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*Original Paper*

# Designing and Explaining the Structural Model of Financial Agility of the Supply Chain Process of Commercial Companies in Iran with a Combined Approach

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***Abstract***

*The population of participants in this study included academic and industry experts that the number of samples was selected based on the method of snowball sampling to people. In data analysis, first, codes and components of financial agility were extracted from the interviews and developed in the form of a conceptual data model of the foundation. The central category was financial agility, which was presented in 3 dimensions, as well as causal, contextual, intervening conditions, strategies and results, and the final model was presented. Then, using Delphi analysis method, design questionnaire and initial model were presented by experts in correction, approval and financial streamlining model of supply chain process of commercial companies in Iran. Second-order factor analysis and Structural Equation Modeling (SEM) have been used. In general, the research findings of this section also showed that there is a significant relationship between causal conditions and the central category. the results of this study, the main categories of the developed model include intra-organizational, technological and human factors of financial agility of the supply chain process of commercial companies in Iran, based on which the expected consequences of the financial agility model can be achieved.*

***Keywords***

*supply chain process financial agility, data theory, strategy*

## 1. Introduction

One of the most important parts of commercial companies that has undergone relatively many changes in recent years is the supply chain. Due to the influence of technology and advanced methods, this section does not rely solely on previous management methods. Rather, a new and dynamic transformational approach is pursued called comprehensive supply chain agility. However, it seems that among the various dimensions of supply chain agility theory, the financial agility of the supply chain process is of great importance. In this regard, the researches that have been done in recent years on issues such as how to do and extract and correct and timely financial measures related to the supply chain process while considering the high processing speed, low cost and optimal time as one of the obvious signs of agility. There has been a great deal of emphasis on finance. Also, there have been detailed discussions in various studies including Stuart (1995), Beaumont (1999), Ganskaran and Triti Gulu (2001), Otto and Kotzab (2003), Ganskaran Patel and McGowaggi (2004), Bunker , Chang, Janakraman and Constantes (2004), Chia et al. (2009), Sony and Kodali (2010), Bigliardi & Batani (2010), Jalal Vandohmakaran (2011), Tavan Nagok Boya (2020), Javankiani and Mohammad Jafari (2015) their analysis can analyze the existence of a problem (issue), lack of financial agility of the supply chain process of commercial companies. At the same time, the dimensions and contexts of the importance and necessity of studying this issue among researchers will also increase. Therefore, recent research has examined the relationship between supply chain process procedures and corporate financial success. However, some researchers have stated in their research results that due to the difficulty of using operational criteria for supply chain measurement, a suitable link between supply chain operations and financial success has not been proposed so far. Hence, this research is to fill the gap created on the subject (problem stated); In other words, regarding the supply chain process and the financial success of companies, it seeks to create a suitable model by conducting comprehensive studies. However, the necessity of conducting this research arises from the fact that in the Iranian capital market; joint stock companies need financial agility due to their relatively high trading volume. Because; Lack of financial agility (low financial information processing speed, low accuracy and high cost) will lead to reduced supply chain performance and ultimately reduced financial performance of companies. Therefore, it is necessary to examine this issue thoroughly and comprehensively, which the present study addresses. Therefore, the rest of the topics of this article are configured in such a way that in the second part, the theoretical foundations and background of the research are expressed, in the third part, the research methodology, and in the fourth part, the research findings are expressed. Finally, the fifth section discusses and concludes on the research findings and expresses some of the most important executive and research suggestions for future researchers.

## 2. Theoretical Foundations of Research

### *2.1 Supply Chain Process Agility*

Today, agility is a powerful competitive tool for all organizations in a changing and turbulent environment. The first step in achieving the desired level of agility is to identify the capabilities needed by the organization to overcome environmental changes and strive to improve these capabilities by implementing appropriate strategies. Obviously, in practice, it is possible for managers to directly select and apply a set of strategies to improve organizational agility, without considering the capabilities and needs of the organization. In this case, the risk of mismatch between the strategies and needs of the organization must be accepted. In fact, choosing the right strategies wisely facilitates the achievement of the agility capabilities required by the organization. Therefore, it seems necessary to evaluate the effectiveness of strategies and prioritize them before selecting and implementing them. The main issue here is how to identify and determine strategies appropriate to the needs of the organization that in the field of agility, very little research has been done in this field (Molavi et al., 2013). Recent empirical studies have examined many factors that enable companies to be agile (Ravichandran, 2017). Roberts and Grever (2012) believe that a company's IT infrastructure can respond effectively to customers and thus increase its agility. Lou and Ramanorteri (2011) found that IT infrastructure capabilities, synergies between IT and business, and the IT preventive stance can make companies more agile. Taloo and Pisnoniolt (2011) argue that a firm's strategic IT alignment affects its agility, and this relationship is moderated by IT flexibility. Other researchers have examined agile behaviors in specific information systems activities, such as systems development (Lyotian et al., 2006), as well as how to create resilient, rigid systems to prevent companies from growing rapidly (Van Osterhaut et al., 2012; Ravichandran, 2017). In this regard, financial technology, one of the dimensions of information systems of organizations in recent decades, has played a significant role in advancing the economic goals of enterprises. Financial technology, which refers to the convergence of the two concepts of finance and technology, unexpectedly occupied this year (2015) as one of the most widely used specialized terms in revenue and financial operations. Many financial companies are eager to understand the impact of technology on expanding supply and demand for financial products and services (Mohammadi Qomi et al., 2016). In this regard, Burch et al. (2012), in a study, introduced patterns in the mass financing market and explicitly stated that all mass financing transactions of companies are done through Internet-based platforms, which are a good tool for financing transactions. In general, during researches such as Sharma and Begwat (2007), Wei (2008), Wisner (2011), Wagner et al. (2014), Mohammad Ali Vahdan and Mohammad Ashraf Imam (2017), Tsai et al. ), Tavan Nagok Boya (2020), Sahraian (2005), Heidari Qarabagh (2008); Nakhaei Kamalabadi et al. (2009), Karimi Dastjerdi, Akbari Jokar, Faizabadi (2009), Maboudi et al. (2010), Fathi Hafshjani, Bashiri, Karbasian (2011), Mohammadi and Najafi in (2015) Agility and its dimensions Attention is drawn.

*2.2 The Effect of Financial Streamlining of the Supply Chain Process on the Financial Success of Companies*

Booger and Das (2013) also identified the main beneficiaries of mass financing that have been identified so far: entrepreneurs, investors and intermediaries. They stated that these three groups and the interactions between them form the basic structure of corporate mass financing. Therefore, based on the above discussions, it can be concluded that the contemporary business environment is characterized by increasing intensity of competition and rapid change in the market and customer expectations. Increasingly, therefore, firms need to quickly acquire and act on their ability to understand and change their environment (Altshuler et al., 2010). These abilities include agility (Dow, 2001), “strategic agility” (Will, Sutramani, & Broadbent, 2002), “competitive agility” (Goldman, Nagel, & Price, 1995), business agility (Matthiasen & Press-Hij, 2006) , And is also referred to as “corporate agility” (Orbay, Broadway, & Sambamorti et al., 2006). Recent theoretical foundations are recognized as key elements of corporate success. Of course, the term competitive agility can be used when an agile business can build its competitive advantage by gathering information at high speed and making changes in its (market) environment, as well as by responding effectively (Altshuler et al., 2010).

**3. Research Methodology**

The method of the present study is fundamental in terms of orientation and exploratory in terms of purpose. So that the type of qualitative research and the strategy used in data analysis is also based on data theorizing of the foundation. Foundation data theorizing is a research method for the social sciences that has been developed by two American sociologists named Barney Glaser (born 1930) and Strauss (1916-1996) (Danaeifard Vamami, 1386, p. 42). Participants in the statistical population of this study included: employees, experts, supervisors, managers, middle managers and senior managers who were familiar with the issues and issues of commercial companies in Iran and other financial markets. In order to collect data, two sections of library and field studies (distribution of questionnaires and interviews) were used among the participants of the statistical population of this study. The data theory of the foundation approach has been used to analyze the data. Therefore, in order to present the model of financial simplification of the supply chain process, the data theory theory approach of the foundation with the dimensions formulated in the conceptual model of the research has been used. The number of participants (30) was sampled using the snowball method. In general, participants were selected from among experts and academic experts in the fields of accounting and finance, management, economics, investment activists and production management, based on the following criteria.Being key: in the field of finance and production management, especially the supply chain sector, be key and effective people. 2- Identified by others: In the field of finance and production management, especially the supply chain sector, they have been approved and mentioned by experts in the field. 3- Have a theoretical understanding of the subject: have sufficient mastery in the academic

field and specialized texts in finance and production management, especially in the supply chain sector. 4- Diversity: Have a history of presence in various companies and different branches of finance and production management, especially the supply chain sector. 5- Willingness to cooperate: The interest and truth of the speech in this case has been the focus of attention. Finally, it can be said that the key demographic characteristics (age, education, service history, organizational category and field of study) of the study participants are described in Table (3) (Flint, 1998).

## 4. Research Findings

### *4.1 Findings of Statistical Description of Demographic Variables*

In general, in this section, a summary of the results related to the key demographic characteristics of the study participants can be seen. In summary, demographic variables among the participants in the present study include (age, education, service history, organizational category and field of study), the results of which are presented in Table 1.

**Table 1. Descriptive Demographic Findings**

| Frequency | absolute frequency | Demographic characteristics | |
|---|---|---|---|
| 0/69 | 21 | Man | Gender |
| 0/31 | 9 | Female | |
| 0/18 | 5 | Less than 35 | Age |
| 0/29 | 9 | Between 36 and 45 | |
| 0/32 | 10 | Between 46 and 55 | |
| 0/21 | 6 | Between 56 and 66 | |
| 0/40 | 12 | Masters | education |
| 0/60 | 18 | PhD and above | |
| 0/17 | 5 | Less than 10 yeas | Years of service |
| 0/26 | 8 | Between 11 and 15 yeas | |
| 0/33 | 10 | 16 to 20 years | |
| 0/24 | 7 | 21 to 30 years | |
| 0/10 | 3 | Professors and experts in the field of technology | Professors and experts participating in the research |
| 0/15 | 5 | Professors, experts and academic experts | |
| 0/40 | 12 | Professors and experts in the field of finance and accounting | |
| 0/24 | 7 | Professors and experts in the field of production management and business | |
| 0/11 | 3 | Professors and experts in the field of organization, management and economics | |

| Frequency | absolute frequency | Demographic characteristics | |
|---|---|---|---|
| 0/31 | 9 | Financial Management and Production Accounting Collection | Field of Study |
| 0/28 | 8 | Financial Management and Production Accounting Collection Collection of Economics and Marketing | |
| 0/26 | 8 | Technical and engineering collection | |
| 0/15 | 5 | Other | |

*Source*: Researchers' calculations.

*4.2 Analysis of Research Data in the Qualitative section (model exploration)*

In the section of centralized coding and extraction of concepts related to financial supply chain agility during the interview and distribution in the questionnaire in two stages (first and second stage Delphi) was a list of factors affecting the financial agility of the supply chain process of commercial companies in Iran. Extracted and presented with experts participating in this study. Of course, the experts gave their opinion on the extent of the effect of each of the factors, components and results, which were selected based on one of the options available to them and in the form of a Likert spectrum, including "Very Low Impact: 1", "Low Impact: 2", "Medium Impact: 3", "High Impact: 4" and "Very High Impact: 5". Therefore, the results related to the central coding and extraction of concepts related to supply chain financial agility, which were from previous research and the distribution of the Delphi questionnaire in consecutive rounds, which included items such as number of responses for each item, mean responses, standard deviation based on mean responses. In this regard, Kendall correlation coefficients of the responses of these two consecutive rounds are (0.904) and (907), respectively, which indicates an increase in agreement between the members of the experts, and considering that the agreement coefficient of this round with the agreement coefficient of the period First, it does not make much difference. It can be said that the coefficient of agreement between experts is high and the theoretical saturation among experts regarding each of the six factors affecting the financial agility of the supply chain process of commercial companies in Iran is three main categories including: Organizational factors of financial agility, two) technological factors of financial agility, three) human factors of financial agility, causal factors of financial agility, strategies of financial agility, intervention factors of financial agility, effective contextual factors and expected outcomes. According to the issues raised, the model of financial agility of the supply chain process of companies is presented as follows:

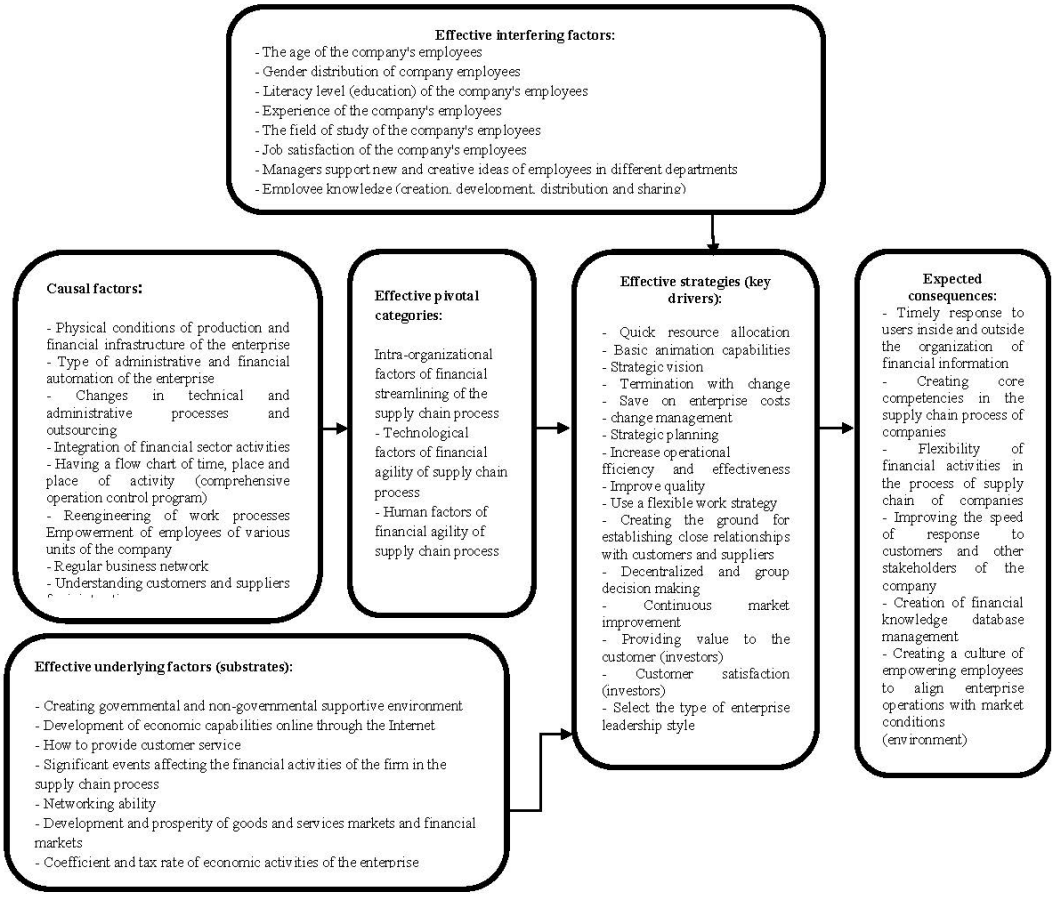


**Figure 1. The Pattern of Financial Agility of the Supply Chain Process of Companies (*Source*: Researchers' Findings)**

A study of the 10 components resulting from the pivotal coding stage shows that in general, the six factors affecting the financial streamlining of the supply chain process of commercial companies in Iran are in three main categories, including: a) organizational factors of financial agility, two) technological factors of financial agility Three) summarized the human factors of financial agility, and the causal factors of financial agility, the strategies of financial agility, the intervening factors of financial agility, the effective underlying factors and the expected consequences.

*4.3 Analysis of Research Data in Quantitative part (model explanation)*

4.3.1 Selection of criteria by fuzzy Delphi method

Table 6 also shows the scores obtained between 1 and 10 for pessimistic and optimistic, which according to the opinion of 30 experts about the degree of importance below the criteria and indicators. Given that the threshold value obtained from the mean column is a significant value (6.59). Therefore, among the 9 available dimensions, dimensions: change in outsourcing technical and administrative

processes, having a flow chart of time, place and place of activity (comprehensive operation control program), re-engineering of work processes, regular business network in comparison with other Dimensions of significant value less than the threshold (6.59) will be removed. Dimensions: Physical conditions of production and financial infrastructure of the firm, type of administrative and financial automation of the firm, integration of financial sector activities, empowerment of employees of different units of the firm, understanding and recognizing customers and suppliers for joint actions given its significant amount Those that exceed the threshold will be selected. Given that the threshold value obtained from the mean column is a significant value (6.41). Therefore, among the 5 existing dimensions, dimension: technical and executive factors of agility, structural and legal factors in comparison with other dimensions, their significant value is less than the threshold (6.41) will be removed. Therefore, the dimensions: agile internal organizational factors, technological factors of financial agility, human factors of financial agility will be selected considering that their significant value is more than the threshold. Given that the threshold value obtained from the mean column is a significant value (6.43). Therefore, among the 7 available dimensions, dimensions: index events affecting the financial activities of the firm in the supply chain process, coefficient and tax rate of the firm's economic activities in comparison with other dimensions, their significant amount is less than the threshold (43/6) may be deleted. Therefore, the dimensions: creating a governmental and non-governmental supportive environment, developing online economic capabilities through the Internet, how to provide customer service, networking ability, development and prosperity of goods and services markets and financial markets, given that a significant amount—If the threshold is exceeded, they will be selected. Given that the threshold value obtained from the mean column is a significant value (6.41). Therefore, from the 16 available dimensions, dimensions: mobilization of basic capabilities, change management, strategic planning, quality improvement, use of different strategies, decentralized and group decision making, customer satisfaction (investors), type selection Acquisition of enterprise leadership compared to other dimensions, their significant value is less than the threshold (6.22) will be eliminated. Therefore dimensions: rapid allocation of resources, strategic plan and vision, adaptation and change management, cost savings, increased operational efficiency and effectiveness, improving the quality of close relationships with customers and suppliers, continuous market improvement, presentation Value to the customer (investors) will be selected as their significant value is more than the threshold. A study of the 10 components resulting from the pivotal coding stage shows that in general, the six factors affecting the financial streamlining of the supply chain process of commercial companies in Iran are in three main categories, including: a) organizational factors of financial agility, two) technological factors of financial agility Three) summarized the human factors of financial agility, and the causal factors of financial agility, the strategies of financial agility, the intervening factors of financial agility, the effective underlying factors and the expected consequences.

4.3.2 Structural explanation of research model

The results of Cronbach's alpha coefficient of research variables have shown the reliability and validity of research dimensions and components to the desired level. Therefore, to review the research model, the steps are continued in order.

4.3.3 Examining the theoretical model of research

To test the accuracy of the theoretical research model and calculate the impact coefficients from the structural equation modeling method by software (PLS) to model the structural equation as a comprehensive multivariate approach to test research hypotheses and to investigate the relationships of observed variables And is hidden through a set of equations such as multiple structural regression to reveal the internal relationships of variables.

Step One: Factor Analysis

Sampling adequacy can be ensured by using Bartlett test. The results shown in Table 2 indicate the appropriateness of the correlations between the data for factor analysis and the adequacy of sampling, so factor analysis can be performed.

**Table 2. Kaiser.Mir.Auklin (KMO) and Bartlett Test**

| | | |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .703 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 10898.754 |
| | df | 1653 |
| | Sig. | .000 |

Considering the Bartlett test number (KMO) (greater than 0.7) and the significant number of Bartlett test (0.05 sig <), it can be said that the data are suitable for performing factor analysis and have the required conditions.

In the second part, the results of the initial subscription test of the questionnaire items are presented. The test table has two columns, Initial and Extraction, which indicate the common denominator of a variable (item) equal to the square of multiple correlation (R2) with the factors. Before extracting, it expresses the factor (s) and all the initial subscriptions are equal to one, and the larger the extraction subscription values (i.e., greater than 0.5), the better they describe the factors in question.

The table above shows the appropriateness of all the questions in the factor analysis process because the number of subscriptions to the questions is more than 0.5. The results of the explained variance test are presented.

In general, the total table of explained variance shows that these questions consist of 29 factors and these factors explain and cover about 93.208% of the variance that In fact, it indicates the appropriate validity of the questions, which is followed by the results of the rotating factor matrix in the fourth section, which is the correlation matrix (questions Or variables) and specifies the factor, which will be

clarified based on the degree of correlation. In this matrix, the factor loads (factor scores) of each variable are greater than 0.5 and are placed under the umbrella of the desired factor.

The higher the value of this coefficient, the greater the role of the relevant factor in the total variance of the desired variable. The table below shows what questions and with what factor loads are related to these factors. In the fifth section, considering that the main factors and the degree of correlation were presented, then in this section, descriptive statistics of all research variables of the proposed model in terms of statistical indicators are presented. As a summary of these results can be seen in Table 3.

**Table 3. Descriptive Statistics of Research Variables**

| Variance | Standard deviation | Average | | the most | The least | Number of views | Symbol | Variable |
|---|---|---|---|---|---|---|---|---|
| Statistics | Statistics | standard error | Statistics | Statistics | Statistics | Statistics | | |
| .473 | .68747 | .04910 | 2.7990 | 4.90 | 1.30 | 196 | A | Ali conditions |
| .490 | .70025 | .05002 | 2.8204 | 5.00 | 1.10 | 196 | B | Underlying factors |
| .456 | .67517 | .04823 | 3.4736 | 5.00 | 1.33 | 196 | C | interfering factors |
| .476 | .68998 | .04928 | 3.1037 | 5.00 | 1.33 | 196 | D | Axial category |
| .346 | .58845 | .04203 | 2.9987 | 4.81 | 1.44 | 196 | E | Strategy |
| .418 | .64685 | .04620 | 2.8327 | 4.60 | 1.00 | 196 | F | Consequences |

For example, for the causal variable (A), the minimum comments are 1.30 and the maximum comments are 4.90, and the mean and standard deviation of the comments are 2.790 and 0.68747, respectively.

For the background factor variable (B), the minimum comments are 1.10 and the maximum comments are 5.00 and the mean and standard deviation of the comments are 2.8204 and 0.70025, respectively. For the variable of intervening factors (C), the minimum number of comments is 1.33 and the maximum number of comments is 5.00 and the mean and standard deviation of the comments are 3.4736 and 0.67517, respectively. For the axial category variable (D), the minimum comments are 1.33 and the maximum comments are 5.00, and the mean and standard deviation of the comments are 3.1037 and 0.68998, respectively. For the strategy variable (E) the minimum number of comments is 1.44 and the maximum number of comments is 4.81 and the mean and standard deviation of the comments are 2.9987 and 0.5845, respectively. For the outcome variable (F) the minimum number of comments is 1.00 The maximum number of comments is 4.60 and the mean and standard deviation of comments are 2.8327 and 0.64685, respectively.

Step 2: Test the research hypotheses

In this section, we examine the test of research hypotheses using PLS software.

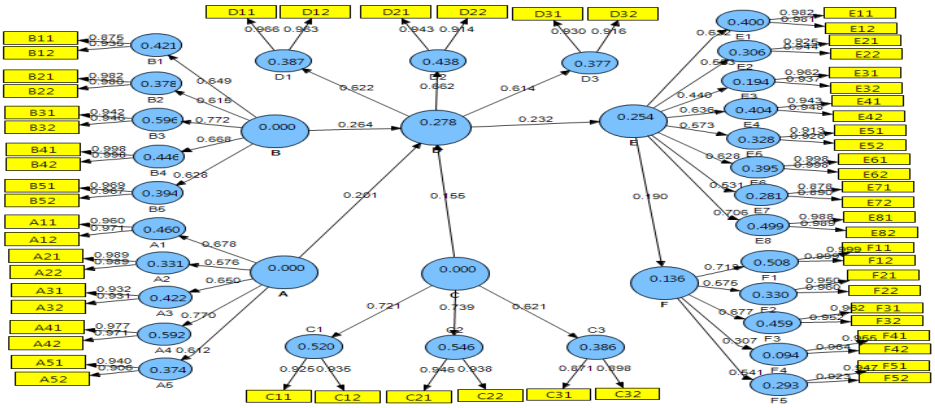

**Figure 2. Structural Model of Research Hypothesis with Coefficients of Factor Loads**

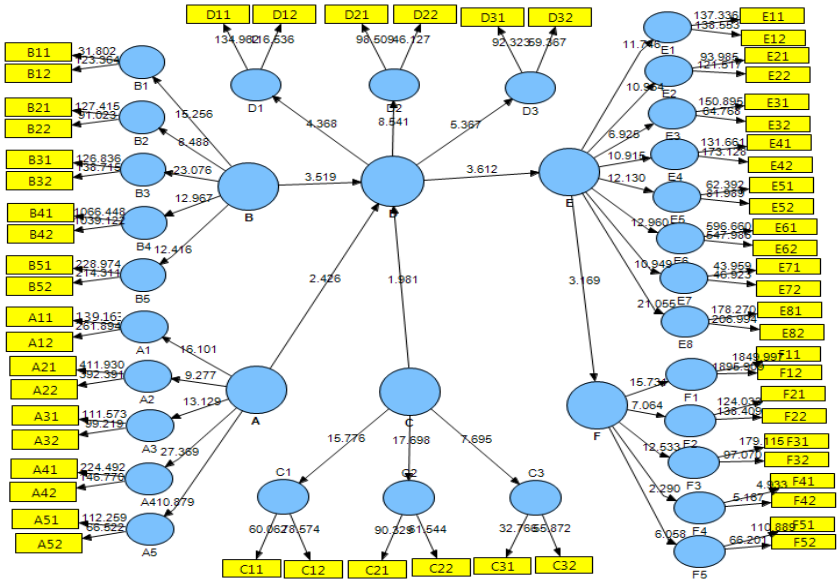

**Figure 3. Structural Model of Research Hypothesis with Significant Coefficients**

Step 3: Fit the model

To examine the model fit, we use the measurement model fit, the structural model fit, and the overall model fit. So that the reliability test results are presented to fit the measurement models. Therefore, in order to evaluate the reliability of the research measurement model, factor load coefficients, Cronbach's alpha coefficients and combined reliability have been investigated. The criterion for the suitability of the factor load coefficients is 0.4. In the diagram, all numbers of factor load coefficients of the questions are more than 0.4, which indicates that this criterion is appropriate.

Step 4: Cronbach's alpha, hybrid reliability

According to the data analysis algorithm in PLS, after measuring the factor loads of the questions, it is time to calculate and report Cronbach's alpha coefficients and combined reliability, considering that the

appropriate value for Cronbach's alpha and combined reliability is 0.7 and according to the findings The criteria in the table above have adopted a suitable value for latent variables, it can be confirmed that the reliability of the research is appropriate. Also, the second criterion for examining the fit of measurement models is convergent validity, which examines the degree of correlation of each structure with its questions (indicators) considering that the appropriate value for (AVE) is 0.4. And according to the findings of the above table, this criterion has been adopted in the case of latent variables, thus confirming the appropriateness of the convergent validity of the research.

Step 5: Fit the structural model

In this section, first, significant coefficients are extracted based on t-values. According to Figure 2, because the coefficients of t for the research hypotheses are more than 1.96, so at the 95% confidence level, their significance is confirmed. In the second part of this section, another criterion called the coefficient of determination (R2) is used. R2 is a measure that indicates the effect of an exogenous variable on an endogenous variable and three values of 0.19, 0.33 and 0.67 are considered as the criterion values for weak, medium and strong values of the coefficients (R2). According to Figure 1, the value of the coefficients of determination (R2) has been calculated for the endogenous structures of the research, which according to the three values of the criterion, the appropriateness of the fit of the structural model can be confirmed.

Step 6: Fit the overall model

To evaluate the overall model fit, the Goodness of Fit criterion was used, which three values of 0.01, 0.25 and 0.36 were introduced as weak, medium and strong values for (GOF). This criterion is calculated by multiplying the value (Communality) by the coefficient of determination (R2). Of course, the value (Communality) of the load is obtained from the average of the common values of the hidden variables of the research.

**Table 4. Results of the General Model Fit**

| GOF | R2 | Communality |
|---|---|---|
| 0.608 | 0.409 | 0.904 |

Given the value obtained for GOF of 0.608, a very good fit of the overall model is confirmed.

**Table 5. Results of Direct Relationship and Significance Coefficients of Sub-hypotheses of the Research Model**

| Test result | T-Value | Route coefficient (β) | Symbol | Causal relationships between | Hypothesis |
|---|---|---|---|---|---|
| Confirmation | 2.426 | 0.201 | ◄ A ---D | research variables | First |
| Confirmation | 3.519 | 0.264 | ◄ B ---D | Causal conditions of the central category | Second |

| | | | | | |
|---|---|---|---|---|---|
| Confirmation | 1.981 | 0.155 | ◄ C ---D | Background factors of the central category | Third |
| Confirmation | 3.612 | 0.232 | ◄ D ---E | Axial category interfering factors The central category of strategy | Fourth |
| Confirmation | 3.169 | 0.190 | ◄ E ---F | Outcome strategy | Fifth |

*4.4 Summary of Research Hypotheses*

In this section, in response to the main question of the second part of the research, how effective is each of the main factors of financial agility in the supply chain process in the study population? The following answers are based on statistical results. Results of Hypothesis 1: There is a significant relationship between causal conditions and the central category. According to the obtained results and statistical coefficients, it can be said that the standardized coefficient (path coefficient) between the two variables (causal conditions and axial category) is $\beta = 0.201$. And the coefficient of significance (t-statistic) between these two variables was $t = 2.426$ (more than the absolute value of 1.96), which shows that it is significant. Therefore, Hypothesis H0 is rejected and Hypothesis H1 is confirmed and it can be concluded that there is a significant relationship between causal conditions and the central category; Therefore, the first hypothesis of the research that there is a relationship between causal conditions and the central category has been confirmed.

Results of Hypothesis 2: There is a significant relationship between contextual factors and central categories.

According to the drawn figures and the results and statistical coefficients obtained, it can be said that the standardized coefficient (path coefficient) between the two variables (contextual factors and axial category) is $\beta = 0.264$. And the coefficient of significance (t-statistic) between these two variables was $t = 3.519$ (more than the absolute value of 1.96), which shows that it is significant. Therefore, Hypothesis H0 is rejected and Hypothesis H1 is confirmed and it can be concluded that there is a significant relationship between the underlying factors and the central category; Therefore, the second hypothesis of the research that there is a relationship between contextual factors and the central category has been confirmed.

Results of Hypothesis 3: There is a significant relationship between intervening factors and category-oriented.

According to the drawn diagrams and the results and statistical coefficients obtained, it can be said that the standardized coefficient (path coefficient) between the two variables (interfering factors and axis category) is $\beta = 0.155$. And the coefficient of significance (t-statistic) between these two variables was $t = 1.981$ (more than the absolute value of 1.96), which shows that it is significant. Therefore,

Hypothesis H0 is rejected and Hypothesis H1 is confirmed and it can be concluded that there is a significant relationship between intervening and category-centered factors; Therefore, the third hypothesis of the study that there is a relationship between intervening factors and the central category has been confirmed.

Results of Hypothesis 4: There is a significant relationship between category and key strategies.

According to the drawn figures and the results and statistical coefficients obtained, it can be said that the standardized coefficient (path coefficient) between the two variables (axis category and strategy) is $\beta = 0.232$. And the coefficient of significance (t-statistic) between these two variables was $t = 3.612$ (more than the absolute value of 1.96), which shows that it is significant. Therefore, Hypothesis H0 is rejected and Hypothesis H1 is confirmed and it can be concluded that there is a significant relationship between the axis and the strategy; Therefore, the fourth hypothesis of the research that there is a relationship between the central category and key strategies has been confirmed.

Results of Hypothesis 5: There is a significant relationship between strategy and expected outcomes.

According to the drawn figures and the results and statistical coefficients obtained, it can be said that the standardized coefficient (path coefficient) between the two variables (strategy and outcome) is $\beta = 0.190$. The coefficient of significance (t-statistic) between these two variables was $t = 3.169$ (more than the absolute value of 1.96), which shows that it is significant. Therefore, Hypothesis H0 is rejected and Hypothesis H1 is confirmed and it can be concluded that there is a significant relationship between strategy and outcome; Therefore, the fifth hypothesis of the research, therefore, the fifth hypothesis of the research that there is a relationship between the strategy and the expected results (outcomes) has been confirmed.

Therefore, based on the results of the first hypothesis to the fifth hypothesis of the research, it can be stated that the impact of each of the main factors of financial agility in the supply chain process in the study population is significant. In other words; Causal conditions, central categories, contextual factors, intervention factors, key strategies and expected results (outcomes) have a statistically significant relationship with each other and these results confirm that the final estimated model of the research in terms of It has the necessary scientific and statistical validity and its results are reliable.

## 5. Conclusion

In today's age where change and information are important, maintaining a competitive advantage for organizations through greater speed of action in response to internal and environmental changes is essential for survival. In a competitive market, the need for major reforms in the strategic vision of the organization, business priorities and the revision of traditional and even relatively contemporary models is essential. Therefore, one of the ways to respond to these factors of organizational change is agility.

Therefore, the present study aimed to design a model of financial agility of the supply chain process of companies using data-driven theory. The research method is descriptive-applied, and in terms of orientation it is both fundamental and in terms of purpose it is exploratory-qualitative and the strategy used is based on the theory of data processing of the foundation. The data required to design a supply chain financial flexibility model were provided. In data analysis, first, codes and components of financial agility (73 key concepts, 3 main categories, 25 sub-categories) were counted from the interviews and developed in the form of a conceptual data model of the foundation. The central category was financial agility, which was presented in 3 dimensions, as well as causal conditions, background conditions, intervening conditions, strategies and results, formulation and final model. Then with Delphi analysis method, design questionnaire and initial model by experts Corrected and approved. Method of collecting information in the form of libraries and field; the questionnaire was distributed among the participants in the research.

Also, the model of financial streamlining of the supply chain process of commercial companies in Iran based on data-driven theory with the formation of six components related to financial streamlining of the supply chain process, including causal factors, central categories, interfering factors, contextual factors, strategies, and expected outcomes has been. It should be noted that conducting this research in practice has faced many limitations, which is ultimately designed and developed taking into account the potential limitations of the final research model. Therefore, it is expected that the proposed model can be a good practice guide for researchers in tracking and measuring the agility of the financial sector activities of a business unit (or its branches).

The proposed model based on the opinions of experts and after the scientific and technical analysis that has been extracted in order to achieve financial simplification of the supply chain process of commercial companies in Iran with effective intervention factors, effective causal factors, effective pivotal categories, effective strategies (basic drivers), Are the underlying factors (substrates) that will determine the expected consequences.

The results of the model fit and the results of the structural analysis assumptions for the research models indicate that there is a significant relationship between causal conditions and the central category. There is a significant relationship between contextual factors and central categories. There is a significant relationship between intervening factors and central category. There is a significant relationship between category and strategy. There is a significant relationship between strategy and outcome.

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