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The Impact of Business Intelligence on Financial Performance, with a Focus on the Mediating Role of Organizational Innovation and Learning, as Perceived by Managers of International Trading Companies in Golestan Province

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Abstract The aim of this study was to examine, from the viewpoint of managers of international trading companies in Golestan province, the impact of business intelligence on financial performance in relation to the mediating role of organizational innovation and organizational learning. The current study falls into the applied research category in terms of classification based on purpose, and it is a descriptive-survey type of correlational research in terms of data collection method and type. The 484 managers of international trading companies in the province of Golestan make up the statistical population for this study. A sample size of 214 participants was determined using Cochran's formula with a 5% margin of error and a simple random sampling method. The information was gathered using standard questionnaires. Using Pls Smart software, data analysis was carried out using the structural equation modeling method. The average amount of the research variables which include financial performance, organizational learning, innovation, and business intelligence was found to be 3.43; 3.55, 3.67, and 3.50 were obtained. Considering that the average of all questionnaires for all variables is equal to 2.5, it can be concluded that all variables are in a favorable situation.

Keywords Business intelligence, Financial performance, Trading companies

1. Introduction

Financial performance is a fundamental concern in all organizational analyses, and it is challenging to envision an organization that does not engage in performance evaluation and measurement. The evolving conditions of the global economy have introduced conflicting economic goals and expectations within organizations (Battilana et al., 2022). According to Itter et al. (2003), financial performance measures how effectively a business meets its shareholders' financial objectives to increase their wealth. Evaluating and measuring financial performance enhances system intelligence and encourages positive behaviors. As noted by Baah et al. (2021), the formulation and implementation of organizational policy are crucial components, significantly influenced by financial performance. Organizations, especially those in the economic and production sectors, struggle to meet stakeholders' needs and expectations if they exhibit poor financial performance (Akisik and Gal, 2017). Many stakeholders assert that employing business intelligence and optimizing financial outcomes such as productivity and profitability are primary goals for many firms. Factors like organizational innovation (Rouhani et al., 2016; Torres et al., 2018) and organizational learning (Arconte, 2018; Shao et al., 2022) enhance an organization’s financial performance. Companies aiming to improve their financial performance, increase earnings, and reduce costs should leverage elements like business intelligence, as it plays a critical role in this process. Organizational learning and innovation were considered regarding their influence on financial performance.

However, effectively using data to make faster, more accurate decisions is crucial for many businesses' success. To achieve this, businesses must adopt powerful and efficient technologies like business intelligence (BI), which helps automate analysis, decision-making, strategy development, and forecasting (Niu et al., 2021; Di Vaio et al., 2022). In other words, businesses use BI to collect, process,

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and analyze large volumes of data, transforming it into business value that informs decision-making through intelligent analytical reporting platforms (Rikhardsson and Yigitbasioglu, 2018). BI enhances an organization's effectiveness and efficiency at all levels, fostering sustainable development (Visinescu et al., 2017). BI programs analyze activities and provide data to better understand, improve, and optimize corporate processes. BI significantly impacts cost control and performance assessment systems (Williams and Williams, 2010). Achieving organizational goals involves the intelligent use of all available resources, techniques, methods, and tools (Al-Okaily et al., 2023).

Furthermore, an organization's ability to identify, accept, adapt to, and operate effectively amidst environmental changes is crucial for its survival. Organizational learning is essential for driving organizational change and adapting to the environment (Peschl, 2023). Organizational learning involves members identifying mistakes and taking corrective actions. According to Soomro et al. (2021), it is the process of improving performance through knowledge and understanding. Companies that can learn faster, better, and earlier than their competitors tend to be more successful (Sahibzada et al., 2021). A continuously learning business is more likely to identify and exploit market opportunities, provide relevant and targeted products, and maintain customer engagement, all contributing to increased economic and financial profitability, prioritizing production and sales (Chen et al., 2021). Organizational learning enhances companies' capabilities to boost sales, provide better support, and acquire, retain, and nurture new customers. Faster knowledge acquisition strengthens strategic capacities, competitive edge, and overall performance (Hina et al., 2021).

Moreover, innovation is a key indicator of organizational sustainability, defined as the effective implementation of new ideas from organizational processes that integrate various resources (Jabłoński, 2016). Innovation is vital because it provides a sustainable competitive advantage, ensuring survival and growth. It is a prerequisite for the progress, development, and excellence of both organizations and society (Zimmerman, 2000). Manufacturing workers without the necessary skills struggle to collaborate, generate new ideas, and execute planned tasks. Structural capital, the ability of an organization to maintain its regular business procedures and structures, enables employees to achieve optimal intellectual and overall business performance (Kanjanajuta, 2016). Given the importance of financial performance to organizations and companies, we decided to investigate the factors influencing it based on the above information. In addition, it is crucial to explain in more detail how the hypotheses arise from the theoretical background.

Research conceptual model

The conceptual model of the research is presented as follows:

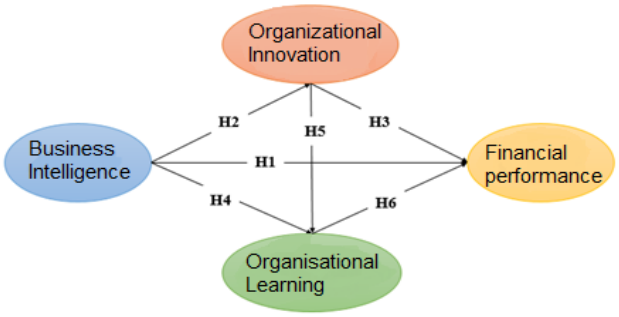

Figure 1. Conceptual model of research

2. Methodology

The current study falls into the applied research category in terms of classification based on purpose, and it is a descriptive-survey type of correlational research in terms of data collection method and type.

Society, statistical sample size and sampling method

The study's statistical population comprises 484 managers from international trading companies in Golestan Province. Using Cochran's formula, a 5% margin of error, and a simple random sampling method, a sample size of 214 was selected.

Methods and tools of information gathering

Two field methods (standard questionnaires) and library studies were employed in this study to gather the necessary data.

A. Questionnaire of Financial Performance: Khatri (2000) created this questionnaire in 2000, and Imanipour translated it in 2017. There are five questions on it. A five-point Likert scale—very high, very moderate, low, and very low—is used to determine its setting. It uses a scoring system of 1 for extremely low and 5 for very high. This test has a minimum score of 5 and a maximum score of 25. A better financial performance is indicated by a higher score. It is assumed that the mean is 10.

B. Organizational learning questionnaire: Shiva et al. created this 14-item questionnaire in 2007. This questionnaire uses a 5-point Likert scale for responses (very little = 1 to very much = 5). This questionnaire consists of five sections: questions 1-2 on gathering experiences; questions 3–4 on taking risks; questions 5–11 on interacting with the outside world; and questions 12–14 on collaborative decision-making and dialogue. A score of 14 is the minimum and a score of 70 is the maximum. The mean in theory is equal to 28.

C. Innovation Questionnaire: This five-item questionnaire was created in 2016 by Gandhi et al. The scoring system uses a five-point Likert scale, with 1 representing very low and 5 representing very high. The score ranges from 5 at the lowest to 25 at the highest, with an average of 10. Greater innovation is indicated by higher scores.

D. Business Intelligence Questionnaire: This 21-item, 4-dimensional questionnaire was created in 2013 by

Rezaeilarijani and associates. Questions pertaining to human resources (numbers 1–8), communication and information technology (numbers 9–13), competitors (numbers 14–16), and customers (numbers 17–21) are scored using a 5-point Likert scale, with 1 representing very little and 5 representing very much. The score ranges from 21 to 105, with an average of 42. Greater innovation is indicated by higher scores.

Structural equation modeling

One of the most effective and suitable techniques for multivariate analysis and research is structural equation modeling, which is based on path analysis or path-structural modeling (variance-based approach). Several criteria are used in the structural equation modeling method to assess the fit of the structural model. The first and most fundamental criterion is the significance coefficients Z, also known as t-values. In actuality, the primary standards for accepting or rejecting hypotheses are the coefficients of the t statistic.

The path coefficient is the structural model's second fit criterion. The way the model fits the path coefficient results in coefficients that are between 1 and -1 that represent the direct and indirect effects of an independent variable on a dependent variable in the path model. It can be inferred that when the independent variable increases, the dependent variable will also increase if the path coefficient between the independent and dependent variables is positive. Conversely, if the path coefficient between the independent and dependent variables is negative, it indicates that when the independent variable increases, the dependent variable will also increase. The dependent variable will decrease relative to the independent variable.

Path analysis

One method for examining the relationship and dependence between variables is path analysis. As a generalization of normal regression, the path analysis method can interpret the relationships and correlations observed between the dependent variables logically and show the direct effects, indirect effects, and total effect of each independent variable. The standardized regression coefficient is the basis for calculating path coefficients. A regression model is created based on the assumption that a variable is a function of other variables. It is sufficient to return each dependent (endogenous) variable to the variables that it directly influences in order to derive estimates of the main path coefficients. The causal model of the structure is the only model included in path analysis; the measurement model is not available. Only variables that have been observed can be used for path analysis. The path analysis demonstrates the strength and direction of the relationships between the research variables. Path coefficients are values that indicate the direction and strength of influence between variables; they are commonly denoted by the Latin letter β. Since path coefficients and standardized regression coefficients are the same, path analysis should be performed using simple linear regression.

The contents state that the conceptual model was created initially based on the research variables, and that Pls Smart software was used to conduct the structural equation modeling method of data analysis.

Descriptive Statistics

Table 1 and Figure 2 present the gender distribution of sample participants. Within the research's statistical sample of 214 individuals, 203 are male and 11 are female.

Table 1. Abundance and frequency percentage of the statistical sample of the research based on gender

gender	Abundance	Frequency
Male	203	94.6
Female	11	5.4
Total	214	100

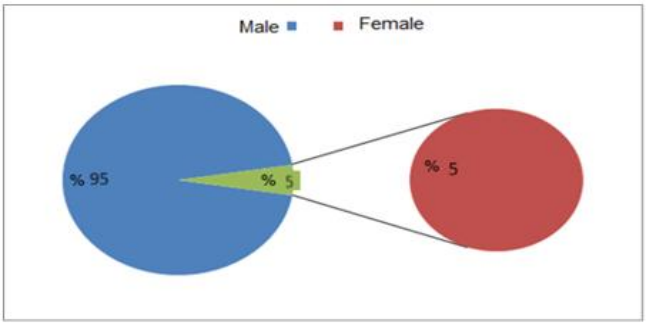

Figure 2. Frequency of statistical sample based on gender

Table 2 and Figure 3 display the distribution of sample participants according to their work experience. Of the 107 respondents, the greatest percentage indicated that they had worked for five to ten years, while the smallest percentage had worked for less than a year.

Table 2. Abundance and frequency percentage of the statistical sample of the research based on work experience

work experience	Abundance	Frequency
Less than a year	17	8
3 to 5 years	66	30.8
5 to 10 years	107	50
More than 10 years	24	11.2
Total	214	100

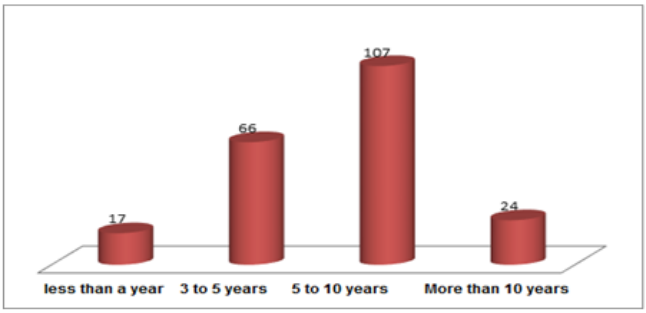

Figure 3. Frequency percentage of statistical sample based on work experience

The age distribution of the sample population is displayed in Table 3 and Figure 4. Based on the findings displayed in Table 3 and Figure 4, the age group of 41 to 50 years old

accounts for the largest proportion of the statistical sample of the research (36.4%), while the age group of less than 30 years old accounts for the lowest percentage (12 people).

Table 3. Abundance and frequency percentage of age group of respondents

age category	Number	Frequency
Less than 30 years	12	5.6
31 to 40 years	59	27.5
41 to 50 years	78	36.4
More than 50 years	65	30.3
Total	214	100

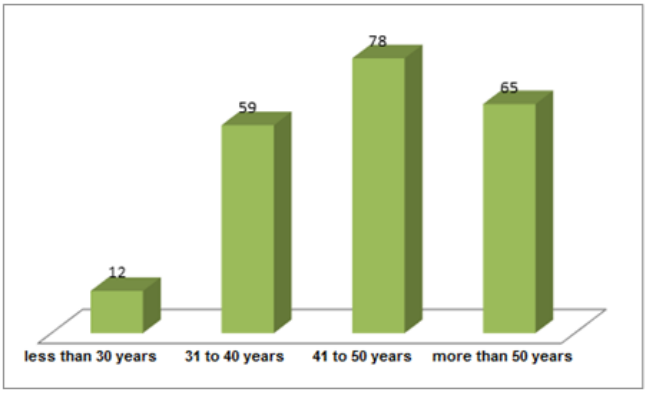

Figure 4. frequency of respondents' age group

In Table 4, the descriptive statistics of the research variables are presented.

The average number of research variables, which include financial performance, organizational learning, innovation, and business intelligence, is 3.43, 3/55, 3/67, and 3/50 were obtained, as shown in table 4.

Table 4. Descriptive statistics of research variables

Variables	standard deviation	Average value	Maximum	Minimum
Business Intelligence	0.564	3.43	5	1
Innovation	0.522	3.55	5	1
Organizational Learning	0.487	3.67	5	1
Financial performance	0.499	3.50	5	1

Inferential statistics

It is essential to assess the model's fit before examining and testing the hypotheses. Fitting measurement models, fitting structural models, and fitting the entire model are the three steps in the model fitting process.

Measurement model fit

A portion of the overall model containing a variable and questions about it is associated with the measurement model. Three criteria are used to assess the fit of measurement models: divergent validity, convergent validity, and reliability.

Reliability and convergent validity

The reliability of the index is measured by three criteria: 1) factor loading coefficients, 2) Cronbach's alpha and composite reliability (CR).

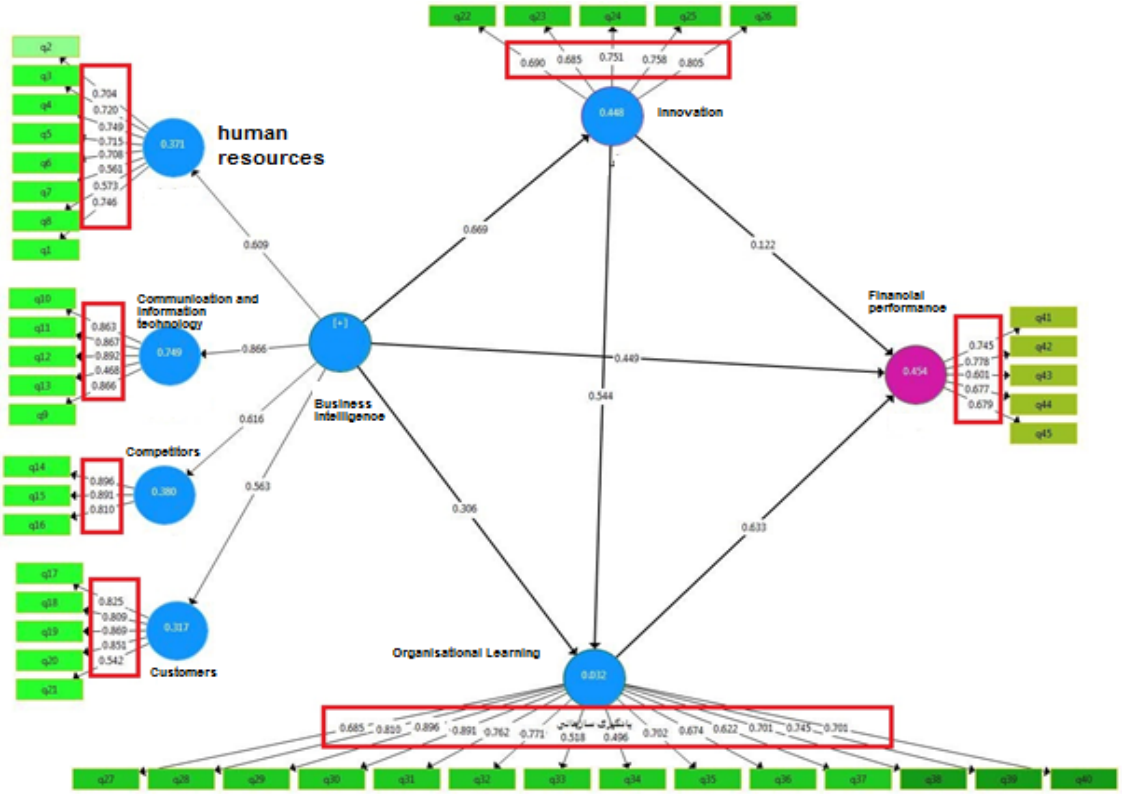

Figure 5. The factor load value of the questions related to the research variables

Factor load factor

By determining the correlation value between a structure's indicators and that structure, factor loadings are computed. This value indicates that the variation between the structure and its indicators is due to the measurement error variance if it is equal to or greater than 0.4. There is more structure, and the measurement model's dependability is acceptable. Consequently, 0.4 is the criterion value for the appropriateness of factor load coefficients; if, following model execution, a question's factor loading is less than 0.4, it will be eliminated so as not to interfere with the analysis of other criteria; however, based on Figure 5, all of the questions' factor loadings are greater than 0.4, so none of them need to be eliminated, and it is therefore possible to conclude that the model has good reliability.

Cronbach's alpha, convergent validity and composite reliability

According to Forner Vanlarker (2016), composite reliability measures how well one dimension's questions correlate with one another for an appropriate fit in measurement models. Two significant indicators of validity are provided by the correlation between measurements of one or more characteristics made using two or more methods. The questionnaire exhibits convergent validity if there is a strong correlation between the results of tests that measure different characteristics. To guarantee that the test measures the things it is intended to measure, this correlation must exist. Composite reliability (CR) and average variance extraction (AVE) are computed for convergent validity. The ensuing relationships ought to be formed:

CR>0.7

AVE>0.5

According to table 5:

- The value of average variance extracted (AVE) is greater than 0.5, so convergent validity is confirmed.
- The value of composite reliability (CR) is greater than the threshold of 0.7 in all cases, so composite reliability is confirmed.
- The value of Cronbach's alpha is greater than the threshold of 0.7 in all cases, so the reliability of the questionnaire is confirmed.

Table 5. The results of convergent validity, composite reliability, and Cronbach's alpha

Research variables	average variance (AVE)	Combined Reliability (C.R)	Cronbach's alpha
Communication and information technology	0.652	0.900	0.851
Competitors	0.751	0.900	0.834
Financial performance	0.766	0.826	0.769
Customers	0.622	0.889	0.839
human resources	0.795	0.877	0.851
Innovation	0.546	0.857	0.799
Business Intelligence	0.550	0.846	0.831
Organizational Learning	0.664	0.812	0.753

Divergent validity

Using the Fornell and Locker method, the correlation between a construct and its indicators and the correlation between that construct and other constructs was compared in order to assess the divergent validity. When the square of the correlation coefficients between a construct and other constructs in the model, or the AVE for each construct, is larger than the shared variance of those other constructs, then divergent validity is considered acceptable. The root value of the AVE of the variables in the current study is greater than the correlation value between them, as indicated in Table 5. Consequently, it can be said that the constructs (substantive variables) in the model interact more with their indicators than with other constructs in the current research. Put differently, the model's divergent validity is sufficient.

Table 6. Divergent validity results

	Communication and information technology	Competitors	Financial performance	Customers	human resources	Innovation	Business Intelligence	Organizational Learning
Communication and information technology	0.808							
Competitors	0.348	0.866						
Financial performance	0.160	0.207	0.875					
Customers	0.478	0.386	0.178	0.789				
human resources	0.298	0.106	0.053	0.297	0.891			
Innovation	0.637	0.423	0.252	0.527	0.275	0.739		
Business Intelligence	0.206	0.616	0.206	0.563	0.609	0.669	0.741	
Organizational Learning	0.152	0.094	0.658	0.158	0.027	0.174	0.148	0.814

Structural model fit

Fitting the structural model comes next, based on the data algorithm in pls, following the fitting of the measurement models. In contrast to the measurement model, the structural model solely looks at the hidden variables and their relationships; it makes no reference to the questions or obvious variables.

R2 criterion

R2 is a criterion that illustrates the impact of an exogenous variable on an endogenous variable and is used to link the measurement and structural parts of structural equation modeling. The model fits better the higher the R2 value in relation to the endogenous constructs of the model. Three values—0.19, 0.33, and 0.67—were introduced as weak, medium, and strong values for model fitting. The value of R2 can verify whether the structural model fits the three criteria appropriately, as shown in the table below.

Table 7. Determination coefficient values

Research variables	R2 values
Communication and information technology	0.749
Competitors	0.380
Financial performance	0.454
Customers	0.317
human resources	0.371
Innovation	0.448
Organizational Learning	0.543

Redundancy index (CV red) or predictive correlation test or Q2

The Q2 index is the second structural model fit index. This criterion, first presented by Stone Gotzet al in 2009, assesses the model's ability to predict endogenous constructs. They contend that models with a good structural fit ought to be able to forecast the model's endogenous variables. It indicates that the hypotheses are correctly confirmed if the relationships between the structures in a model are accurately defined and the structures have a significant enough influence on one another. Three values—0.2, 0.15, and 0.35—have been classified as having low, medium, and strong predictive power by Hensler et al. (2009). Table 8 displays the values pertaining to the variables' Q2 index. It can be concluded that the results demonstrate a strong fit of the research's structural model given the reflected value, which indicates that they have a strong predictive power.

There is only one criterion, known as GOF, that is used to assess the fit of the overall model, which governs both the measurement and structural model components. The relationship below is used to calculate this criterion.

$$\text{GOF} = \sqrt{Communalities \times R}^2$$

$$\text{GOF} = \sqrt{0/533 \times 0/466 = 0/498}$$

R2 is the mean value of the model's endogenous constructs, and communalities is the mean value of each construct's shared values. Three values—0.25,0.36, and 0.36—have been introduced by Vetels et al. as weak, medium, and strong values. The computed value, which equals 0.498, shows that the overall research model fits the data very well.

Table 8. Q2 values Overall model fit

Research variables	Q2 values
Communication and information technology	0.429
Competitors	0.264
Financial performance	0.388
Customers	0.171
human resources	0.376
Innovation	0.216
Organizational Learning	0.453

3. Results and Discussion

Testing research hypotheses

It's time to look over and test the research hypotheses after determining whether the measurement model, structural model, and general model fit together. The following figures present the model that was implemented in the pls software environment to test the research hypotheses.

Main hypothesis test

The primary hypothesis posits that, as perceived by managers of international trading companies in Golestan province, organizational learning and organizational innovation play a mediating role in the relationship between business intelligence and financial performance.

The Sobel test was employed to examine and evaluate the primary hypothesis of the study, which includes a mediating variable.

The Z-value for the Sobel test can be calculated using the formula below. If this number is greater than 1.96, it indicates that the mediating effect of a variable is significant at the 95% level.

$$\text{z} - \text{value} = \frac{a * b}{\sqrt{(b^2 * s_a^2) + (a^2 * s_b^2) + (s_a^2 * s_b^2)}}$$

a: the value of the path coefficient between the independent variable and the mediator

b: Path coefficient value between mediating and dependent variable

sa: the standard error of the path between the independent variable and the mediator

sb is the standard error of the path between the mediator and the dependent variable

The results of the hypothesis test are as follows:

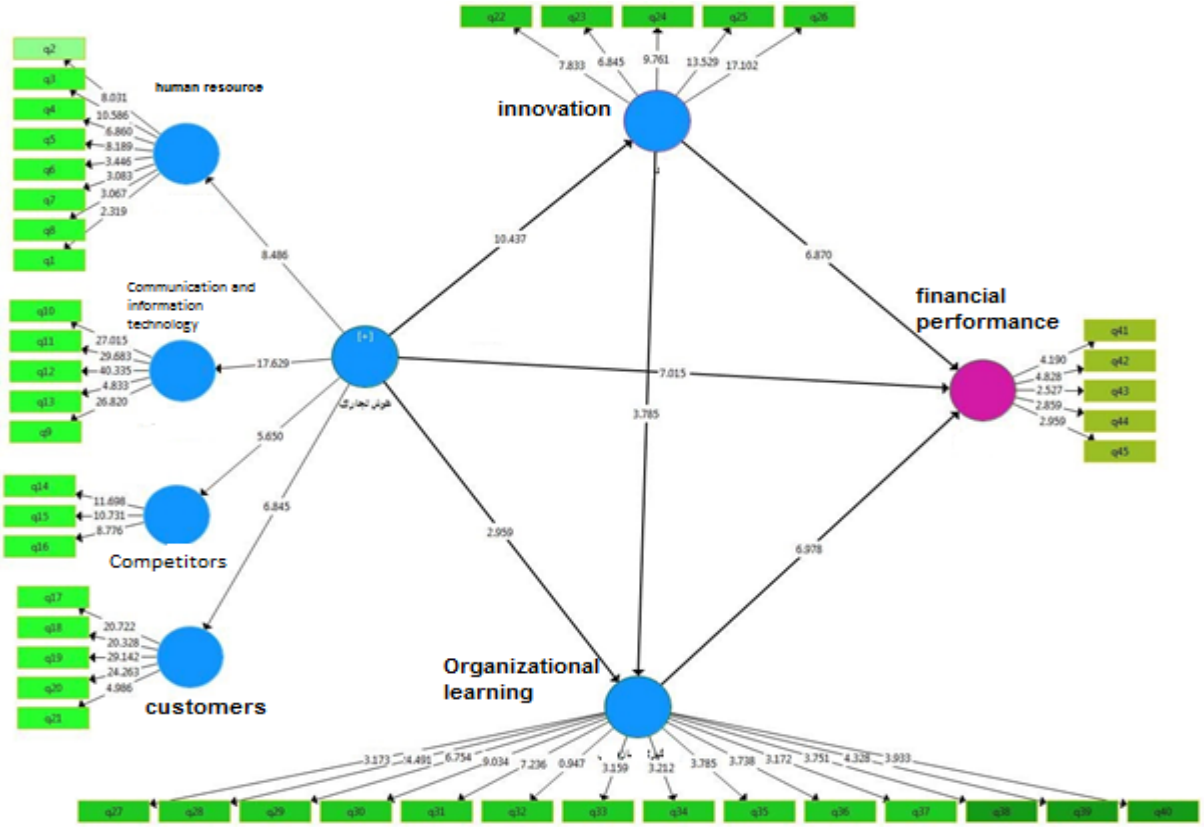

Figure 6. The structural model of examining the research hypotheses in the significance mode

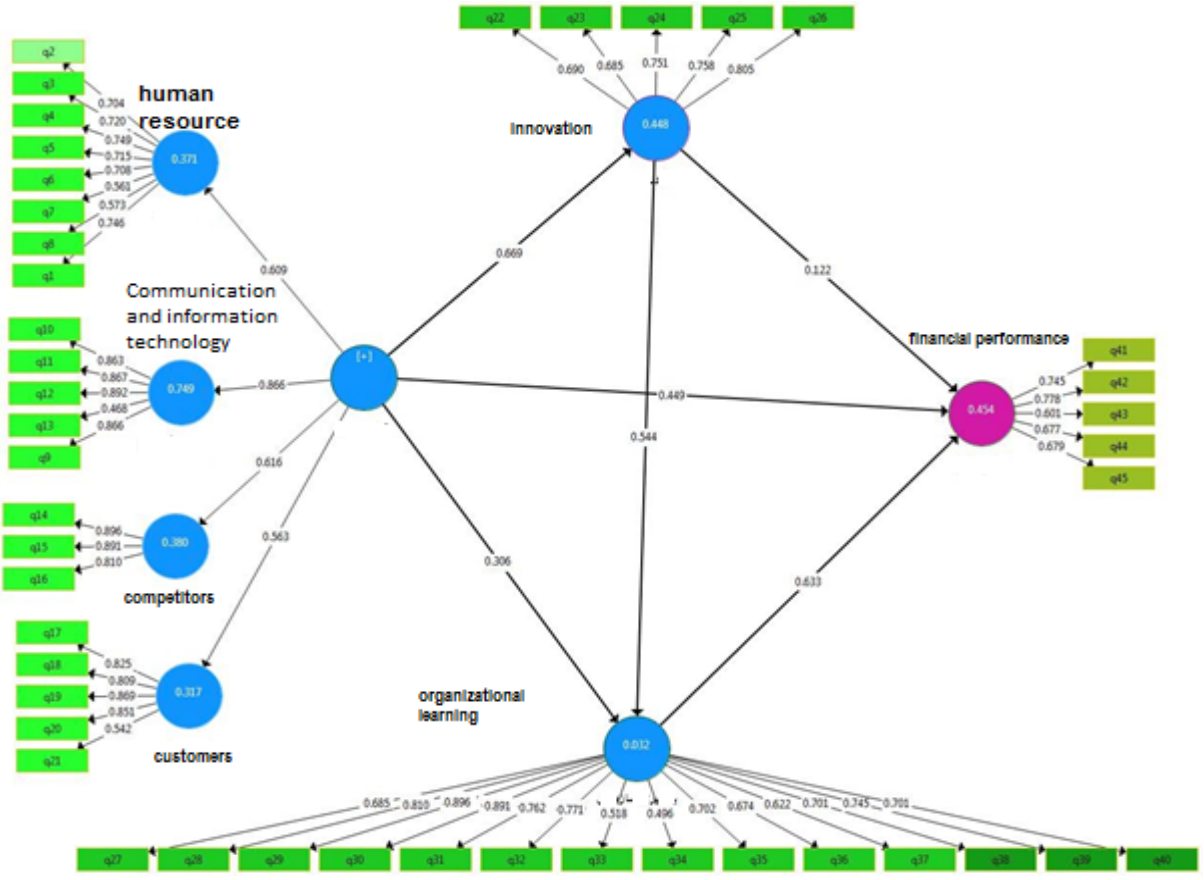

Figure 7. The structural model of the research hypotheses in standard coefficient mode

$$\mathbf{z-value} = \frac{\mathbf{0.669 * 0.122}}{\sqrt{\mathbf{0.122^2 * 0.011^2}} + \sqrt{(\mathbf{0.669^2} * \mathbf{0.092^2}) + \sqrt{(\mathbf{0.011^2} * \mathbf{0.092^2})!}}} = \mathbf{4.07}$$

The hypothesis that business intelligence influences financial performance through the mediating role of organizational innovation, as perceived by managers of international trading companies in Golestan province, is supported by the obtained z-value of greater than 1.96.

Determining the intensity of the influence of the mediating variable

A statistic known as the VAF is used to quantify the strength of the mediating variable's influence. Its value ranges from 0 to 1, and the closer the value is to 1, the greater the influence of the mediating variable. Actually, the ratio of the indirect effect to the overall effect is measured by this value. The following formula is used to determine the value of VAF.

$$VAF = \frac{a \times b}{(a \times b) + c}$$

where a is the value of the path coefficient between the independent variable and the mediator, b is the value of the path coefficient between the mediator and dependent variable, and c is the value of the path coefficient between the independent and dependent variable.

$$VAF = \frac{0.669 \times 0.122}{(0.669 \times 0122) + 0.449} = -0.153$$

The indirect effect is less than the direct effect, as indicated by the independent variable's 0.449 direct effect value on the dependent variable and the mediator variable's 0.153 effect value when analyzed using the Variance Analytic Function (VAF).

In relation to the mediating role of organizational learning variable, the results are as follows:

The results of the hypothesis test are as follows.

$$\mathbf{z-value} = \frac{\mathbf{0.306 * 0.633}}{\sqrt{\mathbf{0.633^2 * 0.056^2}} + \sqrt{(\mathbf{0.633^2} * \mathbf{0.088^2}) + \sqrt{(\mathbf{0.056^2} * \mathbf{0.088^2})!}}} = \mathbf{3.88}$$

The hypothesis that business intelligence influences financial performance through mediating organizational learning, as perceived by managers of international trading companies in Golestan province, is supported by the obtained z-value of greater than 1.96.

Determining the intensity of the influence of the mediating variable

$$VAF = \frac{0.306 \times 0.633}{(0.306 \times 0633) + 0.449} = 0.301$$

Based on the value of the independent variable's direct effect on the dependent variable (0.449), which was also the effect value of the mediator variable (VAF = 0.301), it can be concluded that the indirect effect is smaller than the direct effect.

Test of sub-hypotheses

The first sub-hypothesis states that managers of foreign trade companies in the province of Golestan believe that business intelligence has an impact on financial performance.

Figure 6 shows that the T statistic value obtained is 7.015, indicating that this value is greater than 1.96. This confirms the research hypothesis, which states that business intelligence affects financial performance. In the province of Golestan, the opinions of managers of foreign trade firms have a big influence. Additionally, as shown in Figure 7, the obtained path coefficient equals (β=0.449); this effect is direct because the obtained path coefficient is positive. Thus, from the perspective of managers of international trading companies in Golestan province, it can be concluded that business intelligence has a positive and significant impact on financial performance.

The second sub-hypothesis states that managers of foreign trade companies in the province of Golestan believe that business intelligence influences organizational innovation.

Based on Figure 6, the T statistic value obtained is 10/437, indicating that this value is greater than 1.96. This confirms the research hypothesis, which states that business intelligence influences organizational innovation. In the province of Golestan, the opinions of managers of foreign trade firms have a big influence. Additionally, as shown in Figure 7, the obtained path coefficient equals (β=0.669); this effect is direct because the obtained path coefficient is positive. Consequently, managers of international trading companies in Golestan province believe that business intelligence has a positive and significant impact on organizational innovation.

The third sub-hypothesis states that managers of foreign trade companies in the province of Golestan believe that organizational innovation has an impact on financial performance.

The value of the T statistic obtained is 6.870, as shown in Figure 6, indicating that this value is greater than 1.96. This confirms the research hypothesis, which states that organizational innovation affects financial performance. In the province of Golestan, the opinions of managers of foreign trade firms have a big influence. Additionally, as shown in Figure 7, the obtained path coefficient equals (β=0.122); this effect is direct because the obtained path coefficient is positive. Thus, from the perspective of managers of international trading companies in Golestan province, it can be concluded that organizational innovation has a positive

and significant impact on financial performance.

The fourth sub-hypothesis is that managers of international trading companies in the province of Golestan believe that business intelligence influences organizational learning.

Figure 6 shows that the T statistic value obtained is 2.959, indicating that this value is greater than 1.96. This confirms the research hypothesis, which states that business intelligence influences organizational learning. The viewpoint of international trade company managers in the province of Golestan holds considerable influence. Additionally, as shown in Figure 7, the obtained path coefficient equals (β=0.306); this indicates that the face is straight because the obtained path coefficient is positive. From the perspective of managers of international trading companies in Golestan province, business intelligence thus has a positive and noteworthy effect on organizational learning.

The fifth sub-hypothesis states that managers of foreign trading companies in the province of Golestan believe that organizational innovation has an impact on organizational learning.

As can be seen in Figure 6, the T statistic value obtained is 3.785, indicating that this value is greater than 1.96. This confirms the research hypothesis and leads to the conclusion that organizational innovation influences organizational learning. The perspectives of international trade company managers in the province of Golestan have an effect. Additionally, as shown in Figure 7, the obtained path coefficient equals (β=0.544); this effect is direct because the obtained path coefficient is positive. Thus, from the perspective of managers of international trading companies in Golestan province, it can be concluded that organizational innovation has a positive and significant effect on organizational learning.

Sixth sub-hypothesis: Managers of international trading companies in the province of Golestan believe that organizational learning affects financial performance.

The value of the T statistic obtained is 6.978, as shown in Figure 6, indicating that this value is greater than 1.96. This confirms the research hypothesis, which states that organizational learning affects financial performance. The opinions of international trade company managers in the province of Golestan have a big influence. Additionally, as shown in Figure 7, the obtained path coefficient equals (β=0.633). This indicates that the face is straight because the obtained path coefficient is positive. Thus, from the perspective of managers of international trading companies in Golestan province, it can be concluded that organizational learning has a positive and significant impact on financial performance.

4. Conclusions

In the study's sample of 214 individuals, 203 are male and 11 are female. Among the 107 respondents, the majority had been in service for five to ten years, while the fewest had less than one year of service. The largest age group in the sample is 41 to 50 years old, representing 36.4%, whereas the smallest group is under 30 years old, with 12 individuals.

Regarding education, 48.5% of the sample had completed graduate school, while only 1.6% had a diploma or less. The average values for the research variables—financial performance, organizational learning, innovation, and business intelligence—were 3.43, 3.55, 3.67, and 3.50, respectively. Considering the average questionnaire value for all variables is 2.5, it can be concluded that all variables are in a favorable condition.

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