

MARKET ORIENTATION AND STRATEGIC BEHAVIOUR AT HIGH-TECH COMPANIES

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Introduction

Market orientation is an approach based on marketing conception, which was introduced by [16]. Although the principle of market orientation has been known for sixty years, detailed analysis only began at the beginning of the 1990s. In 1990, the Journal of Marketing published the results of two studies sponsored by the Marketing Science Institute. The studies were made by [35] and Narver and Slater [43]. These two pieces of research had a substantial impact on the formation of a new approach to marketing and subsequent studies on market orientation and took the initial steps towards creating a definition of market orientation. The definition by Kohli and Jaworski was totally different to the one by Narver and Slater. The definition by Kohli and Jaworski perceives market orientation as an implementation, namely as an instrument for strategic decision-making. Alternatively, the definition by Narver and Slater perceives market orientation from a business learning and corporate culture point of view.

The objective of this paper is to assess the relationships between market orientation and strategic behavior at high-tech companies. It begins with a review of currently relevant literature and followed by an outline of our "New Method" for measuring market orientation at high-tech companies. Results from our research are illustrated in the findings section. The paper concludes with a discussion on research contributions, managerial implications and suggestions for further research.

1. Literature Review

There have been many studies dealing with market orientation published. Furthermore, these studies may be divided into four aims: The first is to find the best definition of market

orientation; the second aim is to prepare the optimum method of measuring market orientation; the third is to find how best to implement market orientation in a company; the final aim is to find all factors which are influenced by or have an influence on market orientation. However, some of the previously published studies contain different approaches. All definitions of market orientation are divided into six stages: the decision process (e.g. [50], [23], [24]); information gathering (e.g. [35], [36], [33], [2], [62]); corporate culture (e.g. [43], [6], [27]); strategic management (e.g. [49], [11], [42], [45], [28]); customer orientation (e.g. [14], [51], [15]; and stakeholder orientation (e.g. [30], [17], [3], [54]). The method for measuring market orientation was prepared in accordance with this approach.

What individual schools of thought agree on is that market orientation contains the acquisition and distribution of market information. Most available studies more or less agree that customer orientation, competitor orientation and inter-functional coordination are the most important elements of market orientation. Although customers and competitors represent the most important stakeholders, the range of stakeholders should not be restricted to just these two groups. Other stakeholders currently extend the number of market orientation elements. We can therefore define market orientation as a means which enables managers to focus on external and internal elements and activities, which influence the activity of an organization leading to performance increase. More than ninety studies have confirmed the positive impact of market orientation on business performance. Market orientation has a positive relationship with product quality, which in turn is positively related to new product performance. [48]

Measurement of market orientation is an easy tool for top managers. The chosen method for the measuring of market orientation must: help managers to detect all elements of market orientation; find out if a company is oriented on all elements of market orientation; ascertain whether a company has all necessary information and knowledge; and whether a company can quickly implement the information gathered into the company strategy and monitor the attainment of goals.

1.1 Market Orientation and Strategic Behaviour

The present conception of definitions (see above) shows that market orientation is perceived as a method for gaining important information useful for the decision-making process. In addition, it helps to measure how the information is distributed within a company. Moreover, market orientation is able to answer a lot of questions and can help to point out some company weaknesses and possible threats as well. It is necessary to know the barriers connected with implementation of market orientation. The information gathered, when well evaluated, can be helpful in making the correct management decision. For this reason, researchers try to define the barriers of market orientation implementation. These barriers are divided into barriers of internal environment, barriers of branch environment and barriers of external environment.

Elements of external environment may be very difficult to influence for companies. Politics, the economy and technologies are named as the main elements of the external environment. Economic systems connected with barriers are economic cycles, an open economy and economic development. Technology is the second significant part of influence in the collection and dissemination of market orientation. Companies have to be more proactive in their strategic approach. Government connected barriers are restrictions, protections, political regimes and complicated and wide-ranging rules. [56]

The elements of branch environment are end customers, distributors, competitors and suppliers. They play the main role in branch environment. The main barriers connected with elements of branch environment are: quality and quantity of branch stakeholders; high quantity and high quality of final customers; distributors

and suppliers of interest to a company. A high quantity and quality of competitors also represent barriers for a company. [55]

The internal environment of market orientation may be changed by a company. These barriers can be divided into two main areas. The first area involves barriers connected with top management and its personality, skills, knowledge and experience. [28] emphasises that a manager's knowledge, skills and commitment may be one of the main barriers to market orientation. However, it is very difficult to measure the right quantity and quality of knowledge, skills and commitment and compare those with that of others. Every company and also every situation need specific skills and commitment. The most important thing is that managers are guided as to the implementation of market orientation. The managers should want to gain new information and knowledge. [30] stressed that managers play the main role in implementing of market orientation conception. If the managers do not believe that market orientation can help a company, the conception of market orientation is not enforceable. These barriers are connected only with members of top management and can be changed only by top management. Generally, a change in thinking or attitude is often very difficult. *Sustaining the organizational effectiveness is an important factor for organizational development* [1]. The second part of internal barriers is connected with all employees of a company. The situation in a company can be changed only by mutual cooperation between top management and employees. There are recognized barriers connected with employees and corporate culture. Employees are the most important asset of a company, but an employee can create barriers to market orientation, e.g. interdepartmental conflict. The goal of a company should be to have highly qualified and satisfied employees with a good sense of teamwork. They also have to be more flexible with less formalization, centralization and departmentalization. Corporate culture influences the system, structure, procedure and communication in a company. Corporate culture has an impact on employees [55]. Managers, employees and corporate culture introduce the core of inter-functional coordination.

Each significant element for market orientation influences the core of strategic management

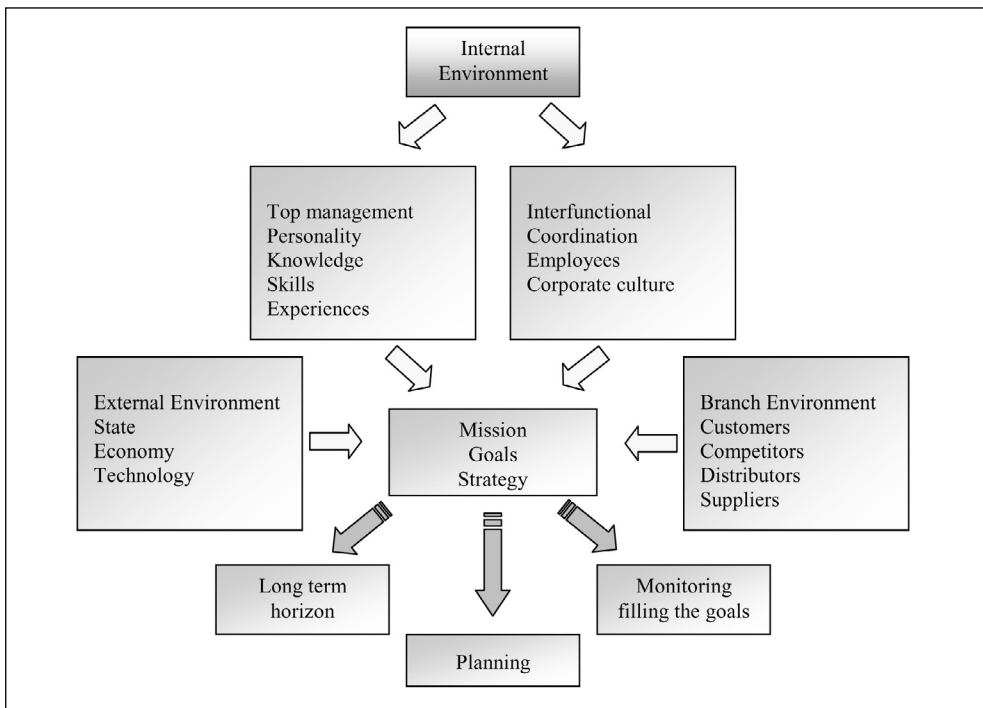
and strategic decision-making. Determination of mission, choice of goals and selection of the best strategy are the core of this strategy management. It is necessary to determine a clear and feasible conception of its mission. Following this, it is possible to determine goals and to choose the best strategy to fulfil them. Company activities will then be done more systematically and the company should be more successful. A success and ability based conception represents an approach to viewing the behavior of the company from the point of success, strategy, competitiveness and competition. [63]

Mission, goals and strategy influence every activity in a company and have a major influence on the creation of relationships with all stakeholders. Mission, goals and strategy are significant instruments for shareholders. Shareholders can find out if the company wants to stay for a long time on the market according to their mission and goals. [30] mentioned that companies without mission, goals and strategy

do not apply strategic management which in turn leads to only short-term ambitions. These companies want to make money and then leave their position on the market. Mission, goals and strategy influence managers during planning. To have perfectly prepared plans means that a company knows what information is needed, which activities are necessary and how much time the activity consumes and if it is perfectly under control. A high quality planning system has the potential to increase business performance. [47]

The monitoring of goal attainment contributes to verification of the choice of strategy and fulfilment of the mission. New information and market opportunities can trigger the need for goal alteration, a situation to which managers must react accordingly. The monitoring of goal attainment closes the cycle of strategic management. As shown in Figure 1, we describe the influence of all elements of market orientation on strategic behaviour.

Fig. 1: Influence of market orientation elements on strategic behaviour



Source: authors

Top company managers need to not only attain the most important information, but also to recognize all significant information and implement it into their strategy decisions. Simultaneously, top managers have to continuously control company strategy. Market orientation also helps to find out this useful information.

The aim of market orientation is the same as that of strategic management. The goal is to be successful. Market orientation provides important information for strategy decision-making. Market orientation can provide new outlooks on a company from every manager or every worker. Managers have the capacity to monitor and influence situations throughout the decision-making process. Market orientation involves all substantial elements and shows the interconnection of these elements. For this reason, market orientation can significantly contribute to the decision-making process.

2. Research Methodology

We have prepared a "New Method" for measuring market orientation through analysis of some of the failings of presently utilised methods. For this method the factors, which were determined in the antecedent analysis of all above-mentioned problematic areas of market orientation, were also considered as well. Furthermore, we tried to eliminate the failings criticized in other methods.

The model of the New Method was constructed after analysis of other 25 methods in 2005 by Tomášková. The methods for measuring market orientation were obtained from [35], [43], [33], [40], [14], [13], [22], [8], [21], [46], [38], [25], [15], [37], [44], [6], [10], [31], [19], [26], [34], [60], [20], [59], [3]. Some of these methods are in line with other methods, e.g. methods constructed by [60] and [20]. Some of these methods are based only on one element of market orientation, e.g. the method by [26] was based only on customers. Furthermore, some of these methods were limited by their construction methodology, e.g. MARKOR by [36] and MKTOR by [43] leaves aside Churchill methodology.

Based on relevant methods [35], [22], [38], [19], [34], [3] items for measuring market orientation were created. The New Method involves items related to external environment, final customers' orientation, distributors' orientation,

competitors' orientation, and suppliers' orientation. They reflect knowledge of the decision-making process and inter-functional coordination. The structured items were designed for measurement of market orientation. These items were rated on seven-point Likert-type scales, where 1 = highly disagree and 7 = highly agree. The New Method includes items of external environment (4 items), items of branch environment (24 items) and items of internal environment elements of a company (24 items).

Cronbach alpha was used for measuring the validity of the New Method. The final value of Cronbach alpha for the entire measurement of the New Method of market orientation is 0.893. It means the New Method can be used for the measurement of market orientation.

3. Hypotheses

Six main hypotheses were included in the research project. The hypotheses related to the aim of this paper are H1, H2 and H3.

H1: High-tech companies are more oriented on their customers than on competitors.

H1a: Customer orientation has no influence on business performance.

H1b: Competition orientation has no influence on business performance.

The relationship between market orientation and final customers appears in all relevant studies. Moreover some studies focused on one element of market orientation, namely only final customers [21], [26], [34] or [60]. Customers are seen as a basic precondition of market orientation. Generally, company reaction to customer needs and wishes is proof of market orientation.

Competition is the most often mentioned element of market orientation. The findings [10] show that competition orientation achieves higher correlation in the relationship with business performance than customer orientation. Based on [31], only customer orientation influences business performance. On the contrary, [32] proved that business performance is equally influenced by customer orientation and competition orientation. Although studies show different findings, it is a commonly held belief that customer orientation and competition orientation is the most important element of market orientation.

H2: Supplier orientation achieves the lowest value from all evaluation elements.

Not long ago supplier orientation was included in the models of market orientation with the help of theoretical discussions held by [18] and [3]. The use of suppliers as an important element of market orientation in practical research was confirmed by the research project of [54], based on research conducted by companies working in power engineering companies in the Czech Republic. According to results from the above-mentioned research, supplier orientation is an important element of market orientation, but in relation to other elements, its importance has the lowest level.

Hypothesis connected market orientation with strategic behavior is H3.

H3: High-tech companies with high levels of important information attainment and implementation into the decision-making process increase business performance more than companies with a low level of important information attainment and implementation into the decision-making process. Reasons for creating this hypothesis are mentioned above.

4. Results

The research project was titled "Research on the implementation of market orientation at High-tech Companies" and four people were included in our research team. The New Method was used for measurement of market orientation.

The research project involved data obtained during the first half of 2009. The sample consisted of companies classified as High-tech companies according to the CZ NACE codes utilized by e.g. The Ministry of Industry and Trade of the Czech Republic. Only manufacturing companies operating mainly in the mechanical and electric engineering sectors (NACE codes 3x xxx) were selected for the research project. The selection was made using the database of the Kompas Czech Republic Company. The items were intended for the evaluation of top managers from high-tech companies.

Orientation of high-tech companies was mostly motivated by the effort to ascribe the companies with some special characteristics, e.g. production of high value-added products, highly qualified employees, application of the

latest scientific findings and technical and technological information. High-tech products should have high quality and innovative value. They can also cause many important changes in the product life cycle. Finally, they are typical for their high investments in R&D. Additionally, high-tech products are very closely connected to biotechnology, material technology, information technology, solar and nuclear energy, etc. Many governments and private companies have invested a lot of money in the above-mentioned fields to achieve some progress.

A total of 450 companies were included in the research. The high-tech companies were contacted over the phone and asked to fill in a web-based questionnaire. The complete database was analysed by using standard statistical methods as well as other sophisticated techniques. Incomplete questionnaires were discarded. Data from 88 companies was used for further processing, which is an overall response rate of 19.6%. The data was obtained from the research and was divided into two main groups for this section. The first group of data was focused on research of market orientation at high-tech companies generally. The second was focused on strategic behaviour at high-tech companies.

4.1 Market Orientation at High-Tech Companies

This part involves the main results from all of the research. Table 1 reports means and standard deviations for elements of measurement of market orientation.

The item inter-functional coordination (5.62) reached the highest value in our research. The above mentioned results confirm that inter-functional coordination is very important for high-tech companies. Standard deviation for distributors reached a very high value (2.12) in comparison with others. It shows important discrepancies among answers between respondents.

Second position was obtained by the final customers item (5.42). Reflecting knowledge of the decision-making process was in third highest position (5.26). On the contrary, respondents indicated the items with the lowest value were suppliers (4.74), external environment (4.76) and competitors (4.77). Surprisingly, the three lowest items achieved a very similar value, almost exactly the same.

Tab. 1: Means and standard deviations of market orientation degree by individual elements of measurement. (0 – low value, 7 – high value)

Elements of measurement of market orientation	Mean	SD
I. External environment (4 items)	4.76	1.60
II. A Final customers (7items)	5.42	1.28
II. B Competitors (5 items)	4.82	1.46
II. C Distributors (7 items)	5.06	2.12
II. D Suppliers (5 items)	4.74	1.51
III. A Reflecting knowledge of the decision-making process (5)	5.26	1.25
III. B Inter-functional coordination (14)	5.62	1.19

Source: authors

Tab. 2: Differences in customer orientation and competitor orientation

Element	Low value of MO (No. answers)	Medium value of MO (No. answers)	High value of MO (No. answers)
Customer orientation	0	16	72
Competitor orientation	0	40	48
Distributor orientation*	4	16	55
Supplier orientation	3	42	43

*13 respondents noted that they do not have distributors

Source: authors

Results from the research show that the importance of elements of branch environment is different. High-tech companies perceive customers, competitors, distributors and suppliers differently. As shown in Table 2, customer orientation reached a higher value at market orientation than competitor orientation.

Further detailed analysis confirmed the hypothesis H1. High-tech companies have higher customer orientation than competitor orientation. The reason could be that many high-tech companies develop and produce specific products according to customer needs

and wishes. Additionally, they often use special protection for their products via patents and marks. For this reason, competitor orientation is usually not so crucial. Hypothesis H1 was confirmed.

Analysis of the influence of customer orientation and competition orientation on business performance was also conducted (see Table 3).

H1a: Customer orientation has no influence on business performance.

H1b: Competition orientation has no influence on business performance.

Tab. 3: Chi-square and p-value for H1a and H1b

Element	Chi-square	p-value
Customer orientation	4.433	0.03525
Competitor orientation	4.959	0.0446

p-values all significant at $p < 0.05$

Source: authors

Hypotheses H1a and H1b are rejected. Therefore, customer orientation and competition orientation have an influence on business performance.

Results from the research show that supplier orientation has the lowest level of all elements of branch environment. The hypothesis H2 was confirmed.

4.2 Strategic Behaviour at High-Tech Companies

The proper starting point for management decision-making is to gather the relevant information and determine what you know, what data has been gathered and also what data has not been gathered. Additionally, it is necessary to decide what paths to choose. Therefore, the items important for strategic behaviour were chosen from the questionnaire. The chosen items were divided into two parts: The first part involves ways of working with essential information for strategic company decision-making; the second part involves ways of using acquired information in a company.

Firstly, the items focused on the ways of working with essential information for strategic decision-making are presented below. Therefore six most important items were selected, namely:

- 1) We regularly identify important opportunities and threats, which could have an impact on business.
- 2) We regularly monitor the development of demands of current and prospective customers.
- 3) We know the strong and weak points of our main competitors.
- 4) We pay attention to further education of our employees.
- 5) We take a positive approach to innovations.

Items 1, 2 and 3 from the MOS method by [38] were implemented in the New Method. Items 4 and 5 were newly created. The level of market orientation is also determined by the respondent's attitude towards the monitoring of external elements, which can influence company activity. Naturally, information about final customers is very important for companies. Therefore it is necessary to regularly monitor customers' current needs, wishes and opinions, as well as potential tendencies of further development. Not only because the analysis of the current state of competitors is important, but also because to maintain long-lasting competitiveness requires the ability to predict the potential behavior of competitors with the help of the information obtained from research. Knowledge is very important, so it is necessary to educate all employees in a company constantly and use the latest methods of management and latest technologies in production. The results of the research are illustrated in Table 4.

Tab. 4: Results selected items at high-tech companies (0 – highly disagree, 7 – highly agree)

Item	Mean	SD
We regularly identify important opportunities and threats which could have an impact on business.	5.07	1.31
We regularly monitor the development of the demands of current and prospective customers.	5.77	1.16
We know the strong and weak points of our main competitors.	5.37	1.28
We pay attention to the further education of our employees.	5.74	1.26
We take a positive approach to innovations.	6.06	0.96

Source: authors

The highest value was obtained by the item evaluating a positive approach to innovations. This result was expected at high-tech companies. The lowest value was reached by the item about identification of important opportunities and threats. It is time and money consuming to regularly identify all opportunities and threats, which are significant to a company.

A Spearman correlation coefficient r was used for confirmation of the hypothesis. The value of the above five mentioned items was averaged for each high-tech company from research and correlated with its business performance. Coefficient r is 0.99905. It means that dependence between obtaining important information and business performance is high.

Secondly, the items expressing the ways of using the obtained information in a company are described. All items were classified as the elements reflecting knowledge of the decision-making process. The last two items were added from inter-functional coordination and the element of measurement of market orientation. The following 7 items were selected for this section, namely:

- 1) We implement information obtained into our decisions.
- 2) We offer products reflecting the latest demands and wishes of customers (distributors).
- 3) We focus on gaining customers, for whom we can achieve a competitive advantage.

- 4) We are faster in responding to the wishes of customers than our competitors.
- 5) We respond as fast as possible to the marketing developments of competitors.
- 6) Every worker is informed of the main objectives of the organization and knows how to contribute to their achievement.
- 7) We prefer reaching long-term goals to short-term ones; the achievement of a certain market share to financial goals.

Item 3 from the method processed by [19] was implemented into the New Method; item 4 on the basis of the method by [22] was created and item 5 from the MOS method [38] was implemented into the New Method. Item 7 from the method created by [33], was also implemented into the New Method. Items 1, 2 and 6 are newly created. The first two new items (1 and 2) respond to the information obtained. A successful company should not only try to obtain important information, but also try to be able to respond to it. It is difficult to evaluate if the response to information obtained was appropriate or not. The last new item is related to the relationship between managers and employees and simultaneously to the approach of an employee to a company. The Table 5 includes the items reflecting knowledge of the decision-making process.

Tab. 5: Means and standard deviations of market orientation degree by individual elements of measurement (0 – highly disagree, 7 – highly agree)

Item	Mean	SD
We implement acquired new knowledge to our decisions.	5.69	1.11
We offer products reflecting the latest demands and wishes of customers.	5.67	1.22
We focus on gaining customers for whom we can achieve a competitive advantage.	5.62	1.18
We are faster in responding to the wishes of customers than our competitors.	4.90	1.36
We respond as fast as possible to the marketing developments of competitors.	4.33	1.37
Every worker is informed of the main objectives of the organization and knows how to contribute to their achievement.	5.69	1.17
We prefer reaching long-term goals to short-term ones and the achievement of a certain market share to financial goals.	5.34	1.30

Source: authors

Respondents' answers for three items are almost exactly the same (twice 5.69 and once 5.67). The respondents noted that they often try to implement the new knowledge acquired into their decisions; they try to inform every worker about company goals and fulfil them and they prefer to manufacture products according to customer needs and wishes. On the contrary, the lowest value was reached by two items evaluating the speed of company activity to marketing developments of competitors and offers in comparison with competitors.

A Spearman correlation coefficient r was used for confirmation of the hypothesis H3 as well. The value of seven above mentioned items were averaged for each company and correlated with its business performance. Coefficient r is 0.99919. It means that dependence between obtaining important information and business performance is high.

The positive influence of gaining information and reflecting knowledge on the decision-making process is confirmed through chi-square. Chi-square and p-value coefficient at $p < 0.05$ is evident in Table 6.

Tab. 6: Chi-square and p-value at H7

Strategic behaviour	Chi-square	p-value
Obtaining information	5.030	0.0249
Reflecting knowledge of the decision-making process	3.911	0.0479

p values all significant at $p < 0.05$

Source: authors

Hypothesis H3 is also confirmed.

5. Discussion

Generally, high-tech companies are mostly very confident that they are highly flexible. However it is not true in all situations. We can find some discrepancies here such as the low rating of the items "We respond as fast as possible to the marketing developments of competitors" (4.33) and also "We regularly identify important opportunities and threats, which could have an impact on business" (5.07). It is important to have sufficient information for the evaluation of all opportunities and threats, which means being well informed about new competitors, their products or suppliers. It is possible to assume that employees do not have all necessary information for the decision-making process. Therefore, the high rating of the item "Every worker is informed about with main objectives of the organization and knows how to contribute to their achievement" (5.69) needs further debate.

The results show that high-tech companies are mainly oriented on customers. Competition orientation is in third position according to respondents. It is also confirmed in the following items: "We regularly monitor the development of the demands of current and prospective customers" (5.77) and "We offer products

reflecting the latest demands and wishes of customers" (5.67) versus items "We know the strong and weak points of our main competitors" (5.37) and "We respond as fast as possible to the marketing events of competitors" (4.90). The findings are probably because high-tech companies specialize in production of special technologies and products. They might not have so many competitors in their field. If a company has know-how, then its position could be quite strong and not so easily threatened by other companies. However, it is essential to gain information about all company stakeholders, not only about customers, but also about competitors, suppliers, etc. This discrepancy shows that high-tech companies have certain gap in their knowledge, which means they might not use data precisely.

The item "We take a positive approach to innovations" achieves the highest level (6.06) from all items used in our questionnaire. For success in high-tech industry it is a basic necessity to be creative and have a positive attitude to risk.

In contrast to the conclusion by [7], our research confirmed that implementation of market orientation contributes to increased business performance. Market orientation is not, however, only seen as the source for gaining information, it involves dissemination this information

throughout a company, implementation into the decision-making process and careful consideration of inter-functional coordination.

Our findings show that market orientation has significant influence on strategic behavior. It is possible to say that strategic behaviour is a part of market orientation. This strategic behaviour can be divided into, firstly, obtaining information for strategic company decision-making and, secondly, ways of using the information gathered in a company. Both these parts have significant influence on business performance.

5.1 Research Contributions

The crucial factors for companies that want to succeed in global competition are knowledge and the ability to use that knowledge in the best possible way [41]. According to the above all knowledge can lead to success. This article extends knowledge to market orientation. Three significant contributions are made to the existing knowledge of market orientation in high-tech companies. Firstly, market orientation is analyzed in detail at high-tech companies. The sample of companies concluded in the research project is significant. The results show that the level of market orientation at high-tech companies is high. The finding is in line with our perception that companies, which do business in highly turbulent environments, have high market orientation for their never-ending need to adapt to new situations. The finding indicates that high-tech companies have a high level of positive approach to innovation. Our findings clearly support the argument that market orientation is based on innovation and correspond with statements by [39] and [18].

Secondly, the findings show that both customer orientation and competitor orientation have a positive impact on business influence. These findings correspond with earlier research by [32]. Nevertheless, the findings show that high-tech companies in the Czech Republic prefer customer orientation to competitor orientation. Likewise, the findings show that supplier orientation achieves the lowest value from all evaluated elements. The findings correspond with the findings of [54]. Supplier orientation was the lowest at companies working in power engineering companies.

Thirdly, we have to point out the interconnection of market orientation and strategic behaviour. Indeed, there are several new aspects

with regards to perceiving market orientation and strategic behaviour. The perception of market orientation cannot be seen only as obtaining information, but also as the proper use of information inside the company, for the decision making-decision process and follow-up strategic behaviour as well. The findings confirm the hypothesis that gaining important information and its implementation into the decision-making process increases business performance. Furthermore, the findings can be compared to the research by [4], [12], [57] and [62] showing a positive correlation between market-oriented behaviours at high-tech companies and business performance. As a concluding remark, it should be noted that a relationship between market orientation and strategic behaviour is evident.

5.2 Limitation of the Research

The research is based on data from high-tech companies, which do business in quite a fast-changing and developing environment. In the case of repeated research using the same sample of companies, it is seen that there can be many changes caused by some different aspects, e.g. merger implications, management changes, changes in production or the end of whole or part production. The second type of limitation is that the survey involves only companies doing business in the Czech Republic. Another limitation stems from using a web-based questionnaire to obtain the data. Future research would benefit from obtaining data through more intensive face-to-face interviews.

5.3 Managerial Implications

Our findings can help to understand market orientation, its influence on business performance and new knowledge in this area. It is necessary to aim at all elements of market orientation, especially the interconnection between market orientation and strategic behaviour. Managers can compare the results of strategic decision-making and also ways of using information obtained in their companies with the average results of the high-tech companies doing business in the Czech Republic.

5.4 Suggestions for Further Research

Future research would benefit from insights gathered from research into high-tech companies;

especially the interconnection between market orientation and strategic behaviour e.g. detailed analysis of the decision-making process, analysis of speed in decision-making and the creation of a model of strategic behaviour.

Future research might also benefit from utilizing other sources such as suppliers, customers, distributors or industry experts in high-tech industry. We can get complex information about the industry not only via information from high-tech companies. It could analyze how market orientation at high-tech companies influence market orientation towards customers of high-tech companies. Future research could concentrate on research in high-tech companies from different countries to compare results. More detailed analysis should also focus on the items with the highest average rate (positive approach to innovations) and lowest average rate (response of high-tech companies to marketing developments of competitors). Another suggestion for future research can be in the description of Personality, Knowledge, Skills, and Experience by senior management to discover which is most important for the implementation of market orientation and strategic behaviour. However, this could be quite difficult and would require a wider research team. On the other hand, the results would be very helpful because it is important to know the strength and weaknesses of managers, attitudes and opinions. They influence the whole company through their management style; their choice of vision, aims and strategies; management of company culture; employee selection process, etc. The last possible avenue is to focus on the comparison of high-tech companies with companies in relatively traditional industries such as retailing and services. These companies probably work in different environments and it influences their different strategic orientations.

Conclusions

Generally, many high-tech companies use some principles of market orientation without theoretical knowledge of market orientation because their principles are derived from the nature of high-tech companies. This means mostly the effort to develop new technologies and use innovations, the impact on learning organization and customer orientation. In order

to term a high-tech company as a market oriented one, it is also necessary to implement other principles such as: understanding market orientation; analyzing strengths and weaknesses of managers; increase and simplification of communication and cooperation inside the company; acquisition of important information from all stakeholders in the decision-making process.

The findings of this article show that high-tech companies prefer customer orientation to competitor orientation, though both customer orientation and competitor orientation contribute to business performance. The opposite is true for suppliers: High-tech companies are not interested in issues concerning suppliers. Research at high-tech companies confirms how important it is to gain information and to use this information inside the company for market orientation.

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MARKET ORIENTATION AND STRATEGIC BEHAVIOUR AT HIGH-TECH COMPANIES

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The paper is focused on market orientation with a special emphasis on strategic behaviour at high-tech companies in the Czech Republic. Market orientation is based on marketing conception and is described by many researchers as a method that helps to contribute to the better management of a company. The perception of the implementation of market orientation is evolving. However, the main principle is still the same – market orientation has a positive impact on business performance. Nowadays, a lot of authors deal with the implementation of market orientation. From this reason, we have undertaken research entitled: “Research on implementation on market orientation in Hi-Tech Firms” (GA 402/07/1493). The paper deals with market orientation and strategic behavior at hi-tech firms. The objective of the paper is to assess relationships between market orientation and strategic behaviour at high-tech companies. The data was acquired via a New Method questionnaire, which measured market orientation in a company. The New Method questionnaire, containing a 7-point Likert scale created by Tomaskova [54] was used for the research. The complete database was analyzed by using standard statistical methods (correlation analysis, Spearman correlation coefficient, chi-square) as well as other sophisticated techniques (Cronbach alpha). The main results of the research show that the level of market orientation at hi-tech firms in the Czech Republic is high and confirms the importance of obtaining information and using this information inside the company for market orientation. The main results of the research findings show that market orientation has a significant influence on strategic behaviour. It is possible to say that strategic behaviour is a part of market orientation. This strategic behaviour can be divided into two parts: Firstly gaining information for strategic company decision-making and, secondly, ways of using the information obtained in a company. Both these parts have a significant influence on business performance.

Key Words: Market orientation, strategic behavior, hi-tech companies, the Czech Republic, management, business performance.

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