STRATEGIC MANAGEMENT SENSITIVITY SCALE DEVELOPMENT
AND VALIDITY RESEARCH

Münir Ataş, (PhD Candidate)
Istanbul Commerce University, Turkey

Murat Kasımoğlu, (PhD)
Istanbul Commerce University, Turkey

Abstract

The paper aims to develop a scale to be applied to the managers by conducting sensitivity analysis on strategic management activities. This paper uses a sample of 320 managers who are working in strategy units in the public institutions, municipalities, private sector, universities and managers engaged in strategic management activities in Turkey. Data is collected via the draft scale called "Strategic Management Sensitivity Scale Form" developed by the researcher. Dimensionality analysis, normality analysis, reliability analysis and factor analysis for construct validity are performed for data processing. The results revealed that the scale has 24 items measured by a five-point Likert-type scale. The items are grouped under three factors as (1) Distribution, Dissemination and Action Sensitivity, (2) Planning Sensitivity and (3) Process Sensitivity. They accounted for 58.49% of the total variance. The scale has a Cronbach's alpha coefficient of 0.86. This improved scale is found fairly high in terms of validity and reliability. This paper has focused on the roles of managers in strategic management and strategic planning processes. The results show the importance of the managers' strategic management activities in the planning and decision making processes. This paper contributes to the literature on strategic management and strategic planning on managerial issues, human resource effectiveness and firms' strategies. Organizations can benefit from this scale on issues such as better recognition of people in recruitment, determination of training needs and promotion process.

Keywords: *Strategy, Strategic Management, The Scale of Strategic Management Sensitivity*

1. Introduction

The main objective of the organizations is the development of plan, program, strategy and methods that ensure the most effective usage of the resources. Increased competition and the changing demand structure make it inevitable to change the organization managements. Developing strategies that will ensure to adopt quickly to these changing structures and applying these strategies through appropriate managerial skills are the main factors. To what extent the institutions need strategies, to what extent those strategies will enable the businesses to reach the desired success level effects the behavior of managers. Businesses need to make decisions in accordance with the resources they have by taking into account the changes occurring in their environment. These decisions made by business managers enable them to move more accurately under uncertain conditions (Bradutan et al., 2012). In the literature, the concept of strategic management is mostly addressed to the organization's performance, competitiveness, the success of development-oriented plans, the role in decision-making processes and service management, contribution to the managers' learning process, relationship with entrepreneurship, the role in talent management and contribution to human resources management (Favoreu et al., 2015; Andrade et al., 2016; Pelc, 2015; Hoogstra et al., 2008; Kohl et al., 2016; Luo et al., 2011; Congdon et al., 2013; Bourletidis, 2013; Douglas et al., 2015).

To the best of our knowledge, there is no scale to measure the sensitivity of managers to the strategic management process in the literature. With this scale, businesses can create total strategic management sensitivity index value for all managers. The resulting index value can be used for making comparisons among consecutive years and competing businesses. Measuring the relationship and causality between theoretical structures, monitoring, evaluating and establishing connections can contribute to the accumulation of knowledge.

Determining the level of strategic awareness in businesses will provide data and information about the managers' training, knowledge, skills and sensitivity deficits. On the other hand, it allows managers to differentiate in the progress and promotion practices of human resources, performance-based reward applications, strategic management and innovation applications. Thus, businesses establish a system where strategic management is measured, monitored and rewarded. In the following years, it is aimed that the strategic management sensitivity scale will be a tool that will contribute to the academic and non-academic researchers. The widespread use of such a scale in scientific studies depends on high internal and external validity and reliability, and practical, useful and easy implementation. In this respect, the necessary effort has been made to meet the psychometric and statistical requirements of the strategic management sensitivity scale.

2. Theoretical Framework
2.1 Strategic Management Definitions
In the literature, it is seen that there are a lot of definitions regarding the concept of strategic management. Olexandrivna (2016) defines the strategic management as the activities that will keep the business in the changing market conditions. Cox et al. (2012) defines the strategic management as a process in which business managers create strategies to provide competitive advantage against the competitors and provide an efficient resource allocation by analyzing the internal and external environment. Nag et al. (2007) defines strategic management as an effort to analyze organizational and non-business environments effectively and efficiently.

Strategic management is a process of formulating, implementing and evaluating strategies (Athapaththu, 2016). The formulation of strategies involves the acquaintance of the business itself, the identification of mission and vision statements and the development of strategies. The implementation of the strategy is to determine the policies and procedures, to take measures to ensure the motivation of the employees and to provide the resources to ensure that the strategies are in line with the determined goals and objectives. The evaluation of the strategy is the control of the effective implementation of the strategies (David, 2011) and a collection of decisions that affects the businesses performance (Hunger and Wheelen, 2007).

2.2 . Strategic Management Process
The strategic management process initiated by top executives proceeds towards middle and lower level managers. Although the path to be followed by the business is determined by the top management, any input required by the process is obtained by the sub-level managers and employees. Many models have been developed during the implementation of the strategic management activity. According to David (2011), the strategic management process which starts with having a strategic consciousness, continues with the determination of the aims and targets in line with the vision and mission statements.

These strategic objectives and strategies to reach strategic goals are evaluated and the most effective one is determined. The strategic management process is completed with the implementation of the plan prepared in this direction, defining the deficiencies and giving feedback. According to Nedelea and Paun (2009), the strategic management process consists of five stages. The first three stages are intended to guide the business. The fourth stage is the most complex and challenging one. At this stage, strategic plan is determined, formulated and administrative decisions are made accordingly. In the fifth stage, strategic performance is evaluated, and corrective actions are taken when necessary.
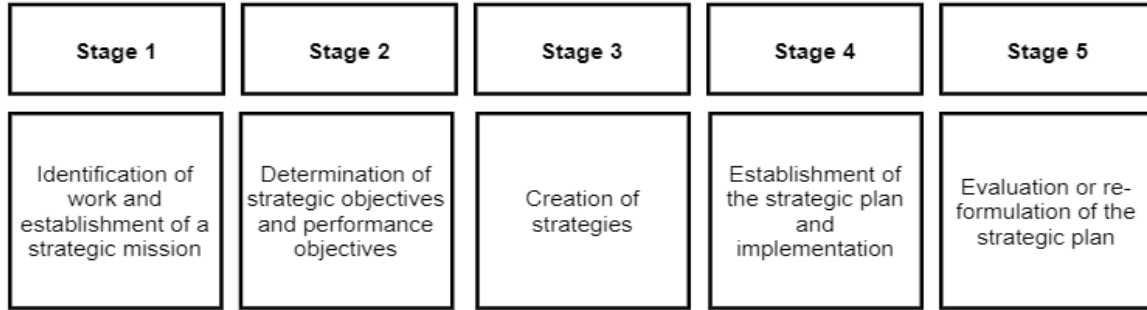
Figure 1. Strategic Management Process

3. Method

3.1. Participants and Procedures

In this study, the target population has been identified as professionals who are working as a manager in strategy units in public institutions, municipalities, private sector, universities and managers engaged in strategic management activities. As this population represents a very large group of people, the sample size is calculated to be 320 persons in accordance with the scientific criteria.

3.2 Creation of Measurement Tool

In the literature, we observed no scale to measure the strategic management sensitivity of managers. In addition, no concrete studies are conducted to measure strategic management sensitivity. In this respect, this research is an exploratory scale development study. The questions in the scale are intended to identify managers' demography and management mindset. 14 questions are asked in the demographic section. In the first stage of scale development, a large number of research and measurement tools are examined for strategic management and strategic planning concepts and a pool of statements related to the scale is created. The statements in this pool are grouped by considering the dimensions of the review. The first dimension of the scale, the distribution, dissemination and action is structured regarding the works carried out by Harvey and Scott (1999), Davis et al. (2012), Dundar and Kılıç (1994) and Ouchi et al. (1985). The second dimension of the scale, the planning sensitivity dimension refers to Kaufman (2016), Ferreira et al. (2015), Schultz (2016), Salkic (2014), Carnahan (1980), Bakan and Buyukbese (2008), Demirel (2013), Esen (2012) and Rajablu et al. (2015). The third and last dimension of the scale, process sensitivity is inspired by studies due to Guth (1981), Hitt et al. (2007), Wang (2016), Gunduz (2012), Karakas (2014), Sencan (2016), Tremblay et al. (2009), Borger and Gaia (2010).

3.3 Measures

We intend to develop a scale with high validity and reliability within the scope of the study. Strategic management sensitivity scale is composed of 24 statements and is analyzed with 5-point Likert scale. The degrees determined in response to the labels used in the developed scale are as follows: I Strongly disagree = 1, I disagree = 2, Neither agree nor disagree = 3, I agree = 4, Definitely describes me = 5. The research process is discussed in three parts, namely, the creation of the item pool, the structuring and evaluation of the scale. In the first phase, the strategic management literature is examined and a pool of 122 statement is created. After the creation of the pool, the opinions of the experts are consulted in order to eliminate the unsuitable substances. After that, surface and content validity studies are performed. After these studies, questionnaire form is adapted with 86 questions and pilot research is conducted on a sample of 100 persons similar to the target group. Internal consistency analyses are conducted for the data obtained from pilot research. The main research phase started with 25 questions after the pilot research is carried out. After the elimination of the sieved items, the questionnaire is applied to 320 persons using the survey method.

4. Results

The results of the study are discussed in two parts as theoretical and empirical.

4.1. Theoretical Results

The theoretical foundations of this research have been shaped around how managers consider strategic management practices in their activities and decision-making processes. Therefore, a good understanding of the basics of strategic management concepts is important in analyzing business and employee behavior. In recent years, the changes in the environment of businesses and the increasing competition have influenced the businesses and managers searched for ways of keeping up with these changes.

The financial crises and uncertainty have increased the importance of strategic management activities. From this point of view, it has been deemed that it is necessary to deal with the change in the process of strategic management. Besides, it is necessary to determine the theoretical and empirical researches carried out on these subjects and to examine the role of these concepts in businesses with a holistic approach. With strategic planning, businesses determine how to reach their targets more effectively. Strategic planning is an activity that will be performed by businesses in the process of strategic management. For this reason, these concepts are intertwined but also have different meanings.

4.2 Empirical Results

Dimensionality Analysis

Dimensional analysis is applied on the data obtained from the surveys. In this context, Exploratory Factor Analysis is performed to determine whether the sample size is sufficient or not. In this phase Kaiser-Meyer-Olkin (KMO) and Barlet Sphericity tests are performed. According to the Field (2000), if the KMO value is below 0.50, it means that the data is not suitable for factor formation. Exploratory Factor Analysis (EFA) should be applied to develop a multidimensional scale that aims to measure complex structures. As a result of the exploratory factor analysis performed for the strategic management sensitivity scale, the KMO value is found as 0.902, while the Bartlett sphericity test result is significant 3015 (df 300; p = 0.00). In order to interpret the results of the factor analysis, the total variance value is expected to be over 50%. As a result of the analyses, we observe that the total variance value is realized as 58.49%. Factor load analysis is performed in order to evaluate the factor structure correctly. According to Netemeyer et al. (2003), the factor load should be at least 0.40. Although the value of 0.60 and above is considered satisfactory; 0.59-0.30 is considered to be acceptable. Epstein, Verbeeten and Widener (2016) stated that if there is cross load below 0.20, it should be removed from the scale. As a result of the analysis, no cross-factor load is detected in the analyses.

VIF value (Variance Inflation Value) and tolerance value are measured for the variables in order to check for multicollinearity between the independent variables. The VIF value is measured by R2 values which are determined by regression of independent variables (Jensen and Ramirez, 2013). The tolerance value is also calculated for all the independent variables with the 1- R2. O'Brien (2017) stated that where the VIF value is greater than 10 and the tolerance value is less than 0.10, multicollinearity problem can be mentioned. According to the analyis results, we observe the scale has no multicollinearity problem. VIF values are between 1 and 3 and the tolerance values are more than 0.40.

Reliability Analysis

Reliability analyses are performed to determine whether the scale represents a particular conceptual structure. In order to measure reliability, Corelation Coefficient, Cronbach's Alpha, Split Half, and Omega Reliability analysis are performed. The correlation coefficients of the items are between 0.15 and 0.80. It means that the cross-correlation coefficients of the scale items are consistent with the relevant conceptual structure. According to Hinkin (1995), the correlation coefficients should be larger than 0.20 and less than 0.70. According to BrckaLorenz et al. (2013), these coefficients should be between 0.15 and 0.85. If the coefficients are smaller than 0.20, items do not represent the same concept.

121

The second method to measure the internal consistency is "Cronbach's Alpha" coefficients analysis. The alpha coefficients are greater than 0.65 for all factors. It is also observed that this value is 0.86 for the scale. Nunnally states that the alpha coefficient should be at least 0.70, whereas Hinkin (1995) states that the alpha coefficient should not be less than 0.50. According to Bandana and Saini (2009), the alpha value should be at least 0.60.

Another internal consistecy measurement method is "Split Half" method. As a result of the calculations performed, the split-half reliability value is found above the threshold value of 0.80 to 0.84.

The last internal consistency analysis discussed in this study is the "Omega Reliability Coefficient" analysis. Omega reliability analysis is defined as the rate of the total variance explanation value of the common variance value. This method is an internal consistency analysis based on variable factor loads (Ventura-León, 2018). Omega value is calculated as 0.895. Scale dimensions Omega values vary between 0.824 and 0.840, which are highly acceptable.

Normality Analysis

Normality tests are performed to determine whether the items of scale have normal distribution or not. It can be seen that Kolmogorow-Smirnov and Shapiro-Wilk tests are used extensively in the literature. The test values must be greater than 0.050 to have normal distribution (Noughabi and Arghami, 2011). Elliot et al. (2007) recommend the Shapiro-Wilk test when the sample size is less than 50. If the sample size is more than 50, Kolmogorow-Smirnov test is recommended. Our test results indicate normal distribution conditions on the basis of both scale and dimensions. Hinton, McMurray, and Brownlow (2014) have pointed out the stickiness and skewness values as a measure of normal distribution. Fisher Value (z coefficient) is the most important indicator of the normal distribution. If the Fisher Value is between -1.96 and +1.96, it can be said that the distribution is normal. The skewness and kurtosis values of the scale are examined, and the results are analyzed. As a result of the analysis, it is seen that most of the Z values remained within the range of -1.96 and +1.96.

Construct Validity Analysis

In this context, explanatory and confirmatory factor analyses are performed. The descriptive factor analysis, which enables the determination of a factor model for a group of variables, is a method of analysis, which enables the acquisition of a small number of factors from a large number of variables (Bandalos, 1996). It is not possible to apply explanatory factor analysis to all data sets. The data should be normally distributed, the variables should be related to each other at a certain level, the relationship between the variables should be linear and the data should be measured on an equally spaced scale. (Büyüköztürk, 2002). Confirmatory factor analysis is determined by the factor structure of the scale analysis and the level of the factors previously determined. According to Brown (2015), the factor structure of the measurement tool is confirmed with confirmatory factor analysis and the relations of the dimensions with each other. The analysis carried out in three stages are considered as the goodness of fit, affinity and decomposition validity. In this scale development study, the structure validity has been tested by the matching indices.

The first goodness index is Chi-Square/Degree of Freedom. This is the most widely used measurement method that tests the general suitability of the model. It is tested whether there is a difference between the chi-square test and covariance matrices (Hu and Bentler, 1999). According to Tabachnick and Fidell (2007), if the chi square value is less than 2, it is perfectly compatible and if it is below 5, it is acceptable level. The second goodness index value is the Goodness of Fit Index. This value refers to the power to measure the covariance matrix of the variables in the model. It takes values between 0 and 1 and moves in different directions with the degree of freedom (Bollen, 1990). A value greater than 0.90 means that the model is valid, and the level of compliance is high (Munro, 2005).

The third goodness index is the Root Mean Square Error of Approximation and Root Square Error of Approximation. These values are expected to be close to 0 in order to minimize the error between the initial model and the matrix created. For the highest fit, it is stated that the values should be less than 0.08 (Lawrence et al., 2006). The fourth goodness index is the Comparative Fit Index. It tests the harmony between the model and hidden variables according to the covariance and correlation matrices. Although this method gives more meaningful results in small samples, it is one of the most widely used methods of analysis. The value should be at least 0.90 (Munro, 2005). Finally, the Adjusted Goodness of Fit Index can be considered. This value is between 0 and 1 as in the Goodness of Fit Index. The value should be 0.90 and above (Hooper et al., 2008).

Table 1. Goodness of Fit Indices

Fit Indexes	Index Values	Acceptable Values
Chi-Square/Degree of Freedom (x^2 /df)	4,216	$1 < x^2/df < 5$
CFI	0,908	$0,90 \leq CFI$
AGFI	0,818	$0,80 \leq AGFI$
GFI	0,873	$0,85 \leq GFI$
RMSEA	0,093	$0,01 \leq RMSEA \leq 0,10$
RMR	0,082	$0,01 \leq RMR \leq 0,10$

The final scale included 24 items. Hidden factors for measuring strategic management sensitivity are identified and these factors are named by exploratory factor analysis. The first factor included 5 items. It is determined that all these items are related to the distribution, dissemination and action carried out within the scope of strategic management. For this reason, the factor is named as "Distribution, Dissemination and Action Sensitivity". The second factor included 8 items. It is determined that most of these items are related to planning activities carried out within the scope of strategic management. For this reason, the factor is named as "Planning Sensitivity". The third factor includes 11 items. It is determined that the majority of these items are related to the strategic management process. Therefore, the factor is named as "Process Sensitivity".

5. Limitations and Future Research

The study has several limitations. Although the research aims the larger audience, it is applied to the target participant to be chosen randomly. The participants are provided with preliminary information in order to understand correctly and interpret the items sincerely. As a result of the study, the reliability and validity results are found satisfactory. The research is carried out on managers of the strategic units of the public institutions, municipalities, private sector and universities in Turkey. Therefore, the results of the study may not be valid for managers in other regions and provinces. At this stage, if necessary, different solutions may be offered for other provinces.

As stated before, the target participant of the research is the managers working in the strategy units of the public institutions, municipalities, private sector and universities and the managers working in other units. Some of the surveys are filled online because of the limited time of target group and lack of enthusiasm for this subject. The building process of scale development is affected by personal perceptions to a certain extent. Although the entire development process is based on scientific foundations, personal factors are seen as a limitation. In the literature, it is seen that the studies are generally conducted as a literature review. This situation shows that the topics such as the ability of the managers to manage the strategic management process, roles in the planning process, the importance of strategic management practices in the decision-making process, and the role of strategic management in the selection and training of human resources are not examined sufficiently. Therefore, empirical studies to measure the sensitivity of managers to these issues will lead to success in businesses and lead to a significant increase in the human resources quality. Moreover, we believe that the implementation of similar scale building studies on different economic, cultural environments and introduction of additional psychological and demographics factors will make a significant contribution to the strategic management literature.

Appendix

Please read the following opinions carefully to evaluate the situation in your business.

I Strongly disagree 1
I disagree 2
Neither agree nor disagree 3
I agree 4
Definitely describes me 5

		Degree of Accuracy
1	I present the determined strategic goals and objectives to the stakeholders for the criticism and evaluation.	
2	I ensure that the determined critical performance indicators are accessible and reliable.	
3	I try to achieve strategic goals by providing a democratic working environment.	
4	I ensure that employees are committed to equal strategic goals by treating them equally.	
5	At the end of the year, I review the consistency of performance reports and develop enhancements suggestions.	
6	I encourage employees to participate in the processes and to make them more participatory.	
7	I try to achieve the goals by communicating effectively with employees.	
8	I try to understand the staff and improve strategic goals and objectives accordingly.	
9	I prepare annual spending or cost plans for large projects.	
10	I determine the strategic unit's objectives by negotiating with employees.	
11	I review the minutes of the stakeholder meetings and make improvements to the goals of the following years.	
12	I conduct a preliminary market research and budget it in order to set strategic goal that require expenditure.	
13	I come together with the other unit managers who prepare entries in the annual report.	
14	I hold meetings with other managers to evaluate the role of reporting mechanisms in the strategic planning process.	
15	I encourage employees to achieve strategic goals and objectives.	
16	I take precautions for problems that deviate from strategic goals and objectives.	
17	I give importance to negotiating topics with unit staff when determining strategic goals and objectives.	
18	I visit stakeholders and get their views on strategic goals and activities.	
19	I attach importance for determining the strategic objectives as a result of the negotiation of the related responsible.	

20	The strategic objectives are known to the employees and they are easily accessible.	
21	I take part in all monitoring and control activities related to the strategic planning activities.	
22	I determine the road map regarding the strategic management process with the senior management.	
23	I identify areas to be amended within the scope of the strategic objectives and manage changes.	
24	I care the decisions that lead the strategy will be formed as a result of a negotiation.	

References

Andrade, L.P.C.S., Ferreira, C.V., Silva, C. & Gomes, J.O. (2016). Strategic Management Method for the Incubation Process of Industrial Companies: Case Study of the Tooling Industry in Brazil, 48th CIRP Conference On Manufacturing Systems - CIRP CMS 2015, Vol 41, pp. 129-134.

Athapaththu, H.K. (2016). An Overview of Strategic Management: An Analysis of the Concepts and the Importance of Strategic Management, International Journal of Scientific and Research Publications, Vol. 6 No. 2, pp. 124-127.

Bandalos, B. (1996). Confirmatory factor analysis (In J. Stevens Ed.), Lawrence Erlbaum, New Jersey.

Bandana, I.W. & Saini, S.K. (2009). Development of Audit Tool: A methodological study for Auditing the Family Health Records, Nursing and Midwifery Research Journal, Vol. 5 No. 4, pp. 166-175.

Bollen, K.A. (1990). Overall fit in covariance structure models: Two types of sample size effects, Psychological Bulletin, Vol. 107 No. 2, pp. 256-259.

Bourletidis, K. (2013). The strategic management of market information to SMEs during economic crisis, Social and Behavioral Sciences, Vol. 73, pp. 598-606.

Bradutan, S. & Sarbu, A. (2012). Advantages and Disadvantages of the Strategic Management in the Current Economic Context, The Bucharest Academy of Economic Studies, No. 1, pp. 51-53.

BrckaLorenz, A., Chiang, Y. & Nelson Laird, T. (2013). Internal Consistency Reliability, FSSE Psychometric Portfolio, Vol. 160, pp. 1-4.

Brown, T.A. (2015). Confirmatory Factor Analysis for Applied Research, The Guilford Press, NewYork.

Büyüköztürk, S. (2002). Faktör analizi: Temel kavramlar ve Ölçek Geliştirmede Kullanımı, Kuram ve Uygulamada Eğitim Yönetimi Dergisi, Vol. 8 No. 32, pp. 470-783.

Byrne, B.M. (2011). Structural equation modeling with AMOS Basic concepts, applications, and programming (Multivariate Applications Series), Routledge, New York.

Congdon, G., Baker, T. & Cheesman, A. (2013). Enhancing the strategic management of practice learning through the introduction of the role of Learning Environment Manager, Nurse Education in Practice, Vol. 13, pp. 137-141.

Cox, M.Z., Daspit, J., McLaughlin, E. & Jones III, R. J. (2012). Strategic Management: Is it an Academic Discipline?, Journal Of Business Strategies, Vol. 3 No. 22, pp. 25-42.

David, F.R. (2011). Strategic Management Concepts and Cases, Prentice Hall, New York.

Douglas, M.R., Carter, S.R., Wilson, A.P. & Chan, A. (2015), A Neo-Strategic Planning Approach to Enhance Local Tobacco Control Programs, American Journal of Preventive Medicine, Vol. 48, pp. 13–20.

Elliott, A.C. and Woodward, W. A. (2007). Statistical analysis quick reference guidebook with SPSS examples 1st ed, Sage Publications, London.

Epstein, M.J., Verbeeten, F. & Widener, S. K. (2016). Performance Measurement and Management Control: Contemporary Issues, Studies in Managerial and Financial Accounting Vol 31, Emerald Group Publishing Limited, United Kingdom.

Favoreu, C., Carassus, D. & Maurel, C. (2016). Strategic management in the public sector: a rational, political or collaborative approach?, International Review of Administrative Sciences, Vol. 82 No. 3, pp. 1-17.

Field, A. (2000). Discovering Statistics using SPSS for Windows, Sage publications, London - Thousand Oaks - New Delhi.

Hinkin, T. R. (1995). A Review of Scale Development Practices in the Study of Organizastions, Journal of Management, Vol. 21 No. 5, pp. 967-988.

Hinton, P.R., McMurray, I. & Brownlow, C. (2014). SPSS Explained, Routlegde, East Sussex.

Hoogstra, M.A. & Schanz, H. (2008). The future orientation of foresters: An exploratory research among Dutch foresters into the prerequisite for strategic planning in forestry, Forest Policy and Economics, Vol. 10 No. 4, pp. 220-229.

Hooper, D., Coughlan, J., R. & Mullen, M. (2008). Structural Equation Modelling: Guidelines for Determining, The Electronic Journal of Business Research Methods, Vol 6 No. 1, pp. 53-60.

Hu, L.T., & Bentler, P.M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives, Structural Equation Modeling, A Multidisciplinary Journal, Vol. 6 No. 1, pp. 1-55.

Hunger, J.D., & Wheelen, T.L. (2007). Essentials of Strategic Management, Pearson Prentice Hall, Indiana.

Jabbar, A.A. (2017). The Role of Leadership In Strategic Management, International Journal of Research, Vol. 5 No. 5, pp. 99-106.

Jensen, D.R., & Ramirez, D. E. (2013). Revision: Variance Inflation in Regression, Advances in Decision Sciences, Vol. 2013, pp. 1-15.

Kohl, H., Orth, R., Riebartsch, O. & Hecklau, F. (2016). Integrated Evaluation System for the Strategic Management of Innovation Initiatives in Manufacturing Industries, 13th Global Conference on Sustainable Manufacturing - Decoupling Growth from Resource Use, Procedia CIRP, Vol. 40, pp. 335-340.

Kraus, S. & Kauranen, I. (2009). Strategic management and entrepreneurship: Friends or foes? International Journal of Business Science and Applied Management, Vol. 4 No. 1, pp. 37-50.

Lawrence, S.M., Gamst, G., & Guarino, A.J. (2006). Applied Multivariate Research: Design and Interpretation, Sage Publication, Thousand Oaks.

Luo, Y., Sun, J., & Wang, S. (2011). Comparative strategic management: An emergent field in international management, Journal of International Management, Vol. 17 No. 3, pp. 190-200.

Munro, B. (2005). Statistical Methods For Health Care Research, Lippincott Williams & Wilkins, Philadelphia.

Nag, R., Hambrick, D. & Chen, M. (2007). What Is Strategic Management, Really? Inductive Derivation of a Consensus Definition of the Field, Strategic Management Journal, Vol. 28 No. 9, pp. 933-955.

Nedelea, S., & Paun, L.A. (2009). The Importance of the Strategic Management Process in the Knowledge-Based Economy. Review of International Comparative Management, Vol. 10 No. 1, pp. 95-105.

Netemeyer, R.G., Bearden, W.O., & Sharma, S. (2003). Scaling Procedures: Issues and Applications, Sage Publications, Thousand Oaks.

Noughabi, H.A., & Arghami, N.R. (2011). Monte Carlo comparison of seven normality tests, Journal of Statistical Computation and Simulation, Vol. 81 No. 8, pp. 965-972.

O'Brien, R. (2017). A Caution Regarding Rules of Thumb for Variance Inflation Factors, Quality and Quantity, Vol. 41, pp. 673-690.

Olexandrivna, Y.N. (2016). Strategic Management By Balanced Development: Meaning, Economic Processes Management, Vol. 1, pp. 63-69.

Pelc, L.S. (2015). Searching for opportunities for development and innovations in the strategic management process, 4th International Conference on Leadership, Technology, Innovation and Business Management, Social and Behavioral Sciences Vol. 210, pp. 77-86.

Pournasir, S. (2013). Key success factors of strategic management implementation in SMEs in Iran, Journal of International Studies, Vol. 6 No. 2, pp. 65-78.

Tabachnick, B.G., & Fidell, L.S. (2007). Using Multivariate Statistics (5th ed.), Allyn and Bacon, New York.

Ventura-León, J.L. (2018). Confidence Intervals for Omega Coefficient: Proposal for Calculus. Adicciones, Vol. 30 No. 1, pp. 77-78.

Wheelen, T., & Hunger, D. (2013). Strategic Management and Business Policy, Prentice Hall, New Jersey.