

Research Paper

# Evaluation of agility in universities with the IPA model (Case study: Ardakan University)

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**Abstract**

In this research, a model is presented to measure the importance and performance of different dimensions of agility in the university. To analyze the results, in addition to the calculations related to importance and performance, the importance-performance matrix (IPA) is used, which can show the location of the agility dimensions and the strengths and weaknesses of the organization. This model was implemented as a case study in Ardakan University and the obtained results were evaluated and analyzed. A questionnaire and a survey of faculty members and employees were used to evaluate agility, and the results show that there is no significant difference between these two groups. The evaluation and analysis of the obtained information about the importance and performance of different agility items has been done with the help of the IPA matrix, and decisions about these items have been presented based on their position in the matrix. Based on this matrix, the strengths and weaknesses of Ardakan University and the cases that do not need to be allocated a budget at the moment have been identified and suggestions have been made for the university managers.

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## ***Extended Abstract***

### ***Introduction***

Agility as the business paradigm of the new century is a winning strategy to be able to compete in the global market with customers whose needs change rapidly (Sarлак, Delangizan & Kakeh baraie, 2016). There are different definitions for organizational agility, but in simple terms, it can be said that it is the ability of the organization to survive and progress in an environment with continuous and unpredictable changes. In addition to surviving in such environments, agile organizations can also gain benefits and opportunities for themselves (Karami, 2008).

The need for the agility of higher education in dealing with the changes in the world after the corona pandemic showed itself well. In this change, trying to maintain the quality of education while responding to the needs of students, staff and professors, and clear and accurate communication with these groups, universities faced new challenges (Connolly & Farrier, 2022). Virtual education and the use of digital tools have also strengthened concepts such as virtual university, agile university and 4th generation university (Shrivastava & Shrivastava, 2022).

The main question of this research is to identify the state of agility in Ardakan University and the position of different aspects of agility in terms of their importance and performance and their prioritization. With such an analysis; the strengths, weaknesses and problems of the university in the field of agility can be identified and ranked.

### **Theoretical Framework**

Agility as a strategy for organizations in the 21st century to quickly adapt to changes was introduced to the world by Iacocca Research Institute in 1991. Later, many researchers in this field researched and presented models and defined different dimensions for agility in organizations (Sarлак, et al, 2016). Agility in academia is defined as its ability as a living human system to thrive and learn from continuous changes in the environment, so that change becomes part of normal organizational life and not a threatening event (Sharpe, 2012).

The IPA matrix was first proposed in 1977 to evaluate service quality. As a simple and understandable tool, IPA has wide applications in evaluating the organization by managers and shows a good picture of the organization's performance.

Moradi, Hosseinpour, & Mehralizadeh, (2021) investigated the primary and secondary factors affecting agility in the University of San'at Naft and showed that university culture, knowledge management and information technology are effective on the strategic agility of managers and training and empowerment of employees and value addition of employees on organizational agility.

Pourjavid, Khosravipour, & Alibaygi, (2021) examined agility in the dimensions of causal, contextual, intervening, core, strategies, and consequences of agility in agricultural education in Iran. This research describes the methods of achieving agility in agricultural universities and has not provided a model to evaluate the level of agility.

### **Methodology**

This qualitative research is applicable in terms of purpose, and descriptive-analytical in terms of nature and method. The statistical population under investigation was all Ardakan University personnel (including staff and faculty members), whose number was 110 at the time of the research. By calculating the sample size through Cochran's formula at the error level of 10%, the number of 51 people was obtained as a sample. A total of 50 answer sheets were collected and the data of 47 of them were confirmed.

To conduct this research, a questionnaire with 27 items on a 5-point Likert scale was used to measure the importance and performance of different agility factors in Ardakan University. In order to use the IPA model, the questionnaire is set in two sections: importance and performance. In order to measure content validity, the opinion of seven professors and experts in this field who had at least one article on university agility was received.

### **Discussion and Results**

SPSS 19 software was used to check the research hypothesis and analyze data, and ANOVA test was used to check the difference of opinion of different occupational groups, and the results showed that the significance level (Sig.) for all dimensions of agility is higher than 0.05, that is, the reason is not enough to reject the null hypothesis, and in all dimensions the sample mean is equal to the expected mean. In other words, the importance of all aspects of the university's agility is high from the viewpoint of the university's staff and faculty. Friedman's test was also used for the performance of different dimensions of agility. The results of this test show that according to the significance value less than 0.05, the average performance of agility in different dimensions is not the same. The performance ranking results of different dimensions with the help of Friedman's test in Table 9 show that although agile leadership ranked first in terms of importance, it was ranked third in terms of performance. The ANOVA test results show that the significance level (Sig) for all dimensions is higher than 0.05, that is, the average gap in all dimensions is equal for different occupational groups. As a result, there is no significant difference between the opinions of the faculty, staff, and faculty with the executive position.

### **Conclusion**

The present research was conducted with the aim of assessing the agility in universities with the IPA model (case study: Ardakan University). Rapid changes in the environment, businesses, educational needs, teaching methods and new technologies have drawn the attention of university managers and higher education institutions to agility in the university. In the past, many studies in this field have been conducted in other countries and also in our country. Most of these studies have estimated the level of agility by surveying university faculty members about different dimensions. In this article, the performance-importance tool is proposed to measure different aspects of agility in the university and it has been used specifically in Ardakan University. Also, in addition to faculty members, employees have also been surveyed for evaluation. The results of the research showed that the importance of all dimensions of agility is high and performance in all dimensions is less than that. Comparing the performance gap in all dimensions and the opinions of faculty members and employees showed that the opinions of the different groups surveyed did not differ significantly. At the end, by placing the different dimensions and items of the questionnaire in the importance-performance matrix, the situation of each is analyzed and solutions are provided for them. According to the current research, the following are suggested:

- Focusing on more interaction and encouraging teamwork between employees and faculty members by holding face-to-face and virtual meetings and defining projects and tasks as a team

- Strengthening the industry communication unit to create and expand cooperation networks with different industries and specialists and hold related seminars

- Designing and creating appropriate systems and processes for evaluating and supporting the research of students, staff and faculty