

Original Research Article

The Relationship between Competitive Advantage and Strategic Thinking in Schools of Physical Education in Iran

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Received: ; Accepted:

ABSTRACT

This study investigates the relationship between competitive advantage and strategic thinking in schools of physical education in selected public universities in Iran. From 314 faculty members 120 were selected as sample population based on Cochran's formula. A questionnaire was devised based on the ranking criteria of Iranian universities and research institutes (2013). For strategic thinking, the standard Goldman's questionnaire of strategic thinking (2005) was employed. Descriptive and inferential statistics were used to analyze the data. The results showed a significant positive correlation between strategic thinking and competitive advantage in general and between strategic thinking the three components of competitive advantage (i.e., educational status, research status and status of facilities). The greatest correlation was found between strategic thinking and education component and the least correlation between facilities component and strategic thinking. Implementing four component of strategic thinking (system thinking, conceptual thinking, futurism and opportunism), leads to more emphasize on improving educational and research status of the organization which can be quantitatively and qualitatively effective in increasing the competitiveness of the faculty.

Keywords: Competitive advantage, Strategic thinking, Physical education

INTRODUCTION

Strategic management is the process through which organizations analyze their internal and external environment and gain knowledge from it. Also, they establish their strategic path and create strategies that help them achieve the set goals¹. The country's physical education organizations have also realized the need for strategic planning in the profession; however, little research has been performed in this field, especially at the macro level².

Considering that one of the reasons for the success of most prosperous organizations is being strategic-oriented, they have chosen a new method of management and thinking called strategic management and thinking³. Strategic thinking helps managers formulate the right strategy for survival and success, and in today's changing and unpredictable environment, as an adjunct to strategic planning, the appropriate leadership approach is considered^{3,4}. This approach can make the organization superior in the current situation and offers it a greater

share of market interests. This framework is a vital management skill in the new millennium. A skill that is necessary to empower the organization to survive and thrive in today's highly competitive environment^{4,5}.

According to Pierce and Robinson, strategy for managers means a large and forward-looking scale to interact with the competitive environment to optimize the achievement of organizational goals. In other words, strategy is the game plan of an organization⁶. Strategic management is a set of managerial decisions and behaviors that determine the long-term performance of the organization and includes activities that require sustainable regulation of three interrelated poles (i.e., senior management, resources, and environment)⁷.

Strategic management, which was changed into strategic thinking in the mid-1980s due to its ineffectiveness, includes a set of decisions and activities that are designed, implemented, and controlled to achieve organizational goals⁶. Strategic thinking is also an approach that is based on the principles of strategy which recommend divergent and creative thinking to create a value-creating strategy and look at strategy as an art rather than a process or methodology⁸.

According to Goldman (2015), strategic thinking is composed of the components of systems thinking, conceptual thinking, opportunism, and futurism⁹. Systems thinking is a unique approach to problem solving in which specific problems are viewed as part of general systems¹⁰.

Having a sustainable health and having a strategic vision in any society can be a criterion for differentiation and competition with others to gain a competitive advantage¹¹. Accordingly, the most appropriate definition of competitive advantage from the perspective of Feurer (1995) includes a factor or combination of factors that in a competitive environment make the organization much more successful than other organizations, and competitors cannot easily imitate it¹².

One of the organizations in which competitive advantage has always been considered is universities, which are

competing to gain more market share and must strengthen their capabilities in various educational, research and facilities dimensions to gain more market share in the global competitive market^{11,13}. Therefore, in this study, we aimed to investigate the relationship between competitive advantage and the strategic thinking of administrators in universities. The relation between each dimension of competitive advantage and the strategic thinking was also investigated. These dimensions are described in next paragraphs.

Strategic thinking (system thinking, conceptual thinking, futurism and opportunism).

Competitive advantages (educational, research and facilities statuses)

In recent years, universities have undergone many changes, as the Organization for Economic Co-operation and Development (OECD) says that universities are no longer a quiet place to teach and do research at a certain pace and to think about the world the same way as in the last century, but they have turned into large, complex, and demanding organizations and a place for competitive business¹⁴.

This competition includes all the three components of the educational status of the faculty, the research status of the faculty and the status of the facilities of the faculties in relation to the others. Educational status can be attributed to the number of faculty members and its ratio to the total number of students and its ratio to the number of graduate students¹⁵. To better grasp the research status of the faculty, it is necessary to consider all the research conducted in the faculty, both quantitatively and qualitatively (the number and quality of published and cited articles) and to assess the status of facilities, quality and quantity of places and equipment of each faculty are examined.

In reviewing the literature, numerous studies on the concepts, components, and conditions of organizations studied in this field have been performed. However, there are few cases that directly address the relationship between the two variables of competitive advantage and

strategic thinking, but in some studies, such as those of Moamaee *et al.* (2013) and Yazdanpanah *et al.* (2013), this relationship has been indirectly examined in Iran^{16,17}.

The review of literature down for this study shown that strategic thinking and competitive advantages have been considered alone or were considered with other variables, therefore their finding could not be used and compared with the body and finding of this study. Nonetheless, some notion could be implicitly seen that indicates there might be a correlation between the two variables considered in this study. For example novelty could lead to competitive advantages (Salunke, 2013)¹⁸. We proposed that novelty could be outcome of system thinking which is one of the four components of strategic thinking (system thinking, conceptual thinking, futurism and opportunity). Therefore, we hypothesis that there should be a positive relation between strategic thinking and competitive advantages in competitive organization such as physical education faculties in Iran.

According to the mentioned cases, what has made this research necessary is to obtain information on possible consistency between the level of strategic thinking among the faculty members of schools of physical education and the level of education, research and facilities of these faculties which have potentials for creating competitive advantage over other faculties.

MATERIALS AND METHODS

The present study is an applied research that has been carried out by the combined method (descriptive-analytical and correlational) in 2015. In this study, all the faculty members of the selected schools of physical education in public universities of Iran, which consisted of 341 individuals, were selected as the statistical population. According to the purpose of the study, a statistical sample of 135 people was considered, but after completing the questionnaires, there were 15 cases of attrition and the final statistical sample was 120 people.

Sampling was performed using the cluster random sampling method with appropriate allocation through Cochran's formula. Research variables included

competitive advantage and strategic thinking. Strategic thinking is an independent variable and competitive advantage is the dependent variable. The instruments used in this study included the Goldman (2005) standard questionnaire of strategic thinking with the Cronbach's alpha coefficient of 0.815 and the ranking criteria of Iranian universities and research institutes (2013) for the competitive advantage variable with the Cronbach's alpha coefficient of 0.812. The face and content validity of the questionnaires was determined by Delphi method and through confirmatory factor analysis.

Strategic Thinking Questionnaire, which consists of 24 items, is rated on a 5-point Likert scale ranging from "Strongly Agree" to "Strongly Disagree". This questionnaire assesses the dimensions of conceptual thinking (6 items), systems thinking (7 items), opportunism (5 items), and futurism (6 items). The Competitive Advantage Questionnaire also consists of 13 items, which are rated on a 5-point Likert scale from "Very Bad" to "Very Good". Dimensions related to the competitive advantage variable include the educational status of the faculty (3 items), the research status of the faculty (5 items) and the status of facilities of the faculty (5 items).

Data analysis was performed using descriptive and inferential statistics in SPSS version 21. In descriptive statistics of this research, mean, standard deviation, percentage, frequency and tables and graphs and in inferential statistics, Levene's test and structural equations have been used.

RESULTS

As can be seen in Table 1, among the selected faculty members, 77.5% of them were men and 22.5% were women. It was found that 82.5% had a doctoral degree and 17.5% had a master's degree, and 3.3% were full professors, 28.3% were associate professors, 50.8% were assistant professors, and 17.5% were lecturers.

Studies were also conducted based on the field of study and it was found that most of these faculty members (34.2%) had a degree in Sports Physiology and the least

with a percentage of 0.8% had a degree in Sports Psychology. Others had a degree in Sports Management (28.3%), Motor Behavior (18.3%), Sports Pathology (9.2%), Sports Biomechanics (5.8%) and Sports Medicine (3.3%).

Table 2 shows the minimum, maximum mean and SD of each dimensions of competitive advantages and

Table 1: Descriptive characteristics of the faculty members

Demographic variables	Descriptive statistics	No.	Percentage
Gender	Male	93	77.5
	Female	27	22.5
Level of education	PhD	99	82.5
	MSc	21	17.5
Scientific ranking	Full professor	4	3.3
	Associate professor	34	28.3
	Assistant professor	61	50.8
	Lecturer	21	17.5
Field of study	Sports Management	34	28.3
	Sports physiology	41	34.2
	Motor Behavior	22	18.3
	Sports Pathology	11	9.2
	Sports Biomechanics	7	5.8
	Sports Medicine	4	3.3
	Sports Psychology	1	0.8

strategic thinking of 120 faculty members as study sample. Being present in more than one variables, some persons are counted two or more times.

Table 3 indicates a significant positive correlation with the confidence level of 0.99 between the variables of strategic thinking and competitive advantage ($P < 0.01$, $r = 0.578$). This means that the existence of strategic thinking in the country's physical education schools and among the faculty members of these schools can increase the competitive advantage of each school of physical education compared to other schools of physical education.

According to Table 4, there was a significant positive correlation between the strategic thinking variable and the educational status component of competitive advantage with a confidence level of 0.99 ($P < 0.01$, $r = 0.696$). This means that improving the educational conditions in the country's physical education faculties and among the faculty members can increase the competitive advantage of each faculty over other faculties. Also, the existence of a significant positive correlation with the confidence level of 0.99 between the strategic thinking variable and the research component of competitive advantage ($P < 0.01$ and $r = 0.435$) also indicates that one of the factors creating

Table 2: Descriptive findings related to the status of research variables and components

Variable/component	No.	Minimum	Maximum	Mean	SD	
Competitive advantage	Educational status	120	2.60	4.00	3.21	0.48
	Research status	120	2.67	4.00	3.21	0.36
	Facilities status	120	2.00	3.40	2.73	0.35
Strategic thinking	120	2.29	3.46	2.89	0.36	

Table 3: Correlation coefficient of the relationship between research variables

Index	No.	Correlation coefficient	P-value
The relationship between strategic thinking and competitive advantage	120	0.578	0.001

Table 4: Correlation coefficient between the strategic thinking variable and the components of competitive advantage

Index	No.	Correlation coefficient	P-value
The relationship between strategic thinking and educational status	120	0.696	0.001
The relationship between strategic thinking and research status	120	0.435	0.001
The relationship between strategic thinking and facilities status	120	0.322	0.001

competitive advantage in faculties can be the existence of appropriate research conditions in the organization. Consequently, a significant positive correlation with the confidence level of 0.99 between the strategic thinking variable and the facilities component of competitive advantage ($P < 0.01$ and $r = 0.322$) can also confirm the importance of having appropriate facilities to create more competitive advantage.

DISCUSSION AND CONCLUSION

A review of the extant literature shows that few studies have examined the positive correlation between the two variables of strategic thinking and competitive advantage, but in various studies, these two variables have been correlated by other variables. For example, Selionek (2013) examined the relationship between competitive advantage and service innovation and concluded that service innovation in an organization can lead to competitive advantage¹⁸. Beikzad *et al.* in a study entitled "Assessment Strategic Thinking Managers and its Impact on Organizational Innovation" concluded that there is a relationship between strategic thinking and organizational innovation, and strategic thinking can lead to innovation in the organization¹⁹. Therefore, from the combination of the above studies and those that have considered other variables as mediating variables, it is possible to understand the relationship between the main variables of this research.

Some other studies whose results are indirectly consistent with the findings of this study include the national studies conducted by Kazemi *et al.* (2011), Moamae *et al.* (2013) and Yazdanpanah *et al.* (2013)^{16,17,20} and international studies conducted by Porter *et al.* (2003), Kumar *et al.* (2016), Cantele *et al.* (2018), Tan *et al.* (2015)^{21,22}.

The results of this study indicate a significant relationship between the two variables of strategic thinking and competitive advantage. Therefore, according to the research literature and the present results, it can be stated that to gain a competitive advantage in the country's schools of physical education, strategic thinking should be considered as one of the related

components? A point we had no research based information in this context before this study. Also, according to the results, considering that competitive advantage consists of the three components of education, research and facilities and all of them have a significant relationship with strategic thinking. Therefore, paying attention to strategic thinking can improve quality and quantity of education, research and facilities.

In fact, administrators need long-term insight and thinking to make their faculty eligible for gaining superiority to other competitors. If administrators have a broad agenda for their organization's future and anticipate the unexpected around them (whether good or bad), they will be able to adopt appropriate solutions to prevent potential harms and analyze the future economic, social and cultural status of existing universities, and the position of their faculty among them. With such performance, they can take steps to increase the competitiveness of their organization and shape the future of the organization in a different way from other organizations.

Also, the results of this study indicate a significant relationship between the variable of strategic thinking and the education component of competitive advantage. Therefore, the existence of strategic thinking can improve the educational conditions of schools of physical education. Accordingly, administrators should take a strategic view to increase the number of faculty members with higher degrees and pay attention to postgraduate courses. Increasing the total number of faculty members relative to the number of students in the relevant faculty and encouraging them to achieve scientific awards, as well as encouraging students to participate in sports tournaments can be the result of long-term thinking in administrators.

Considering that the research results indicate a significant relationship between the variable of strategic thinking and the research component of competitive advantage, paying attention to strategic thinking can improve the quantitative and qualitative status of research in schools of physical education. Accordingly,

strategic managers need to encourage their faculty members to deliver lectures and attend conferences and congresses, thereby gaining a competitive advantage for their faculty over other faculties. They can try to encourage faculty members to present as many scientific research articles, books, book translations, etc., while increasing the quality of their research services, to place the faculty higher in research affairs than other faculties.

The results indicate a significant relationship between the variable of strategic thinking and the facilities component of competitive advantage; thus, paying attention to strategic thinking can improve the quantitative and qualitative status of facilities and equipment in schools of physical education. The awareness of this strategic view can increase the facilities and spaces such as scientific and sports spaces, libraries and books, research centers, etc. Given that the provision of various facilities and equipment in the faculty requires the availability of financial resources, strategic managers should be able to carefully consult with relevant officials and estimate future events, review various conditions and predict the consequences of their decisions, make the necessary decisions regarding spending or not spending money to improve the situation of the faculty and gain a competitive advantage.

The research findings in general indicates that using strategic insight has a good potential to gain competitive advantage over other faculties. Implementing four component of strategic thinking (system thinking, conceptual thinking, futurism and opportunism), leads to more emphasize on improving educational and research status of the organization which can be quantitatively and qualitatively effective in increasing the competitiveness of the faculty.

It can be briefly stated that strategic thinking is a powerful variable to achieve competitive advantage which consist of educational, research and facilities status of each faculty. This means that managers with their vision and strategic thinking can predict the possible strengths and weaknesses of their organization in the future. They can attract and employ expert professors

and providing higher educational study and needed workshops to strengthen their faculty. Also, by providing appropriate research opportunities and giving credit to faculties for their publications, participation in seminars and conferences. The existence of facilities, especially in fields such as physical education, is also one of the important components of gaining a competitive advantage. Therefore, foresight and creating opportunities to strengthen and complete educational facilities are also important in the superiority of the faculty over other faculties.

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How to cite this article: Mirzazadeh ZS, Dayani A, Azimzadeh SM and Keshtidar M. The Relationship between Competitive Advantage and Strategic Thinking in Schools of Physical Education in Iran. *Indian J Health Sci and Care* 2021;8(2):95-101.