The Impact Of Market Orientation On Logic-Oriented Marketing Performance in Small And Medium-Sized Firms: The Mediation Role Of Knowledge Management

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ABSTRACT

This study examines the effect of market orientation on logic-oriented marketing performance concerning the mediating role of knowledge management. This research is descriptive-exploratory and a type of applied research. The statistical population in this research is managers, employees, and workers of the Manufacturing and industrial firms of agricultural machinery. The size of the statistical sample using Cochran’s formula, 196 people were selected as a sample. A questionnaire was used to collect data. Experts’ opinions were used to determine the validity of the questionnaire. The structural equation model method and SPSS and Smart PLS 4 software were used for data analysis. All the assumptions of this research were confirmed and the results of this research showed that the most positive impact is related to market orientation on knowledge management. Also, knowledge management has the lowest impact on logic-oriented marketing performance. According to the results, knowledge management has been able to play a positive and meaningful role in mediation. As far as we know, such this research has not been done so far. This paper paves the way for further research on the impact of market orientation and knowledge management on logic-oriented marketing performance and can help senior managers in this field.

Introduction

Today, we see that successful firms show a great desire for globalization and this approach has created high competitive conditions. In this respect, one of these tools that always helps the development of firms is marketing. We know that in the unstable conditions of the global economy and the growth of technology and Innovation, for example, the development and application of artificial intelligence and various types of robots, the development of digital marketing, and similar types of global risks that we have witnessed high bankruptcy of firms, such as the global outbreak of Covid-19, doing marketing with old and fixed methods can bring serious risks and costs to firms. This makes firms need a rational marketing plan to achieve a competitive advantage and proper performance, which is something we desperately need in today’s smart era. This is why logic-oriented marketing performance (LOMP) reviews can be important. To achieve this goal, a firm must pay attention to several points, one of which is to pay attention to market orientation (MO) and the institutionalization of this concept in the firm.

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The concept of market orientation was created from the operationalization of the marketing concept by the specific activities of the firm (Kohli and Jaworski, 1990). Market orientation means the regular collection, analysis, and use of customer and competitor information, both current and potential, in order to develop the market in order to recognize, understand, create, select, modify, and implement the appropriate strategy for the goals and achieve suitable performance (Hunt and Morgan, 1995; Kmiecik, and Michna, 2012). In this respect, market-oriented companies focus on the three factors of creating, disseminating, and quickly responding to market intelligence (real information from the external environment of the firm and business) at the level of their organization in order to achieve the appropriate competitive advantage level (Kohli and Jaworski, 1990) and quickly adapt to new market opportunities (Ismail et al., 2023) to continuously offer new products and services to achieve superior performance (Cho and Lee, 2020). However, researchers believe that in addition to market orientation, other orientations, and strategies can also lead to competitive advantage and proper firm performance (e.g., Fritz, 1996; Holt and Kitchen, 2001; Noble et al., 2002; Grinstein, 2008).

While the effects of market orientation and knowledge management on marketing performance have been the focus of researchers, there is little research on the application of logic and there is not enough knowledge about it. We need two views (1) a logical view that creates a logical orientation and attention and (2) a process view that can combine the logical view in a process-oriented way and solve problems and implement the strategy. According to this, in this study, we pay attention to the perspective of combining marketing operationalization with logic to form a process, which means that our variables can play an influential role in the process that justifies the logic of our marketing activity which can achieve development and high performance in the agricultural machinery manufacturing industry faster than in the past. We consider attention and focus on logic as the basis of marketing activities, and we combine logic in marketing operations and use marketing activities as a logic-oriented process. Therefore, in our definition of market orientation, we incorporate logic into marketing operations pay attention to it and use it as a logic-oriented process. We are facing a rational behavior in marketing. We want to build this logical marketing behavior into a logical process so that the influencing variables together improve marketing performance and how this process can be flexible.

In this respect, Along with MO, knowledge management (KM), can play an essential role in the business process, and according to Wang (2009), "knowledge management is viewed as a way for managers to cope with the heightened complexity of an increasingly global marketplace." One of the definitions of KM is that it includes identifying and analyzing existing and required knowledge and managing its subsequent actions to develop knowledge assets to achieve individual and/or organizational goals (Macintosh, 1997; Almansoori et al., 2020). When firms do not use knowledge
management or do not use it correctly or even use it in a traditional way, they will not have enough preparation to adapt to new conditions such as competitive conditions or environmental and economic changes. It can be an essential challenge for firms and expose them to huge losses.

For the formation of KM, enabling factors including learning, leadership, technological infrastructure, organizational structure, and culture are needed (Stankosky and Baldanza, 2001) to be able to use the market-based knowledge that resides in customers, Competitors, channel members, and suppliers and to use in a managed process and benefit from knowledge management (Werr et al., 2009; Kamya et al., 2010).

In this study, from this point of view, we look at MO and KM, which can be a strategy based on logic and successful in influencing the performance of logic-based marketing, which means that a combination of these two variables and their effect together on the performance of logic-based marketing It is in line with the logical placement of variables in our business and also the rationality of the firm's marketing decisions. Therefore, it fills the research gap that is lacking in this field. This research examines the effect of market orientation on logic-oriented marketing performance with the mediating role of knowledge management in the marketing activities of small and medium-sized manufacturers of industrial agricultural machinery around the world.

Literature reviews
Market Orientation

Market orientation is a process by which a firm can reach new opportunities in its strategy and analyze its external environment, including considering competitors, and a competitive advantage by recognizing current and future consumer needs and creating value for itself (Hakim and Wijaya, 2022). Also, Kohli and Jaworski (1990) state that market orientation consists of three pillars, that is, customer orientation, competitor orientation, and coordination between functions. Customer orientation deals with understanding customers' goals and needs, and as a result, provides value creation for customers, as well as the ability to design products and services that meet those needs and preferences. Competition orientation requires knowing about Competitors (both potential and existing), their movement and strategy, performance in the market, and the ability to respond to competitors' activities and strategies. Finally, functional coordination is the strategic use of organizational resources in coordination between functions or different departments in a firm and the level of information sharing between departments. Most authors agree that all three components are essential and provide a comprehensive view of firms' ability to collect and use. In market orientation, the criterion is the highest level of achieving superior value for customers. So that all employees participate in creating superior value for customers according to their abilities (Narver and Slater, 1998)
Knowledge Management

Knowledge is considered the most valuable asset of firms in a competitive economy (Archer-Brown and Kietzmann, 2018; Alghamdi and Sohaib, 2023). After the transfer of knowledge, new knowledge and skills increase so that it can increase the growth in the person himself and as a result, the performance of the firm increases (Iqbal et al., 2019; Nursal et al., 2022). Knowledge consists of 2 types, explicit and implicit. Explicit knowledge is formalized and written knowledge, for example, expressed in the form of data, scientific formulas, specifications, manuals, or textbooks. Tacit knowledge is action-based and experiences and is unformulated. This kind of knowledge is highly personal and hard to transfer (Polanyi, 1966; Gao and Clarke, 2008). The existence of competitive conditions and environmental changes such as increasing globalization of competition, speed of information and knowledge aging, dynamics of both product and process innovations, and competition through buyer markets, and the desire of firms to have a competitive advantage leading to the need to transform knowledge into knowledge management (Barclay and Murray, 1997; Picot, 1998). KM is a process through which we can use a set of methods to create, disseminate, or effectively manage an organization's knowledge (Kohli, and Jaworski, 1990). The research that researchers have done in the past about knowledge management indicates that this concept is not outdated. For example, a 2001 poll by Reuters shows that 90 percent of firms that use a knowledge management solution will benefit from its benefits of Better decision-making and 81 percent say they have noticed an increase in productivity (Malhotra, 2001; Serban and Luan, 2002). “Knowledge management processes maximize the value of knowledge assets through collaboration, discussions, and knowledge sharing. The process includes generation, codification (making tacit knowledge explicit in the form of databases, rules, and procedures), application, storing, mapping, sharing, and transfer. Together these processes can be used to manage and grow an organization’s intellectual” (Gonjal, 2005).

In this context, we focused on the orientation and application of knowledge management in a way that is aligned with the logic-oriented marketing function, and we used the relation of market-oriented strategy as another logical variable beside us to create a competitiveness Advantage in the smart market and justification of logic-oriented marketing performance.

Logic-Oriented Marketing Performance

Logics describe the sense making activities of managers which help explain the disparate ways in which marketing managers approach similar marketing problems (Tollin and Jones, 2009). Capabilities develop when Staff repeatedly apply their knowledge and skills to combine and transform resources in ways that contribute to achieving the firm’s goals (Mahoney and Pandian, 1992; Collis, 1995; Morgan, 2012). Within the firm, professionals at the lowest level of the firm structure use their marketing
knowledge to solve marketing-related problems that the firm faces. The marketing knowledge of a particular person can be combined in contact with the knowledge of other specialists in groups and work teams. (Grant, 1996b; Morgan, 2012). Because of this, it can affect marketing performance. Marketing performance is herein defined as: “...the effectiveness and efficiency of an organization’s marketing activities with regard to market-related goals, such as revenues, growth, and market share...” (Homburg, 2007; Gao, 2010). Efficiency is concerned with doing things right. Thus, efficiency is concerned with the outcomes of business programs in relation to the resources employed in implementing them (Walker and Ruekert, 1987). More specifically, efficiency concerns the relationship between the results of marketing (marketing output) to the effort and resources put into marketing (marketing input), with the aim of maximizing the former relative to the latter (Bonoma and Clark, 1988).

In a more complete explanation, we can say that financial indicators such as business sales growth, profitability, investment, sales, and net worth are used to evaluate the performance of target financial indicators. Also, indicators such as market share, new number of items introduced to the market, product quality, marketing activities, and technological activities are used in mental performance (Ausat et al., 2022). In addition, customer satisfaction (non-financial) and brand equity (financial) can be added to it, which is caused by marketing activities (e.g., Clark and Ambler, 2001). Definitions that can describe the performance of rational marketing are rare. In this study, we propose the following formula, which is not computational and inferential, but descriptive. The criterion of our rationalism in this field is the activities and decisions of managers and employees in the face of marketing problems and decisions that are made using correct knowledge in a predetermined and non-random process in order to achieve optimal performance from the appropriate use of variables on use their proper place in a business model or process.

The Empirical Literature Research

Saif Elahi (2017), investigated the effect of market orientation and managerial stability on the financial performance of companies. This research is descriptive and correlational and its purpose is to investigate the effect of market orientation and management stability on the financial performance of companies active in the Tehran Stock Exchange. The statistical population is all the companies admitted to the Tehran Stock Exchange. The investigated sample includes 81 companies that were selected by systematic elimination method and field information about market orientation was collected through a questionnaire. In order to measure managerial stability and financial performance, financial information of companies and multiple regression tests under Eviews and SPSS software are used in data analysis and model analysis. The results of the research showed that market orientation and inter-departmental coordination,
competitor orientation, and customer orientation have a positive and significant effect on the financial performance of companies. Also, management stability has a positive and significant effect on the financial performance of companies.

Hu, (2010), the effect of market orientation on knowledge management: an empirical study in China. The purpose of this article is to examine the relationship between the two strategies of market orientation and knowledge management. By examining the components of these two constructs, this study seeks to identify the key components of market orientation that are key predictors for knowledge management. Correlation analysis and multiple regression analysis were conducted on data from a survey of companies in China. Empirical findings show that both customer and competitor orientation, along with cross-functional coordination, are important drivers of different dimensions of a firm's knowledge management capabilities. Implications of the findings and limitations as well as directions for future research are also discussed.

Okello and Lota, (2022), Effects of Market Orientation on Farmer Resilience and Dairy Farm Performance in Emerging Economies. The focal point of this study is to determine the effect of market orientation on farm performance, which is moderated by farmers' resilience to fluctuations. The dairy sector of an emerging country, Kenya is one of the most vibrant dairy-producing counties in the country, Murenga County. Using data from 682 respondents, this study examined the interrelationships between market orientation, farmer flexibility, and farm performance. The results of the analysis show that there is a significant relationship between all dimensions of market orientation (competition, customer orientation, and inter-functional coordination) with farmer resilience and farm performance, except for the non-significant relationship between customer orientation and farm performance, the only significant relationship between It was the coordination between yield and farm performance that showed a negative correlation. Findings related to the moderating effects of resilience on the market orientation-farm performance relationship report a positive and significant effect. Because this study represents the first attempt to examine the links between the three concepts collectively, it provides important insights for understanding.

Meylananda et al., (2021), analysis of market orientation and knowledge management on improving innovation and business performance. Micro, small, and medium-sized companies are a form of business that has an important role in contributing to income and helping to increase the regional economy. The purpose of this study is to explain the factors that affect innovation and business performance, namely, customer orientation, competitiveness, technology orientation, and knowledge management. In determining the sample of this research, using the non-probability analysis method with saturation sampling technique, the sampling method was done by including all members as the research sample. Therefore, the respondents identified are
all members who have joined this type of business. Also, by using Slovin's formula with an error rate of 5%, the sample of AMOS and SPSS study of 142 respondents was obtained. To analyze it using the path analysis tool designed by the programs. The results of this study have seven implications, which are customer orientation toward innovation and customer orientation toward business performance. Therefore, it can be concluded that this study shows the role of strategic orientation that requires increasing innovation in improving business performance.

Limsangpetch et al., (2022), Modeling knowledge management in business performance through the mediating role of organizational innovation among IT employees in Bangkok, Thailand. The research is of a descriptive-correlation type and the purpose of this research is to investigate the impact of knowledge management modeling on organizational innovation and then the impact of organizational innovation on business performance. The statistical population is 200 employees from the information technology employees of Bangkok, Thailand companies, and the sampling is from this number. It was done online. The results show that there is a significant positive relationship between knowledge management, organizational innovation, and performance.

Tollin and Jones, (2009), With the objective of marketing logic for competitive advantage. This paper develops a framework for analyzing managerial decision-making. Applied research a Grounded theory technique and 15 in-depth personal interviews were conducted with senior managers in marketing (CME) in 3 financial services companies, 3 telecommunications and information technology companies, and 9 pharmaceutical companies. The results suggest 4 main logics: performance, communication, stakeholders, and innovation. These are then defined in terms of management and marketing capabilities. Concepts for Marketing and research managers are discussed further.

Darroch and McNaughton, (2003), This study examine the impact of knowledge and innovation management and its relationship with market orientation on the financial performance of companies Knowledge-management orientation is positioned in this paper as a distinctive capability that supports the creation of sustainable competitive advantages such as innovation. Using an instrument to measure a knowledge-management orientation, which is grounded in Kohli, Jaworski, and Kumar's work on market orientation, this paper identifies four clusters of firms based on knowledge-management practices that exist within the New Zealand business environment. The clusters are then described according to their innovation and financial performance profiles. The study finds that firms with a knowledge-management orientation outperformed those classified as market-oriented. The study also shows a market orientation to be a subset of a knowledge-management orientation.
Modi, P. (2014). It examines market orientation in non-profit organizations with regard to lack of resources performance and innovation. This research proposes links between market orientation, innovativeness, resource scarcity, funding source, and performance-related variables in the nonprofit context. Based on the empirical data from 579 nonprofit organizations in India engaged in service delivery to beneficiaries, the study shows that market orientation in nonprofit organizations improves peer reputation, beneficiary satisfaction, and innovativeness. However, market orientation alone is not enough. Innovativeness is the missing link that mediates the market orientation and effectiveness relationship. The study shows that market orientation does not help in attracting resources in the Indian context, a finding that runs counter to the evidence from previous studies carried out in the context of developed countries. The study finds that resource scarcity and funding sources do not moderate the market orientation and performance relationship. The implications for practitioners are discussed.

Wang, and Hult, and Ketchen and Ahmed, (2009). In this study, the perspectives based on the resources and knowledge of the firm as well as the research on strategic sensemaking were used to introduce the concept of "knowledge management orientation" and examine the relationships between knowledge management orientation, market orientation, and company Performance. Using data from 213 British companies, it was found that organizational memory, knowledge sharing, knowledge absorption, and knowledge acceptance were the first-order indicators of the higher-order construct to which knowledge management orientation was attached, which in turn had a positive association. With market orientation as an important point, it was found that market orientation mediates the relationship between knowledge management orientation on the one hand and subjective and objective performance of the company on the other hand. The results show that a knowledge management orientation can increase performance, but a market orientation is required to realize such benefits.

Gao, Y. (2010). With the aim of measuring marketing performance, in this study, marketing professionals have been asked to show the contribution of marketing to the company's performance. A better understanding of current research in marketing performance can better enable marketing managers to justify their costs. In light of the above, it was decided to (1) review the current state of marketing performance studies, and (2) develop a comprehensive yet concise model for marketing performance measurement. To begin with, the main terms used in the marketing function are clarified. Then, a detailed review of marketing performance studies is provided. Then an integrated model for measuring marketing performance (MMMP) is proposed. Finally, some conclusions are drawn and some directions for future research are suggested.

Hypotheses
In the theoretical framework of this research, there is a mediating variable that is between an independent variable and a dependent variable. In this case, market orientation as an independent variable, business performance as a dependent variable, and learning orientation as a mediating variable were investigated and analyzed. In the following, the hypotheses are formulated as follows:

1. Market orientation has an effect on logic-oriented marketing performance.
2. Market orientation has an effect on knowledge management.
3. Knowledge management has an effect on logic-oriented marketing performance.
4. Market orientation has an effect on Logic-oriented marketing performance mediated by knowledge management.

Method

This research is descriptive-exploratory. Also, since the findings of this research can be used practically, it is a type of applied research. The statistical population in this research consists of employees and workers of agricultural machinery manufacturing companies around the world. The sample size was selected using Cochran's formula including 196 people by simple random sampling method. Because the results of this research have nothing to do with the educational and organizational status of people. To collect data, the questionnaire with a measured five-point Likert scale (1 = completely disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = completely agree) was used and measured. In order to determine the Content validity of the questionnaire, experts' opinions were used. In order to ensure reliability, 21 questionnaires were selected and distributed among the members, also The validity and reliability of the questionnaire were calculated by Cronbach's alpha method For all variables, which was higher than 0.7, which indicates the internal consistency of the questionnaire (Table 1).

Table 1 Reliability Statistics of research with Cronbach’s alpha

<table>
<thead>
<tr>
<th>Variables</th>
<th>Cronbach’s alpha</th>
<th>Number of questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>The questionnaire</td>
<td>0.891</td>
<td>21</td>
</tr>
</tbody>
</table>

Source: own study

Data analysis

In data analysis, the Kolmogorov-Smirnov method is used to determine the normality or non-normality of the data distribution. The test results of this method are given in Table 2, which shows that all variables are normal.

Table 2 The result of the data distribution test

<table>
<thead>
<tr>
<th>Variables</th>
<th>Sig</th>
<th>Alpha level</th>
<th>Kolmogorov statistics</th>
<th>Result</th>
</tr>
</thead>
</table>

Source: own study
Test of research hypotheses and construct validity

Cronbach's alpha should be higher than 0.7 and composite reliability (CR) should be higher than 0.7. Also, Average Variance Extracted (AVE) values higher than 0.5 are acceptable (Vinzi et al., 2010). According to Table 3, it can be seen that the internal stability of the optimal measurement models and the reliability of the research are favorable. And, in the model test, AVE values have confirmed the convergent validity of the research conceptual model.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Cronbach’s alpha</th>
<th>Average Variance Extracted</th>
<th>Combined reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge management</td>
<td>0.89</td>
<td>0.663</td>
<td>0.920</td>
</tr>
<tr>
<td>Logic-oriented marketing performance</td>
<td>0.84</td>
<td>0.587</td>
<td>0.887</td>
</tr>
<tr>
<td>Market orientation</td>
<td>0.85</td>
<td>0.592</td>
<td>0.894</td>
</tr>
</tbody>
</table>

Source: own study

Hypotheses analysis and path analysis were done by using SEM-PLS model analysis. Figure 1 and Figure 2 respectively show the structural model of the hypothesis in the standard and significant mode. According to Chin, (1998) $R^2$ values of 0.19, 0.33, and 0.67 are considered weak, medium, and strong values, respectively. Therefore, according to $R^2$ values, the results mean that the independent variable of market orientation was able to explain 47% of the changes in the mediating variable of knowledge management and 86% of the changes in the dependent variable of logic-oriented marketing performance. Also, according to path coefficients, the greatest influence is related to the relationship between market orientation on knowledge management, and then knowledge management on logic-oriented marketing performance.
performance, and then the lowest level of influence is related to a market orientation on logic-oriented marketing performance.

Source: own study

Figure 1 Structural model of Latent variables in standard estimation

Source: own study

Figure 2 Structural model of Latent variables in T-value estimation
According to Table 4, the research findings showed that T-values for all latent variables were calculated to be more than 1.96, which confirms that the research hypotheses are significant. The relationship between market orientation and logic-oriented marketing performance is significant in the amount of 9/433.

The relationship between the market orientation variable and knowledge management was significant in the amount of 15/913. The relationship between knowledge management and logic-oriented marketing performance was significant in the amount of 11/777. The role of knowledge management as a mediator of market orientation and logic-oriented marketing performance was significant in the amount of 9/215.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path coefficient</th>
<th>Standard deviation</th>
<th>T-values</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Orientation --&gt; Logic-Oriented Marketing Performance.</td>
<td>0.443</td>
<td>0.047</td>
<td>9.433</td>
<td>Supported</td>
</tr>
<tr>
<td>Market Orientation --&gt; Knowledge Management.</td>
<td>0.687</td>
<td>0.043</td>
<td>15.913</td>
<td>Supported</td>
</tr>
<tr>
<td>Knowledge Management --&gt; Logic-Oriented Marketing Performance.</td>
<td>0.564</td>
<td>0.050</td>
<td>11.777</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Source: own study

**Conclusion and Recommendations**

According to the hypothesis test, the results of which are presented in Table 4, it can be concluded that in the first hypothesis, market orientation with a Path coefficient of 0.687 has an effect on knowledge management, and with the p-value 0.000 < 0.05, the assumptions are significant. Market orientation with a Path coefficient of 0.443 has an effect on logic-oriented marketing performance, and with the p-value 0.000 < 0.05, the assumptions are significant. Knowledge management with a Path coefficient of 0.564 has an effect on logic-oriented marketing performance, and with the p-value 0.000 < 0.05, the assumptions are significant.

Industry managers can collect and review the needs and preferences of their customers and based on that, modify or adjust the appropriate strategy for customer satisfaction and strengthening and success of the company. In order to have a continuous performance, the senior managers of industrial companies can focus on strengthening the market orientation in the company and paying continuous attention to it, taking into account intermediary roles such as knowledge management.
and the effects it has on the company's logical marketing performance, and create value for the customer and also for the firm.

The senior managers of the company should try to be customer-oriented and succeed in competitive conditions by increasing the quality of goods and after-sales services and reducing costs in the business process and supply chain so that it is worth the price. For example, from the financial side by reducing administrative costs and from the time cost side reducing time wastage for the company and customers leads to more customer satisfaction and also increases their profitability.

Firm managers should try to increase the amount of assistance to salespeople and company consultants by strengthening the coordination of company employees with marketers and sales representatives and facilitating administrative processes.

Firm managers should analyze and measure by evaluating their performance in achieving their goals in applying knowledge management and market orientation, and if necessary, use the information and knowledge they have obtained as a result of market orientation in applying and managing new knowledge.

References


