

Validation of Dimensions and Component of Risk Culture: Using Fuzzy Delphi Method

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Abstract

Risk culture is a new issue that has entered the risk management literature after financial crises. While several studies have been conducted on quantitative risk management models, but behavioral aspects focusing on the concept of risk culture requires intellectual endeavors, the development of theories, and further researches. Recognizing the dimensions and components of risk culture in order to achieve a tools for the recognition and assessment of risk culture is the main objective of this research. On the other hand, a significant step in each research is the decision making regarding the appropriate component relevant to each construct. Maintaining inappropriate component an eliminating important component might mislead studies directions. In this research, the Fuzzy Delphi method is considered as a techniques of scientific analysis to accomplish agreement amongst panel members to determine the components and dimensions of risk culture. This method diminishes ambiguity, variety and discrepancies in viewpoint; furthermore, guaranteeing the fact that whether or not the gathered data is valid enough, increases the quality of selected component.

Introduction

Although the need for risk management has been widely accepted, organizations often consider the impact of their cultural aspects insignificantly, and little evidence of risk culture, especially in the banking sector (Binti Hamzah, 2014; Ariffin and Kassim, 2011). Creating and maintaining a suitable risk culture is still one of the major challenges in risk management. Considering the importance of risk culture in risk management, it is necessary to develop a

scale for measuring it. By measuring the risk culture, it will be possible to evaluate the effectiveness and efficiency of efforts to shape and manage it. While quantitative models and governance frameworks for risk management are well established at the moment, the behavioral aspects, which focus on risk culture, are often unclear and under development and theorizing (Banks, 2012).

In this regard, efforts have been made by international institutes and researchers to provide frameworks for risk culture in general (McConnell, 2013; Levy, Lamarre, & Twining, 2010; PWC, 2009; IRM, 2012; Tower Watson, 2011; EY, 2014; Deloitte, 2015; FSB, 2014; IIF, 2012; RMA, 2014; VMIA, 2016; Banks, 2012; Kells, 2014; Schoenfeld, 2013), which show that the dimensions and components of risk culture vary greatly in different fields and domains, therefore, According

that there is no research background in Iran and, given the determinant effect of context, it is necessary to recognize the dimensions and components of risk culture in the banking industry of Iran.

In this research has been attempted, by using the Fuzzy Delphi method as a scientific method for validating the dimensions and components of risk culture in the banking industry, by achieving a scale for identifying and measuring the risk culture, while responding to the gap in the academic literature, improve Indicators of risk culture

Case study

The statistical population of this study is risk managers of the banking industry. In this regard, the questionnaire was sent to all bank risk managers through official envelop. Finally, 28 questionnaires were received in the first round and 27 questionnaires in the second round.

Materials and Methods

In this research, Fuzzy Delphi method is used as one of the scientific analysis techniques for reaching consensus among panel members to determine the components and dimensions of risk culture. In this regard, a questionnaire was used to collect data. In order to prepare a questionnaire to start the Fuzzy Delphi process, also the results of previous studies and models presented in this field were used.

Discussion and Results

The Fuzzy Delphi method was performed in two rounds. Panel members totally realized 56 component, 13 sub-dimensions and 4 main dimensions as component and dimensions of risk culture in banking industry. 2 component were also realized as explicit results of risk culture. The results of the rounds showed that for the following reasons (Manakandan, et al. 2017, 228; Mohamad, Embi and Nordin, 2015; Kamarulzaman et al., 2015), the members of the panel had come to an agreement, and it was possible to stop the rounds: percentage of agreement between all components in both rounds is above 75%, indicating that there is a consensus among the members. Percentage of panel members agreement on the dimensions and components of risk culture for the

first and second round respectively are 85% and 87%. Therefore, it can be said that due to the small differences in the results in the first and second rounds (less than 0.2 difference), it is not necessary to continue the process and do a new round.

Conclusion

This research showed that the Fuzzy Delphi method can be used as a tool for obtaining expert opinions and reaching consensus in group decision making process. This can be used as a structural validation tool to select the appropriate components and items. In addition, it provides a suitable quantitative approach to group discussions and meetings that are qualitative. This research, as the first research in the field of risk culture in general and risk culture in the banking industry in particular in Iran, needs to be completed and continued. The findings of this study can be considered as the first step in the construction of the theory, although at a low level, for risk culture in Iran's banking industry.

Key Words: Risk; risk management; risk culture; Fuzzy, Fuzzy Delphi