Presentation Model of Entrepreneurial Attitude based on Knowledge Management and Innovation with Mediating Role of Ethical Intelligence in Academic-Applied Comprehensive Universities of West Azerbaijan Province

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Abstract
Purpose: Present research aimed to presentation model of entrepreneurial attitude based on knowledge management and innovation with mediating role of ethical intelligence in academic-applied comprehensive universities.

Methodology: This study in terms of purpose was applied and in terms of implementation was descriptive from type of correlation. The research population was the employees of the academic-applied comprehensive universities of West Azerbaijan province in academic years of 2018-19 with number of 600 people. According to the size of the population and based on the Kerjeci and Morgan table, 234 people were selected as the sample according to the classified sampling method based on the city of the place of employment. To collect data used from the questionnaires of entrepreneurial attitude (Robbins & Coulter, 1989), knowledge management (Fong & Choi, 2009), organizational innovation (Choupani & et al, 2012) and ethical intelligence (Lennick & Kiel, 2005) and to analyze data used from structural equation method with the help of SPSS-19 and Smart PLS-3 software at a significantly lower level than 0.05.

Findings: The findings showed that the model had the fit well and knowledge management and organizational innovation had a positive and direct effect on ethical intelligence, knowledge management, organizational innovation and ethical intelligence had a positive and direct effect on entrepreneurial attitude and knowledge management and organizational innovation with mediating ethical intelligence had a positive and indirect effect on entrepreneurial attitude (P<0.05). Ethical intelligence was a good mediator between knowledge management and organizational innovation with an entrepreneurial attitude.

Conclusion: Based on the results, in order to increase the entrepreneurial attitude of the employees of the academic-applied comprehensive universities can through workshops improve the level of ethical intelligence, knowledge management and organizational innovation.

Keywords:
Entrepreneurial attitude, knowledge management, innovation, ethical intelligence, university

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1. Introduction

Today, organizations are constantly looking for new ways to improve the performance of their employees and the changing conditions of today's organizations, increasing competition and the need for their effectiveness in such conditions reveal the need for organizations to have capable employees with entrepreneurial attitude (Beynon, Jones, Pickernell, 2020). In today's competitive world, the study of entrepreneurship and entrepreneurial attitude has become one of the most important research areas in the field of management and leadership (Gloss, Pollack, Ward, 2017). An inward attitude and readiness and entrepreneurial attitude of personal orientations towards future worthwhile activities and self-employment in small businesses that are motivated to progress, inner control, self-esteem and creativity (Mahfud, Triyono, Sudira, Mulyani. 2020). Entrepreneurial attitude engages the individual in the entrepreneurial process and this type of attitude is a combination of three types of cognitive, emotional and behavioral reactions to an entrepreneurial topic (Do, Dadvari, 2017).

One of the factors related to entrepreneurial attitude is knowledge management (Bandera, Bartolacci, Passerini, 2016). Knowledge management is an approach to improve the organization and strengthen the capabilities and capabilities of human resources by emphasizing learning and knowledge sharing (Durst S, Hinteregger, Zieba, 2019). This structure indicates that knowledge reaches the right people at the right time, people share in that knowledge and uses it to improve and improve the performance of the organization (Friedrich J, et all, 2020). Knowledge management is a coherent systematic process that uses the right combination of information technology and human interaction to identify, manage and share the organization's information assets (Colomo-Palacios, et all 2018).

Another factor related to entrepreneurial attitude is organizational innovation (Usai, et all2018). The ability to innovate exists only in a limited number of people, and innovation is more than a personality intelligence and genius, it is a practical and applied method that requires knowledge, ability, accuracy and purposeful effort (Wang, Chen, (2020). Organizational innovation means the process of gathering, sharing and operational application of objective and tacit knowledge, and its realization requires the transformation of ideas into usable organizational forms and improving the performance of the organization (Arranz, et all, 2019) . Innovative organizations respond better to various environmental changes, use new technical knowledge, compete successfully with other organizations, and always seek to improve their performance and effectiveness (Anzola-Raman, Bayona-Saez, Garcia-Marco 2018).

One of the variables that can mediate between knowledge management and organizational innovation with entrepreneurial attitude is moral intelligence. Intelligence is the ability of individuals to adapt to situations and moral intelligence is related to values and ethical principles (Prasetyawan, Barida, 2018). Moral intelligence means the ability of individuals to understand the right attitudes, thoughts and behaviors from the wrong, to have universal moral beliefs and to act on them (Shahbaziyan Khonig, Hasani, Soleymani, 2018). This structure has four principles: honesty (doing right and honest deeds), responsibility (accepting one's actions and consequences), forgiveness (knowing one's own and others' mistakes and faults, and forgiving oneself and others) and compassion (empathetic attention to others) (Dangmei, Singh, 2017).

Given the importance of entrepreneurial attitude in the competitive world, few studies have examined the impact of knowledge management, organizational innovation and ethical intelligence on it. For example, the results of Amiri (2018) showed that knowledge management had a positive and significant effect on entrepreneurship. Shokrollahi, Karimi (2016) while researching concluded that knowledge management had a positive and significant relationship with employees' entrepreneurial tendencies. The results of the study Bandera, Bartolacci, Passerini (2016) showed a positive and significant relationship between knowledge management and entrepreneurship. Draghici, Albulescu, Tamasila (2014) concluded that the relationship between knowledge assets and entrepreneurial attitude There was a significant positive relationship. In another study Hasanpour Rodbaraki, Mohammad Davoudi (2016) reported that
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knowledge sharing had a positive and significant relationship with moral intelligence. Akhavan, Ramezan, Yazdi Moghaddam (2013) while researching this result they found that knowledge management and ethics had a positive and significant relationship. Also, the results of Poursadeq (2018) research showed that organizational innovation had a positive and significant relationship with organizational entrepreneurship Eshghiarghi, Nezamdost, Zolanvari (2017) while researching this they concluded that innovation and entrepreneurship had a positive and significant relationship. The results of Yumar, et al (2018) showed a positive effect of innovation on entrepreneurial (Kusmintarti, Asdani, Riawajanti (2017) while concluding that between innovation And there was a positive and significant relationship between entrepreneurial attitude in another study (Aliasgari, Dehghan, Taghavi Ali, Sharifi (2017) reported that organizational innovation and ethical intelligence in employees had a positive and significant relationship. Cavus, Bicer (2016) concluded that there was a positive and significant relationship between innovation behaviors and ethics. In addition, the results of Safari Jafarloo, Ghorbani, Zareiyan (2018) showed that spiritual intelligence Sirine H, Kurniawati EP (2018), while researching, concluded that ethics had an effective role in improving entrepreneurship.

Given the role and importance of entrepreneurship and entrepreneurial attitude in the success of organizations and since some studies have examined the impact of a number of variables on entrepreneurial attitude, but these studies have paid less attention to the role of knowledge management, organizational innovation and ethical intelligence. Therefore, one of the research gaps is the lack of attention of previous researches to the direct and indirect impact of knowledge management, organizational innovation and moral intelligence on entrepreneurial attitude. Also, universities of applied sciences have an important role in employment and another research gap is the lack of research background on the impact of variables on entrepreneurial attitude in this organization. Since in order to improve a trait (entrepreneurial attitude), one must first identify the factors and variables related to it and then design and implement appropriate programs based on it, and according to the above, the present study aims to provide a model. Entrepreneurial attitude was based on knowledge management and innovation with the mediating role of moral intelligence in comprehensive universities of applied sciences.

2. Methodology

This study was applied in terms of purpose and descriptive-correlational in terms of implementation. The research population of the comprehensive universities of applied sciences of West Azerbaijan province in the academic year 1397-98 was 600 people. According to the population size and based on Krejcie and Morgan table, 234 people were selected as the sample by stratified sampling method based on the city of service. For this purpose, first the population size in each city of West Azerbaijan province was prepared and then its ratio was obtained based on dividing the volume of each city into the total sample (600 people) and finally the same proportion of cities were randomly sampled. In the next step, while stating the purpose, importance and necessity of the research and observing the principle of confidentiality, the samples were asked to honestly answer the items of the following questionnaires.

Entrepreneurial Attitude Questionnaire: The Entrepreneurial Attitude Questionnaire was designed by Robbins, Coulter (1989). This tool has 10 items, which according to the five Likert options range from one to five scores and a higher score indicates a higher entrepreneurial attitude. Robbins SP, Coulter M (1989) confirmed the construct validity of the instrument by factor analysis method and its reliability by Cronbach's alpha method of 0.88. Also, in Beiginia, Safari, Mohammadi (2010) research, the reliability of Cronbach's alpha method was 0.87. In the present study, the reliability of this tool was calculated by alpha method of 0.927.

Knowledge Management Questionnaire: Knowledge Management Questionnaire was designed by Fong, Choi (2009). This tool has 25 items, which according to the five Likert options range from one to five scores and a higher score indicates higher knowledge management. Fong, Choi (2009) confirmed the
construct validity of the instrument by factor analysis method and its reliability by Cronbach's alpha method of 0.92. Also, in Khalilnejad, et al. (2018) research, the reliability of Cronbach's alpha method was 0.88. In the present study, the reliability of this tool was calculated by alpha method of 0.928.

Organizational Innovation Questionnaire: Organizational Innovation Questionnaire was designed by Choupani, et al. (2012). The tool has 17 items, which according to the Likert five options range from one to five scores and a higher score indicates higher organizational innovation. Choupani, et al. (2012) confirmed the construct validity of the instrument by factor analysis method and its reliability by Cronbach's alpha method of 0.89. In the present study, the reliability of this tool was calculated by alpha method of 0.935.

Moral Intelligence Questionnaire: The Moral Intelligence Questionnaire was designed by Lennick, Kiel (2005). This tool has 40 items, which according to the Likert five options range from one to five scores and a higher score indicates higher moral intelligence. Lenick and Kiel (2005) confirmed the validity of the instrument structure by factor analysis method and its reliability by Cronbach's alpha method of 0.94. Also, in the study (Shahbaziyan Khonig, Hasani, Soleymani (2018), the reliability of Cronbach's alpha method was 0.85. In the present study, the reliability of this instrument was calculated to be 0.944 alphas.

Data were collected and entered into the software using SPSS-19 and Smart PLS-3 software by structural equation analysis.

3. Findings

The subjects of this study were 234 people; In terms of gender, 63 were men and 171 were women, and in terms of education, 13 were diplomas, 57 were associates, 72 were bachelors, 82 were masters and 10 were doctors. Also, in terms of age, 108 people were 35-36 years old, 102 people were 45-36 years old, 13 people were 55-46 years old and 11 people were over 55 years old. In addition, 72 people were 1-5 years old in terms of work experience, 86 people were 6-10 years old, 45 people were 11-15 years old, 12 people were 16-20 years old, 13 people were 21-25 years old and 6 people were 26-30 years old.

Table 1 reports the average results, standard deviation and correlation coefficients of knowledge management, organizational innovation, moral intelligence and entrepreneurial attitude.

Table 1. Mean standard deviation and correlation coefficients of knowledge management, organizational innovation, ethical intelligence and entrepreneurial attitude

<table>
<thead>
<tr>
<th>Variables</th>
<th>Average</th>
<th>Standard deviation</th>
<th>Knowledge management</th>
<th>Organizational Innovation</th>
<th>Moral Intelligence</th>
<th>Entrepreneurial attitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>knowledge management</td>
<td>3/118</td>
<td>0/687</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational Innovation</td>
<td>3/122</td>
<td>0/792</td>
<td>0/637**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moral Intelligence</td>
<td>3/098</td>
<td>0/632</td>
<td>0/766**</td>
<td>0/641**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Entrepreneurial attitude</td>
<td>3/253</td>
<td>0/851</td>
<td>0/773**</td>
<td>0/632**</td>
<td>0/706**</td>
<td>1</td>
</tr>
</tbody>
</table>

**P<0/01**

The results of Table 1 show that the relationships between knowledge management, organizational innovation, moral intelligence and entrepreneurial attitude are significant (P <0.01). Examination of the assumptions of the analysis method showed that the assumption of data normality for all four variables was confirmed by Kolmogorov-Smirnov test and the assumption of sufficient correlation between variables to model structural equations is also based on Table 2. Figure 1 shows the fitted model of entrepreneurial attitude based on knowledge management and organizational innovation with the mediating role of moral intelligence along with standard coefficients of paths.
Figure 1. Fitted model of entrepreneurial attitude based on knowledge management and organizational innovation with the mediating role of moral intelligence with standard coefficients of paths.

Table 2 shows the results of the indices $R^2$ (a criterion for connecting the measurement part and the structural part of structural equation modeling and indicating the effect of an exogenous variable on an endogenous variable) and $Q^2$ (a criterion for showing the predictive power of the model) to examine the model fit.

<table>
<thead>
<tr>
<th>Variables</th>
<th>$R^2$</th>
<th>$Q^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge management</td>
<td>0.613</td>
<td>0.809</td>
</tr>
<tr>
<td>Organizational Innovation</td>
<td>0.564</td>
<td>0.747</td>
</tr>
<tr>
<td>Moral Intelligence</td>
<td>0.611</td>
<td>0.886</td>
</tr>
<tr>
<td>Entrepreneurial attitude</td>
<td>0.765</td>
<td>0.765</td>
</tr>
</tbody>
</table>

The results of Table 2 show that the model has a good fit based on two indicators $R^2$ and $Q^2$. Table 3 reports the results of the research hypotheses.

<table>
<thead>
<tr>
<th>theories</th>
<th>Path coefficient</th>
<th>Amaran</th>
<th>meaningful</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Knowledge management has a direct impact on entrepreneurial attitude.</td>
<td>0/170</td>
<td>3/746</td>
<td>&lt;0/05</td>
</tr>
<tr>
<td>2. Organizational innovation has a direct impact on entrepreneurial attitude.</td>
<td>0/216</td>
<td>2/440</td>
<td>&lt;0/05</td>
</tr>
<tr>
<td>3. Knowledge management has a direct impact on moral intelligence.</td>
<td>0/492</td>
<td>2/794</td>
<td>&lt;0/05</td>
</tr>
<tr>
<td>4. Organizational innovation has a direct impact on moral intelligence.</td>
<td>0/112</td>
<td>1/620</td>
<td>&lt;0/05</td>
</tr>
<tr>
<td>5. Moral intelligence has a direct impact on entrepreneurial attitude.</td>
<td>0/675</td>
<td>2/453</td>
<td>&lt;0/05</td>
</tr>
<tr>
<td>6. Knowledge management through moral intelligence has an indirect effect on entrepreneurial attitude.</td>
<td>0/332</td>
<td>2/538</td>
<td>&lt;0/05</td>
</tr>
<tr>
<td>7. Organizational innovation through moral intelligence has an indirect effect on entrepreneurial attitude.</td>
<td>0/076</td>
<td>2/558</td>
<td>&lt;0/05</td>
</tr>
</tbody>
</table>

The results of Table 3 show that knowledge management and organizational innovation have a positive and direct effect on moral intelligence, knowledge management, organizational innovation and moral intelligence have a positive and direct effect on entrepreneurial attitude and organizational knowledge and innovation mediated by moral intelligence has a positive effect on entrepreneurial attitude. Have indirect $(P<0.05)$. 
4. Discussion

Competition in organizations is a very important issue today, and organizations that cannot update themselves and have an entrepreneurial attitude will fade and be eliminated over time. As a result, the present study aimed to provide a model of entrepreneurial attitude based on knowledge management and innovation with the mediating role of moral intelligence in comprehensive universities of applied sciences.

One of the results of the present study was that knowledge management had a positive and direct effect on entrepreneurial attitude and this result is in line with the results of research by Amiri (2018) on the positive impact of knowledge management on entrepreneurship, Shokrollahi, Karimi (2016) on the positive relationship between management Knowledge was in line with entrepreneurial tendencies, Bandera, Bartolacci, Passerini (2016) on the positive relationship between knowledge management and entrepreneurship and Draghi, Albulescu, Tamasli (2014) on the positive relationship between knowledge assets and entrepreneurial attitude. Explaining this result based on the opinion of Bandera, Bartolacci, Passerini (2016) it can be said that knowledge management emphasizes the use of knowledge to create competitive advantage and dynamism of organizations in today’s fast and complex growth environment. Like capital and labor, it has decreased due to availability or the possibility of alternatives, but the importance of a capable workforce in the field of knowledge management has increased and today in organizations, knowledge is the most important source of production and determines the lead in competing with other organizations. The use of knowledge management and its procedures is not only an advantage, but also a necessity, and knowledge management has become an important source of competitive advantage for organizations, the importance of which is increasing. Since entrepreneurship is a process in which the entrepreneur, under the support of his organization and knowledge, expresses his entrepreneurial attitudes and activities, so with the increase of knowledge management, the amount of entrepreneurial attitude also increases.

Another result of the present study was that organizational innovation had a positive and direct effect on entrepreneurial attitude and this result with the results of Poursadeq (2018) research on the positive relationship between organizational innovation and organizational entrepreneurship, Eshghiaraghi, Nezamdost, Zolanvari (2017). On the positive relationship between innovation and entrepreneurship, Umar, et all (2018) on the positive impact of innovation on entrepreneurship and Kusmintarti, et all (2017) on the positive relationship between innovation and Entrepreneurial attitude was consistent. In explaining this result based on the opinion of Kusmintarti, Asdani, Rivajanti (2017), it can be said that innovation or the creation of new and innovative thoughts and ideas in the organization is of particular importance. Organizations today are successful and can survive in a highly competitive world that is constantly applying new ideas to the organization, and this will be possible by creative managers and employees. Another important point is that entrepreneurial attitude and behavior does not occur in a vacuum, but is formed in a suitable context of a set of preconditions, and innovation is one of its main conditions. For this purpose, the environment of an organization that can be influenced by fields should lead to the initiation and maintenance of innovative strategies and without innovation and empowerment of decision-making in the organization to innovative and creative people cannot achieve organizational goals and increase organizational effectiveness. As a result, organizational innovation enhances the entrepreneurial attitude.

Also, the results of the present study showed that knowledge management had a positive and direct effect on moral intelligence. Yazdi Moghaddam (2013) found that the positive relationship between knowledge management and ethics was consistent. Explaining this result based on the opinion of Hassanpour Rudbarki and Mohammad Davoodi (2016) it can be said that the intense competition of organizations in the national, international and global arenas, organizations in addition to tangible assets, pay special attention to their intangible assets. One of these assets is paying attention to knowledge
management and how it is shared in the organization. Effective knowledge management is a valuable source of competitive advantage for the organization and since knowledge in the organization itself has no value and must be used by individuals, so it is necessary to pay attention to the people who use and produce knowledge. On the other hand, today, observing ethics and having moral intelligence in organizations has become very important; So that the role of moral beliefs in the decision-making of individuals is such that it affects many decisions and the source of success and failure of individuals and organizations can be sought. Since both knowledge management and moral intelligence improve the performance and effectiveness of the organization, it can be expected that with the increase of knowledge management, the level of moral intelligence will also increase.

Other results of the present study were that organizational innovation had a positive and direct effect on moral intelligence and this result with the results of Aliasgari, et al. (2017) on the positive relationship between organizational innovation and moral intelligence and Cavus, Bicer (2016) on the positive relationship between innovation behaviors and ethics. Explaining this result based on the opinion of Cavus, Bicer (2016), it can be said that successful innovations are the result of intelligent search for innovative opportunities that are obtained only in specific situations, including sources of innovative opportunities that can be used in a particular organization or field, Achieved unexpected events, inconsistencies, process needs, and market and world changes, changing population characteristics, changing attitudes, new values and knowledge, and so on. These resources are the cause of most innovation opportunities and also overlap, but they differ in terms of risk-taking, difficulty and complexity, and often more than one of them can be considered as a factor of innovation. Given the role of ethics in the success of the organization, innovative people, while paying attention to innovative resources and opportunities, also pay special attention to ethical issues. As a result, it makes sense that increasing organizational innovation promotes moral intelligence.

Another result of the present study showed that moral intelligence had a positive and direct effect on entrepreneurial attitude and this result with the results of Safari Jafarloo, Ghorbani, Zareiyan (2017) research on the effect of spiritual intelligence on entrepreneurial attitude and entrepreneurial intention and Sirine, Kurniawati (2018) was based on the effective role of ethics in entrepreneurship. In explaining this result, based on the opinion of Shahbaziyan Khonig, Hasani, Soleymani (2018), it can be said that the principles of moral intelligence include honesty (having moral values and acting accordingly and honestly) and responsibility. So people with high moral intelligence in personal and professional life are happy and efficient, consider themselves responsible for improving the job situation and promoting the position of their organization among other organizations, strive to improve the performance and effectiveness of their organization, in the face of non-realization and acceptance Their thoughts and attitudes (entrepreneurial thoughts and attitudes) are patient and have a high ability to express their talents and abilities that these factors can play an effective role in their productivity, so moral intelligence through the processes described can increase attitudes. Be entrepreneurial.

In addition, the results of the present study showed that knowledge management and organizational innovation had a positive and indirect effect on entrepreneurial attitude mediated by moral intelligence. In explaining this result, it can be said that knowledge management is a coherent systematic process that uses an appropriate combination of information technologies and human interaction to identify, manage, and share the organization's information assets, organizational innovation is the process of collecting, sharing and applying objective knowledge It is tacit and its realization requires turning ideas into usable organizational forms and improving the organization's performance. As a result, the impact of knowledge management and organizational innovation on entrepreneurial attitude mediated by moral intelligence in the staff of the University of Applied Sciences can be explained by the fact that the staff believed that in today's dynamic and high-risk world to strengthen their survival; they must oblige their managers and employees to observe moral intelligence. Because without it, there is no encouragement for
employees, service quality decreases and customer and student satisfaction decreases. Another point is that without moral intelligence, a position is not guaranteed and there is no job promotion, because moral intelligence means the capacity and ability to understand the wrong, to have strong beliefs and to practice them, and to behave in the right direction. Therefore, it can be said that the staff of the University of Applied Sciences came to the conclusion that without moral intelligence, it is not possible to understand why they do something or how their presence in the organization will affect the organization and the whole world.

Each research faces limitations during implementation and the limitations of this study include the inherent limitations of the questionnaires, the difficulty of conducting due to the dispersion of comprehensive universities of applied sciences in West Azerbaijan province, small research background and the limited community of staff of comprehensive universities of applied sciences in West Azerbaijan province. Therefore, it is suggested that, if possible, more research on entrepreneurial attitudes and even entrepreneurial behavior be used to collect data from interviews, and this study was conducted on comprehensive universities of applied sciences in other provinces and even other public, non-profit and free universities. Based on the results of this study, it is recommended to use workshops to promote moral intelligence, knowledge management and organizational innovation to increase the entrepreneurial attitude of the staff of comprehensive universities of applied sciences. Another recommendation is that the officials and staff of the University of Applied Sciences design and implement programs to improve the entrepreneurial attitude.
References


