

# Management and Business Research Quarterly

2020(13)49-64



## Explaining the Marketing Strategies of Knowledge-based Corporations in Northwest of Iran Using SWOT Analysis

Maryam Mohammadi Moghaddam<sup>1,\*</sup>, Majid Yahyavi Ghasem Gheshlaghi<sup>2</sup>, Zahra Pouramini<sup>3</sup>, Alireza Hamidzadeh Arbabi<sup>4</sup>

<sup>1</sup>Master of Business Administration, Payame Noor University of Alborz Karaj Branch, Karaj, Iran

<sup>2</sup>Master of Business Administration, University of Mohaghegh Ardabili, Ardabil, Iran

<sup>3</sup>PhD. Student of Business Management, Allameh Tabataba'i University in Tehran, Iran

<sup>4</sup>Master of Business Administration, University of Mohaghegh Ardabili, Ardabil, Iran

Received 5 April 2020

Accepted 17 June 2020

### ABSTRACT

In today's business world, due to the constant changes and complexity of the situation in different fields, managers need to adopt marketing strategies to achieve competitive advantage and pioneer their target markets. One of the most effective approaches to formulation is the SWOT approach. The purpose of this study was to investigate the marketing strategy of knowledge-based companies in the northwest of the country and to create a SWOT matrix using a mixed research method to select the best marketing strategy. The statistical community in the qualitative section consisted of 30 managers, experts, consultants and support and related units in the surveyed companies. Participants in the quantitative section were also 100 persons, 80 of whom were selected according to Morgan table by simple random sampling. The data collection tools were qualitative interviews, focal interviews and quantitative questionnaires. The coding method, hierarchical analysis method was used for data analysis. The results of the focal interviews showed that 5 points were put into perspective. The results of Question 2 and 3, respectively, indicated that the threat of opportunity was greater and the strength of the weakness was higher, reflecting the position of companies in the home of competitive strategy (ST).

**Keywords:** Marketing Strategy, Knowledge Base Companies, SWOT Mode



## **Introduction**

In the 21st century, as technology advances, achieving competitive advantage has become a major challenge for companies, leading to increased competition for market shares. Today is one of the pillars of sustainable development in every flourishing country of knowledge-based institutions (Fakhari, 2014). The breadth of information knowledge increases the impact of technology on product performance (Jason et al., 2019). Knowledge-based perspective helps improve company performance, and knowledge-based factors can be crucial for competition (García-Almeida & Klassen, 2017).

Increasing knowledge sharing leads to an increase in the flow of knowledge within the organization, resulting in the conversion of individual knowledge into organizational knowledge and performance improvement (Monzon et al., 2016). Today, companies are developing sustainable strategies to respond to changing market needs, mitigate environmental impacts and costs related to their resources, including knowledge-based systems that can provide specialized knowledge and reasoning. Rule-based, identify the level of device recovery (Stefan, Christogh, & Sebastian, 2018). Our country also needs an economic transformation from a resource-based economy to a knowledge-based economy in order to achieve sustainable and inclusive growth and global competition (Fakhari, 2014).

Meanwhile, knowledge-based companies are the engine of development and creation of such a transformation. Given the importance of knowledge-based companies in technology development, economic prosperity and productive employment, and given the competitive environment and presence of powerful competitors, the question that arises is how these companies can succeed in this arena. Furthermore, make significant progress in the field of competition based on the requirements of knowledge-based knowledge, knowledge-based firms must enter competing areas that make their distinctions in technology innovation and create competitive advantage by creating value-based innovation. Moreover, customers prefer them to name companies. Therefore, the successful confrontation of these companies depends on their ability to effectively market innovative products, reach customers, and find new solutions to deliver products and services to new markets (Davis, 2009).

On the other hand, the efficiency of the knowledge and information networks exchanged within the organization leads to increased efficiency and competitive advantage of the organization (Solymossy, 2015). As small and medium-sized businesses such as knowledge-based companies often lack high-level business or marketing plans, the importance of developing thoughtful strategy design is evident (Nobre & Silva, 2014). In order to succeed, companies need to present a unique pattern of marketing strategies in order to achieve superior performance. Marketing strategies are the most important levels of strategy that help an organization to market and customer. The main focus of these strategies is on long-term competitive advantage. Knowledge-based companies need to design and develop strategies to achieve the goal of creating value. There are several patterns in strategy formulation, such as the Harvard model, BCG model, GE model, SWOT model, and main strategy model. In all strategy formulation models, there is always strategic planning with environmental assessment.

Furthermore, threats and internal organization capabilities (strengths and weaknesses) and formulate appropriate strategies concerning organizational values (Arabi & Mahmoodzadeh, 2006). To stay competitive, organizations need to evaluate both their current status and position relative to their competitors' strengths, shares and status and realize that strategy is nothing more than determining an organization's position relative to its competitors. Rival Forces, the presence of knowledge in organizations, can help to reduce the destructive competition of different parts of the organization (Moore & Moore, 2016). Today, with the emergence and development of knowledge-based companies, we are witnessing fundamental changes in corporate earnings structures they are based on new ideas, relying on the expertise of managers and professionals exposed to risky and uncertain return on investment. In such a business environment, companies need to adopt robust and innovative strategies. To achieve their goals of growth and profitability. Of course, it can be said that not every strategy is suitable for all organizations. If the strategy is desirable and effective for one organization, it will not necessarily be useful in other organizations (Mirzaeichaboki, 2011).

Finally, in this study, we aim to study SWOT marketing strategies of knowledge-based Northwest companies and based on the results of the tests, we will provide practical solutions for using knowledge-based managers

### **Research questions**

- 1- What are the main points for adjusting the marketing outlook of Northwest Knowledge Base Companies?
- 2- Considering the (external) environmental factors, what are the marketing opportunities and threats?
- 3- Considering the internal factors, what are the strengths and weaknesses of marketing?
- 4- What is the strategic marketing position of the knowledge-based Northwest firms of the country and which of their four offensive (SO), competitive (ST), conservative (WO) and defensive (WT) strategies are appropriate?

### **Theoretical principles and research background**

#### *Knowledge-based companies*

Knowledge-based companies are very important as small and medium-sized companies that market new products using knowledge. These companies are private, or co-operatives that aim at the synergy of science and wealth, the development of a knowledge-based economy, the achievement of scientific and economic goals, including the development and application of invention and innovation and the commercialization of research and development results in There are many technology and value-added fields.

In these companies, economic growth and job creation are realized in proportion to the capacity of innovation. This means that R&D gains are continually transformed by investing in new products, processes or systems, and access to investment capacities for entrepreneurs and

researchers is an important factor in driving innovation and exploitation. The power of technology is in the national economy (Ansari & Kazazi, 2011).

One of the important roles of these companies is the transfer of technology to the business sector through which knowledge is improved in both qualitative and quantitative dimensions. Creating jobs for highly educated people is another impact of these companies. Nowadays, as competitiveness between companies intensifies, the growth of knowledge-based companies as a strategy for the sustainable development of the country's economy has increased. The failure of newly established companies is becoming law. Choosing the right strategy and improving the strategy of these companies is an issue that is very important for the sustainability of companies and the development of their products (Akhavan & Motamediraya, 2011).

Field studies show that the majority of knowledge-based companies have low competitiveness and competitiveness. The results of the survey of knowledge-based companies in Iran show that most of these companies face competition with other companies are facing. On this basis, we need to think carefully about the competitiveness of knowledge-based companies.

Some of the features of knowledge-based companies are:

- 1- Average age of companies
- 2- The size of companies that are often considered small and medium-sized companies
3. Independence of companies, reflected by the fact that a large part of the capital of these companies belongs to the founding group and the fact that these companies have no branch and no larger branch.
4. The subject of activity refers to the exploitation of new technical knowledge or technology and a focus on research and development.

Chorev and Anderson, in their studies of the factors that influence corporate growth and success, has identified several factors as entrepreneurship, strategy, marketing, technology and product, management, financial resources and environmental factors (Chorev & Anderson, 2006). Portimorifardtabrizi & Jamshidi (2014) conducted a study on the innovative performance of knowledge-based companies based at Semnan University of Science and Technology, and the results showed that the priority of companies was product innovation and process innovation. Strategically, they were given the next priority. The market innovation of these companies was also at the top of the list because of their fledgeling.

Mahdavi et al. (2008) examined the success factors of knowledge-based companies and after evaluating the above issue in 7 companies concluded that seven factors, including marketing, production issues, and distribution are in priority. Tolou et al. (2011) identified 26 indicators in their studies in 6 categories: managerial, cultural, IT infrastructure, encouragement, support, guidelines, strategy and planning. They were prioritized using the AHP model. Niroumand and Mirjalili (2010) identified and ranked the indicators in their studies centred on the factors affecting the success of Iran based technology companies. Indicators include human capital, government policies, organizational structure, business strategy and organizational environment, respectively. In their research, Chamanski, & Waago (2000), the organizational success of IT firms found that internal organization factors such as technology strategy, management team, and

organizational environment had a significant impact on the success of IT companies. There was also a strong correlation between internal organization factors and internal and external factors.

Ghosh et al. (1981) conducted a joint study of key success factors, distinctive and high-level strategic capabilities in small and medium-sized companies in Singapore. In this study, using multiple comparison method among 37 factors obtained from literature and background review, 95% confidence level was evaluated which after analyzing six key high-level factors that all companies were in common and The strategic planning tools used are: 1- Ability to meet customer needs 2- Identify regional capabilities 3- Identify and focus on the market 4- Continuous development of new ideas and capabilities such as Innovation 5- Identifying production sites 6. Good relationship between senior managers and staff.

### **Marketing strategies**

The strategy is to determine the long-term goals and objectives for an organization and to adopt a set of measures and to allocate the resources necessary to achieve those goals and objectives (Armstrong, 2002). In other words, a strategy is a comprehensive and integrated program that is tailored and adapted to the strengths and weaknesses within the organization (internal environment) and opportunities and threats outside the organization (external environment). It is designed to make full use of its strengths and opportunities to achieve organizational goals (Pourasadi & Hosseini, 2012).

In the management literature, Chandler, Porter, and Mintzberg are the most important theorists of strategy (Cinar & Karcioglu, 2013). Mintzberg (2007), for example, describes strategy as a well-defined pattern in a stream of decisions. Strategic management is the process of analyzing strengths, weaknesses, opportunities and threats to achieve goals and missions (Cinar & Karcioglu, 2013), and a set of decisions and actions that lead to the design and implementation of achievable strategies. They are used for an organization (Armstrong, 2002).

In marketing strategy, defining the right territory, setting marketing goals for the market/products quantitatively and qualitatively, optimizing the allocation of resources between marketing activities, identifying competitive advantage sources, and creating synergies through the use of different unit sources in a plan. Moreover, using the different capabilities of subordinate companies to improve each other's sales performance. This finding is in agreement with Walker et al. (2003).

Walker and colleagues have pointed out in their research that proper marketing strategy consisted of the domain component, overall and operational objectives, resource allocation, competitive advantage recognition, synergy, and had a positive impact on performance. On the other hand, knowledge-based companies play a key role in the development of a knowledge-based economy. These companies are involved in the integration of science and wealth, the development of a knowledge-based economy, the pursuit of scientific, economic goals, and the commercialization of research and development results in the field of superior technologies.

According to statistics from the Ministry of Science, Research and Technology, by the end of 2013, about 4,000 technology companies are operating in science and technology development

parks and centres around the country. In recent years, due to upstream laws and policies, enabling it to develop science and technology development parks and centers throughout the country, the process of establishing knowledge-based companies is expected to increase rapidly. Given that science and technology parks and development centres are a good base for the growth of knowledge corporations; however, statistics show that more than 40% of these companies fail and decline, in addition to wasting resources and lack of resources. Expected returns will result in many social problems, including unemployment and sometimes indebtedness, through government facilities.

According to the statistics provided by the Qualification Dialogue Qualification Working Group, there are currently 1,400 knowledge-based companies operating in the country. According to the Fifth Development Plan, this number should reach 20,000 companies. Therefore, the factors affecting the growth and development of these companies must be recognized and strengthened (Kafshdouzi & Amirkhani, 2017). Today, the most important concern of most organizations is the development and implementation of strategies that guarantee their success and survival in complex and complex environmental conditions. Strategic planning provides organizations with the tools to pursue strategy formulation and implementation across different aspects of the organization and to manage their strategic performance (Kaplan & Norton, 2007) and through strategy identification and formulation. They think creatively and innovatively and provide the context for life and gain competitive advantage by creating synergies within organizational systems (Arabi, 2010). Ahmadi and Esmaeelian (2015) conducted a research aimed at prioritizing the effective factors in improving the formulation of knowledge-based SME strategies, including factors such as management, marketing and sales, finance, human resources, research and Developments have emerged that show that marketing and sales are more focused on them. Strategic planning analyzes the underlying environmental risk factors and provides appropriate solutions to achieve the goal in the shortest possible way.

In other words, strategic planning is the process of defining the goals of the organization and deciding on the overall operational and executive plans to achieve those goals. An organization in today's competitive environment cannot succeed in the long run without a smart strategy. A successful strategy requires careful editing and flawless execution. Many organizations cannot achieve predetermined goals in implementing a strategy. Strategic planning is one of the factors that can help organizations to implement such processes (Kafshdouzi & Amirkhani, 2017) successfully.

### **SWOT analysis**

There are different views and models in strategy formulation that each has its disadvantages and advantages. One of the most prominent in our country is the SWOT analysis, which simultaneously examines both internal and external environments (Stewart et al., 2002) and takes advantage of points. Weaknesses, strengths, opportunities and threats facing the organization formulate a strategy that summarizes the most important internal and external factors of the organization as strategic factors influencing the future of the organization (Kangas et al., 2003).

SWOT analysis can provide an early stage of analysis with the ultimate goal of presenting and adopting the policies necessary for policy formulation and policy (Mafi & Saghaee, 2009).

In this analysis, the organization uses internal strengths to seek to exploit external opportunities and maximize opportunities by exploiting strengths. Organizations typically use Revision (WO), Diversification (ST) and Defensive (WT) strategies to achieve this position to achieve competitive offensive strategies (SO) (Sa'emian & Arghandeh, 2007). To this end, the organization needs to examine its internal and external environment. Environmental audit is the monitoring, evaluation and dissemination of information about the internal and external environment of a complex. External or external environments include opportunities and threats variables that are outside the organization and are outside the control of the outside managers. These variables create the space and context within which the organization or set exists and operates. The internal environment includes variables (strengths and weaknesses) that are present within the set itself and are usually within the domain of continuous and long-term control of managers (Nohegar, Hosseinzadeh, & Pirasteh, 2009).

Given the rapid environmental changes and competitive situation in the markets, organizations need to prioritize and prioritize after searching for and identifying potential and actual internal skills and opportunities and opportunities around them. Relative and competing firms are stepping up their efforts to formulate and select new strategies in the form of a strategic plan.

Strategic planning identifies environmental opportunities and threats, internal strengths and weaknesses by examining the external and internal environment of the organization. To achieve these goals, they choose strategies that address weaknesses and avoid threats while relying on strengths and exploiting opportunities. Correctly make the organization successful in the field of competition (Arabi & Izadi, 2007).

The results of Pirmorad's (2009) research in the framework of the SWOT analytical model indicate that the extent of threats and weaknesses of the training system of the automobile research institute and their strategic position in the field of defence. Three of the identified strategies in this study were: "1) review of the organizational structure of training and focus on the relationship with human resources management of the research institute, 2) focus on training package and 3) focus on laboratory training". Aghighi et al. (2013) conducted a strategic analysis to develop the Institute of Science and Development's alliance with industrial centres. Investigating the internal factors showed the strengths of the weaknesses and the external factors were high threats to the opportunities. Thus, "designing and editing training courses in collaboration with audiences, doing cheaper consulting projects to attract training clients and earning points for using government privileges" were the centre's three strategies.

### **Research methodology**

Since this research is developing applied knowledge in the field of marketing strategies of knowledge-based companies in the northwest of Iran, it is a type of applied research that has been investigated by SWOT research approach. In terms of method, it is also a heuristic mix. The statistical population in the qualitative section consisted of 30 managers, experts, consultants and

support and related units in the surveyed companies. Participants in the quantitative section were also 100 persons, 80 of whom were selected according to Morgan table by simple random sampling.

In the qualitative section, semi-structured individual interviews, focus groups were used to identify data related to opportunities, threats, strengths and weaknesses and in the quantitative part of the questionnaire A researcher-made model whose reliability was confirmed by experts and its reliability was calculated using Cronbach’s alpha coefficient (0.85) was used to obtain stakeholder opinion on the importance of items identified with external and internal factors. The focal groups of direction (question 1), hierarchical direction analysis (questions 2 and 3), and SWOT matrix (question 4) were used for data analysis.

**Findings**

*Data analysis*

Question 1: What are the key points to adjust the marketing outlook for knowledge-based Northwestern companies?

Focus group research was used to adjust the marketing perspective after library studies. Because according to Easterby-Smith, Thorpe, & Lowe (1991), the focus group strategy is used to understand the interviewees’ views on a topic. In this section, it was attempted to obtain the views of the focus groups based on semi-structured questions. Similar comparisons were coded together by common sense using the method of comparison and continuous query (Table 1)

*Table 1. Coding of focal interviews*

<i>Common key point</i>	<i>Verbal statements</i>	<i>Interviewee code</i>
Collaborate with universities and training centres	If we come into contact with some academic institutions, we will have better management.	10 Q
	The availability of specialized and applied science centres increases and empowers the compar	19 Q
	With this partnership, we can assure the quality of our products and services to others .	9 Q
	Failure to cooperate will cause the company to overlook other specialities and lag behind other competitors.	7 Q
	By building industries near universities, we can increase the attraction of skilled and educated people to expand knowledge.	12 Q
	You can build trust in the customer by using the university brand.	20 Q
Induction of entrepreneurship culture	Increasing attention to creativity leads to competitive advantage.	14 Q
	Short-term workshops and introduction to new products lead to product updates.	1 Q
	Ignoring the creative and entrepreneurial people leads to exploiting those profits and attracting them to competing companies.	8 Q
Encouraging the government to create a business environment	If only the challenge of technology and entrepreneurship were taken into consideration, they would stay away from the market and competitors.	11 Q
	The government can help technological development by stimulating entrepreneurial supply and demand.	3 Q
	The government can, through appropriate frameworks, directly link companies and eliminate brokerage activities.	15 Q
	If the government does not provide the necessary support, companies will not be able to marke their products through the media, industry or in places such as exhibitions, etc.	6 Q
Pay attention to	Companies can penetrate the market with the help of a chain of retailers and become more	2 Q

marketing and customer orientation	familiar with customer needs.	
	If some of the initial sales go to large companies or marketers, we will make people more productive and buy more products.	13Q
	If virtual stores deliver the initial product launch as a pilot, market feedback will be provided.	18Q
Using experienced partners from other companies	We need to use the experiences of other similar product companies.	16Q
	The use of employees of similar companies during the training enables the transfer of experience.	5Q
	It is possible to know the status of our competitors.	17Q
	We can use customer feedback on the competitor's product to enhance our products.	4Q

Question 2: Considering the (external) environmental factors, what are the marketing opportunities and threats?

At this stage, after conducting the interviews, identifying the statements and coding the views of the various marketing stakeholders (quantitative) was obtained through a researcher-made questionnaire on the importance of each external and internal item. After agreeing with the marketing team members, the external factors evaluation matrix was performed by hierarchical analysis. The total score of external factors assessments was the result of the relative importance of the rank of each item and the sum of the scores obtained. Given that the score is 2.33 less than 2.5, it can be deduced that the existing threats of the marketing system of knowledge-based companies of northwestern provinces are more than opportunities in their research path. Be it. Table 2 shows the results of this study.

Table 2 . External factor evaluation matrix through AHP

	Row	Titles	Dedicated rating to every opportunity and threat item	Relative significance coefficient of each item of score 1	Final score (Relative Significance Factor * Rank)
Opportunities	10	Marketing their companies and services	2	0/1	0/2
	20	Obtain various global markets for product sales	2	0/08	0/16
	30	Getting people familiar with knowledge-based companies	2	0/05	0/10
	40	Build up-to-date communication between companies and universities	2	0/06	0/12
	50	Getting the most important component is people's trust in the products	2	0/06	0/12
	60	Sales of company products in virtual stores	3	0/06	0/18
Threats	1T	Attract your customers through the relationship	2	0/04	0/08
	2T	Lack of proper marketing planning to attract customers	3	0/08	0/24
	3T	Highly dependent on their own product (product love)	3	0/08	0/24
	4T	More interest in product creation and creativity and lack of attention to company	3	0/07	0//21
	5T	Being productive and not paying attention to market needs	4	0/08	0/24
	6T	Lack of aligning marketing expertise with corporate science	4	0/08	0/24
	7T	Theft of new ideas by profiteers	2	0/04	0/06
	8T	Corporate teaming is more about the product of technical expertise and disregard for other specialties	2	0/04	00/06
	9T	Lack of proper marketing policies	4	0/08	0/24
<b>Total</b>			-	= $\sum 1$	2/44

Question 3: What are the strengths and weaknesses of marketing when considering internal factors?

Strengths are factors that are considered an advantage over a company’s past, and if they have parts of the organization that have the same strengths and those that are less powerful. They have that extraordinary power. Also, factors that make the company fail to meet the relevant expectations say the weaknesses, the more profound the impact this weakness has. At this stage, individual and group interviews, identifying strengths and weaknesses, coding statements, and stakeholder opinion were obtained through a researcher-made questionnaire. Finally, a score of 2.73 was obtained from the Internal Factor Evaluation Matrix by hierarchical analysis, which showed that the strengths of the knowledge-based companies’ marketing system were greater than their weaknesses. The results are shown in Table 3.

Table 3. Internal factors evaluation matrix through AHP

	Rows	Titles	Dedicated ratings to each strengths and weaknesses	Relative significance coefficient of each item of score 1	Final score (Relative Significance Factor * Rank)
<b>Strong points</b>	1S	Applying innovative and creative ideas	3	0/05	0/15
	2S	Upgrading of corporate products	3	0/05	0/15
	3S	Developing the market for knowledge-based enterprise products	4	0/03	0/12
	4S	Increase product purchasing and familiarize people with corporate products	3	0/03	0/09
	5S	Introducing new products and products to knowledge based companies	3	0/04	0/12
	6S	Encourages people's entrepreneurship	2	0/03	0/06
	7S	Encourages and innovates the knowledge-based companies’ products and products	4	0/04	0/16
	8S	Moving toward the differentiation of corporate goods and products	2	0/05	0/10
	9S	Maintains a Comprehensive Global Perspective	3	0/03	0/09
	10S	Reduces the mediation of the purchase of corporate products	2	0/03	0/06
<b>Weak points</b>	1W	Lack of reputable international brands for marketing	3	0/04	0/12
	2W	Lack of efficient motivation	2	0/04	0/08
	3W	The government did not buy the products and services of these companies	3	0/05	0/15
	4W	The marketing attractiveness of other companies reduces the purchase of corporate products	4	0/04	0/16
	5W	Lack of coordination between university and knowledge-based companies in introducing companies	3	0/05	0/15
	6W	Not visiting the industries of companies and offering better products	2	0/06	0/12
	7W	Lack of media assistance in the introduction of knowledge-based companies’ products	2	0/06	0/12
	8W	Lack of proper marketing for knowledge based company products	2	0/08	0/16
	9W	Inability to introduce knowledge-based exhibitions and failure to obtain results from these exhibitions	3	0/05	0/15
	10W	Weak management of knowledge-based companies in marketing development	2	0/07	0/14
	11W	Shortage or lack of market due to lack of proper marketing	2	0/08	0/16
	12W	Lack of market development for corporate products	3	0/04	0/12
	Total		-	=Σ1	2/73

Question 4: What is the Strategic Marketing Position of Knowledge Base Companies in the Northwest Provinces of the Country and Which Types of Offensive (SO), Competitive (ST), Conservative (WO) and Defensive (WT) Strategies Are they?

After examining the internal and external factors tables in the marketing areas of knowledge-based companies and the opinions of the experts, with the reviews and considering the direction and direction of the identified policies in this area, the strategic marketing position These companies identified and formed a SWOT matrix based on the above situation. In this matrix four types of aggressive strategies are SO (exploiting opportunities using strengths), competitive strategies ST (using strengths to circumvent threats), conservative WO strategies Seize opportunities to eliminate weaknesses) and, ultimately, defensive WT strategies (reducing weaknesses and avoiding threats) (SeyedJavadin, 2009).

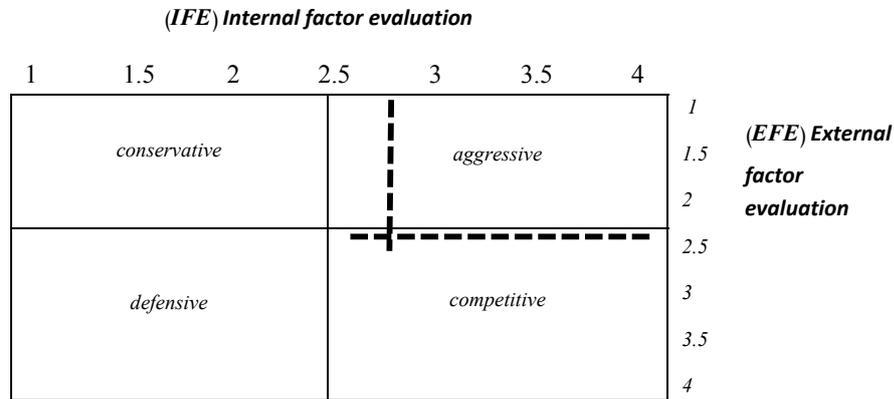


Figure 2. Strategic marketing position of northwest knowledge base companies on space matrix

In this regard, taking into account the score of external factors (2.33) and internal factors (2.73) and proportional to the strategic position of knowledge-based firms in ST home and very close to SO home, the action was taken. Identify marketing strategies appropriate to the above situation through semi-structured in-depth interviews. Figure 2 shows the strategic marketing position matrix, and Table 4 shows the results of the proposed strategies from the results of the interviews

Table 4. Matrix of SWOT threats, opportunities, weaknesses and strengths

	<i>Strengths</i>	<i>Weaknesses</i>
<i>Opportunities</i>	<p><i>SO (offensive) strategies</i></p> <p>3 and 1 O-5 and 3 S: The need to introduce and introduce companies products and services to the public</p> <p>4O-2S: The Need to Establish Good Relationships between Companies and Educational Organizations and Update Products for Better Communication</p> <p>2O-9, 7 &amp; 1 S: the need to apply innovative ideas to enter the global markets and create the right place in the world</p>	<p><i>WO (Conservative) Strategies</i></p> <p>1 &amp; 3O-11 &amp; 10 &amp; 8 &amp; 7 &amp; 5 W: Need to pay attention to the marketing and e-commerce issue of identifying companies and their products in collaboration with the media.</p> <p>5O-9, 6 &amp; 3 W: Government attention to create opportunities for exhibitions to meet people and build trust</p>
<i>Threats</i>	<p><i>ST (Competitive) Strategies</i></p> <p>2, 6, 9T-5, 4, and 3 S: The Need to Pay Attention to the E-Commerce Marketing Specialized Goals of the Company tailored to the market need to improve sales performance</p> <p>4, 5, and 3 T-8S: Need to pay attention to the different capabilities of other companies to identify their capabilities and partners to create better performance and take the lead in product delivery than competitors</p> <p>7 &amp; 8T-2 &amp; 1 S: the need to strengthen research and development unit to identify innovative opportunities and venture risk</p>	<p><i>WT (defensive) strategies</i></p> <p>2 &amp; 6 &amp; 9O-11 &amp; 10 &amp; 8 &amp; 6 &amp; 2 &amp; 1 W: The need to support and encourage executives from expert, product and market savvy people to improve company performance</p>

Source: Taken from the model of David (2010) and SeyedJavadin (2009)

**Discussion**

Achieving a competitive advantage for companies is achieved by creating value for customers by delivering distinctive and more competitive products based on their core competencies. The core of marketing strategy is to appropriately allocate and coordinate marketing activities and resources to meet the company’s operational goals in terms of a specific product-market, and strategic market planning is a tool that companies utilize through a plan and strategy. Designed to fit the mix of marketing elements to meet the needs of potential customers in the target market, seeking competitive advantage and synergy, therefore the aim of this study is explaining the marketing strategies of knowledge-based corporations in the northwest of Iran using SWOT analysis.

In this study, we tried to identify, first and foremost, the criteria for research questions through individual and group focal interviews using exploratory mixed-methods and quantitative methods, accuracy and reliability of the results investigated and the findings of strategic marketing implementation.

Some marketing strategies have been formulated in knowledge-based companies in the west of the country, which can be targeted at corporate executives and policymakers for greater marketing efficiency. This was done based on the scientific approach of strategic planning using the opinions of management experts. The strategies identified in the SWOT matrix were evaluated using the coefficients of importance and rankings given by experts and experts of the organization and the four matrices, and finally the strategies of the SO and ST groups as options. As well as,

the present study, using SWOT technique, formulated marketing strategies that are in line with the studies of Mousavi and Arman (2019), Berksram et al. (2017), Rabiei et al. (2010), Abtahi and Mousavi (2009). Nevertheless, in each of these studies, the method of choosing the appropriate strategies (among the strategies formulated with the SWOT model) is different. For example, Mousavi and Arman (2019) from the Blue Ocean method, Burkesram, JamshidiAvanaki, & Aliqoli (2016) from the combined SWOT and QSPM matrix method, Rabiei et al. (2010) from the Network Analysis Process (ANP) method, and Abtahi and Mousavi (2009) have used quadruple internal/external matrix, which is also in line with the study of Berksram et al. (2016). However, since the strengths, weaknesses, opportunities and threats presented in this article are related to Northwest Knowledge Base companies, so the results and strategies developed are also specific to Northwest Knowledge Base. The country is comparable to other similar studies. Appropriate items were selected. These strategies include:

Design and implement a systematic system involving teams specialized in marketing knowledge with the help of higher education centres. Necessary to review the internal factors of companies and pay attention to different capabilities of other similar companies by transferring mutual knowledge and awareness of customer feedback to competitor product to produce a product at a lower price than competitors. Need to strengthen the R&D unit to identify innovative opportunities and risk-taking opportunities to compete competently The need to introduce and introduce companies products and services to the public through government support with appropriate business contexts and stimulate market supply and demand Necessary to establish proper communication between companies and educational organizations for the use of people with specialized knowledge. The need to apply creative and innovative ideas while controlling the internal factors of the company, in order to survive in the market and to create entrepreneurship with the help of specialized knowledge forces Consider the internal factors of the organization, such as focusing on human resources and organizational technologies to improve organizational orientation.

### **Suggestion**

Following the steps of this research, some marketing strategies were formulated. Given that the present study is applicable, researchers should provide suggestions for problem-solving, optimization, and troubleshooting. Therefore, in order to make the research results more practical, the following practical suggestions are offered: It is recommended that knowledge companies develop a strategic plan based on their own and that their vision and goals are explicitly stated concerning competitors' goals. It is recommended that knowledge companies base plans on competitor behavior and the environment draw and practice to enhance their performance. The weakness of strategic thinking among managers of knowledge-based companies is that it is recommended that supportive institutions such as science and technology parks make the strategic thinking development program available to managers of these types of companies. Interpretation of strategic knowledge and implementation of strategic knowledge is in poor condition. This may

be due to the weakness of teamwork systems in knowledge based companies or the weakness of knowledge sharing systems in these companies.

Examination of the dimensions of competitiveness also shows that the dimension of innovation in the firms surveyed is in poor condition. This will greatly impact the survival of knowledge-based companies. Because bottom-line companies need to be shaped and developed by innovation, consider new communication technologies such as social networks to improve customer relationship performance and foster market orientation. It is suggested that knowledge-based companies be further linked to educational and academic centres so that they can utilize the expertise of skilled people to transform knowledge into practice. It is recommended that courses related to commercialization, entrepreneurship and technology management, especially in the fields of engineering and management, be provided along with the necessary training among the company's human resources.

## References

- Abtahi, S. H., & Mousavi, S.M. (2009). (2009). Designing human resource strategies (Case Study: A Spiritual Organization). *Journal of Research in Human Resources Management*, 1(3), 1-23.
- Aghighi, A., & Salimi, N. (2012). Identifying educational strategies of the institute of science and development in the face of industrial centers, Master's degree in educational management, Semnan University.
- Ahmadi, A., & Esmaelian, G. (2015). Assessing the Prioritization of Effective Factors on Improving Strategy Development of Small and Medium-Sized Knowledge Based Companies Using the ANP Model Study of Companies Founded in Isfahan Scientific and Research Township. *Journal of The Management of Tomorrow*, 43 (13 ), 113-120.
- Akhavan, A., & Motamediraya, A. (2011). Prioritizing the critical factors of the success of new product development in the knowledge based companies of Nastjer in Isfahan Scientific and Research Town. *First National Conference on Accounting, Auditing and Management of Isfahan, Institute of Higher Education*.
- Ansari, R., & Kazazi, A. (2011). Designing an Intra-Organizational Model Affecting the Success of Research and Technology Organizations in Iran ,*Iranian Management Science*, 23 (6), 21-26.
- Arabi, S.M, & Mahmoodzadeh, M. (2006). The Challenge of Coordination in Human Resource Management, *Researcher Magazine*, 7( 2 ), 15-27.
- Arabi, S.M. (2010). *Strategic Planning Handbook*, Tehran, Cultural Research Office.
- Arabi, S.M., & Izadi, D. (2007). Strategic management of human resources. *Work and Society Magazine*, 76(18), 44-61
- Armstrong, M. (2002). *Armstrong's Handbook of Strategic Human Resource Management*. London: Kogan Page.
- Burkesram, E., JamshidiAvanaki, M., & Aliqoli, M. (2016). *SWOT and QSPM Matrix Combination Analysis to Determine and Prioritize Marketing Strategy in Tehran and Suburban Railways Utilities Company*. Thesis Master of Business Administration, Central Tehran University.
- Çınar, O., & Karcioğlu, F. (2013). The relationship between strategic management, institutionalization and human resource management: a survey study with family businesses located in the northeast Anatolia sub economic region of Turkey. *Procedia-Social and Behavioral Sciences*, 99, 835-842..
- Chamanski, A., & Waagø, S. J. (2001). Organizational performance of technology-based firms—the role of technology and business strategies. *Enterprise and innovation management Studies*, 2(3), 205-223.
- Chorev, S., & Anderson, A. R. (2006). Success in Israeli High-Tech Start-Ups; Critical Factors and Process. *Technovation*, 26 (2)162–174.
- David, F. R. (2011). *Strategic Management*. New Jersey: Prentice-Hall

- Davis, K. (2009). Financial Regulation after the Global Financial Crisis. *The Australian Economic Review*, 42(4), 453-456.
- García-Almeida, D. J., & Klassen, N. (2017). The influence of knowledge-based factors on taxi competitiveness at island destinations: An analysis on tips. *Tourism Management*, 59, 110-122.
- Easterby-Smith, M., Thorpe, R., & Lowe, A. (1991). *Management Research: An Introduction*. London: Sage publications.
- Fakhari, H. (2014). Reading The Definition of Knowledge Based Companies Based on The Economic Conditions of The Country, *Science and Technology Policy*, 6(4), 69-88.
- Ghosh, B., Liang, T. W., & Chan, T. T. M. (2001). The key success factors, distinctive capabilities, and strategic thrusts of top SMEs in Singapore. *Journal of Business Research*, 51( 3), 209-221.
- Jason, L.J., Chengli, Sh., & Kevin, Z. Z. (2019). Product newness and product performance in new ventures: Contingent roles of market knowledge breadth and tacitness. *Industrial Marketing Management*, 76, 231-241.
- Kafshdouzi, B., & Amirkhani, A. (2017). The Effect of Strategic Planning on The Growth of Knowledge Based Enterprises. Master's thesis of executive management, Payam Noor University of Tehran, Unit Varamin.
- Kangas, J., Kurtila, M., Kajanus, M., & Kangas, A. (2003). Evaluating the management strategies of a forestland estate-the S-O-S approach. *Journal of Environmental Management*, 69, 349-358.
- Kaplan, R. S., & Norton, D. P. (2007). *Strategic Alignment: Creating a Balanced Scorecard*. Translated: Babak Zendehtdel, Tehran, First Edition
- Mafi, E., & Saghaee, M. (2009). Application of SWOT-MS Model in Tourism Management Analysis Case Study: Mashhad Metropolis, *Geography and Together*, 7(14), 27-50.
- Mahdavi, H., Bayati, M., & RastiBurzaki, M. (2008). Studying The Success Factors of Knowledge-based Companies. *Quarterly Journal of Technology Growth*, 4 (16) , 7-7.
- Mintzberg, H. (2007). *Tracking Strategy: Toward a General Theory*. Oxford University Press.
- Mirzaeichaboki, M. (2011). *Strategic Analysis and Prioritization of Selected Indicators, Case Study of Chouka Corporation*. Master Thesis, Islamic Azad University, Central Tehran Branch
- Monzon, A., Chow, T., Guthrie, P., Lu, Z., Chuma, C., He, H., & Kuzkov, S. (2016). Methods for promoting knowledge exchange and networking among young professionals in the aerospace sector—IAF's IPMC workshop 2013 insights, *Acta Astronautica*, 118, 123-129.
- Moore, F., & Moore, F. (2016). Flexible identities and cross-border knowledge networking. *Critical perspectives on international business*, 12(4), 318-330.
- Mousavi, S. S., & Arman, M. (2019). Designing a Marketing Strategy Pattern in Knowledge Based Foundations Based on the Blue Ocean Approach: Research Data Foundation. Thesis Master of Business Administration, Persian Gulf University.
- Niroumand, P., & Mirjalili, F. (2010). Factors Affecting The Success of New Technology Companies in Iran.
- Nobre, H., & Silva, D. (2014). Social Network Marketing Strategy and SME Strategy Benefits. *Journal of transnational management*, 19 (2), 138-151.
- Nohegar, A., Hosseinzadeh, M.M., & Pirasteh, A. (2009). Assessment of Qeshm Island Naturalization Capabilities Using SWOT Strategy Management Model. *Geography and Development Magazine*, 7(15), 151-172.
- Walker, O. C. (2004). *Marketing Strategy: A Decision-Driven Approach*. Translation by Seyyed Mohammad Arabi and DavoudIzadi. Tehran: Office of Cultural Research.
- Pirmorad, H. R. (2009). Design of strategic planning of automotive research institute. Master Thesis in Management, University of Isfahan.

- Portimorifardtabrizi, F., & Jamshidi, L. (2014). An Investigation of The Innovative Performance of Knowledge Based Companies Based at The Center for The Development of Science and Technology of Semnan University. *Industrial and University Press*, 7(23), 37-52
- Pourasadi, M., & Hosseini, N. (2012). Developing Human Resources Input Strategies in Prevention Police. *Quarterly Journal of Law Enforcement Management*, 7(4), 596-618.
- Rabiei, A., Afshari, M.A., Maleki, M.H., Mohammadi, J., & Moradi, J. (2012). Develop HRM Strategies With The Strategic HRM Approach and Employing SWOT and Network Analysis (ANP) Techniques. *First Annual Conference on Management, Innovation and Entrepreneurship*, Shiraz.
- Sa'emian, S., & Arghandeh, R. (2007). A Globalization Review With Views on SWOT Method. *Sixth Conference of Research and Development Centers of Industries and Mines*, Tehran
- SeyyedJavadin, S.R. (2009). *Human Resources Analysis in Government Devices in Ilam Province Using SWOT (Human Resources Strategy)*. Fourth International Conference on Strategic Management, Tehran.
- Shokoohi, A. (2002). Strategic Planning of The Application and Development Plan, 37, 107-108.
- Stefan, B., Christogh, H., & Sebastian, T. (2018). Increasing Resource Efficiency of Manufacturing Systems Using a Knowledge-Based System. *Life Cycle Engineering Conference*, 236-241.
- Stewart, R., Mohamed, S., & Daet, R. (2002). Strategic implementation of IT/IS projects in construction: A case study. *Automation in Construction*, 11, 681-694.
- Solymossy, E. (2015). Knowledge networks: differences and performance effects. *Journal of Small Business Strategy*, 11(1), 14-25.
- Tolouie, A., Rahnemaye\_Roodposhti, F., & Abdolvand, K. (2010). The Application of Hybrid Approach of TOPSIS and DEA in Order to Evaluate the Companies Listed on the Tehran Stock Exchange Multi-periodocally. *Journal of Management Accounting*, 3(4), 105-119.
- Toloui, P., & Ekhlacy, A. (2011). Presentation of The System Dynamics Model to Assess the Impact of Customer Relationship Tools on Company Profitability. *Journal of Commerce*, 361, 1-20.
- Walker, O.C., Boyd, H.W., Mullins, J., & Larreche, J. (2003). *Marketing Strategy: A Decision Focused Approach* (4 ed.). New York: McGrawHill Inc.

### **Acknowledgments**

Not applicable.

### **Funding**

Not applicable.

### **Conflict of Interests**

No, there are no conflicting interests.

### **Open Access**

This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. You may view a copy of Creative Commons Attribution 4.0 International License here: <http://creativecommons.org/licenses/by/4.0/>