Learning Orientation, Innovation and Performance: Evidence from Small-Sized Business Firms in Iran

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Abstract
In the world where the only thing one can trust in is lack of confidence, for organizations to respond to this wavy environment, they need innovation, which by itself has a central role in the movement toward the comparative advantage and supreme performance. Although many researchers have in the past been carried out investigating the effect of innovation on organization's performance, it seems that in future we will face lack of applicable studies on the effect of learning orientation on innovation in general, and on the innovation of small firms in particular.

Having investigated 82 small firms of Tehran with the aim of filling the gap existing in the research literature of the country, the present study showed that organization’s commitment to learning, open-mindedness and shared vision have significantly positive effects on the innovation of small firms. The results obtained from the regression analysis also indicated the presence of significantly positive relationships between innovation and profitability, sale and ROI in small firms.

Keywords: Learning Orientation, Innovation, Performance, Small Firms.

1. Introduction
Quick changes in customers, technology and competition, which are the main characteristics of today's dealings (e.g. [13]), have encountered firms with fundamental challenges with regard to keeping and also increasing their products and services from the point of view of customers [28]. Hence, for organizations to survive and continue their life, they need to continuously seek for obtaining a stable competitive advantage [41]. Some believe that the ever-increasing attention of firms to innovation originates from the role of innovation as a key factor in obtaining the stable competitive advantage [18], [30]. In fact, this is because innovation, in addition to developing firm's capabilities, enables it to correspond with the environmental changes, and thus is necessary for organization to have a long-lasting life [9], [37]. Therefore, learning is observed as a stimulus that can increase the capacity of a firm's innovation [8], [20]. In other words, it is the process of learning through which innovation is directly promoted [24]. Through the extension of learning or the spreading of a new vision in organization [20], and in addition to increasing the ability to perform new ideas, processes or products, and also apart from creating the capacity of innovation in organization [25], the learning process causes
the increase of efficiency in developing new product, marketing and the technological synergy between
new product and the existing advantages of firm [6].

Although many researchers have in the past been done investigating the effect of innovation on
the commercial performances of firms, there exists relatively little research that tries to recognize the
dimensions and also the factors stimulating innovation, especially in the developing countries.

Therefore, the role that learning plays in creation and development of knowledge for innovation
and successful performance of a firm is of such specifically high importance [19], [25] that it is known
as a pre-requisite for the creation of a culture that support innovation [25].

Thus, with respect to the importance of this strategic area in the literature of management, the
present study intends to explain the effect of learning on innovation and performance of firm. The
results can be helpful with respect to supporting the research literature in the area under analysis and
also providing suitable tools for other researchers and managers.

2. Learning Orientation and Innovation
Organizational learning has in the past decades turned into an important factor for obtaining
competitive advantage [6] and the ability to learn faster than other competitors has been known as a
source for stable competitive advantage [41]. Hence, all the dealings that are competing in a dynamic
and changing environment should follow the processes of learning, change of behaviour and
improvement of performance [41]. Through focusing on the perception and effective fulfilment of
visible and invisible needs of customers, [14], [40], organizational learning leads to many pleasant
results including success in new product, maintenance of customers, increase in profitability and access
to the quality which is desirable in the eyes of customers [41], and in case the organization's flexibility
increases, it will enable the organization to quickly react against new environmental opportunities and
threats [41].

However, the main challenge each dealing will face is to create a culture which is based on
leaning in organization [14]. In fact, through the process of leaning orientation, each organization will
be enabled to develop a new kind of knowledge and vision which is potentially effective on the
behaviour of individuals [40], and thus will lead to improvement in the performance of organization
[4], [8], [40].

Learning orientation is known as the acceptance of the process of learning in organization [37].
In other words, it stands for the tendency of organization to create and apply knowledge in
organization [33]. Furthermore, in addition to providing more opportunities for learning and sharing of
individuals in the knowledge of others, with the expansion of learning all throughout organization, and
also with the increase in the ability of performing ideas, processes or new products, learning
orientation can cause the creation of a capacity of innovation in organization [11], [12], [43]. That is
why some individuals know learning orientation to be necessary for the increase in the ability of
innovation in organization [12], [43]. In fact, many studies indicate that there is a strong relationship
between learning orientation and innovation [1], [8], [12], [17], [20], [31], [39]. In general, the process
of innovation entails the acquisition, expansion and application of new knowledge [12], [43] (i.e. the
three factors which are indicative of the close relationship between innovation and learning orientation
[8]). Concerning the above discussion, for an organization to utilize the process of learning orientation,
it needs organizational capabilities including commitment to learning, open-mindedness and shared
vision, which are by themselves the various dimensions of learning orientation [39].

3. Commitment to Learning
Organizations commitment to learning is the amount to which an organization considers learning as
worthy and thus tries to not only promote the process of learning [39], but also to create and strengthen
an atmosphere for learning in the organization [35]. In fact, learning is known by the firm that has
commitment to learning as an important investment which is necessary for the maintenance of organization [39]. Therefore, the more an organization considers learning as valuable, the more probable it will be for that organization to get access to this process [39].

Having knowledge and ability to understand and predict the need of customers, the firm committed to learning will by no means lose the opportunities created in market [12], [7]. Moreover, because of being committed to innovation, and also due to having ability to offer and use technology in innovations [16], the organization committed to learning can increase its ability to innovate [8], thus, being more capable of innovation as compared to its rivals [12]. Considering the above discussions, the first hypothesis is put forward as follows:

H1: organization's commitment to learning has a significantly positive relationship with innovation.

4. Open-mindedness

Open-mindedness refers to the critical evaluation of organization's daily operations and the acceptance of new ideas [39]. In other words, it is a process through which organization starts deleting the existing knowledge or the repetitive assumptions and habits [33]. This is because the existing knowledge can work as a fundamental obstacle to keep organization far from the vision and processes that are necessary for innovation and transition [28]. In other words, previous learning stops the occurrence of new learning in organization [5]. Therefore, as far as innovation is concerned, firms are unable to get prominent unless they follow this attitude, although they may seek for other methods for maintenance [8]. Thus, the second hypothesis is propounded as follows:

H2: open-mindedness has a significantly positive relationship with innovation.

5. Shared Vision

Shared vision refers to the concentration of all members of organization on learning which leads to strengthening their energy, commitment and purposefulness [39]. Actually, in addition to creating harmony in different parts of organization, shared vision leads to increase in the quality of learning [8]. In fact, without shared vision, learning of individuals in organization will be extremely meaningless. In other words, even though individuals are stimulated for learning, their problem is that they don’t know what to learn unless they have a shared vision [8]. Therefore, it is due to lack of shared vision that organizations are unable to perform creative ideas [22]. Thus, the third hypothesis is submitted as follows:

H3: shared vision has a significantly positive relationship with innovation.

6. Innovation and Performance of FIRM

Innovation is the creation, and performance of new ideas, processes, products or services [42]. It is also known as successful performance of creative ideas in organization [3].

In fact, through the development of organization's capabilities and conforming them to environment, innovation leads to strengthening creative advantage and obtaining supreme performance [20], [25]. The ability to innovate is the most important characteristic determining the performance of firm [10], [11], which is confirmed by many studies that are indicative of the positive relationship between innovation and performance of firm [9], [12], [20], [31], [32]. Considering the aforementioned discussions, the fourth hypothesis is propounded as follows:

H4: Innovation in organization has a significant and positive relationship with firm's performance (profitability (4a), sale (4b), ROI (4c)).
7. Method

A. Samples

Organizations should deal with quick changes in technology and wavy markets [8]. The occurrences of continuous changes in technology indicate the necessity on the part of small firms to pay attention to innovation [26]. Despite the fact that large firms have ever increasingly got dependent on small ones for the provision of the parts they need, and although this dependency has had a positive effect on the development of small firms, the power of large firms has forced small ones to decrease their prices and to increasingly accept the strategies that are based on innovation. Moreover, continuous development of products characteristics, which is considered as a competitive threat in market, has caused small firms to seek for strong and stable competitive advantages which let them quickly respond to the changing conditions of market. Thus, the need of small firms to pay attention to innovation as an inevitable necessity has distinguished this area as a suitable field for research.

Regarding the result of a pilot study, the standard deviation was decided to be 0.8. Moreover, using the formula of Without Replacement Sampling which was done from a small population (N: 7101), sample size was decided to be 81 at the significance level of 0.05 and the test power (1-β) of 0.8 and the maximum error of 0.25. Because it was predicted that some firms would probably not respond the questionnaires, thus leading to fall of data, 220 firms were selected through simple random sampling without replacement and the questionnaire was sent to them. Then, from all the questionnaires 82 were gathered.

B. Questionnaire and Scales

In order to provide the questionnaire and to gather data regarding the research variables, the questionnaires of the previous studies having the same variables were used. Therefore, the tools for data gathering were of enough validity. Moreover, to investigate the reliability of the questionnaire, a pre-test was performed on a small sample using the Cronbach's α coefficient on all the items and the α score for all the variables were indicative of the questionnaire's having a high level of reliability (Table I). Table I also shows the α relating to each variable with regard to the deletion of each question. Due to small difference between the α score obtained after the deletion of each question and the overall α relating to that variable, it seems that with the deletion of each question, the overall α will not increase and this strengthens the reliability of the questionnaire.

Commitment to learning was measured by 4 questions using the scale of Galer and Van Der Heijden [15] and Sinkula [40]; open-mindedness was also measured through 4 questions using the scale of Hult and Ferrell [23]; and at last shared vision was measured with the help of 4 questions using the scale of Sinkula et al [39]. The questions relating to the above variables put the emphasis on values that, with affecting the tendencies of a firm, cause the firm to diligently seek for acquiring new knowledge and challenging the existing conditions. These scales have been used in many researches [8], [20], [21]. The learning orientation score is obtained from the mathematical mean of the above three variables. Innovation is measured through 5 questions using the scale of Hurley and Hult [25]. This scale examines the management's idea regarding the acceptance of new and innovative ideas in organization. In order to examine the performance of firm, three scales of profitability, sale and return of investment were used. The reason for the selection of these variables was their being highly used in previous studies and also their having conformity with the data needed for the present article (ROI: [27], [36]; Sale: [27], [36], [41]; Profitability: [2], [36]). All the above questions were designed in the format of a likert scale with 5 levels, from 1 = very little to 5 = very Much.
Table 1: Reliability Analysis for Multi-item Scales

<table>
<thead>
<tr>
<th>Item</th>
<th>Reliability coefficients</th>
<th>Alpha if item is deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Commitment to learning (N of items=4)</strong></td>
<td>(α=0.97)</td>
<td></td>
</tr>
<tr>
<td>Managers, basically, agree that our business unit’s ability to learn is the key to our competitive advantage.</td>
<td>0.969</td>
<td></td>
</tr>
<tr>
<td>The basic values of this business unit include learning as a key to improvement.</td>
<td>0.973</td>
<td></td>
</tr>
<tr>
<td>The sense around here is that employee learning is an investment, not an expense.</td>
<td>0.976</td>
<td></td>
</tr>
<tr>
<td>Learning in my organization is seen as a key commodity necessary to guarantee organizational survival.</td>
<td>0.972</td>
<td></td>
</tr>
<tr>
<td><strong>Shared vision (N of items=5)</strong></td>
<td>(α=0.83)</td>
<td></td>
</tr>
<tr>
<td>There is a total agreement on our organizational vision across all levels, functions and divisions.</td>
<td>0.732</td>
<td></td>
</tr>
<tr>
<td>All employees are committed to the goals of this organization.</td>
<td>0.752</td>
<td></td>
</tr>
<tr>
<td>All employees view themselves as partners in changing the direction of the business unit.</td>
<td>0.856</td>
<td></td>
</tr>
<tr>
<td>There is a commonality of purpose in my organization.</td>
<td>0.822</td>
<td></td>
</tr>
<tr>
<td><strong>Open-mindedness (N of items=4)</strong></td>
<td>(α=0.90)</td>
<td></td>
</tr>
<tr>
<td>We are not afraid to reflect critically on the shared assumptions we have made about our customers.</td>
<td>0.924</td>
<td></td>
</tr>
<tr>
<td>Personnel in this enterprise realize that the very way they perceive the marketplace must be continually questioned.</td>
<td>0.851</td>
<td></td>
</tr>
<tr>
<td>We rarely collectively question our own bias about the way we interpret customer information.</td>
<td>0.853</td>
<td></td>
</tr>
<tr>
<td>We continually judge the quality of our decisions and activities taken over time.</td>
<td>0.864</td>
<td></td>
</tr>
<tr>
<td><strong>Innovation (N of items=5)</strong></td>
<td>(α=0.90)</td>
<td></td>
</tr>
<tr>
<td>Management actively seeks innovative ideas.</td>
<td>0.874</td>
<td></td>
</tr>
<tr>
<td>Innovation, based on research results, is readily accepted in our organization.</td>
<td>0.875</td>
<td></td>
</tr>
<tr>
<td>Innovation is readily accepted by management.</td>
<td>0.883</td>
<td></td>
</tr>
<tr>
<td>People are penalized for new ideas that don’t work.</td>
<td>0.913</td>
<td></td>
</tr>
<tr>
<td>Innovation in our organization is encouraged.</td>
<td>0.881</td>
<td></td>
</tr>
<tr>
<td><strong>Performance (N of items=3)</strong></td>
<td>(α=0.92)</td>
<td></td>
</tr>
<tr>
<td>Realization of firm’s profitability aims in the past 3 years.</td>
<td>0.886</td>
<td></td>
</tr>
<tr>
<td>Realization of firm’s Sale aims in the past 3 years.</td>
<td>0.895</td>
<td></td>
</tr>
<tr>
<td>Realization of the ROI derived by firm in the past 3 years.</td>
<td>0.912</td>
<td></td>
</tr>
</tbody>
</table>

8. Results
Due to the fact that the scales of the research variables were ordinal in nature, to investigate the relationship between the variables and the amount of correlation among them, the Spearman correlation coefficient was used (Table II). The results, depicted in table II, are indicative of the existence of a strong relationship between the research variables at the significance level of 0.01 (α=0.01). Thus, considering the results shown in table 2, a regression analysis was used to test the research hypotheses.

Table 2: Description Statistics, Cronbach's Alpha and Correlation

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Cronbach's coefficient alpha</th>
<th>Commitment to learning</th>
<th>Shared vision</th>
<th>Open-mindedness</th>
<th>Innovation</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commitment to learning</td>
<td>3.756</td>
<td>0.824</td>
<td>0.97</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shared vision</td>
<td>3.454</td>
<td>0.648</td>
<td>0.83</td>
<td>0.701**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open-mindedness</td>
<td>3.506</td>
<td>0.714</td>
<td>0.90</td>
<td>0.715**</td>
<td>0.790**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovation</td>
<td>3.792</td>
<td>0.656</td>
<td>0.90</td>
<td>0.748**</td>
<td>0.646**</td>
<td>0.798**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Performance</td>
<td>2.963</td>
<td>0.809</td>
<td>0.92</td>
<td>0.576**</td>
<td>0.502**</td>
<td>0.510**</td>
<td>0.499**</td>
<td>1</td>
</tr>
<tr>
<td>N</td>
<td>82</td>
<td>82</td>
<td>82</td>
<td>82</td>
<td>82</td>
<td>82</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A. The Effect of Learning Orientation on Innovation
The results obtained from the Regression analysis regarding the effect of different dimensions of learning orientation (i.e. commitment to learning, open-mindedness and shared vision) on innovation are indicative of the acceptance of the related hypotheses. As expected, commitment to learning (β=0.722; t=9.321; P < 0.001), open-mindedness (β = 0.817; t = 12.675; P<0.001) and shared vision (β=0.671; t= 8.093; p < 0.001) are significantly and positively related to innovation, leading to the acceptance of hypotheses 1, 2 and 3, respectively (Table III).
B. The Effect of Innovation on Performance

To test hypothesis 4 which is investigating the relationship between innovation and commercial performance of small firms, including profitability (4a), Sale (4b) and ROI (4c), the Regression analysis was used. The results showed that innovation has a positive effect on profitability of firm, (β=0.573; t= 6.251; P< 0.001); thus, hypothesis 4a is also accepted. The results also indicate that innovation has a significantly positive effect on the sale of firm (β= 0.613; t=6.923; P<0.001); thus hypothesis 4b is also accepted. Moreover, the results obtained from the Regression analysis show that innovation has a significantly positive effect on ROI (β = 0.406; t = 3.968; P < 0.001). Thus, hypothesis 4c is also accepted (Table IV).

C. Learning Orientation and Performance

Considering the results obtained from the Regression analysis, in addition to the main hypotheses of the research, other findings of the study which are related to the different dimensions of learning orientation (i.e. commitment to learning, open-mindedness and shared vision) and performance of small firms (i.e. Profitability, sale and ROI) are also presented as additional findings. The results of the Regression analysis show that commitment to learning has positive and significant relationships with profitability (β=0.55; t= 5.897; P<0.001), Sale (β = 0.571; t = 6.218; P<0.001) and ROI (β = 0.475; t= 4.833; P < 0.001). Moreover, the results are indicative of significantly positive relationships between open-mindedness and Profitability (β=0.551; t= 5.899; P< 0.001), Sale (β= 0.599; t = 6.689; P<0.001) and ROI (β= 0.413;t= 4.057; P< 0.001).

Furthermore, the results obtained from the Regression analysis indicate that there are significant and positive relationships between shared vision and profitability (β = 0.530; t= 5.593; P<0.001), Sale (β = 0.586; t = 6.471; P < 0.001) and ROI (β = 0.415; t= 4.085; P<0.001).

Table 3: Regression of Learning Orientation and Innovation

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>B</th>
<th>t</th>
<th>F</th>
<th>R²</th>
<th>Adjusted R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commitment to Learning</td>
<td>0.722***</td>
<td>9.321</td>
<td>86.8***</td>
<td>0.521</td>
<td>0.515</td>
</tr>
<tr>
<td>Shared Vision</td>
<td>0.671***</td>
<td>8.093</td>
<td>65.4***</td>
<td>0.450</td>
<td>0.443</td>
</tr>
<tr>
<td>Open-Mindedness</td>
<td>0.817***</td>
<td>12.675</td>
<td>160.6***</td>
<td>0.668</td>
<td>0.663</td>
</tr>
</tbody>
</table>

p<0.001 ***

Table 4: Regression of Innovation and Performance

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Independent Variable</th>
<th>B</th>
<th>t</th>
<th>F</th>
<th>R²</th>
<th>Adjusted R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profitability</td>
<td></td>
<td>0.573***</td>
<td>6.251</td>
<td>39.07***</td>
<td>0.328</td>
<td>0.320</td>
</tr>
<tr>
<td>Sale</td>
<td></td>
<td>0.613***</td>
<td>6.932</td>
<td>48.05***</td>
<td>0.375</td>
<td>0.367</td>
</tr>
<tr>
<td>ROI</td>
<td></td>
<td>0.406***</td>
<td>3.968</td>
<td>15.7***</td>
<td>0.164</td>
<td>0.154</td>
</tr>
</tbody>
</table>

p<0.001 ***

9. Conclusion

The present study investigated the effect of learning orientation on innovation and performance of Tehran's small firms. To do so, and in line with the literature existing in the area of learning orientation and innovation, 6 hypotheses were put forward the first three of which wanted to examine the effects of the different dimensions of learning orientation including commitment to learning, open-mindedness...
and shared vision, respectively, on innovation. Moreover, the other hypotheses tried to examine the effect of innovation on performances of firm including, profitability (4a), Sale (4b) and ROI (4c).

The results of the study indicate that learning orientation has a significant and positive effect on innovation of firm. This result is consistent with those of previous studies [1], [8], [12], [17], [20], [31], [39]. In other words, the high level of commitment to learning, open-mindedness and shared vision lead to more innovation in small firms.

With regard to the findings, organization's commitment to learning leads to strengthening the culture of learning in organization. In fact, in this culture, due to the fact that organization has a tendency to create and use knowledge, more opportunities are provided for learning in organization, thus increasing the capacity for innovation. Actually, developing individual's knowledge and having them share their knowledge with each other on the one hand [39], and increasing the ability to perform new ideas, processes or products on the other [25], leads to increase in the capacity of firm's innovation [11], [12], [25]. Therefore, due to having knowledge and ability to understand and predict customer's needs [7], [12], having commitment to innovation [16] and also because of strengthening the atmosphere for learning and welcoming new ideas in organization [39], the organization that has commitment to learning is capable of increasing its ability of innovation and this way benefiting from having a more capacity for innovation as compared to its rivals. This result is consistent with those of other researches [8], [12], [20].

Moreover, the findings of the study show that the high level of open-mindedness in small firms leads to their having more innovation, causing the second hypothesis to be accepted. In other words, benefiting from open-mindedness, firm will be able to critically evaluate organization's daily operations [39] and to challenge previous learning [5] and through deleting repetitive methods, assumptions and previous beliefs, it can manage to support innovation in organization [8].

Furthermore, the findings indicate the existence of a positive and significant relationship between shared vision and innovation. In other words, through concentrating on learning, small firms manage to strengthen energy, commitment and purposefulness of their personnel [39]. In general, the findings show that learning will be meaningless, unless there is a single thing to which personnel can focus their attention. Otherwise, they won't know what to learn even if they are all highly motivated to learn. This finding is consistent with previous studies [8], [22], [39].

The findings also show that innovation has a positive and significant effect on the performance of small firms. In general, having a high ability to innovate, organization will be enabled to use and support new ideas and processes which may lead to supplying new products, services or technologies. Moreover, coordinating organization with environmental changes, innovation causes small firms to develop competitive advantage and acquire supreme performance [12], [20], [25].

Finally, being related to previous studies in the field of innovation and learning organization, the findings of the present research provides readers with suitable empirical evidence in the research literature of the country in general and in the area of small firms of Tehran in particular. It also provides suitable tools for managers and other researchers.
References


