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# The Role of Digital Orientation and Market Orientation in Generating Marketing Capability in SMEs

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**Abstract:** Marketing capability is a valuable resource for a firm, and it has a role in firm performance and new product development. Thus, firms with high marketing capability test and introduce innovations to the market, outperforming firms with low marketing capability. Digitalization has however transformed the ways firms create value. Firms need a strong digital orientation combined with a strong market orientation to take advantage of the new opportunities of digital technologies. Both of these strategic orientations can explain superior performance in marketing capability, as they form the bases for new product development and market intelligence, and direct the marketing behaviors of a firm. This is important especially in SMEs who struggle with fewer resources. This research examines the impact of digital orientation and market orientation on marketing capability in SMEs building on the resource-based view (RBV) and dynamic capabilities theory in testing the effects of digital orientation and market orientation on marketing capability. In addition, the moderating effect of firm size is tested. Data for the research was collected from Finnish SMEs. It consists of 242 answers from CEOs or the owners of the firm. Data was analyzed with stepwise linear regression analysis. The results show that both digital orientation and market orientation have a positive and significant relationship with marketing capability. The impact of digital orientation is moderated by firm size; its effect on marketing capability increases when firm size grows. Firm size has also an effect on marketing capability indicating that smaller firms have fewer resources. The whole model explains 45 percent of the variance in marketing capability. This research indicates that both digital orientation and market orientation are important factors explaining why some firms outperform others in marketing and innovation. This research suggests that organizations' strategic orientations explain its capability, and equip SMEs to compete in the environment.

**Keywords:** marketing capability, digital orientation, market orientation, SMEs

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## 1. Introduction

Strategic orientations can be seen as “the guiding principles that influence a firm’s marketing and strategy-making activities” (Noble, Sinha and Kumar, 2002). They are reflected in firm’s culture and guide interactions with the marketplace. The effects of different strategic orientations on firm performance have been examined in prior research, e.g. the effect of market orientation (Verhoef et al, 2011; Narver and Slater, 1990; Pelham, 2000; Matsuno, Mentzer and Özsomer, 2002), the effect of entrepreneurial orientation (Rauch et al, 2009; Wiklund and Shepherd, 2005; Covin, Green and Slevin, 2006), and the effect of technology orientation (Hakala and Kohtamäki, 2011; Gatignon and Xuereb, 1997). Recently, Aydi and Jarboui (2020) showed that entrepreneurial orientation and market orientation are positively related to the performance of international new ventures. However, Hakala and Kohtamäki (2011) state that different research streams have developed their own orientation constructs, but little research has examined the combinations of the orientations together. This research contributes to this by examining the simultaneous effects of two strategic orientations; market orientation and digital orientation.

As prior research has shown, firm’s strategic orientations can have a direct effect on firm’s performance (Kirca, Jauachandran and Bearden, 2005; Aydi and Jarboui, 2020), but they can also contribute to organizational learning (Slater and Narver, 1995) and building dynamic capabilities (Zhou and Li, 2009). Joensuu-Salo et al (2018) showed that market orientation has a vital role in building marketing capability in SMEs, and for internationalized firms, market orientation and marketing capability were crucial to their success in foreign markets. Also Aydi and Jarboui (2020) found that market orientation combined with entrepreneurial orientation generate marketing capacities and international performance. Marketing capability is a valuable resource for a firm, and it has a role in firm performance and new product development. Thus, firms with high marketing capability test and introduce innovations to the market, outperforming firms with low marketing capability. The concept of marketing capability can be seen in the light of resource based view (RBV) and dynamic capabilities view, in which competitive advantage is based on the possession of valuable and rare resources, and the ability of a firm to adjust its processes so as to utilize resources effectively in a dynamic business environment (Barney, 1991; Cavusgil, Seggie and Talay, 2007). As markets become increasingly complex, marketing capability is even more important; the ability to learn from market information, to experiment flexibly, and to market in a way that builds relationships (Day, 2011).

In addition to the importance of market orientation in building marketing capability in a firm, firm's digital orientation can also have a major role. Digitalization has transformed the ways firms create value (Autio, 2017). Firms need a strong digital orientation combined with a strong market orientation to take advantage of the new opportunities of digital technologies. Both of these strategic orientations can explain superior performance in marketing capability, as they form the bases for new product development and market intelligence, and direct the marketing behaviors of a firm. This is important especially in SMEs who struggle with fewer resources.

The objective of this research is to examine the effect of market orientation and digital orientation in building the marketing capability in SMEs. In addition, the moderating effect of firm size is tested in the relationship between these two strategic orientations and marketing capability. The context of this study are Finnish SMEs.

## **2. Theoretical framework**

### **2.1 Marketing capability, RBV and dynamic capabilities view**

The concept of a resource-based view (RBV) of a firm has its origins in the theory of Penrose (1959) and was further developed by Wernerfelt (1984) and Barney (1991). According to Barney (1991) a firm's competitive advantage is based on valuable, rare, and imperfectly imitable resources and capabilities. RBV has been later complemented by a view emphasizing dynamic capabilities (DC), which highlights the ability of a firm to adjust its processes so as to utilize resources effectively in a dynamic business environment; in the DC view competitive advantage stems not just from resources but rather from new resource configurations based on dynamic capabilities (Cavusgil, Seggie and Talay, 2007). According to Day (1994), capabilities are complex bundles of skills and knowledge accumulated in the firm and applied in organizational processes. Day (1994) considers in particular the capabilities connected to understanding the markets and customer focused marketing capabilities central for market oriented firms. Sok et al (2017) describe marketing capability as "a firm's capacity to undertake marketing activities such as promoting the business, establishing position in the market, identifying target markets, conducting market analysis, promoting the business, setting and meeting sales goals, and setting and attaining profit goals". Marketing capability has been found to have positive effect on new venture survival (Patel, Feng and Guedes, 2021), and on firm performance (Joensuu et al, 2018). Thus, it is a valuable capability in a firm creating competitive advantage in the market place.

Firm size can have an effect on the firm's resources and capabilities. Ates et al (2013) argue that SMEs struggle with resources in terms of limited time, number of employees and financial resources. This all can limit marketing capability of a firm, as it requires several skills related to understanding of market opportunities, analysing market information, and positioning firm's products and services. Thus, the following hypothesis is presented:

*Hypothesis 1: Firm size has a positive relationship with marketing capability; larger SMEs have higher marketing capability than smaller ones.*

### **2.2 Market orientation**

Market orientation (MO) has been characterized from two different perspectives; cultural perspective and the behavioral perspective (Armario et al, 2008). According to Narver and Slater (1990) MO can be seen as a culture in a firm, which drives a firm toward the creation and delivery of superior value for its customers. Kohli and Jaworski (1990) represent behavioural perspective in MO, and define it as an organization-wide generation of market intelligence, entailing the processes of a firm implementing marketing concepts in practice (Kohli, Jaworski and Kumar, 1993). Armario et al (2008) remind that cultural and behavioural perspectives of MO are complementary: organizational culture generates capabilities and these capabilities are exhibited in certain market-oriented behaviors. Prior research has shown that MO has a positive effect on firm performance across contexts (Cano, Carrillat and Jaramillo, 2004; Kirca, Jayachandran and Bearden, 2005; Kohli, 2017).

Market orientation has an important role in the development of marketing capability in a firm. According to Morgan, Katsikeas and Vorhies (2012) and Day (1994) market knowledge is the foundation upon which marketing capabilities are built on, and market orientation generates market knowledge. MO can enhance marketing capability as it creates knowledge about customers, competitors, market trends, and regulation (Lavie 2006). Prior research has shown, that high MO is related to higher levels of marketing capability; e.g Vorhies and Harker (2000) found in their study that firms with high MO also had higher levels of the six marketing capabilities;

marketing research, product development, pricing, distribution, promotion and marketing management. Aydi and Jarboui (2020) found that marketing capability is generated through market orientation combined with entrepreneurial orientation. Thus, the following hypotheses are presented based on prior research:

*Hypothesis 2: Market orientation has a positive relationship with marketing capability.*

*Hypothesis 3: Firm size moderates the relationship between market orientation and marketing capability.*

### **2.3 Digital orientation**

Digitalization is transforming the ways firms can create value (Autio, 2017). Digital technologies and infrastructures have widespread impact on the society. Kuusisto (2017) identified several effects of digitalization, such as changes in organizational learning, digital innovations, organizational agility, business ecosystems, and organizational structures. Digital orientation refers to “a firm’s commitment toward application of digital technology to deliver innovative products, services, and solutions” (Khin and Ho, 2019). The concept of digital orientation is based on the ideas about technology-oriented firm by Gatignon and Xuereb (1997). Hence, a digital-oriented firm has the ability and the will to acquire new digital technologies, and use it in product development. Digital orientation makes firms more open to digital technologies and embrace digital initiatives (Khin and Ho, 2019).

The use of novel digital technologies can contribute to the development of marketing capability in a firm, as digital technologies can be used in analysing market information more efficiently, spotting new segments in the market, and developing innovative marketing campaigns. Coreynen, Matthyssens and Van Bockhaven (2017) state that digitalization can transform the communication interfaces with different stakeholders of the firm. Prior research has shown, that different areas of digitalization can generate marketing capabilities and performance, relating to e.g. online advertising (Mathews et al, 2016), social media expertise (Alarcón-del-Amo, Rialp-Criado and Rialp-Criado, 2018) and e-commerce adoption (Erdener, Ekrem and Veysel, 2005). The effect of digital orientation on marketing capability can be even more important when firm size grows, as larger SMEs usually have more customer segments to reach and more market information to analyse. Hence, the following hypotheses are presented:

*Hypothesis 4: Digital orientation has a positive relationship with marketing capability.*

*Hypothesis 5: Firm size moderates the relationship between digital orientation and marketing capability.*

## **3. Data and method**

### **3.1 Data collection**

The data was collected from Finnish limited companies from the South Ostrobothnia region. The initial sample consisted of 1005 companies identified from the Finnish Voitto+ database. Data were gathered through a web-based survey questionnaire sent to CEOs and firm owners between September 2019 and January 2020. After two data collection rounds, 306 responses were received with a response rate of 30.5 %. However, 64 observations were deleted from the dataset on account of the following errors: (1) companies did not provide other necessary information, like name, etc., (2) other missing values, and (3) duplicate answers from the same respondent. Accordingly, the final valid sample consists of 242 answers. The respondents were from various industries, including manufacturing: 37 %, services 43 %, commerce 13 %, and others 7 %. The level of analysis in this research is the company level. The studied firms employed between one and 209 employees (including the founder(s) where appropriate), with the average staff size being 15 employees. The annual turnover ranged from EUR 21,000 to EUR 85 million.

### **3.2 Variables**

Marketing capability was measured following O’Cass and Sok (2014) with a nine-item scale adapted from Vorhies and Morgan (2005). A seven-point Likert scale was used where 1 equals “much worse than competitors” and 7 equals “much better than competitors”. The items included:

- Item1: Doing an effective job of pricing products/services has been...
- Item2: Test marketing of new products/services has been...

- Item3: Launching new products/services has been...
- Item4: Attracting and retaining the best distributors have been...
- Item5: Developing and executing advertising and promotion programmes have been...
- Item6: Sales management has been...
- Item7: Analysing market information has been...
- Item8: Developing creative marketing strategies has been...
- Item9: Translating marketing strategies into action has been...

Market orientation was measured with adapted scale from Homburg and Pflesser (2000) with six items. The original scale was based on Kohli, Jaworski and Kumar (1993). Respondents were asked to indicate their level of agreement or disagreement with the following six statements with a 7-point Likert scale (1 equals totally disagree and 7 equals totally agree):

- Item1: We meet with customers at least once a year to find out what products or services they will need in the future.
- Item2: We poll end users at least once a year to assess the quality of our products and services.
- Item3: Marketing personnel in our firm spend time discussing customer's future needs with other staff functional departments.
- Item4: Data on customer satisfaction are disseminated at all levels on a regular basis.
- Item5: We periodically review our product development efforts to ensure that they are in line with what customers want.
- Item6: When we find that customers would like us to modify a products or service, we make concerted efforts to do so.

Digital orientation was measured with adapted scale from Khin and Ho (2019) and Zhou and Wu (2010) with two different sections. The first section covered two items and the second section five items resulting in a seven item scale. In the first section, respondents were asked to indicate their level of agreement or disagreement with the following two statements with a 7-point Likert scale (1 equals totally disagree and 7 equals totally agree):

- Item1: New digital technology is readily accepted in our organization
- Item2: We always look out for opportunities to use digital technology in our innovation

In the second section, respondents were asked to indicate the level of company's capabilities in the following areas with a 7-point Likert scale (1 equals very low capability and 7 equals very high capability):

- Item3: Acquiring important digital technologies
- Item4: Identifying new digital opportunities
- Item5: Responding to digital transformation
- Item6: Mastering the state-of-the-art digital technologies
- Item7: Developing innovative products/service/process using digital technology

Firm size was measured with the number of employees. It was changed to natural logarithm (ln) due to the non-normality of employee size (see Hoque and James, 2000).

Exploratory factor analysis was used to examine the scales. It showed that the first item of marketing capability scale had a low communality, and relative low loading on the scale, thus, it was removed from the final scale. The internal consistency and reliability of the final marketing capability scale with eight items was excellent based on Nunnally's (1978) recommendations, Cronbach's alpha being .93.

The items of market orientation scale had sufficient factor loadings ranging from .56 to .79, and Cronbach's alpha indicated a good reliability (.86). Digital orientation scale had originally two sections. Exploratory factor analysis showed that all the items loaded on one single factor, and factor loadings were high on the scale (ranging from .84 to .94). Cronbach's alpha indicated high reliability ratio (.96).

### 3.3 Analysis

Table 1 presents the correlations among the variables. Marketing capability correlates with digital orientation (.562\*\*\*), market orientation (.558\*\*\*) and firm size (.273\*\*). Digital orientation and market orientation correlate with each other (.483\*\*\*). In the next phase, linear regression analysis was used. We followed the recommendations of Hilbe (2009) and Menard (2010) in checking the suitability for using regression analysis (normal distribution of response and error terms, no autocorrelation, no homoscedasticity, and no multicollinearity).

**Table 1:** Correlations, mean, minimum and maximum values of the study variables

	Mean (sd)	Min/Max	MARKETING CAPABILITY	DIGITAL ORIENTATION	MARKET ORIENTATION
MARKETING CAPABILITY	4.1 (1.2)	1.1/7.0	1		
DIGITAL ORIENTATION	4.8 (1.5)	1.0/7.0	.582***	1	
MARKET ORIENTATION	5.1 (1.3)	1.0/7.0	.558***	.485***	1
SIZE (ln)	1.9 (1.3)	.00/5.34	.273**	.140*	.263***
*p < .05. ** p < .01. *** p < .001					

Podsakoff et al (2003) reminds that common method bias can be a potential problem when data for both the predictor and criterion variable are obtained from the same person in the same measurement context using the same item context and similar item characteristics. Common method bias can be examined using Harman’s single factor test: all of the studied variables are loaded into an exploratory factor analysis and unrotated factor solution is examined. The basic assumption is that if a substantial amount of common method variance is present, either a single factor will emerge or one general factor will account for the majority of the covariance among the measures. Harman’s single factor test was used to control for the method bias. Exploratory factor analysis using principal axis factoring where the unrotated factor solution was examined, as recommended by Podsakoff et al (2003). Kaiser’s criterion for retention of factors was followed. The sample size seemed to be large enough for the factor analysis, at least based on the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO = .92). Factor analytic results indicated the existence of several factors with eigenvalues greater than 1.0. The first factor accounted for 25 percent of the variance. Since several factors, as opposed to one single factor, were identified and since the first factor did not account for the majority of the variance, a substantial amount of common method variance does not appear to be present.

### 4. Results

Linear regression analysis was used to examine the hypothesized relationships. In the first model, firm size, market orientation and digital orientation explain marketing capability. In the second model, the interaction terms of market orientation and size, and digital orientation and size were added in the model. Table 2 presents the results of linear regression analysis. Model A shows that all the independent variables in the model have positive and significant relationship with marketing capability, supporting hypothesis 1, 2 and 4. Firm size ( $\beta$  .140,  $p < .01$ ), market orientation ( $\beta$  .320,  $p < .001$ ) and digital orientation ( $\beta$  .398,  $p < .001$ ) all explain marketing capability significantly, digital orientation being the most significant variable in the model. The model explains 44 percent of the variance in marketing capability. In the model B, interaction terms were added. Results show, that the interaction term of digital orientation and size is significant in the model, thus, firm size moderates the effect of digital orientation on marketing capability supporting hypothesis 5. When firm size grows, the effect or digital orientation on marketing capability grows. However, hypothesis 3 is rejected. The interaction term of market orientation and size is not significant in the model. The whole model explains 45 percent of the variance in marketing capability.

**Table 2:** Results of the linear regression analysis

	Model A B (sd.error) Beta	Model B B (sd.error) Beta
Firm size	.675** (.281) $\beta$ .140	-.344 (234) $\beta$ -.350
Market orientation	.311*** (.052)	.300*** (.092)

	Model A B (sd.error) Beta	Model B B (sd.error) Beta
	$\beta$ .320	$\beta$ .309
Digital orientation	.337 *** (.050) $\beta$ .398	.185 * (.086) $\beta$ .218
Interaction Market orientation x size		.010 (.050) $\beta$ .058
Interaction Digital orientation x size		.090 * (.043) $\beta$ .514
Adjusted R <sup>2</sup>	.438	.451
F statistics	56.955***	36.293***
F change		3.380*
*p < .05. ** p < .01 *** p < .001		

## 5. Discussion and conclusions

The objective of this research was to examine the effects of market orientation and digital orientation on the marketing capability in SMEs, and test the moderating effect of firm size. Marketing capability is a valuable resource for a firm, and it has a role in firm performance and new product development. Thus, firms with high marketing capability test and introduce innovations to the market, outperforming firms with low marketing capability. Digitalization has however transformed the ways firms create value. Firms need a strong digital orientation combined with a strong market orientation to take advantage of the new opportunities of digital technologies.

The results of this study show that both of these strategic orientations explain superior performance in marketing capability, as they form the bases for new product development and market intelligence, and direct the marketing behaviors of a firm. This is important especially in SMEs who struggle with fewer resources. The results give support for the findings of Vorhies and Harker (2000), who found in their study that firms with high MO also had higher levels of marketing capability, especially relating to marketing research, product development, pricing, distribution, promotion and marketing management. The positive relationship between MO and marketing capability was also found by Joensuu-Salo et al (2018) in the context of internationalized SMEs and Aydi and Jarboui (2020) in relation to international new ventures. This suggests, that MO has a critical role in producing important information from customers and competitors to be used in marketing management in a firm.

Digital orientation has also an important role in creating marketing capability. SMEs with high digital orientation are ready to accept new digital technology and are constantly looking for opportunities to use digital technology in innovations (Khin and Ho 2019). Thus, SMEs with high digital orientation acquire important digital technologies and have the capability to master them. This has a positive effect for marketing capability, as digital technologies can be used in various areas of marketing management, i.e. sales, customer acquisition and engagement, and marketing research. Wang (2020) also showed that digital adoption creates digital marketing capabilities, which in turn contribute positively to performance. Drawing from the resource-based view, digital orientation can create rare resources in terms of capabilities. Eller et al (2020) also showed that digitalization is positively related SME resources, and through these resources, has a critical role in competitive advantage.

The results of this study show, that the impact of digital orientation is moderated by firm size; its effect on marketing capability increases when firm size grows. This indicates that digital orientation is even more important in larger SMEs. This is interesting, as Eller et al (2020) argue that SMEs lag behind larger firms when it comes to digitalization. This study shows that larger SMEs make more advantage of digital technologies in building marketing capability. It may be that larger SMEs have more customer segments and products to manage than smaller SMEs. Digital technologies offer ways to manage information and use it in different marketing processes.

Firm size has also an effect on marketing capability indicating that smaller firms struggle with resources. This supports the arguments of Ates et al (2013), who state that SMEs have fewer resources in respect to available time, employee skills, and financial resources. However, the findings of this research suggest that organizations' strategic orientations explain its capability, and equip SMEs to compete in the environment. Hence, both market

orientation and digital orientation are important factors building marketing capability and competitive advantage in SMEs.

There are some limitations in this study. The context of the study is Finnish SMEs in one region. Hence, the results can't be generalized. Future research could examine the roles of market orientation and digital orientation in marketing capability in different contexts, and compare the effects between large organizations and SMEs.

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