intelligence across departments, and organization wide *responsiveness* to it (Kohli and Jaworski 1990, 6). Narver and Slater (1990, 21) claim market orientation to be the *culture* which most effectively and efficiently creates the necessary behaviors for the creation of superior value for buyers. Horng and Cheng-Hsui Chen (1998) summarize briefly how different authors define the concept of market orientation.

Small and medium-sized firms

Small and medium-sized enterprises (SMEs) are defined as enterprises which have fewer than 250 employees, and have either an annual turnover not exceeding EUR 50 million (EUR 40 million before 2003), or an annual balance-sheet total not exceeding EUR 43 million (EUR 27 million before 2003) and which conform to the criterion of independence (Statistics Finland 2013). Demirbag et al. (2006, 1213) defined SMEs to be those firms that employed no more than 100 employees. Authors also excluded micro firms (less than 10 employees) from their study as they were not considered appropriate for purposes of the study. This study leans on the definition of Statistics Finland (2013), when defining the SMEs.

1.5 Structure of the study

This thesis is composed after introduction section as follows:

The second chapter lays the theoretical foundations for this study as market orientation as a research scheme is introduced. Following to this introduction, there will be depiction of market orientation in small and medium sized companies. Finally, this chapter illuminates some specific features of pharmacies as SME companies.

The third chapter describes data collection of this study. Also, selection of research questionnaire pattern is justified and the minor modifications of MARKOR scale are depicted. Finally, this chapter summarizes the data analysis of this study.

The fourth chapter presents the key findings of this study. First, there will a section analyzing MARKOR scale items most significant to Finnish pharmacists. Second part differentiates respondent sub groups according to their market orientation.

The fifth chapter discusses the consequences of the study findings. Four main themes are raised from the findings: (1) how pharmacist's further education affects her/his market orientation, (2) meaning of gathering market information, (3) market orientation in micro companies, and (4) need for further development of market orientation scales so that they would better serve research among small and medium sized companies.

The sixth chapter draws conclusions on the research findings and suggests managerial implications as well as limitations of this study and some directions future research.

2 Literature review

Kaynak and Kara (2004, 744) remind of the meaning of marketing function by stating that it is a key management function responsible for specific customer knowledge, as well as keeping the rest of the network of organization informed about customers and their expectations so that superior value is created and delivered. Jaakkola et al. (2010, 1301) considered strategic marketing deeply stakeholder oriented concept focusing on a company's long term vision for competitive advantage and value-addition through innovation. Authors remind though that established version of this concept remains yet to be seen.

Kohli and Jaworski (1990, 1) used term market orientation meaning the implementation of the marketing concept. Therefore market-oriented organization is one whose actions are consistent with the marketing concept (*ibid*.). According to Barksdale and Darden (1971, 29) marketing concept is based on two fundamental notions: first, the consumer is recognized as the focal point or pivot for all business activity, and second, profit – rather than sales volume – is specified as the criterion for evaluating marketing activities. Lafferty and Hult (2001) concluded in their framework that market orientation consists of four areas: (1) an emphasis on customers, (2) the importance of shared knowledge, (3) interfunctional coordination of marketing activities and relationships, and (4) being responsive to market activities by taking the appropriate action.

Market orientation of SMEs has been studied to some extent (cf. Blankson and Cheng 2005; Reijonen and Komppula 2010; Raju et al. 2011; Hoq and Chauhan 2011). Blankson and Cheng (2005) remind though, that the number of market orientation studies in the context of small companies is rather limited. Reijonen and Komppula (2010) found in their study that SMEs had recognized the key elements of market orientation (e.g. customer orientation and market intelligence) to be the important success factors even though they did not implement them systematically. Raju et al. (2011, 1320) concluded that SMEs are often highly market oriented and known to compete effectively with larger organizations, making it valuable to gain better understanding of market orientation in SME environment.

This chapter describes briefly market orientation and its meaning for SMEs. First, market orientation as a concept will be depicted. Second, there will be a summary on market

orientation research. Third, I will consider market orientation and related research in SME context. Finally, pharmacies as SME companies are introduced.

2.1 Introduction to market orientation

In their seminal article, Kohli and Jaworski (1990, 6) defined market orientation to be organization wide *generation* of market intelligence pertaining to current and future customer needs, *dissemination* of the intelligence across departments, and organization wide *responsiveness* to it.

According to Slater and Narver (1994b, 22) a business is market-oriented when its culture is systematically and entirely committed to the continuous creation of superior customer value. Authors remind of the pitfall of mixing the terms market orientation and marketing orientation, since the latter barely focuses on the marketing functions role in the organization.

Narver and Slater modeled market orientation as organizational culture (Matsuno et al. 2005). Thus, in Narver and Slarer's construct market orientation is seen as a composite of a firm's orientation toward competitors, the firm and customers (*ibid.*, 2). Matsuno et al. (2005) remind that there has been heated debate between scholars like Kohli and Jaworski, Narver and Slater, and Deshpandé and Farley, who according to Matsuno et al. are not able reach consensus whether market orientation should be defined as organization's culture (as Narver and Slater claim) or a set of behaviors (as Kohli and Jaworski, and Deshpandé and Farley claim).

In their conceptual framework Raju et al. (2011) examined differences in market orientation between SMEs and larger firms. Authors suggest that two major categories of antecedents of market orientation are: (1) Organizational structure (i.e. Formalization, Centralization, and Departmentalization), and (2) Organizational culture (i.e. Organizational learning, Market focus, Entrepreneurial proclivity, and Quality context). In the framework of Raju et al. market orientation consists of: (1) Customer orientation, (2) Competitor orientation, (3) Responsiveness, and (4) Interfunctional coordination. These all lead through Mediators (i.e. Innovation, and Quality practices) to Performance (i.e. Product development, Market

development, Customer loyalty and retention, and Financial performance). The last component in this framework is Environmental moderators (i.e. Market turbulence, Technology turbulence, Competitive intensity, and Market growth) which affect market orientation's effect on mediators. Thus, the framework of Raju et al. has its base in the frameworks of Kohli et al. (1993), and Slater and Narver (1994a, 1994b).

According Horng and Cheng-Hsui Chen (1998) two important antecedents for organization's market orientation are emphasis by top management on market orientation and organizational systems which maintain this orientation. Top management emphasis is a result of managers' experience, education, and leadership style, while organizational systems include firm's reward systems and level of management capability training (*ibid*.). Communication capability has an essential role in information dissemination. In order for customer and market intelligence to be useful, it has to communicated, disseminated, and sometimes even sold to relevant departments and individuals in the organization (Kohli and Jaworski 1990, 5).

Slater and Narver (1994b) remind that market orientation enhances customer satisfaction and loyalty because market oriented firms are well positioned to anticipate customer needs and to offer goods and services to satisfy those needs. These authors state that keeping an existing customer costs only one-fifth as much as attracting new one. According to Kohli and Jaworski (1990) customer orientation is more than customers' verbalized needs and preferences. Rather, it is wider understanding of these needs and preferences, today and in future, including analysis of how they may be affected by exogenous factors such as government regulation, technology, competitors, and other environmental forces (*ibid*., 4). Morris and Paul (1987) underline that the interest in environment corresponds to realization that firms do not operate as closed systems in 'vacuum'. Therefore, they need to constantly observe the surrounding environments and counteract according to the discontinuities around them.

Employees have essential role when a firm aims on being customer (Slater and Narver 1994b) and market oriented (Jaworski and Kohli 1993). Therefore successful businesses take great care to recruit and retain the best people available and provide them regular training (Slater and Narver 1994b). Jaworski and Kohli (1993) underline the importance of repeated employees reminding of the importance of market orientation focus within the company.

Also Day (1994) reminds of the importance of human resource management when aiming on customer satisfaction. Key policies should become market oriented, basing rewards on measurable improvements in customer satisfaction and retention, empowering employees to resolve customer problems without approvals, and basing recruiting on customer problem-solving skills (*ibid*.).

Webster (1988, 29) summarizes the barriers to developing market orientation: (1) an incomplete understanding of the marketing concept itself, (2) the inherent conflict between short-term and long-term sales and profit goals, (3) an overemphasis on short-term, financially-oriented measures of management performance, and (4) top management's own values and priorities concerning the relative importance of customers and the firm's other constituencies.

It is recognized, also by academics, that in all circumstances market orientation does not have apparent role. According to Kohli and Jaworski (1990), in business circumstances of limited competition, stable market preferences and high level of technological turbulence the impact of market orientation on firm performance is diminished as the key focus is e.g. in research and development (R&D).

Schlosser and Naughton (2009) see market orientation linked with resource-based view of the firm (RBV), which defines the resource arrangements and value creation within firm. Market-oriented behaviors relate closely to information resources of the firm (*ibid*.). Olavarrieta and Friedman (2008) based on two schools of thought, namely resource-based school of thought and the evolutionary approach to strategy, combined with marketing literature while proposing an integrative model of firm superior performance. Model of these authors simultaneously considered the role of culture and knowledge-related resources, thus linking market orientation literature with dynamic capabilities literature. Thus, market orientation concept has well-grounded position in the strategic marketing discourse.

2.2 Market orientation as a research scheme

In their article Kohli and Jaworski (1990) set guidelines for marketing orientation research. Interviewing 62 managers in four U.S. cities and reflecting on previous marketing research, these authors constructed a framework of antecedents and consequences of market orientation. In this framework the antecedents were: (1) senior management factors, (2) interdepartmental dynamics, and (3) organizational systems. These, according to Kohli and Jaworski, affect market orientation of a company, which on the other hand has consequences on: (1) customer responses, (2) business performance, and (3) employee response. As moderators between market orientation and the consequences, Kohli and Jaworski saw supply side and demand side.

Jaworski and Kohli (1993) continued their previous work by conducting a study on market orientation's antecedents and consequences. According to the research findings of Jaworski and Kohli (1993) top managers' continuous emphasis on the importance of tracking and responding to market development is significant in pursue of market orientation. Also, interdepartmental conflicts hindered intelligence dissemination and responsiveness. Reward systems that measure other than financial metrics (e.g. customer satisfaction, and building customer relationship) were used by organizations which are more market oriented. The link between market orientation and performance was somewhat mixed. Market orientation was positively related to overall performance but not to market share. Finally, Jaworski and Kohli (1993) found strong positive relationship between market orientation and employee commitment.

Kirca et al. (2005) constructed a conceptual framework for meta-analysis of market orientation. In their framework these authors classified antecedents of market orientation into three broad categories: (1) top management factors, (2) interdepartmental factors, and (3) organizational systems. As four categories of consequences of market orientation, Kirca et al. (2005) had: (1) organizational performance, (2) customer consequences, (3) innovation consequences, and (4) employee consequences. When testing their construct, Kirca et al. found statistically significant correlations between market orientation and the aforementioned categories.

Hult et al. (2005) concluded their research by underlining the importance of recognizing the importance of both Narver and Slater's and Kohli and Jaworski's conceptualizations. While the previous detects organizational culture and latter organizational information process behaviors, they together create more holistic image of market orientation than neither alone. Hult et al. (2005) disagree the idea that market orientation directly leads to enhanced performance. Thus, in their research study these authors hypothesized that market orientation and market information processing (MIP) both are positively related to organizational responsiveness, which in the end has positive effect on performance. This hypothesis was supported by the results of Hult et al. research.

Deshpandé et al. (1993) considered customer and market orientations as being synonymous and hence being distinguishable from competitor orientation. In their study, these authors found that customer orientation and innovativeness were key determinants of business performance. What was significant, Deshpandé et al. (1993) found that managers' assessment differed from customers' assessment on focal company's customer orientation. This finding has been reported also by Kohli and Jaworski (1990). Thus, it is important to measure also customers' impressions on focal company's market orientation.

Slater and Narver (1994a) studied how environment moderates the market orientation−performance relationship. Authors found positive relationship between businesses market orientation and return on assets (ROA). Also, these authors did find some support for the proposition that competitive environment has an effect on the strength and nature of the market orientation−performance relationship. Reminding that market orientation is a particular form of business culture, Slater and Narver (1994a) advise businesses to get market oriented preferably sooner than later, and not to try to adjust the level of being market oriented in varying business environment situations as reaching market orientation within an organization is time and resources consuming effort.

Han et al. (1998) remind that innovation has been linked to market orientation and firm performance by two streams of research: one has studied the market orientation−innovation link, the other the innovation−performance link. In their research study Han et al. (1998) aimed on finding positive relationship in the construct market orientation−organizational innovation−organizational performance. As a moderator in this construct, these authors consider environmental conditions. Han et al. (1998, 41) did find some support that

innovations facilitate the conversions of market-oriented business philosophy into superior corporate performance. Authors underline that innovations should be seen divided into technical and administrative innovations, and that both these innovation schemes should be advanced simultaneously in order to reach superior performance.

Olavarrieta and Friedman (2008) consider their holistic model to explain on acceptable level of fit the key dependent variables, overall firm performance and product performance. According to the authors, their study highlights the importance of market-oriented culture and the possession of market sensing skills in fostering innovativeness and imitation capabilities in an organization. Of the capabilities, innovativeness had most significant association with both overall firm performance and new product performance. Olavarrieta and Friedman (2008) considered as a key contribution of their study to be the context in which it took place, namely vibrant Latin American marketplace.

Matsuno et al. (2002) claim there is insufficient amount of knowledge on the joint effect of entrepreneurial proclivity and market orientation on business performance, even though both these subjects have separately been positively related to it. Thus, these authors studied this effect previously mentioned by such authors as Slater and Narver (*ibid.*). According to the results of Matsuno et al. (2002) organizations with high level of entrepreneurial proclivity generally avoid high levels of organizational formalization, centralization, and departmentalization, which lead them to achieve a greater degree of market orientation. Also, what these authors consider significant is the fact that neither entrepreneurial proclivity nor market orientation alone seems to lead to superior performance, but combined together, they provide organizations a scheme that supports the market intelligence formation and entrepreneurial innovativeness and risk taking.

Han et al. (1998) summarize studies that have looked for market orientation−performance relationship. Even though this subject has been in the interest of academia to some extent, Noble et al. (2002) state that the findings on market orientation−performance relationship have been mixed. Noble et al. also remind that market orientation research has so far avoided studies of disaggregated dimensions of market orientation since high reliability values have not been achieved. Yet another potential distortion factor has been customer orientation's dominance in market orientation framework (*ibid.*).

2.3 Market orientation in small businesses

Hoq and Chauhan (2011) remind that SMEs are widely recognized as backbone of local economies in Europe, contributing to more than two-thirds of employment and turnover in the EU. Also in the U.S. SMEs are considered as an engine of the economy (Blankson and Cheng 2005). According to Appiah-Adu and Singh (1998) smaller businesses' contribution to economic development in many countries is significant, yet these businesses remain rather invisible in academic research concerning e.g. customer orientation. Appiah-Adu and Singh (1998) consider SMEs to be relatively simple in organizational structures and cohesive in culture. Also, SMEs tend to have limited range of products and customers, thus, requirement for formal procedures developed to gather and process customer or market information for decision making have not been in key focus.

According to Appiah-Adu and Singh (1998), SMEs could benefit from e.g. customer orientation strategy as such planning could provide organization-wide focus for formulating objectives, guiding decisions and directing actions instead of *ad hoc* short-term decision making tactics. In line with Appiah-Adu and Singh, Pelham and Wilson (1996) considered use of strategic concepts (e.g. market orientation) should aid small firms' strategy consistency and general workability, since usually SMEs suffer from low levels of formal planning, coordination, and control systems.

Even though SMEs have limited capabilities in exploiting e.g. economies of scale, bargaining power, and brand name recognition, Raju et al. (2011) consider SMEs to be highly market oriented, and known to compete effectively with larger scale organizations. Also, SMEs and larger organizations are likely to differ with respect to resources such as assets, capabilities, and information. Despite these challenges, Raju et al. (2011) claim SMEs to have ability to develop unique strategic resources. Therefore SMEs are relevant subject in market orientation research (*ibid.*).

Reijonen and Komppula (2010) offered integrated view on the adoption of market orientation in SMEs. These authors considered what kind of capabilities are necessary for a small firm to act in a market-oriented way, and how market orientation can be linked to small firm success. In SMEs customer orientation is sometimes emphasized at the expense of other market orientation dimensions (Reijonen and Komppula 2010). According to Reijonen and

Komppula (2010) research study, SMEs appreciated the importance of market orientation dimensions even though they were not able to pursue them in their strategy. These findings challenge Raju et al. (2011) statements on SMEs being highly market oriented. Pelham (2000) recognized in SMEs some key elements of market orientation: (1) fast response to negative customer satisfaction information, (2) strategies based on creating value for customers, (3) immediate response to competitive challenges, and (4) quick detection of changes in customer product preferences.

Pelham and Wilson (1996, 28) remind that market orientation culture could provide small firms, noted for their *ad hoc* and short-term decision-making patterns, with a much needed firm wide focus for objectives, decisions, and actions. These authors also consider market orientation to be significant determinant of performance success for SMEs since they usually do not possess the needed financial resources for seeking other resources such as low-cost producer status or R&D competitive edge. Market orientation may be especially important for small firms, because market-oriented firms can leverage their potential advantages of flexibility, adaptability, and closeness to their customer base into superior, individualized service (Pelham 1999).

Horng and Cheng-Hsui Chen (1998) summarize briefly the major researchers who have studied market orientation. Academia has also seen valuable to consider how market orientation relates to other strategic concepts such as total quality management (TQM) (Demirbag et al. 2006). Hoq and Chauhan (2011) studied four organizational resources joint effect on SMEs performance. Studied resources were strategic orientation, market orientation, entrepreneurial orientation, and social capital orientation.

Horng and Cheng-Hsui Chen (1998) found top managers' formal marketing education and marketing experience significantly affecting on overall market orientation and intelligence dissemination. Also, top managers' emphasis on market orientation appeared to significantly affect intelligence dissemination and the responsiveness (*ibid.*). Of the organizational systems supporting market orientation, Horng and Cheng-Hsui Chen (1998) found training for management capability to have critical role in determining market orientation. Reward systems though contributed only to responsiveness, not on intelligence generation or dissemination. Finally, market orientation had significant positive effect on businesses'

overall performance and it was related to employees' organizational commitment and *esprit de corps*. (*ibid*.)

Appiah-Adu and Singh (1998) remind that SMEs which focus not only in new product development, but also in meeting their customers unfulfilled needs, tend to be characterized by cultural norms that foster a firm-wide appreciation of customer requirements and activities which meet those needs. According to Pelham and Wilson (1996, 29) causal relationship between certain market-oriented behaviors, such as sharing market information across functions, and performance may not be well understood by many managers. Finally, market orientation compared to low-cost strategy offers SMEs a greater source of sustainable competitive advantage (*ibid*.).

2.4 Pharmacies as SME companies

Pharmacies in Finland are owned by private persons, who are adults of age. Owner of a pharmacy has to be a certified Master of Pharmacy (MSc Pharm) and must not be declared in bankrupt or legally incompetent or assigned a person to supervise his or her interests (Finlex 2014). Pharmacy licenses are granted by Finnish Medicines Agency, Fimea (Fimea 2014), and one person can hold only one license (excl. ownership change situations). A pharmacy consists of the main location and up to three subsidiary pharmacies. Finland has been divided into pharmacy regions with in which only limited amount of pharmacies can locate. Location of a pharmacy can be changed only within the region in which Fimea originally had found the pharmacy license. Thus, it can be seen that pharmacy as a business is tightly controlled by state authorities.

As minimum educational requirement for pharmacy owner is defined by Finnish law, entry to pharmacy business is strictly limited. Fimea takes into consideration applicants overall potential for operating pharmacy business. In assessing the potential, the applicant's work in pharmacies and other pharmaceutical services and studies, managerial skills and other activities pertinent to operating a pharmacy business are taken into account. (Finlex 2014) Therefore during recent years many of those willing to apply to run their own pharmacy have enhanced their entrepreneurial capabilities conducting further studies. One of the most

popular schemes has been so called Professional Development studies (hereafter PD-studies). PD-studies enhance professional skills both in theory and practical issues. Course participants develop pharmacy services and collaboration with healthcare professionals. During these studies, participants take some business related courses on management (incl. HR and communication skills), entrepreneurship (incl. business development and marketing), and financial administration (incl. business law and finance). All these courses are worth 4-6 credits and make up to one fourth of the whole PD-studies entity. (University Eastern Finland 2013) In this chapter I have depicted theoretical background for the concept market orientation and the Finnish medicine retail. In the next chapter I will describe the methodology and analysis of this research.

3 Methodology and data analysis

In order to study the Finnish pharmacy owners' attitudes toward market orientation concept, an online survey was conducted in fall 2013. This study focused on a single-industry (Nobel et al. 2002; Demirbag et al. 2006) in line with the original research idea of illuminating Finnish pharmacists' attitudes toward market orientation concept. Thus, this study setting enables considerations in strategic approaches and their performance consequences in the same competitive environment (Nobel et al. 2002). One should though be cautious before generalizing the results into other fields of businesses. In this chapter I will first describe the data collection. Next, there will be depiction of questionnaire development with detailed information on how the final scale was formed. Finally, I will summarize the data analysis.

3.1 Data collection

The contact information of invited Finnish pharmacists was obtained from Association of Finnish Pharmacists. An invitation to online survey was e-mailed to 584 pharmacists (i.e. pharmacy owners) throughout Finland. Invitation included cover letter promising a summary of the research findings for all participants. 119 responses were obtained at response rate 20.2 per cent. 118 obtained responses were effective for this study.

3.2 Questionnaire

Central issue in questionnaire development was the selection of market orientation measure. One of the most used measures was developed by Kohli, Jaworski and Kumar (1993). This scale consists of 32 scale items and was named MARKOR. MARKOR focuses on the measurement of activities relating to the market intelligence generation, dissemination and organization's responsiveness to obtained market intelligence (Reijonen et al. 2012).

Kara et al. (2005) studied small-sized service retailers' market orientation using Kohli's et al. (1993) MARKOR scale. Kara et al. (2005) remind that though market orientation has been studied to some extent among small manufacturing companies, studies among service retailers are lacking. They also propose that service retailers differ from manufacturers in terms of having greater firm-wide contact with the customers, competition, and profit margins, among others (*ibid.*, 106). Kara et al. (2005) concluded that the market orientation model MARKOR was able to link market orientation and company performance in the context of small-sized service retailing. They also proposed that service retailer managers do disseminate information among their staff. These managers also keep their staff informed about the current environmental trends and developments (*ibid.*).

Narver and Slater (1990) studied 140 strategic business units (SBUs) of a major western corporation in the U.S. In their empirical model, they had one dependent variable, relative return on investment (ROA). Model had 10 independent variables: (1) market orientation, (2) square of market orientation, (3) buyer power, (4) supplier power, (5) seller concentration, (6) easy of entry, (7) market growth, (8) technological change, (9) relative size, and (10) relative cost. Narver and Slater concluded that the SBUs with highest market orientation ranked best in almost all key issues. These SBUs had highest ROA, customer orientation, and interfunctional coordination. They were not the biggest in their size or strongest in the power over supplier. On the other hand, those commodity SBUs with least market orientation ranked lowest in almost all key issues. These units were biggest in size, had strongest control over suppliers, and the ease of entry into their market was lowest. Also interestingly, the top management team had highest average service years in this group. The middle group in the market orientation included small units that have high capability of being *ad hoc* customer oriented without having costly programs to boost this key issue.

When constructing the survey questionnaire, it was decided to use MARKOR scale. MARKOR has been used successfully in many previous research studies (e.g. Kaynak and Kara 2004; Blankson and Cheng 2005; Kara et al. 2005; Matsuno et al. 2005). This decision was made considering that there is no consensus on which of the market orientation scales is the better measure (Matsuno et al. 2005). Even though Reijonen and Komppula (2010) offered newly developed market orientation scale used for studying Finnish SMEs, it was considered that using MARKOR scale would give even better possibility for considering the findings in wider perspective. Taking into account the context of Finnish pharmacies,

MARKOR scale was modified (Demirbag et al. 2006) by some refinements and excluding six original scale items (cf. Appendix A). Final set of scale items were structured in a Likert scale model (1 to 5) with "strongly disagree", "somewhat disagree", "neither agree or disagree", "somewhat agree", and "strongly agree" as the choices (Kara et al. 2005).

MARKOR scale is originally formed in English, thus the modified scale items were translated into local language (Finnish). The questionnaire was developed using Kohli et al. (1993) MARKOR scale with minor modifications (Kaynak and Kara 2004; Demirbag et al. 2006). There are several research studies in which the whole MARKOR scale has been modified and merged into other market orientation scales (cf. Pelham and Wilson 1996; Horng and Cheng-Hsui Chen 1998; Pelham 2000; Matsuno et al. 2002; Blankson and Cheng 2005; Matsuno et al. 2005; Santos-Vijande et al. 2005; Schlosser and Naughton 2006) but this was not though objective of this study. Three dimensions of market orientation scale were replicated from MARKOR scale and were: (1) intelligence generation, (2) intelligence dissemination, and (3) responsiveness.

Scale items referring to separate business units or departments were modified to depict behavior in single-unit businesses such as a pharmacy (cf. IG1, IG2, IG6, ID1, ID2, ID3, ID6, RESP4, and RESP8 in Appendix A). Scale item 'We poll our end users at least once a year to assess the quality of our products and services' was modified to refer to customers as pharmacies are not manufacturing firms (cf. Raju et al. 2000). Due to the aforementioned reason, scale items 'Individuals from our manufacturing department interact directly with customers to learn how to serve them better', 'We often talk with or survey those who can influence our end users' purchases (e.g. retailers, distributors)', 'Our business unit periodically circulates documents (e.g. reports, newsletters) that provide information on our customers', 'There is minimal communication between marketing and manufacturing departments concerning market developments', 'Principles of market segmentation drive new product development efforts in this business unit', and 'Our business plans are driven more by technological advances than by market research' were excluded from the modified scale.

Thus, central issue in questionnaire development was the fact that used market orientation scale needed to be validated by preceding market orientation research. Also, main conclusions of this study consider how pharmacies in different market situation differ from each other. Therefore, such demographic questions as whether the pharmacy is located in city

or rural area are included into demography variables. Separating those pharmacies that have a competitor close by from those who are the only operator in the area is another highly relevant demographic issue. Finally, length of pharmacist's career and his/her further education could have an effect on pharmacy's market orientation.

3.3 Data analysis

In order to assess the reliability of the data set and possible need for excluding scale items from modified MARKOR scale, reliability analysis was performed. Further analysis is two-fold as in the first phase Exploratory factor analysis (EFA) was used to identify the importance of market orientation to pharmacy owners (Blankson and Cheng 2005). Factor analysis reveals the key dimensions/factors important in the discourse of pharmacies marketing. In the second phase *t* test and One-way Anova are used to test differences between demography variables sub groups. All analyses were performed with the SPSS statistical package. In this chapter collection and analysis of data was described accompanied with depiction of questionnaire development. In the next chapter results of aforementioned analyses are considered in more detail.

4 Results

Market orientation of the respondents was measured employing a number of quantitative methods of analysis. The data comprised of 118 pharmacists with response rate 20.2 per cent. The profile of the 118 pharmacist is given in Appendix B. In this chapter data analyses, which were initiated with overall reliability analysis following with two phases or further analyses, are discusses in details.

First, to verify validity of the items included in the modified MARKOR scale, reliability analysis was performed. Overall reliability (α=.90) was on very good level (cf. Kaynak and Kara 2004), as the lowest acceptable level is .70 (Hair et al. 2009). Also, deleting scale items would not have enhanced overall reliability. Scale items and their reliabilities are listed in tables 1 and 2 in Appendix C.

When looking into the overall picture of market orientation in Finnish pharmacies, it was found that of the MARKOR dimensions, in intelligent generation respondents scored lowest values (M=3.18, SD=0.74). Pharmacies were slightly more market oriented regarding the dimension intelligent dissemination (M=3.77, SD=0.69), while in responsiveness mean value of all respondents responses was highest (M=4.01, SD=0.53) (table 4 in Appendix C). All dimension and scale item mean values were calculated after reversing response scales in items IG3, IG7, ID6, RESP1, RESP2, RESP5, RESP8 and RESP9. These results indicate that pharmacies are capable of responding when there is a need, but they generate rather modestly intelligence. In order to further analyze differences between the respondents, continuation is twofold. First, results are analyzed using factor analysis results illuminating those MARKOR scale items that were most significant in pharmacy context. Second, there will be a summary of those background variables in which respondents indicated most significant differences in market orientation.

Analyzing more deeply the most important scale items in pharmacy context, the number of variables was reduced by carrying out an explorative component analysis of the variables of modified MARKOR scale (Varimax rotation, minimum loading output 0.40). Items with communalities less than 0.30 were excluded from analysis (Karjaluoto 2007). A Kaiser-Mayer-Olkin (KMO) measure of sampling adequacy of .815 and a Bartlett sphericity

coefficient of 1003.354 with significance of .000 were obtained. The resultant six factors explained 49.5 per cent of the total variance of the variables. On the basis of regression analysis, it was found that only on one dependent variable (rough estimate of employee amount) there were two previously formed factors statistically significant (adjusted R^2=.143, F=4.136, p<0.001), while in all other dependent variables only factor 1 was found statistically significant. Thus, of the six factors only the first one was accepted and called 'Customer needs inquiry and market intelligence'. This factor explained 13.5 per cent of the total variance of the variables. Items IG1, ID2 and ID3 loaded on two factors (.496/.399, .537/.430, and .505/.409, respectively) but were retained in factor 1. Factor loadings and communalities of retained scale items are listed in table 3 in Appendix C.

In line with the fact that pharmacies in Finland have earned good evaluations on consumer surveys (e.g. Taloustutkimus 2011), the factor analysis indicated that pharmacists consider the customer interface important. Looking more closely to the results (cf. tables 6-12 in Appendix C), it was found that frequent customer polling is done in pharmacies with revenue more than EUR 5 million (M=3.48, SD=1.41) employing 10 persons or more (M=3.08, SD=1.41). Also pharmacists who have course based business education were more likely to poll their customers (M=3.23, SD=1.43). Another important way of gathering customer and market information is conducting in-house marketing research. It was found that pharmacies in general use modestly in-house marketing research which most likely is due to high costs of generating such intelligence. Then again, independent competitor intelligence generation was reported in pharmacies owned by men (M=3.17, SD=1.18) compared to those owned by women (M=2.36, SD=1.31), with revenue more than EUR 5 million (M= 3.17, SD=1.37), and development of revenue better than in pharmacies on average (M=3.09, SD=1.42). If the pharmacist had a business qualification, he/she was more likely to be active in competitor intelligence generation (M=3.20, SD=1.42) compared to non-business qualified pharmacists (M=2.36, SD=1.29).

In MARKOR scale, dissemination of intelligence is measured in several items. According to the results quarterly meetings handling market trends and developments are used by pharmacies larger in scale, with revenue EUR 4-5 million (M=3.19, SD=1.33) or more than EUR 5 million (M=3.87, SD=1.22) employing 10 employees or more (M=3.54, SD=1.29). Also pharmacies owned by men were significantly more active to arrange such meetings (M=3.70, SD=1.09) compared to those owned by women (M=2.91, SD=1.38). Another

important way of disseminating intelligence is delivering results from customer satisfaction surveys to whole personnel. Also smaller pharmacies disseminate customer satisfaction data, as only those with revenue less than EUR 1.3 million were less active (M=2.69, SD=1.44). Those with revenue more than EUR 1.3 million averaged mean values ranging from 3.32 to 4.35 (SD=1.00-1.45). Again, those with 10 employees or more are more eager with this respect (M=4.00, SD=1.24) compared to those with less than 10 employees (M=3.42, SD=1.36).

Finally, face to face meetings with customers and within the organization in order to reveal customers' future needs are valuable medium for intelligence generation and dissemination. Pharmacies tend to meet their customers on regular basis, and it was somewhat surprising that pharmacists in general (cf. table 4 Appendix C) did not recognize these contacts as a mean for customer future needs intelligence (M=2.79, SD=1.47). In larger pharmacies, with 10 employees or more, personnel responsible for marketing discuss with other personnel of the customers' future needs (M=4.07, SD=0.95). This kind of intelligence dissemination though happens also in smaller pharmacies, with less than 10 employees, to some degree (M=3.46, SD=1.16).

The other dimension of data analysis consists of closer review on those demography variables in which the respondents indicated statistically significant differences in market orientation. It was found that in variables pharmacist's further education PD, revenue in 2012, amount of employees, and local competition pharmacists' responses differed from each other in at least six scale items (cf. tables 6-12 in Appendix C). Of these variables, pharmacist's further education PD indicated rather unexpected results as *t* test confirmed (t=-2.26, p=.026) that those pharmacists possessing further education in form of personal development (PD) were less market oriented (M=3.57, SD=0.51) than those who did not possess PD education (M=3.80, SD=0.55) (cf. table 5 in Appendix C). This is one of the key findings of this research study as PD education has been one of the major means of enhancing business orientation and leadership skills among those applying for their own pharmacy (University of Eastern Finland 2013).

Of the 26 MARKOR scale items, in seven items those pharmacists who did not possess PD education (hereafter called Non-PDs) were more market orientated compared to pharmacists with PD education (hereafter called PDs). It was found that Non-PDs collect customer future

needs intelligence through customer meetings slightly more (M=3.05, SD=1.48) than PDs (M=2.45, SD=1.39) (cf. table 7 in Appendix C). They were also more eager to detect changes in customer product preferences (M=3.70, SD=0.98) compared to PDs (M=3.27, SD=1.08). Non-PDs were more likely to poll their customers yearly (M=2.94, SD=1.47) compared to PDs (M=2.24, SD=1.21). Also, Non-PDs seem to generate independent competitor intelligence (M=2.80, SD=1.41) slightly more than PDs (M=2.24, SD=1.21). There was significant difference in employees meeting quarterly considering market trends and developments, as this was more likely done in pharmacies owned by Non-PDs (M=3.44, SD=1.29) compared to PDs' pharmacies (M=2.69, SD=1.33). In Non-PDs owned pharmacies marketing responsible persons tend to discuss with other employees of the customer needs more likely (M=4.02, SD=1.00) than in PDs' pharmacies (M=3.47, SD=1.14). Finally, Non-PDs owned pharmacies plan together responses due to changes in environment more likely (M=3.85, SD=1.05) compared to PDs owned pharmacies (M=3.16, SD=1.14).

Market orientation has been claimed to lead to better financial outcomes of an organization (cf. Narver and Slater 1990; Horng and Cheng-Hsui Chen 1998; Pelham 2000; Reijonen et al. 2012). In this study it was found that size of the pharmacy measured with revenue related to pharmacy's market orientation (F=2.635, sig.=.027). There was clear tendency that larger pharmacies were more market oriented than smaller ones. This tendency was seen not only in the scales in which different sized pharmacies were statistically significantly varying from each other but also in those scales in which variation was not statistically significant (cf. table 10 in Appendix C). Even though larger pharmacies were more market oriented, there was not statistically significant difference in market orientation between those pharmacies that reported better than average revenue development compared to those in which revenue development was average or less than average (F=2.586, sig.=.08). This finding is in line with results of Jaakkola et al. (2010).

Amount of employees determines pharmacies' market orientation statistically significantly in nine scale items which is more than in any other demography variable. Overall market orientation score for pharmacies employing 10 people or more was significantly higher (M=3.86, SD=0.49) compared to pharmacies with less than 10 employees (M=3.53, SD=0.55). This was seen also in separate MARKOR scale dimensions, as pharmacies employing 10 people or more were more market oriented in all three dimensions (cf. table 5 in Appendix C).

Results of demography variable local competition (low/medium/high) were curvilinear as in six scale items pharmacies which reported medium local competition were most market oriented (cf. table 12 in Appendix C). Measured with overall market orientation, pharmacies in different local competition situation did not differ from each other statistically significantly (F=2.457, sig.=.09), and only MARKOR scale dimension in which these groups were statistically significantly different was intelligence dissemination (F=3.332, sig.=.04). Results can be seen in table 5 in Appendix C. In this chapter I have analyzed research findings of this study using two approaches. First, there was an analysis based on factor analysis results. Second, those background variables in which respondents indicated most significant differences in market orientation were illuminated in more detail. In the next chapter I will discuss of the findings represented in this chapter.

5 Discussion

This study initiated with intuition on potential benefits of market orientation for modern Finnish pharmacies. Market orientation as a framework covers focal issues in market intelligence, information dissemination, and capability to react based on relevant information. Even though this paradigm has been depicted slightly differently by various researches (e.g. Barksdale and Darden 1971; Kohli and Jaworski 1990; Narver and Slater 1990; Lafferty and Hult 2001), it could give good guidelines for coherent business intelligence supporting entrepreneurs strategy work also in SME in context. In this chapter I will discuss about the findings of this study. First, I will relate the findings of this study to wider perspective of market orientation research. Secondly, there will be a section focusing on how pharmacist's education affected on focal pharmacy's market orientation. Thirdly, I will handle the meaning of gathering market information. Fourth, there will be consideration on market orientation's meaning to micro companies. Finally, I will look into possible need of developing a market orientation scale for SME companies.

Even though market orientation has been studied since 1970's, studies focusing on SME companies have been limited in numbers (Blankson and Cheng 2005). According to Horng and Cheng-Hsui Chen (1998) market orientation has been studied empirically mainly on large businesses and U.S. based firms. Reijonen and Komppula (2010) studied SME companies in three different branches of industry in Eastern Finland. According to Reijonen and Komppula there were differences in the studied three branches of industry when it comes to generating market intelligence, disseminating this intelligence and responding according to this intelligence. This study proved that there are considerable variations within industries also. Generally pharmacies were most active in responsiveness, while intelligence generation and dissemination were not equally focal issues in pharmacists' strategies. This finding differs to some extent from the findings of Kara et al. (2005) according to which, small-business managers were active in all three dimension of MARKOR framework.

Reijonen et al. (2012) found Finnish SME companies to lack competitor orientation. Finnish pharmacies are not an exception to this as independent competitor information generation had the second lowest mean value (table 4 in Appendix C) of all studied MARKOR scale items in this research. It is possible that this, at least partly, is due to the fact that Finland is divided in

to regions within which there are only limited numbers of pharmacies. Thus, competition in this field has historically been limited.

Marketing as a function has central role in understanding the consumer and keeping the focal organization informed about the customer so that superior value is delivered to the customer (Kara et al. 2005, 106). Information production and dissemination are the core functions of marketing. Therefore Finnish pharmacies could benefit from thoroughly considering multiple tasks marketing activities cover. Traditionally marketing has been related to marketing communication and more narrowly to advertising by those who are not acquainted with marketing. Also, Han et al. (1998) claim that openness in communications across functions is likely to facilitate responsiveness to customers. With such openness across departments in an organization, the problem-solving capabilities potentially are enhanced by employees working toward common goal, while in the routine mode of dispersed problem-solving employees are less likely to be creative and take risks (*ibid*.).

PD-studies in pharmaceutical field are composed so that they support entrepreneurial activity and thinking (University of Eastern Finland 2013). Thus, it would be tempting to consider this course entity as a vital source of business knowledge for those who are willing to apply their own pharmacy. Findings of this study revealed that pharmacist's further education was linked to differences in market orientation only in the sub groups PD vs. Non-PD as overall market orientation was higher among Non-PD respondents. Even though one should be cautious before drawing conclusions, it's worth acknowledging that Non-PDs were more active in intelligence generation and dissemination.

When looking more closely into curriculum of PD-studies (University of Eastern Finland 2013), it can be seen that business communication and marketing are mentioned as parts of the obligatory courses. These courses though are worth 4-6 credits, and as the aforementioned issues are only parts in such courses, it is fair to claim that these skills do not play a focal role in the overall PD education.

According to Stokes and Blackburn (1999, ref. Blankson and Cheng 2005, 318) small business owners have a problem with marketing and appear to give marketing a low priority compared to the other functions in their business, often regarding marketing as "something that larger firms do". Also Horng and Cheng-Hsui Chen (1998) found studied SME

companies to consider as most important marketing problem the lack of professional and talented marketing managers. In their study Reijonen and Komppula (2010) found that only few small-sized companies were collecting customer information in planned and established manner. Even though almost all enterprises in Reijonen and Komppula (2010) study did collect information on their competitors, in majority of these companies this data collecting was performed unsystematically.

This study confirmed that Finnish pharmacies are no exception to findings of Reijonen and Komppula (2010). Intelligence generation in general was the lowest scoring dimension of MARKOR scale, and when looking more detailed into mean values of individual scale items (cf. Table 4 in Appendix C), it can be seen that in-house marketing (M=2.32, SD=1.16), polling customers yearly (M=2.63, SD=1.40), and independent competitor information generation (M=2.56, SD=1.32) were done only to some extent. Yet these are vital sources of information also for SME companies facing competition in their field of business. What pharmacies did use actively as an information source was collecting of informal industry information (M=4.11, SD=1.01), and detecting fundamental shifts in industry (M=3.75, SD=1.03). This indicates that pharmacists follow closely general development of the industry.

Blankson and Cheng (2005) argue, based on their findings that small businesses appreciate and employ market orientation. Moreover, authors conclude that size of organization (i.e. small or large firms) does not moderate the importance attached to, and the application of the market orientation (*ibid*., 325-326). These findings were not consistent to the findings of Reijonen and Komppula (2010) according to which, studied SMEs in Finland collected only customer information in established manner. Study of Reijonen and Komppula (*ibid*.) also revealed that dissemination of produced information was somewhat limited, namely only half of the studied enterprises did share information within the organization, and most all these enterprises disseminated this information only to sales personnel.

In this study it was found that larger pharmacies were more market oriented compared to smaller ones. This finding was consistent in all demography sub groups measuring the size of pharmacy (cf. tables 8-10 in Appendix C). Most of the statistically significant differences were among intelligence generation and dissemination. One respondent commented small pharmacies to be such organizations that marketing functions can be part of everyday hall

talks and customer surveys are done in form face-to-face discussions while serving customers. It is undeniable that adhocracy is essential character and even competitive edge for small companies. Thus, adhocracy and documentable marketing actions should not be considered exclusionary but could be used as complementary ways of collecting market information. If this information is collected mainly verbally, the informants do not form representative sample of the customer base. Also, problematic feature in verbal information is its' immeasurability. Only documented surveys may generate information on development trends e.g. on customer satisfaction. Pelham and Wilson (1996) remind that presidents of small firms have unique opportunity to seek competitive advantage through instilling market oriented behavior in their organizations. Small number of employees offers these leaders possibility to influence on each employee in person (*ibid.*). This finding could be exploited by Finnish pharmacists in their quest for more competitive businesses.

When conducting a research with existing questionnaire pattern, one of key issues is the suitability of chosen framework in the context to be researched. Even though MARKOR scale has been widely used (e.g. Kohli et al. 1993; Kaynak and Kara 2004), to some extent also in SME context (e.g. Blankson and Cheng 2005; Kara et al. 2005), its suitability in researching SME context, and especially micro companies can be questioned (cf. Blankson and Cheng 2005).

Raju et al (2011) give room for thought that present market orientation measures might be biased toward favoring larger organizations. Thus, the idea of considering market orientation measure designed for SMEs is, at least to some point, supported by Raju et al. According to Schlosser and Naughton (2009) it should be remembered that understanding how employees define and view market-oriented behaviors is a central issue when fostering market orientation. Authors claim that previous market orientation scales have failed to detect individual's contribution to organization's market orientation. According to this point of view scales like MARKOR ought to be developed toward individual, instead of key informant manager, measuring tools (*ibid.*). Matsuno et al. (2000) criticized MARKOR scale in its inability to recognize other stakeholders than customer and competitors. Missing stakeholder effects, according to these authors, include e.g. legal and regulatory environment, and macroeconomic environment.

During this research, few respondents gave comments on the MARKOR scale. First, these respondents questioned the suitability of MARKOR scale when studying pharmacy context. Second, two respondents considered MARKOR scale to be related to b-to-b and manufacturing businesses. Finally, one respondent found it difficult to get clear understanding on what certain scale items were driving at, thus causing a possible misinformation to be gathered with MARKOR scale.

Refinement of MARKOR scale so that it would be more suitable in SME context has been attempted e.g. by Blankson & Cheng (2005). These researchers initiated with MARKOR framework, composing seven main questions, under which there were altogether 18 sub questions. Conclusion of these researchers was a market orientation framework including four factors and 13 scale items. Also in study at hand, refinement of MARKOR scale was tried. Direct refinement of MARKOR scale based on the data from this research generated only one factor including seven scale items, of which three loaded into two factors. Thus, according to this research, refinement of MARKOR scale in Finnish pharmacy context was not meaningful. This though does not mean that further refinement of scale item wordings would not be meaningful. This was beyond the scope of study at hand as only minor refinements in wordings were done in order not to lose the connection to initial MARKOR framework thus enabling possible generalizability of findings.

Market orientation has been linked to positive performance, even though linkage has also been questioned (e.g. Jaakkola et al. 2010). Going through sixteen recent studies on market orientation−performance relationship in SME context, Raju et al. (2011) found that thirteen of these studies proved direct and positive relationship between market orientation and firm performance. Interesting finding of Raju et al. was that market orientation positive correlation with performance had been proven in variety of business contexts and was measured with several market orientation scales. Demirbag et al. (2006) though claimed that market orientation alone did not provide better performance for SMEs in emerging markets, but it had to be supplemented with total quality management (TQM).

Kohli and Jaworski (1990) remind that benefits of market orientation have to exceed the costs of resources before this concept can be considered as financially beneficial. Kirca et al. (2005) continue in the spirit of Kohli and Jaworski, that high level of market orientation may cause, especially in service firms, high level of customization which naturally lessens firms

capability to increase sales, thus causing limited profits. This, according to these authors, is not as severe problem for manufacturing firms, as in those firms the need for customization has (at least formerly) been smaller. Noble et al. (2002, 29) claim that it would probably be myopic to assume that market orientation is the only legitimate guiding model for business success.

Taking into consideration the critique and limitations related to market orientation and MARKOR framework, it is still fair to claim that market orientation has its lessons also for Finnish pharmacies. This claim is supported by the fact that the respondents in this research indicated clear trends in their answers. Pharmacists were most strongly action oriented which was seen in MARKOR dimension Responsiveness (cf. table 4 in Appendix C). On the other hand, intelligence generation and dissemination were less in focus of these entrepreneurs. Considering all three dimensions of MARKOR framework and especially individual scale items within these dimensions, managers and entrepreneurs can quickly get an overview of strategically important activities of marketing function. Thus, MARKOR framework alone gives a guiding line for marketing oriented manager or entrepreneur. Finally, as a relief for small businesses, Verhoef and Leeflang (2009) claimed that marketing as a function has lost its importance as marketing concept is widely used in multiple layers, i.e. “marketing is everywhere”, causing marketing’s role to be diminished. This notion evens up the situation for smaller companies which have no organizational marketing function. In this section I have discussed of the findings of this research. In the next section, there will be conclusions of this study entailing also managerial implications of this research and suggestions for future research.

6 Summary and conclusion

This Master's thesis is the first market orientation study done in the context of Finnish pharmacies. Blankson and Cheng (2005) state, that number of studies on market orientation in the context of small companies is limited. In Finland at least Reijonen and Komppula (2010) have studied this concept among SMEs. Their conclusion was that SMEs had recognized the key elements of market orientation (e.g. customer orientation and market intelligence) to be the important success factors even though they did not implement them systematically. This chapter summarizes first the key findings of this study. Secondly, managerial implications are given. Finally, limitations of this study and suggestions for future research are considered.

6.1 Conclusions

One of the key findings of this study was that Finnish pharmacists did recognize dimensions of market orientation important to their strategy work. This study shows that these entrepreneurs were most active in responsiveness, while in information generation and dissemination they were slightly less active. This finding is in line with the findings of Reijonen and Komppula (2010). When looking more closely to individual scale items of MARKOR framework, it was found that Finnish pharmacists generate rather modestly independent competitor information. Even though this finding was done also by Reijonen et al. (2012), and may be even generalizable to SMEs in other fields of business, it should be remembered that in toughening competition, pharmacies should know their competitors and their intended actions. Today these competitors consist of other pharmacies, natural product stores and even grocery retailers. Analysis of differences in market orientation among pharmacists' demography sub groups proved expectedly that bigger pharmacies act more market oriented. What though was unexpected, those pharmacists who possessed PD further education were less market oriented compared to those who did not have this degree. As PD-studies have been most popular further studies among those who are willing to apply for their own pharmacy, this finding is especially thought-provoking.

In conclusion, marketing capabilities should not be neglected by SME companies, even though some marketing methods require extensive resources, both human and capital. Morris and Paul (1987) found that marketing departments in entrepreneurial firms tend to be a key source of direction in terms of innovation, and tend to significantly impact upon the strategic direction of the firm. Thus, these authors suggest that for conservative firms who attempt to become more entrepreneurial, marketing function could serve as an effective vehicle. Also, continuous monitoring of customers' satisfaction and reaction to this monitoring information reduces customer turnover, thus affecting positively on sales growth and market share (Pelham and Wilson 1996). Even though link between market orientation and positive performance has also been questioned (e.g. Jaakkola et al. 2010), it is worth noting that Raju et al. (2011) found significant support for it in their meta-analysis.

This study continues previous research on market orientation. It underlines the importance of coherent market intelligence gathering, analyzing, and dissemination throughout the organization. This study contributes to single-industry research in SME context in Finland. Thus, it replenishes findings in this research scheme which previously has been studied in Finland by e.g. Reijonen and Komppula (2010) and Komppula et al. (2012).

6.2 Managerial implications

For managers, in this case pharmacists, the findings of this study presents implications two-fold.

The key issues of market orientation concept include coherent way of gathering and analyzing customer intelligence. Also, decision making processes should be such that they support information gathering and dissemination, thus enabling an organization to confront its customers in a coherent way. Finally, competitor surveillance, when done in an organized and continuous manner, helps the organization to see its service products strengths and weaknesses from a new perspective. This gives helpful guide for enhancing the existing service products and developing new ones.

In addition, market orientation paradigm and especially MARKOR scale provide a guide to follow when considering the strategic means in confronting the challenges of lowering medicine prices and toughening competition as other market actors are willing to grasp the traditional pharmacy products, e.g. vitamins and nicotine substitutes, into their repertoires.

6.3 Limitations and suggestions for future research

There are certain limitations to this study. First, this study focused on single-industry data, thus the results are specific to this industry and cannot be generalized into other industries (Han et al. 1998; Blankson and Cheng 2005). Second, Verhoef and Leeflang (2009) list restrictive features in their research: (1) use of single informant, (2) concentrating in one country, and (3) no actual data on performance, but self-reported data was used. These limitations are involved in this study as well. Third, there is possible weakness in survey study when only managerial perception data is used. This kind of data is subjective (rather than objective) in nature which should be kept in mind before drawing conclusions or extrapolating the results (Jaakkola et al. 2010). In line with this notion, Deshpandé et al. (1993) considered more than one key informant within an organizational unit needed when trying to build reliable measures of organizational constructs. These limitations were reported also by Pelham and Wilson (1996).

Future research could try to overcome abovementioned limitations by inviting more than one respondent from focal companies. Also, it would be interesting to verify how members in different levels of an organization respond to same survey. Attempts to further develop MARKOR scale into this direction have been made by e.g. Schlosser and McNaughton (2009). Noble et al. (2002) remind that market orientation is slowly evolving paradigm, thus long-term analysis approach is appropriate in studying it. This could also be in focus of the future research. As indicated by some respondents during this research, managers in SME companies may need specific scale designed for single-unit organizations. Such attempts have been made e.g. by Reijonen and Komppula (2010).

Finally, acknowledging the findings of Raju et al. (2011, 1320) as they state that SMEs are often highly market oriented and known to compete effectively with larger organizations,

making it valuable to gain better understanding of market orientation in SME environment, it can be said this subject is very fruitful for the further studies both in Finland and abroad. These further studies, in the context of Finnish pharmacies, could draw more coherent image of Finnish pharmacists' attitudes toward this concept and the main causes inhibiting execution this concept in wider scale.

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Appendix A

A.1. Modified MARKOR-questionnaire

Intelligence Generation

We meet our customers at least once a year to find out what products or services they will need in the near future. (IG1) QM[a]
Individuals from our manufacturing department interact directly with customers to learn how to serve them better. NI[b]
We do a lot of in-house marketing research. (IG2) QM[a]
We are slow to detect changes in our customers' product preferences. (IG3) RSR[c]
We poll our customers at least once a year to assess the quality of our products and services. (IG4) QM[a]
We often talk with or survey those who can influence our end users' puchases (e.g. retailers, distributors). NI[b]
We collect industry information by informal means (e.g. lunch with industry friends, talks with trade partners). (IG5)
We generate independently intelligence on our competitors. (IG6) QM[a]
We are slow to detect fundamental shifts in our industry (e.g. competition, technology, regulation). (IG7) RSR[c]
We periodically review the likely effect of changes in our business environment (e.g. regulation) on customers. (IG8)

Intelligence Dissemination

A lot of our informal "hall talk" concerns our competitors' tactics or strategies. (ID1) QM[a]
We have meetings at least once a quarter to discuss market trends and developments. (ID2) QM[a]
Personnel responsible for marketing spend time discussing customers' future needs with other personnel. (ID3) QM[a]
Our business unit periodically circulates documents (e.g. reports, newsletters) that provide information on our customers. NI[b]
When something important happens to our major customer, the whole personnel know about it with in short period. (ID4)
Data on customer satisfaction are disseminated to all personnel on a regular basis. (ID5)
There is minimal communication between marketing and manufacturing departments concerning market developments. NI[b]
When one employee finds out something important about competitors, he/she is slow to alert other employees. (ID6) QM[a], RSR[c]

Responsiveness

It takes us forever to decide how to respond to our competitors' price changes. (RESP1) RSR[c]
Principles of market segmentation drive new product development efforts in this business unit. NI[b]
For one reason or another we tend to ignore changes in our customers' product or service needs. (RESP2) RSR[c]
We periodically review our service product development efforts to ensure that they are in line with what customers want. (RESP3)
Our business plans are driven more by technological advances than by market research. NI[b]
We get together periodically to plan a response to changes taking place in our business environment. (RESP4) QM[a]
The product lines we sell depend more on internal politics than real market needs. (RESP5) RSR[c]
If a major competitor were to launch an intensive campaign targeted at our customers, we would implement a response immediately. (RESP6)
The activities of the different employee groups are well coordinated. (RESP7)
Customer complaints fall on deaf ears in this pharmacy. (RESP8) QM[a], RSR[c]
Even if we came up with a great marketing plan, we probably would not be able to implement it in a timely fashion. (RESP9) RSR[c]
We are quick to respond to significant changes in our competitors' pricing structures. (RESP10)
When we find out that customers are unhappy with the quality of our service, we take corrective action immediately. (RESP11)
When we find that customers would like us to modify a product or service, relevant employees make concerted efforts to do so. (RESP12)

[a] QM = question modified from original MARKOR scale

[b] NI = original MARKOR scale item, not included in the modified scale

[c] RSR = response scale reversed in the data analysis

Appendix A (*continued*)

A.2. Background information

Entrepreneur demographics

Gender	[1] Male [2] Female
Age	[1] Less than 40 years [2] 40-49 years [3] 50-59 years [4] 60 years or more
Pharmacist experience	[1] Less than 5 years [2] 5-10 years [3] 11-15 years [4] 16-20 years [5] 21 years or more
Education (besides MSc Pharm)	[1] Doctorate [2] Business qualification [3] Course-based business education [4] PD (Professional Development studies)

Information of the pharmacy

Location of the pharmacy	[1] Urban [2] Rural
Size of the pharmacy measured with prescriptions per annum	[1] Less than 20.000 [2] 20.000-40.000 [3] 40.001-60.000 [4] 60.001-80.000 [5] 80.001-100.000 [6] 100.001-120.000 [7] 120.001-140.000 [8] 140.001-160.000 [9] 160.001-200.000 [10] More than 200.000
Does the pharmacy belong to pharmacy chain	[1] Yes [2] No
The amount of employees	[1] 1-3 [2] 4-9 [3] 10-20 [4] 21-50 [5] More than 50
Turnover of employees (1-5 scale)	[1] Minimal [5] High

Financial information

Revenue (€) in year 2012 (including also other than medicine sales)	[1] Less than 900.000 [2] 900.000-1.300.000 [3] 1.300.001-1.700.000 [4] 1.700.001-2.100.000 [5] 2.100.001-2.500.000 [6] 2.500.001-2.900.000 [7] 2.900.001-3.400.000 [8] 3.400.001-4.000.000 [9] 4.000.001-5.000.000 [10] 5.000.001-7.500.000 [11] More than 7.500.000
Development of the revenue during past 2-3 years compared with other pharmacies (Statistics from APTI Plc: average growth of revenue in pharmacies during year 2012 was 3,9 %, and year 2011 2,0 %)	[1] Growth more than average [2] Average growth [3] Growth less than average
The financial status of my pharmacy concerns me (1-5 scale)	[1] Not at all [5] Considerably

Of the local competition

Level of competition between pharmacies in focal area	[1] Low [2] Medium [3] High
Is there a University Pharmacy nearby your pharmacy	[1] Yes [2] No

Appendix B

Demographic characteristics of the respondents (n=118)

Demographic characteristic	*Number of respondents*	*%*
Entrepreneur demographics		
Gender		
Female	31	26.3
Male	87	73.7
Age		
Less than 50 years	33	28.0
50-59 years	61	51.7
60 years or more	24	20.3
Pharmacist's experience		
Less than 5 years	41	34.8
5-15 years	51	43.2
More than 15 years	26	22.0
Pharmacist's education (besides MSc Pharm)		
Doctorate	13	11.0
Business qualification	15	12.7
Course-based business education	31	26.3
PD (Professional Development studies)	51	43.2
Information of the pharmacy		
Location of the pharmacy		
Urban	64	54.2
Rural	54	45.8
Size of the pharmacy (measured in prescriptions per annum)		
Less than 40.000	29	24.6
40.000-80.000	40	33.9
80.001-120.000	31	26.3
More than 120.000	18	15.2
Chain membership		
Member of a pharmacy chain	63	53.4
Independent	55	46.6

Demographic characteristics of the respondents (n=118) (continued)

Demographic characteristic	*Number of respondents*	*%*
The amount of employees		
Less than 10	56	47.5
10 or more	62	52.5
Turnover of employees		
Minimal	65	55.1
Some	41	34.7
Neutral, frequent or extremely high	12	10.2
Revenue (€) in year 2012 (including all sales)		
Less than 1.300.000	13	11.0
1.300.000-2.100.000	26	22.0
2.100.001-2.900.000	15	12.7
2.900.001-4.000.000	19	16.1
4.000.001-5.000.000	22	18.7
More than 5.000.000	23	19.5
Development of revenue		
Growth more than average	36	30.5
Average growth	55	46.6
Growth less than average	27	22.9
Financial status concerns the pharmacist		
Not at all or a little	30	25.4
Neutral	26	22.0
To some extent or considerably	62	52.6
Level of competition between pharmacies in focal area		
Low	40	33.9
Medium	47	39.8
High	31	26.3
Is there a University Pharmacy nearby focal pharmacy		
Yes	34	28.8
No	84	71.2

Appendix C

Table 1. Scale items and reliability

Item	Alpha
Intelligence Generation	
Meeting customers frequently	.89
In-house marketing research	.89
Detecting changes in customer product preferences (RSR)	.89
Polling customers yearly	.89
Collecting informal industry information	.89
Independent competitor information generation	.89
Detecting fundamental shifts in industry (RSR)	.89
Reviewing business environments changes effects on customers	.89
Intelligence Dissemination	
Informal "hall talk" on competitors	.89
Meeting quarterly considering market trends and developments	.89
Marketing personnel discuss with other personnel of customer needs	.89
Informing whole personnel of the major customers	.89
Disseminating customer satisfaction data to all personnel	.89
Alerting other personnel of major concerns on competitors (RSR)	.89
Responsiveness	
Deciding how to respond on competitors' price changes (RSR)	.89
Ignoring changes in customer needs (RSR)	.89
Reviewing development efforts	.89
Planning together responses due to changes in environment	.89
Internal politics guide product line decisions (RSR)	.89
Responding immediately on major competitor's campaign	.89
Employee groups are well coordinated	.89
Customer complaints fall on deaf ears (RSR)	.89
Implementing marketing plan in time (RSR)	.89
Responding quickly on changes in competitors' pricing structures	.89
Active in quality changes when customers have complained	.89
Unified effort in modifying service due to customers signals	.89

All items were measured on a five-point Likert scale, ranging from "totally disagree" (1) to "totally agree" (5). RSR indicates item's response scale reversion.

Table 2. Scale item dimensions and reliability

Item	Alpha
Intelligence Generation	.77
Meeting customers frequently	
In-house marketing research	
Detecting changes in customer product preferences (RSR)	
Polling customers yearly	
Collecting informal industry information	
Independent competitor information generation	
Detecting fundamental shifts in industry (RSR)	
Reviewing business environments changes effects on customers	
Intelligence Dissemination	.69
Informal "hall talk" on competitors	
Meeting quarterly considering market trends and developments	
Marketing personnel discuss with other personnel of customer needs	
Informing whole personnel of the major customers	
Disseminating customer satisfaction data to all personnel	
Alerting other personnel of major concerns on competitors (RSR)	
Responsiveness	.82
Deciding how to respond on competitors' price changes (RSR)	
Ignoring changes in customer needs (RSR)	
Reviewing development efforts	
Planning together responses due to changes in environment	
Internal politics guide product line decisions (RSR)	
Responding immediately on major competitor's campaign	
Employee groups are well coordinated	
Customer complaints fall on deaf ears (RSR)	
Implementing marketing plan in time (RSR)	
Responding quickly on changes in competitors' pricing structures	
Active in quality changes when customers have complained	
Unified effort in modifying service due to customers signals	

All items were measured on a five-point Likert scale, ranging from "totally disagree" (1) to "totally agree" (5). RSR indicates item's response scale reversion.

Table 3. Factor loadings, communalities and interpreting the factors

Factor 1 'Customer needs inquiry and market intelligence'		h^2
We poll our customers at least once a year to assess the quality of our products and services	.717	.580
We do a lot of in-house marketing research	.675	.589
We generate independently intelligence on our competitors	.586	.398
We have meetings at least once a quarter to discuss market trends and developments	.537	.537
Data on customer satisfaction are disseminated to all personnel on a regular basis	.525	.390
Personnel responsible for marketing spend time discussing customers' future needs with other personnel	.505	.542
We meet our customers at least once a year to find out what products or services they will need in the near future	.496	.474
Factor 2		
The activities of the different employee groups are well coordinated	.672	.481
When something important happens to our major customer, the whole personnel know about it with in short period	.577	.388
We periodically review our service product development efforts to ensure that they are in line with what customers want	.565	.506
For one reason or another we tend to ignore changes in our customers' product or service needs (RSR)	.547	.631
We get together periodically to plan a response to changes taking place in our business environment	.521	.713
Factor 3		
We are slow to detect fundamental shifts in our industry (e.g. competition, technology, regulation) (RSR)	.727	.638
We are slow to detect changes in our customers' product preferences (RSR)	.639	.549
It takes us forever to decide how to respond to our competitors' price changes (RSR)	.469	.387
The product lines we sell depends more on internal politics than real market needs (RSR)	.437	.475
Factor 4		
When we find out that customers are unhappy with the quality of our service, we take corrective action immediately	.773	.709
When we find that customers would like us to modify a product or service, relevant employees make concerted efforts to do so	.570	.466
Customer complaints fall on deaf ears in this pharmacy (RSR)	.479	.320
Factor 5		
A lot of our informal "hall talk" concerns our competitors' tactics or strategies	.589	.449
We periodically review the likely effect of changes in our business environment (e.g. regulation) on customers	.476	.343
Factor 6		
We are quick to respond to significant changes in our competitors' pricing structures	.489	.461

RSR indicates item's response scale reversion.

Table 4. Mean values and standard deviations in all scale items (N=118)

Item	M	SD
Intelligence Generation	*3.18*	*0.74*
Meeting customers frequently	2.79	1.47
In-house marketing research	2.32	1.16
Detecting changes in customer product preferences (RSR)	3.51	1.04
Polling customers yearly	2.63	1.40
Collecting informal industry information	4.11	1.01
Independent competitor information generation	2.56	1.32
Detecting fundamental shifts in industry (RSR)	3.75	1.03
Reviewing business environments changes effects on customers	3.80	1.01
Intelligence Dissemination	*3.77*	*0.69*
Informal "hall talk" on competitors	4.03	0.77
Meeting quarterly considering market trends and developments	3.11	1.36
Marketing personnel discuss with other personnel of customer needs	3.78	1.09
Informing whole personnel of the major customers	4.10	0.94
Disseminating customer satisfaction data to all personnel	3.72	1.32
Alerting other personnel of major concerns on competitors (RSR)	3.89	1.00
Responsiveness	*4.01*	*0.53*
Deciding how to respond on competitors' price changes (RSR)	4.21	0.85
Ignoring changes in customer needs (RSR)	4.00	0.93
Reviewing development efforts	3.60	1.01
Planning together responses due to changes in environment	3.55	1.14
Internal politics guide product line decisions (RSR)	3.51	1.04
Responding immediately on major competitor's campaign	4.14	0.90
Employee groups are well coordinated	4.12	0.86
Customer complaints fall on deaf ears (RSR)	4.71	0.74
Implementing marketing plan in time (RSR)	3.87	1.01
Responding quickly on changes in competitors' pricing structures	3.60	0.98
Active in quality changes when customers have complained	4.55	0.67
Unified effort in modifying service due to customers signals	4.25	0.78

All items were measured on a five-point Likert scale, ranging from "totally disagree" (1) to "totally agree" (5). RSR indicates item's response scale reversion.

Table 5. Market orientation by separate MARKOR dimensions and overall sum variable (N=118)

Demographic variable	IG	ID	RESP	MO
Gender				
Male	3.49**	3.86	3.94	3.78
Female	3.08**	3.74	4.03	3.67
Age				
< 50	3.09	3.59	3.98	3.62
50-59	3.18	3.86	4.02	3.72
≥ 60	3.34	3.80	4.04	3.77
Pharmacist's experience				
< 5years	3.14	3.70	4.04	3.68
5-15 years	3.09	3.74	3.95	3.64
> 15 years	3.44	3.95	4.09	3.85
Pharmacist's education - PhD				
Yes	3.51	3.85	4.17	3.89
No	3.14	3.76	3.99	3.68
Pharmacist's education - Business Qualification (BQ)				
Yes	3.34	3.78	4.06	3.78
No	3.16	3.77	4.00	3.69
Pharmacist's education - Course Based (CB)				
Yes	3.37	3.95	3.97	3.78
No	3.12	3.71	4.02	3.67
Pharmacist's education - Personal Development (PD)				
Yes	2.97**	3.63	3.95	3.57*
No	3.35**	3.88	4.06	3.80*
Location				
Urban	3.23	3.80	4.00	3.72
Rural	3.13	3.73	4.02	3.68
Pharmacy size in prescriptions				
< 40.000	2.87*	3.48*	3.80	3.44**
40.000-80.000	3.12*	3.76*	4.03	3.69**
80.001-120.000	3.45*	3.96*	4.09	3.86**
> 120.000	3.39*	3.96*	4.17	3.88**
Chain membership				
Belongs to a pharmacy chain	3.26	3.84	4.04	3.75
Does not belong to a pharmacy chain	3.10	3.70	3.98	3.64
Amount of employees				
< 10	2.94***	3.56***	3.90*	3.53***
≥ 10	3.41***	3.97***	4.11*	3.86***
Turnover of employees				
Minimal turnover	3.21	3.77	4.05	3.73
Some turnover	3.19	3.81	4.04	3.73
Neutral or high turnover	2.99	3.67	3.71	3.48
Revenue in 2012				
< 1.300.000 €	2.71**	3.36	3.87	3.40*
1.300.000-2.100.000 €	2.99**	3.69	3.92	3.58*
2.100.001-2.900.000 €	3.25**	3.74	3.99	3.70*
2.900.001-4.000.000 €	3.13**	3.71	4.04	3.68*
4.000.001-5.000.000 €	3.30**	3.87	3.96	3.73*
> 5.000.000 €	3.58**	4.09	4.23	4.00*
Development of revenue				
More than average	3.43*	3.97	4.10	3.86
Average	3.10*	3.68	4.02	3.66
Less than average	3.03*	3.69	3.86	3.57

Table 5. Market orientation by separate MARKOR dimensions and overall sum variable (N=118) (continued)

Demographic variable	IG	ID	RESP	MO
Financial status concerns				
Not at all or A little concern	3.28	3.77	4.12	3.78
Neutral	3.21	3.74	3.97	3.68
To some extent or Considerably	3.13	3.78	3.98	3.67
Local competition				
Low	3.13	3.69*	4.04	3.68
Medium	3.37	3.96*	4.05	3.82
High	2.98	3.59*	3.91	3.55
University Pharmacy nearby				
Yes	3.07	3.76	3.89	3.61
No	3.23	3.77	4.06	3.74

All items were measured on a five-point Likert scale, ranging from "totally disagree" (1) to "totally agree" (5). * significant at .05 level; ** significant at .01 level; *** significant at .001 level. a IG = sum variable intelligence generation, ID = sum variable intelligence dissemination, RESP = sum variable responsiveness, MO = sum variable market orientation

Table 6. Market orientation by gender (*t* test), age (One-way ANOVA), and pharmacist's experience (One-way ANOVA) (N=118)

Item	Gender		Age			Pharmacist experience (years)		
	Male (N=31)	Female (N=87)	< 50 (N=33)	50-59 (N=61)	≥ 60 (N=24)	< 5 (N=41)	5-15 (N=51)	> 15 (N=26)
Intelligence Generation								
Meeting customers frequently	3.20	2.64	2.88	2.54	3.30	2.83	2.53	3.24
In-house marketing research	2.93***	2.10***	2.15	2.31	2.57	2.24	2.24	2.60
Detecting changes in customer product preferences (RSR)	3.60	3.48	3.42	3.44	3.83	3.44	3.41	3.84
Polling customers yearly	3.00	2.51	2.21	2.74	2.96	2.44	2.51	3.20
Collecting informal industry information	4.13	4.10	4.30	4.05	4.00	4.24	4.06	4.00
Independent competitor information generation	3.17**	2.36**	2.45	2.57	2.70	2.51	2.37	3.04
Detecting fundamental shifts in industry (RSR)	3.93	3.69	3.67	3.74	3.91	3.66	3.67	4.08
Reviewing business environments changes effects on customers	3.97	3.74	3.64*	4.03*	3.41*	3.78	3.94	3.54
Intelligence Dissemination								
Informal "hall talk" on competitors	4.00	4.03	3.94	4.02	4.17	3.95	4.02	4.16
Meeting quarterly considering market trends and developments	3.70**	2.91**	2.70	3.25	3.35	2.88	3.06	3.60
Marketing personnel discuss with other personnel of customer needs	3.90	3.74	3.45	3.89	3.96	3.73	3.71	4.00
Informing whole personnel of the major customers	3.83	4.20	4.12	4.13	4.00	4.20	4.06	4.04
Disseminating customer satisfaction data to all personnel	3.93	3.65	3.38	3.89	3.78	3.49	3.72	4.12
Alerting other personnel of major concerns on competitors (RSR)	3.77	3.93	3.97	3.97	3.57	3.93	3.90	3.80
Responsiveness								
Deciding how to respond on competitors' price changes (RSR)	4.19	4.22	4.30	4.18	4.17	4.32	4.08	4.31
Ignoring changes in customer needs (RSR)	3.77	4.08	3.91	4.08	3.92	4.02	3.98	4.00
Reviewing development efforts	3.39	3.68	3.61	3.59	3.63	3.51	3.71	3.54
Planning together responses due to changes in environment	3.65	3.52	3.33	3.57	3.79	3.37*	3.45*	4.04*
Internal politics guide product line decisions (RSR)	3.45	3.53	3.58	3.56	3.29	3.73	3.37	3.42
Responding immediately on major competitor's campaign	4.10	4.15	4.06	4.05	4.46	4.20	4.04	4.23
Employee groups are well groups coordinated	3.71**	4.26**	4.00	4.25	3.96	4.12	4.10	4.15
Customer complaints fall on deaf ears (RSR)	4.61	4.75	4.64	4.69	4.88	4.76	4.63	4.81
Implementing marketing plan in time (RSR)	4.17	3.77	3.79	3.84	4.09	3.88	3.78	4.04
Responding quickly on changes in competitors' pricing structures	3.42	3.67	3.70	3.52	3.67	3.56	3.71	3.46
Active in quality changes when customers have complained	4.61	4.53	4.55	4.57	4.50	4.61	4.41	4.73
Unified effort in modifying service due to customers signals	4.26	4.25	4.27	4.28	4.17	4.39	4.12	4.31

All items were measured on a five-point Likert scale, ranging from "totally disagree" (1) to "totally agree" (5). RSR indicates item's response scale reversion. * significant at .05 level; ** significant at .01 level; *** significant at .001 level.

Table 7. Market orientation by pharmacist's education (besides MSc Pharm): t test(N=118)

Item	Education besides MSc (Pharm)							
	PhD (N=13)	No PhD (N=105)	BQ[a] (N=15)	No BQ[a] (N=102)	CB[a] (N=31)	No CB[a] (N=87)	PD[a] (N=51)	Non-PD[a] (N=67)
Intelligence Generation								
Meeting customers frequently	3.08	2.75	2.80	2.78	2.94	2.73	2.45*	3.05*
In-house marketing research	2.46	2.30	2.67	2.26	2.52	2.24	2.10	2.48
Detecting changes in customer product preferences (RSR)	4.00*	3.45*	3.67	3.49	3.65	3.47	3.27*	3.70*
Polling customers yearly	3.23	2.56	2.60	2.64	3.23**	2.42**	2.24**	2.94**
Collecting informal industry information	4.62	4.05	4.07	4.12	4.35	4.02	3.98	4.21
Independent competitor information generation	2.62	2.56	3.20*	2.47*	2.68	2.52	2.25*	2.80*
Detecting fundamental shifts in industry (RSR)	4.23	3.69	3.80	3.75	3.71	3.77	3.59	3.88
Reviewing business environments changes effects on customers	3.85	3.80	3.93	3.78	3.90	3.76	3.86	3.76
Intelligence Dissemination								
Informal "hall talk" on competitors	3.77	4.06	4.40*	3.97*	4.26*	3.94*	4.04	4.02
Meeting quarterly considering market trends and developments	3.23	3.10	3.20	3.10	3.42	3.00	2.69**	3.44**
Marketing personnel discuss with other personnel of customer needs	3.77	3.78	3.47	3.82	4.06	3.67	3.47**	4.02**
Informing whole personnel of the major customers	4.23	4.09	3.67	4.17	4.10	4.10	4.16	4.06
Disseminating customer satisfaction data to all personnel	3.92	3.70	4.14	3.67	3.87	3.67	3.54	3.86
Alerting other personnel of major concerns on competitors (RSR)	4.15	3.86	3.87	3.89	3.97	3.86	3.90	3.88
Responsiveness								
Deciding how to respond on competitors' price changes (RSR)	4.62	4.16	4.60	4.16	4.19	4.22	4.18	4.24
Ignoring changes in customer needs (RSR)	4.38	3.95	3.80	4.03	3.84	4.06	4.00	4.00
Reviewing development efforts	4.08*	3.54*	3.73	3.58	3.68	3.57	3.59	3.61
Planning together responses due to changes in environment	3.77	3.52	3.40	3.57	3.71	3.49	3.16***	3.85***
Internal politics guide product line decisions (RSR)	3.69	3.49	3.67	3.49	3.48	3.52	3.57	3.46
Responding immediately on major competitor's campaign	4.00	4.15	4.20	4.13	4.16	4.13	4.10	4.16
Employee groups are well groups coordinated	4.38	4.09	4.07	4.13	4.00	4.16	4.10	4.13
Customer complaints fall on deaf ears (RSR)	4.38	4.75	4.73	4.71	4.45	4.80	4.69	4.73
Implementing marketing plan in time (RSR)	4.00	3.86	3.73	3.89	3.83	3.89	3.73	3.98
Responding quickly on changes in competitors' pricing structures	3.62	3.60	3.60	3.60	3.58	3.61	3.61	3.60
Active in quality changes when customers have complained	4.77	4.52	4.67	4.53	4.48	4.57	4.43	4.64
Unified effort in modifying service due to customers signals	4.31	4.25	4.53	4.21	4.23	4.26	4.24	4.27

All items were measured on a five-point Likert scale, ranging from "totally disagree" (1) to "totally agree" (5). RSR indicates item's response scale reversion. * significant at .05 level; ** significant at .01 level; *** significant at .001 level. [a] BQ = business qualification, CB = course based, PD = personal development.

Table 8. Market orientation by location of the pharmacy (*t* test) and size in delivered prescriptions (One-way ANOVA) (N=118)

Item	Location		Pharmacy size in delivered prescriptions			
	Urban (N=64)	Rural (N=54)	< 40[a] (N=29)	40-80[a] (N=40)	80-120[a] (N=31)	> 120[a] (N=18)
Intelligence Generation						
Meeting customers frequently	2.70	2.89	2.10*	3.08*	2.97*	2.94*
In-house marketing research	2.41	2.20	1.86*	2.20*	2.67*	2.72*
Detecting changes in customer product preferences (RSR)	3.65	3.35	3.38	3.38	3.60	3.89
Polling customers yearly	2.71	2.54	2.10**	2.38**	3.20**	3.11**
Collecting informal industry information	4.03	4.20	4.07	4.13	4.33	3.78
Independent competitor information generation	2.73	2.37	2.28	2.43	2.83	2.89
Detecting fundamental shifts in industry (RSR)	3.87	3.61	3.52*	3.53*	4.03*	4.17*
Reviewing business environments changes effects on customers	3.71	3.91	3.66	3.85	4.00	3.61
Intelligence Dissemination						
Informal "hall talk" on competitors	4.00	4.06	3.90	4.03	4.07	4.17
Meeting quarterly considering market trends and developments	3.32	2.87	2.59**	2.88**	3.43**	3.94**
Marketing personnel discuss with other personnel of customer needs	3.89	3.65	3.48	3.65	4.20	3.83
Informing whole personnel of the major customers	4.02	4.20	3.97	4.15	4.33	3.83
Disseminating customer satisfaction data to all personnel	3.86	3.57	3.03**	3.82**	4.00**	4.17**
Alerting other personnel of major concerns on competitors (RSR)	3.75	4.06	3.90	4.03	3.73	3.83
Responsiveness						
Deciding how to respond on competitors' price changes (RSR)	4.25	4.17	4.00	4.25	4.13	4.61
Ignoring changes in customer needs (RSR)	4.02	3.98	3.93	3.90	4.13	4.11
Reviewing development efforts	3.58	3.63	3.31	3.80	3.61	3.61
Planning together responses due to changes in environment	3.67	3.41	2.93***	3.45***	3.97***	4.06***
Internal politics guide product line decisions (RSR)	3.38	3.67	3.48	3.48	3.61	3.44
Responding immediately on major competitor's campaign	4.13	4.15	3.83	4.25	4.23	4.22
Employee groups are well groups coordinated	4.03	4.22	4.00	4.15	4.19	4.11
Customer complaints fall on deaf ears (RSR)	4.69	4.74	4.59	4.73	4.84	4.67
Implementing marketing plan in time (RSR)	3.97	3.76	3.48	3.93	3.90	4.33
Responding quickly on changes in competitors' pricing structures	3.64	3.56	3.24	3.65	3.81	3.72
Active in quality changes when customers have complained	4.55	4.56	4.52	4.45	4.55	4.83
Unified effort in modifying service due to customers signals	4.11*	4.43*	4.31	4.30	4.10	4.33

All items were measured on a five-point Likert scale, ranging from "totally disagree" (1) to "totally agree" (5). RSR indicates item's response scale reversion. * significant at .05 level; ** significant at .01 level; *** significant at .001 level. [a] Prescription measures in thousands.

Table 9. Market orientation by pharmacy chain membership (*t* test) and amount (*t* test) and turnover of employees (One-way ANOVA) (N=118)

Item	Chain membership		Amount of employees		Turnover of employees		
	Yes (N=63)	No (N=55)	< 10 (N=56)	≥ 10 (N=62)	Min[a] (N=65)	Low[a] (N=41)	N/H[a] (N=12)
Intelligence Generation							
Meeting customers frequently	2.79	2.78	2.63	2.93	2.69	3.05	2.42
In-house marketing research	2.46	2.15	1.89***	2.70***	2.30	2.37	2.25
Detecting changes in customer product preferences (RSR)	3.62	3.39	3.32	3.69	3.53	3.51	3.42
Polling customers yearly	2.92*	2.30*	2.14***	3.08***	2.69	2.68	2.17
Collecting informal industry information	4.11	4.11	4.11	4.11	4.22	3.95	4.08
Independent competitor information generation	2.62	2.50	2.29*	2.82*	2.50	2.63	2.67
Detecting fundamental shifts in industry (RSR)	3.79	3.70	3.43***	4.05***	3.81	3.78	3.33
Reviewing business environments changes effects on customers	3.76	3.85	3.70	3.90	3.98	3.58	3.58
Intelligence Dissemination							
Informal "hall talk" on competitors	4.03	4.02	3.91	4.13	4.02	4.02	4.08
Meeting quarterly considering market trends and developments	3.21	3.00	2.64***	3.54***	3.13	3.17	2.83
Marketing personnel discuss with other personnel of customer needs	3.90	3.63	3.46**	4.07**	3.75	3.83	3.75
Informing whole personnel of the major customers	4.13	4.07	4.00	4.20	4.03	4.22	4.08
Disseminating customer satisfaction data to all personnel	3.86	3.57	3.42*	4.00*	3.76	3.83	3.17
Alerting other personnel of major concerns on competitors (RSR)	3.89	3.89	3.91	3.87	3.92	3.78	4.08
Responsiveness							
Deciding how to respond on competitors' price changes (RSR)	4.25	4.16	4.14	4.27	4.23	4.27	3.92
Ignoring changes in customer needs (RSR)	3.98	4.02	3.86	4.13	3.89	4.24	3.75
Reviewing development efforts	3.57	3.64	3.48	3.71	3.55	3.76	3.33
Planning together responses due to changes in environment	3.71	3.36	3.14***	3.92***	3.45	3.83	3.17
Internal politics guide product line decisions (RSR)	3.51	3.51	3.45	3.56	3.68	3.34	3.17
Responding immediately on major competitor's campaign	4.29	3.96	3.96*	4.29*	4.14	4.15	4.08
Employee groups are well groups coordinated	4.06	4.18	4.09	4.15	4.25*	4.10*	3.50*
Customer complaints fall on deaf ears (RSR)	4.70	4.73	4.70	4.73	4.80**	4.76**	4.08**
Implementing marketing plan in time (RSR)	4.00	3.73	3.71	4.02	3.97	3.78	3.67
Responding quickly on changes in competitors' pricing structures	3.57	3.64	3.46	3.73	3.69	3.41	3.75
Active in quality changes when customers have complained	4.59	4.51	4.54	4.56	4.63**	4.61**	3.92**
Unified effort in modifying service due to customers signals	4.21	4.31	4.29	4.23	4.29	4.22	4.17

All items were measured on a five-point Likert scale, ranging from "totally disagree" (1) to "totally agree" (5). RSR indicates item's response scale reversion. * significant at .05 level; ** significant at .01 level; *** significant at .001 level. [a] Min = Turnover minimal, Low = Some turnover, N/H = Neutral/High turnover.

Table 10. Market orientation by revenue (€) in 2012: One-way ANOVA (N=118)

Item	Revenue (MEUR)					
	< 1.3 (N=13)	1.3-2.1 (N=26)	2.1-2.9 (N=15)	2.9-4.0 (N=19)	4.0-5.0 (N=22)	> 5.0 (N=23)
Intelligence Generation						
Meeting customers frequently	1.92	2.73	2.80	2.89	2.90	3.13
In-house marketing research	1.54*	2.00*	2.27*	2.58*	2.48*	2.78*
Detecting changes in customer product preferences (RSR)	3.15	3.35	3.67	3.21	3.62	3.96
Polling customers yearly	1.77**	2.31**	2.47**	2.37**	3.00**	3.48**
Collecting informal industry information	3.92	4.08	4.27	4.11	4.24	4.04
Independent competitor information generation	2.23*	2.12*	3.07*	2.26*	2.57*	3.17*
Detecting fundamental shifts in industry (RSR)	3.31	3.54	3.60	3.74	3.86	4.26
Reviewing business environments changes effects on customers	3.85	3.77	3.87	3.84	3.70	3.83
Intelligence Dissemination						
Informal "hall talk" on competitors	4.08	3.81	4.07	4.05	3.95	4.26
Meeting quarterly considering market trends and developments	2.23*	2.96*	2.93*	3.05*	3.19*	3.87*
Marketing personnel discuss with other personnel of customer needs	3.38	3.58	3.67	3.68	4.14	4.04
Informing whole personnel of the major customers	3.77	4.12	4.07	4.32	4.14	4.09
Disseminating customer satisfaction data to all personnel	2.69**	3.77**	3.71**	3.32**	4.00**	4.35**
Alerting other personnel of major concerns on competitors (RSR)	4.00	3.88	4.00	3.84	3.76	3.91
Responsiveness						
Deciding how to respond on competitors' price changes (RSR)	4.15	4.08	4.27	4.11	4.05	4.61
Ignoring changes in customer needs (RSR)	4.08	3.81	3.87	4.11	3.95	4.22
Reviewing development efforts	3.46	3.42	3.60	4.05	3.41	3.70
Planning together responses due to changes in environment	2.77**	3.23**	3.53**	3.42**	3.86**	4.17**
Internal politics guide product line decisions (RSR)	3.62	3.58	3.47	3.26	3.59	3.52
Responding immediately on major competitor's campaign	3.69	3.96	4.40	4.16	4.27	4.26
Employee groups are well groups coordinated	4.15	4.08	3.93	4.21	4.09	4.22
Customer complaints fall on deaf ears (RSR)	4.69	4.73	4.53	4.74	4.77	4.74
Implementing marketing plan in time (RSR)	3.46	3.85	3.87	3.84	3.90	4.13
Responding quickly on changes in competitors' pricing structures	3.23	3.42	3.80	3.84	3.41	3.87
Active in quality changes when customers have complained	4.69	4.54	4.40	4.47	4.32	4.87
Unified effort in modifying service due to customers signals	4.46	4.31	4.20	4.26	3.91	4.43

All items were measured on a five-point Likert scale, ranging from "totally disagree" (1) to "totally agree" (5). RSR indicates item's response scale reversion. * significant at .05 level; ** significant at .01 level; *** significant at .001 level.

Table 11. Market orientation by development of revenue and financial status considerations: One-way ANOVA (N=118)

Item	Development of revenue			Financial status considerations		
	More (N=36)	Average (N=55)	Less (N=27)	No/L[a] (N=30)	Neutral (N=26)	Yes/C[a] (N=62)
Intelligence Generation						
Meeting customers frequently	2.83	2.87	2.56	2.79	2.85	2.76
In-house marketing research	2.51	2.15	2.41	2.24	2.46	2.29
Detecting changes in customer product preferences (RSR)	3.80*	3.55*	3.07*	3.76	3.65	3.34
Polling customers yearly	3.06	2.47	2.41	2.66	2.62	2.63
Collecting informal industry information	4.40	3.98	4.00	4.21	4.08	4.08
Independent competitor information generation	3.09*	2.31*	2.41*	2.66	2.58	2.52
Detecting fundamental shifts in industry (RSR)	4.00	3.62	3.70	3.90	3.81	3.66
Reviewing business environments changes effects on customers	3.79	3.87	3.67	4.03	3.68	3.74
Intelligence Dissemination						
Informal "hall talk" on competitors	4.17	4.02	3.85	4.10	3.88	4.05
Meeting quarterly considering market trends and developments	3.40	2.96	3.04	2.93	3.04	3.23
Marketing personnel discuss with other personnel of customer needs	4.03	3.62	3.78	3.72	3.77	3.81
Informing whole personnel of the major customers	4.34	4.07	3.85	4.14	4.08	4.10
Disseminating customer satisfaction data to all personnel	3.94	3.59	3.70	3.68	3.62	3.79
Alerting other personnel of major concerns on competitors (RSR)	3.94	3.84	3.93	4.07	4.08	3.73
Responsiveness						
Deciding how to respond on competitors' price changes (RSR)	4.31	4.24	4.04	4.43	4.12	4.15
Ignoring changes in customer needs (RSR)	4.14	4.05	3.70	4.17	4.00	3.92
Reviewing development efforts	3.64	3.71	3.33	3.77	3.54	3.55
Planning together responses due to changes in environment	3.89*	3.55*	3.11*	3.57	3.69	3.48
Internal politics guide product line decisions (RSR)	3.67	3.47	3.37	3.83	3.50	3.35
Responding immediately on major competitor's campaign	4.19	4.20	3.93	4.13	4.23	4.10
Employee groups are well groups coordinated	4.00	4.20	4.11	4.17	3.81	4.23
Customer complaints fall on deaf ears (RSR)	4.75	4.71	4.67	4.73	4.65	4.73
Implementing marketing plan in time (RSR)	3.97	3.87	3.74	3.80	3.96	3.87
Responding quickly on changes in competitors' pricing structures	3.78	3.49	3.59	3.67	3.58	3.58
Active in quality changes when customers have complained	4.56	4.53	4.59	4.70	4.46	4.52
Unified effort in modifying service due to customers signals	4.28	4.27	4.19	4.43	4.08	4.24

All items were measured on a five-point Likert scale, ranging from "totally disagree" (1) to "totally agree" (5). RSR indicates item's response scale reversion. * significant at .05 level; ** significant at .01 level; *** significant at .001 level.
[a] No/L = Not at all or A little concern, Yes/C = To some extent/Considerably.

Table 12. Market orientation by local competition (One-way ANOVA) and University Pharmacy nearby (*t* test) (N=118)

Item	Local competition			University Pharmacy nearby	
	Low (N=40)	Medium (N=47)	High (N=31)	Yes (N=34)	No (N=84)
Intelligence Generation					
Meeting customers frequently	2.88	2.85	2.58	2.58	2.87
In-house marketing research	2.08	2.63	2.16	2.33	2.31
Detecting changes in customer product preferences (RSR)	3.45	3.57	3.52	3.55	3.50
Polling customers yearly	2.50*	3.04*	2.19*	2.55	2.67
Collecting informal industry information	4.23	4.17	3.87	4.09	4.12
Independent competitor information generation	2.43	2.65	2.61	2.45	2.61
Detecting fundamental shifts in industry (RSR)	3.58*	4.09*	3.48*	3.42*	3.88*
Reviewing business environments changes effects on customers	3.90*	4.00*	3.39*	3.58	3.89
Intelligence Dissemination					
Informal "hall talk" on competitors	4.00	4.15	3.87	3.88	4.08
Meeting quarterly considering market trends and developments	2.85*	3.50*	2.87*	3.21	3.07
Marketing personnel discuss with other personnel of customer needs	3.60	4.07	3.58	3.82	3.76
Informing whole personnel of the major customers	4.25	4.02	4.03	3.97	4.15
Disseminating customer satisfaction data to all personnel	3.56**	4.17**	3.26**	3.76	3.71
Alerting other personnel of major concerns on competitors (RSR)	3.90	3.87	3.90	3.94	3.87
Responsiveness					
Deciding how to respond on competitors' price changes (RSR)	4.20	4.23	4.19	4.21	4.21
Ignoring changes in customer needs (RSR)	4.05	4.02	3.90	3.97	4.01
Reviewing development efforts	3.70	3.62	3.45	3.44	3.67
Planning together responses due to changes in environment	3.40*	3.89*	3.23*	3.50	3.57
Internal politics guide product line decisions (RSR)	3.63	3.51	3.35	3.15*	3.65*
Responding immediately on major competitor's campaign	4.23	4.00	4.23	4.00	4.19
Employee groups are well groups coordinated	4.20	4.17	3.94	3.88	4.21
Customer complaints fall on deaf ears (RSR)	4.75	4.72	4.65	4.71	4.71
Implementing marketing plan in time (RSR)	3.70	3.94	4.00	3.97	3.83
Responding quickly on changes in competitors' pricing structures	3.55	3.57	3.71	3.41	3.68
Active in quality changes when customers have complained	4.60	4.64	4.35	4.41	4.61
Unified effort in modifying service due to customers signals	4.45*	4.30*	3.94*	4.03*	4.35*

All items were measured on a five-point Likert scale, ranging from "totally disagree" (1) to "totally agree" (5). RSR indicates item's response scale reversion. * significant at .05 level; ** significant at .01 level; *** significant at .001 level.