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Understanding Risk Culture among Institutional Managers in Libya

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Abstract: it is a widely recognized fact that problems related to organizational risk culture played a major role in the financial crisis that crystallized at the end of the 2000s. That one in particular, risk culture has become a focus and subject of debate for regulators and other bodies. In general, risk culture is a set of encouraging and acceptable behaviors, discussions, decisions and attitudes related to risk taking and risk management within the institution. It reflects shared values, goals, practices and reinforcement mechanisms that integrate risk into the institution's decision-making processes and risk management in its operations. The purpose of the study is to assess the awareness and commitment to risk culture on a sample of fifty-five senior and middle managers of ten different institutions. The results showed that for them the concept of risk management in most institutions only means the management of safety and security, in aviation institutions the safety management system or the management of weather forecasting, since there is no separate risk management department in the selected sample, with the exception of one institution. According to the results of the statistical analysis, it is necessary to increase the awareness of the risk culture by putting the risk management policy and plan on the agenda, as well as by defining the overall risk management strategy of the organization; for this, a risk-aware culture must be created in the behavior and attitude of all employees through training, periodic meetings, regular risk assessment, determination of risk limits and corrective measures. Finally, the risk management framework is recommended as an institutional feature, which helps to include and improve risks in the decision-making process.

I. Introduction

It is a widely recognized fact that problems related to organizational risk culture played a major role in the financial crisis that crystallized at the end of the 2000s. Following the Global Financial Crisis of 2008 to 2009, there was increased pressure on financial sector organizations to reform their *'risk culture'*, with the response to the crisis largely focused on the need to improve the *'risk culture'* of banks and other financial organizations. However, the definition of risk culture includes the values, beliefs, attitudes and knowledge that exist within a company, both public and private, related to risk. Thus, a strong risk culture is the key to aligning all fronts of the company to its strategic objectives (Gutshwa, Gilliland, & Cockeran, 2016). A one-size-fits-all culture is neither possible nor desirable. Of course, several cultures can exist within an institution. It would be unusual for oil and gas and aviation industries to have the same risk culture. Cultures also change between organizations in the same industry and over time. It is therefore important to have a risk culture that enables the managers to report, escalate and take action on potential damage or take advantage of opportunities.

Many studies related to risk culture have been published in the literature. Most agree that risk-taking should be supported by clear roles and responsibilities in the organization's risk management process, as well as a focus on learning from previous mistakes and continuous improvement. Through previous studies based on the concept of institutional risk culture, such as Maddison et al. (2008); Houngbedji & Aurèle (2011); IRM (2012); Ashby et al. (2013); Palermo et al. (2017); Carretta et al. (2017); Skutle (2016); Gutshwa et al. (2016); McGing and Brown (2014); Grieser and Pedell (2022); Sebayang et al. (2022), the most outstanding of the studies was the assessment of the maturity level of the institutional risk culture and the answers to these questions; how does risk culture affect risk management in the organization and how does this culture spread within the institution, how do they ensure that everyone in the organization is fully aware of the concept of risk culture? The most important findings are that the culture can influence risk outcomes in several ways. Organizations perform better when culture survey responses are shared and grounded, indicating strong shared norms and values. However, when shared norms and values refer to negative or maladaptive values, beliefs, or assumptions, the same cultural processes responsible for good organizational performance can also lead to mistakes, misbehavior, and disaster. In addition, the risk management tools and processes are not adequate, and the risk culture has not yet been properly integrated into the organizational operation. Nevertheless, if the institution sees risk as an opportunity, it results in a better risk culture and risk management. Therefore, the risk culture is shaped by the employee's daily activities. For these activities to be effective, those performing the actions must have a deep understanding of the risks. Furthermore, risk management is the responsibility of everyone in the organization and must be incorporated into the company's activities. The actions and attitudes of all employees must reflect a risk-aware culture. At the same time, several organizations have developed a risk management system, but despite their efforts, no tangible benefits have been realized; this may be because these organizations did not consider risk culture to begin with. To this end, shared experiences, respect for experiences, a collaborative culture and a common strategic understanding of the purpose of risk management are cultural components that contribute to the development of a comprehensive risk culture within the organization.

In addition to the points above, Hopkin (2012) stated that a good risk culture is vital to the effectiveness of risk management. Such a culture can be achieved by focusing on five factors: Leadership, Involvement, Learning, Accountability and Communication (LILAC), as illustrated in Table 1. A successful risk culture consists of the elements listed in Table 2 as reported by Modimakwane (2018).

LILAC	Definition
Leadership	Strong leadership within the organization in relation of strategy, projects and operations
Involvement	Involvement of all stakeholders in all stages of the risk management process
Learning	Emphasis on training in risk management procedures and learning from events
Accountability	Absence of an automatic blame culture, but appropriate accountability for actions
Communication	Communication and openness on all risk management issues and the lessons learnt

II. Measuring the Risk Culture

IRM (2012), Global Regulatory Network (2014) and D Modimakwane (2018) listed the components and indicators of an effective risk culture in an organization represented in; *tone from the top*, *accountability*, *effective communication and challenge* and *Incentives*. Consequently, if risk culture is important to enterprise risk management (ERM), then it must be measured. By measuring the risk culture, we can better assess the effectiveness of our attempts to shape or control it. In financial services, the Australian Prudential Regulation Authority (APRA) as a regulator actually expects you to assess the culture of your institution. However, there are several pitfalls and considerations to be aware of. This is due to the qualitative and subjective nature of culture. Thus, there are some opportunities and challenges in measuring risk culture (Mcging and Brown 2014). However, the Center for Creative Leadership (CCL) has identified the key drivers of organizational culture, the so-called Leadership Culture Indicators tool. Although these indicators are therefore a suitable starting point for developing a series of questions for measuring risk culture. Table 2 presents these questions as a starting point for consideration.

Indicator	**Question**
Strategy	In the face of the strategy, how clear are the risks and risk appetite?
Fear	What is it not safe to raise in my organization?
Remuneration	Am I rewarded for taking appropriate risks?
Information	Do I have the information to adequately assess risk?
Knowledge	Even if I have the information, do I know to be able to effectively manage risk?
Alignment	Are aligned on which risks are acceptable, and which ones aren’t?

Indicator	Question
Conflict	If we avoid constructive conflict, will there be important risk considerations that don't see the light of day (until it is too late)
Mistakes	How are mistakes treated in the culture? Learning or shameful?
Feedback	How people are provided feedback to autocorrect? How do people get (systems) feedback when they put in place an initiative? What are the red flag mechanisms that provide feedback on the health of the system?
Time scale	What is the time orientation of senior executives/board members?
Integrity	Do I trust people in my organization to do the right thing?
Distributed nature of leadership	Am I encouraged to take responsibility for managing the risks that occur as a result of the business decisions I make?
Role modelling	Do senior people in my organization do what they ask of others?
Collaboration	How well do people work together across teams, functions and up and down the hierarchies?

One way to measure the current status of each of the indicators in Table 2 is through a survey. This not only informs the current risk culture, but also provides a benchmark against which to measure the progress over time (Australian Government, 2016). Different methods are emerging to measure risk culture; 1) Questionnaire/survey, 2) Interviews within the organization, 3) Group discussions, 4) Interviews outside the organization, 5) Social media analysis, 6) Self-assessment vs other internal assessment versus external assessment, 7) Measuring the operational environment, and 8) Extent and attitudes to training. The traditional technique of measuring risk culture, which is questionnaire/survey, focuses on what people do and fail to uncover the reasons why people behave the way they do (Kells, 2014). The method chosen must be carefully designed to eliminate bias and misinformation. The interpretation of the information received must be carefully considered, based on previous experience. It is especially important to be consistent over time in what and how we measure so that trends can be identified. Changes over time are usually more important than any measured value. Where annual evaluations are recommended for continuity and immediate action.

III.Study Methodology

The purpose of the study is to assess the awareness and commitment to risk culture on a sample of fifty-five senior and middle managers of ten different institutions within three sectors, namely the aviation, oil and gas, and public finance institutional sectors. In each institution, risk management practices and the factors affecting this practice in the top and middle management of organizations, in general, are explored and compared with each other. Then, discuss the problem represented in the inability of managers to create a culture of risk management in large organizations, which is a major factor contributing to the inability of decision-making in terms of operational ambition and the actual performance of risk management. After that, reaching the objectives of the study by assessing risk awareness through studying the culture of risk management in senior and middle administrations, evaluating the level of commitment to risks in relation to the implementation of relevant legislation, comparing and analyzing the results of risk culture and commitment to risks, and developing a plan to develop a culture of risk management and how to measure the culture of risk. Finally, recommend how to establish and maintain a risk culture in organizations.

3.1 Setting up Risk Culture Survey Questions

Weaknesses in risk culture were a root cause of the global financial crisis, as they led to failures in compliance. The Guidelines for supervisory cooperation with financial institutions on risk culture provided by FSB (2014) defines a framework for the assessment of the risk culture of supervisors. This guidance provides a foundation for supervisors and firms to foster and develop a shared understanding of the firm's risk culture and to have informed conversations with the board and senior management who set the tone for culture from the top.

Based on the FSB (2014) framework, a questionnaire included the FSB guidelines and was modified according to the investigated organization. Where the sample consisted mainly of risk/safety and security experts or people with basic knowledge of risk management, with a limited number of participants from senior and middle management categories in each company. Accordingly, the researchers recorded the interviews and made notes for the questionnaire survey. The questionnaire was divided into three parts; the 1st part focused on biographical details with 7 questions, and the 2nd part focused on risk culture in the organization. This part contains a questionnaire with 8 components and a total of 79 questions on risk culture, while the 3rd part contains two questions about the accountability for including risk when making decisions, and improve the inclusion of risk in decision-making as shown in Table 3. Thus, the questionnaire evaluates the risk culture according to the following three factors; a) the perception of risk integration in the organization, b) the perceived comfort with own risk management role, and c) the perceived fairness of risk-taking incentives, which emphasizes accountability; communication; incentives; management processes, system and data; the tone from the top; training.

Table 3 - Questionnaire Structure

1st Part; Biographical Details	**Questions**
Personal information and general risk management questions	7
2nd Part; Risk Management Questionnaire Survey	**Questions**
your business situation in terms of risk	4
management attitude towards risk culture (tone from the top):	15
Risk reporting.	13
Risk perception.	11
risk related behaviors & indicators of effective challenge	11
Risk assessments.	7
Communication in work.	9
Training & incentives.	9
3rd Part; Accountability and Risk Improvement	**Questions**
Accountability for including risk when making decisions.	1
improve the inclusion of risk in decision-making	1

The study used a seven-point Likert scale – with an ‘I don’t know’ option – to test how much respondents agreed or disagreed with the questions and statements. Two types of Likert scales were used, depending on the applied question (Never, Infrequently, Sometimes but Infrequently, I don’t know, Sometimes, Usually, Always) and (Never, Once, Twice, I don’t know, Sometimes, Usually, Always).

Table 4 - Study Sample Population

Sector	Institution	Sample	Population
Aviation	Aviation Com 1	5	35.6%
	Aviation Com 2	5	
	Aviation Com 3	3	
	Aviation Com 4	3	
Oil and gas	O&G Com 1	1	40%
	O&G Com 2	5	
	O&G Com 3	7	
	O&G Com 4	5	
Public Finance	PF 1	6	24.4%
	PF 2	5	
		45	100%

3.2 Study Sample Population

As the study focused on top and middle managers of different companies and due to the difficulty of reaching all managers, the researchers chose a study population of top and middle managers in the city of Tripoli. Table 4 shows the study sample population. In addition, Table 5 provides a description of the study sample.

Table 5 - Description of the Study Sample

Description	**Frequency**	**%**

Education		
Bachelor	24	53.3
Higher Diploma	2	4.4
Master	10	22.2
PhD	9	20.0
Experience		
From 14years and below	1	2.2
From 15 to 25 years old	15	31
From 26 to 30 years old	12	26.7
More than 35years old	18	40
Position		
Director General	7	17.78
Management Consultant	2	2.22
Deputy General Manager	2	4.44
Director Of the Department	28	62.22
Head Of the Department	6	13.33

IV. Results and Discussions

Using ANOVA analysis of variance to determine the differences between the three main organizations - Aviation, Oil and Gas, and Public Finance - for a total of 10 institutions. The results were obtained in accordance with this test, and the differences between the risk management questionnaire survey (biographical details and the 8 components in Table 3) are established in Table 6. A statistically significant test result ($P \leq 0.05$) means that the test hypothesis is false or should be rejected (significant difference). A $P > 0.05$ means that no effect was observed (no significant difference). Table 6 shows that items 2, 4, 5, 6 $P < 0.05$ means that there are statistically significant differences between the companies. Accordingly, the value of the difference between these responses can be determined by analyzing the related responses in the questionnaires. By compiling and analyzing the questionnaires, we discuss here the following results:

Table 6 - Differences based on P-value with ANOVA Table

Analysis		df	F	P-value
Risk Reporting	Between Groups	9	0.936	0.507
	Within Groups	35		
	Total	44		
Risk Related Behaviors	Between Groups	9	2.255	**0.041**
	Within Groups	35		
	Total	44		
Communication in Work	Between Groups	9	1.621	0.148
	Within Groups	35		
	Total	44		
Management Attitude Towards Risk Culture	Between Groups	9	4.248	**0.001**
	Within Groups	35		
	Total	44		
Effective Challenge	Between Groups	9	7.448	**0.000**
	Within Groups	35		
	Total	44		
Risk Management	Between Groups	9	2.250	**0.042**
	Within Groups	35		
	Total	44		
Indicators of Effective Challenge	Between Groups	9	0.979	0.474
	Within Groups	35		
	Total	44		
Risk Assessments	Between Groups	9	1.561	0.166

	Within Groups	35		
	Total	44		

Attitude towards Risk Management

It was established that there was a discrepancy in the answers to the questions in the aviation sector; *are the returns commensurate with the risks assumed in the various businesses/how many times*? and *I participated in the discussion or meetings to plan and follow up the risks* with an average of 4.40 and 5.60 and a standard deviation of 1.95 and 0.55 in direction of *I don't know* and *always*.

In the case of the oil and gas sector, there was a difference in the answers; *how many times did you participate in the discussion or meetings to plan and follow up on risks*? And, *Does the administration reward employees who communicate or take care of issues or increased risks*? The answers were *sometimes and always* with an average of 5.00-5.80 and a standard deviation between 1.10 and zero.

In the case of the public finance sector, their answer was different as to *be the returns commensurate with the risks assumed in the various businesses*? And, *how many times did you participate in the discussion or meetings to plan and follow up on risks*. The average ranges from 5.80-5.83 and the standard deviation from 2.68-0.55 in the *Always* direction.

Risk Perception

The aviation industry responded differently to "Be participating in regular monitoring of the divisional?" Where the answer was sometimes and always, the average is between 6.60 and 5.20, with a standard deviation between 2.387 and 0.548.
The answer to the question; Do you think your colleagues are thinking of a serious risk? Points in the direction of "I don't know or always", the average ranges from 4.40 to 6.67, with a standard deviation from 1.49 to 0.577.

Regarding the oil and gas sector, the majority of responses of "Are participating in the regular monitoring of the divisional?" were *usually* and *always* where the mean was 7.00-6.00 with a standard deviation of 0.54-zero.

As for the public finance sector, there was a difference between the answers. *Is the role of risk management in monitoring risk clear and separate from the front office*? It points in the direction of *Never* or *Always* with average ranges between 6.80-1.667 and a standard deviation between 0.447-1.03. Moreover, the answers to "*Are participating in regular monitoring of the divisional*?" ranged in a *usually* and *Always* direction and ranged from 5.667 to 6.20 on average, with a standard deviation of 0.817 to 0.837.

Risk related behaviors & Indicators of effective challenge

The analysis shows that there were differences in responses in the aviation industry; "*Does it occur that co-workers pressure you to do the work imperfect way in your work*"? Responses ranged from *Never* to *Don't Know*. The average range was 3.67 to 1.00, with a standard deviation of 3.29 to zero. Also, in "*Does the board have the expertise necessary to constructively challenge business line and risk management experts*"? The answers ranged from *Never* to *don't know*. The average is between 3.26 and 1.00, with a standard deviation between 2.31 and zero. Moreover, *does the board understand the risk reports? Have risk reports been sent back to management for simplification or clarification?* Answered between *sometimes* and *rarely*, with an average range of 5.00 to 1.00 with a standard deviation of zero.

In the oil and gas sector, there were differences in "*Does it occur that co-workers pressure you to do the work imperfect way in your work*" between their answers to the question. Where the answer is *Never, Sometimes* or *Rarely*. The average ranged from 3.29 to 1.00, and the standard deviation ranged from 2.14 to zero.

Regarding the public finance sector, the answers to the question *"Does it occur that co-workers pressure you to do the work imperfect way in your work"*? Between *Never*, *Sometimes*, or *Rarely*. The average is 1.63-1.40, with a standard deviation of 1.00.

Risk Assessments

There a variance in "Do *you participate in managing the divisional/ sectional identified risks*"? Which showed between *sometimes* and *always* with an average of 5.00-6.67 and a standard deviation of 1.14-0.54. As for the Oil and Gas sector, ranged between *usually* and *always*, the average ranged from 6.71 to 6.00 in with a standard deviation of 0.48 to Zero. In the public finance sector, was *usually*, the average ranged from 5.667 to 5.80, with a standard deviation of 0.817 to 0.837.

Accountability and Risk Improvement

The questionnaire provides an opportunity to recommend organizational characteristics that help to include risks in decision-making and improve risk decision-making. Thus, this section deals with accountability for including risk when making decisions and improve the inclusion of risk in decision-making. Both have nine optional phrases; 1) Leadership: tone in the middle about actively including risk when making decisions. 2) Leadership: tone from the top about actively including risk when making decisions. 3) Quality of risk-related information. 4) Risk-based rewards (e.g., remuneration, succession planning and talent development). 5) Risk communication. 6) Risk challenge when decisions are made. 7) Risk management framework (risk: appetite statement, limits, functions, systems, processes, and data). 8) Risk-related role clarity. 9) A shared understanding.

Fig. 1 illustrates the overall percentage of accountability of all sectors in relation to the consideration of risks in decision-making. “*Risk Management Framework*” is the best way to consider risks in decision making with 46.67%. In second place are both “quality of risk-related information” and “*Shared Understanding*” with 22.2%. While the “*Risk Challenge*” is in third place with 4.44%.

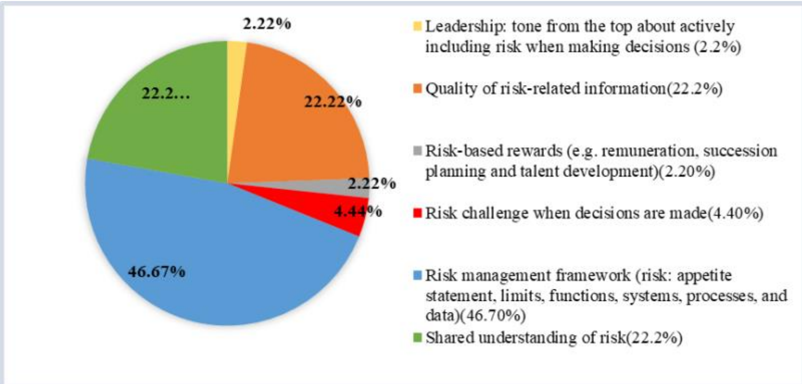

Fig. 1 - Accountability in Relation to the Consideration of Risks in Decision-Making

Similarly, Fig. 2 illustrates the overall percentage of improvement in the inclusion of risks in decision-making is explained. "*Risk Management Framework*” is the best way to consider improving risks in decision making with 46.67%. In second place is “*Quality of Risk-related Information*” with 22.22%, followed by “*Risk-based Rewards*” in the third place with 17.78%.

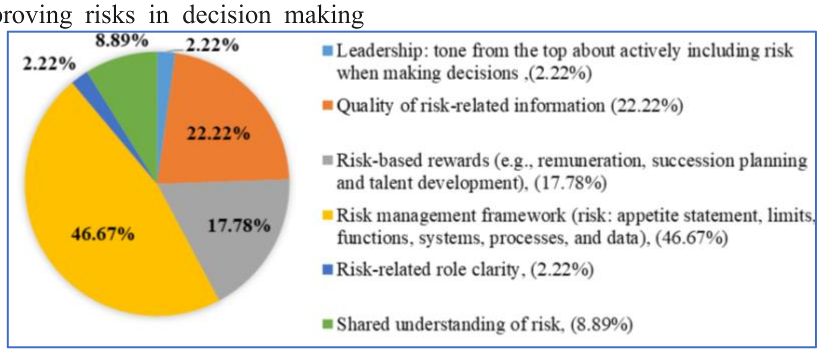

Fig. 2 - Improvement in The Inclusion of Risks in Decision-Making is explained

To create a risk culture, everyone must be encouraged to think about risks. With constant urging and everyone's participation in the regular monitoring of risks. In general, in order to improve the risk culture, some aspects should be taken into account; Risk management must be the responsibility of everyone within the institution and must be integrated into the institution's business activities. All actions and attitudes must reflect a risk-aware culture. The operational plan can be monitored and modified in order to increase risk awareness and regularly monitor and evaluate the risk management tasks of employee performance. Provide ongoing risk management training, ensuring management encourages employees to communicate or address increased hazards or risks. The most important of these is to speed up the creation of a risk management department under the institution's senior management.

It has been proven that there is a need to increase the awareness of risk culture in organizations in Libya; the first step is to put the risk management policy on the agenda and define the organization's overall risk management strategy, with increased attention from the management, as well as raising the knowledge level of the organization through the education of managers and employees in this area.

V. Conclusion and Recommendations

The study deals with the assessment of awareness and commitment to risk culture in a sample of fifty-five senior and middle managers of ten different institutions. We can conclude from the results of the statistical analysis;

- It should be noted that each had a strategic plan as well as a vision, mission, and goals. But the concept of risk management only means safety and security, in aviation sector the safety management system or the management of weather forecasting, since there is no separate risk management department except for only one Public Finance institution. However, risk management tasks must be distinguished from safety and security, and weather forecasting tasks used as an alternative to risk management in this study. Therefore, the risk culture is still immature and not part of their daily activities, due to the lack of a risk management department, these were the most important points that require greater awareness and attention.
- Provide ongoing risk management training, ensuring management encourages employees to communicate or address increased hazards or risks. The most important of these is to speed up the creation of a risk management department under the institution's senior management.
- The level of culture, and the awareness of risk culture in general, was higher in the Oil and Gas sector than in the Aviation and the Public Finance institutions.
- In general, there is no clearly defined risk management policy due to the lack of widespread use and awareness of risk management tools, as well as a lack of understanding of risk management methodology. However, it was found that the aviation sector is more aware of the contribution of risk management, as a safety management system, to the achievement of strategic goals, the importance of risk identification and the role of risks in the decision-making process.
- The questionnaire provides an opportunity to recommend organizational characteristics that help to include risks in decision-making and improve risk decision-making. The majority of executives recommended a risk management framework to improve accountability and risk decision-making. Also, when attending management meetings, make sure to raise risk issues (such as identifying risks, occurring risks and preventing risks) to reinforce the risk culture within the institution.

Since the main objective of the study was to assess risk awareness and study the risk management culture among senior and middle managers, we recommend the following:

- As it has been proven that there is a need to increase awareness of risk culture in Libyan organizations; As a first step, the establishment of a risk management department under the institution's senior management must be accelerated. In general, there are few studies on risk culture, especially with regard to senior managers and their impact on decision-making.
- Extended studies for this study, such as How managers understand risk management and its application mechanism (Enterprise Risk Management); What problems and obstacles prevent the implementation of risk management; Assess the impact of low-risk culture awareness and evaluate the benefits of successfully integrating a risk culture into the organization.

References:

1. Ashby, S., Power, M., & Palermo, T. (2013). Guidance on supervisory interaction with financial institutions on risk culture: Feedback on the FSB's consultative document.
2. Grieser, F. and Pedell, B. (2022), "Exploring risk culture controls: to what extent can the development of organizational risk culture be controlled and how?", *Journal of Accounting & Organizational Change*, Vol. 18 No. 5, pp. 752-788. https://doi.org/10.1108/JAOC-11-2020-0189
3. Sebayang, S., Sukiman, S., & Agus, R. (2022, March). A Proposed Concept of Risk Culture in Indonesia's Shariah Banking. In *Proceeding*

International Seminar of Islamic Studies (Vol. 3, No. 1, pp. 556-565).
4. Global Regulatory Network. (2022, November 6). *Measuring risk culture in finance: Development of a comprehensive measure*. Journal of Banking & Finance. Retrieved February 24, 2023, from https://www.sciencedirect.com/science/article/pii/S0378426622003004
5. Ashby, S., Power, M., & Palermo, T. (2013). Guidance on supervisory interaction with financial institutions on risk culture: Feedback on the FSB's consultative document.
6. Grieser, F. and Pedell, B. (2022), "Exploring risk culture controls: to what extent can the development of organizational risk culture be controlled and how?", *Journal of Accounting & Organizational Change*, Vol. 18 No. 5, pp. 752-788. https://doi.org/10.1108/JAOC-11-2020-0189
7. Sebayang, S., Sukiman, S., & Agus, R. (2022, March). A PROPOSED CONCEPT OF RISK CULTURE IN INDONESIA'S SHARIAH BANKING. In *Proceeding International Seminar of Islamic Studies* (Vol. 3, No. 1, pp. 556-565).
8. Global Regulatory Network. (2022, November 6). *Measuring risk culture in finance: Development of a comprehensive measure*. Journal of Banking & Finance. Retrieved February 24, 2023, from https://www.sciencedirect.com/science/article/pii/S0378426622003004
9. Al-Qahtani, Dr. Saad bin Saeed. 2015. Applied Statistics "Basic Concepts and Analysis Tools Most Used in Social and Human Studies and Research Using SPSS." First edit. ed. Dr. Saad bin Saeed Al-Qahtani. Riyadh-Saudi Arabia: King Fahd National Library.
10. Aljobaily, Hend. 2020. "Nonparametric Approach to Multivariate Analysis of Variance (Mano.Pdf." College of. UNIVERSITY OF NORTHERN COLORADO.
11. Australian Government. 2016. "COMCOVER INFORMATION SHEET Developing a Positive Risk Culture." Comcover fact sheet: 1–8.
12. Carretta, Alessandro, Vincenzo Farina, and Paola Schwizer. 2017. "Risk Culture and Banking Supervision." Journal of Financial Regulation and Compliance 25(2): 209–26. http://www.emeraldinsight.com/doi/10.1108/JFRC-03-2016-0019.
13. D Modimakwane. 2018. "Risk Culture Assessment at a Small Provident Fund Institution."
14. FSB and GRN. 2014. "Assessing Risk Culture — Questions Firms Should Be Asking." EY Global Regulatory Network is (November 2013): 8.
15. Gutshwa, B H, Sonja Gilliland, and Henry Cockeran. 2016. "Risk Culture in a South African Government Institution." Vaal Triangle Campus, North-West University.
16. Hecke, Tanja Van. 2015. Power_study_of_anova_versus_Kruskal-Wallis_test.Pdf. Ghent (Belgium). https://www.researchgate.net/publication/228457648.
17. Kalima, D. 2016. "Risk Culture in Card Payment Acceptance: A Case Study." North-West University. http://repository.nwu.ac.za/handle/10394/24940.
18. Kells, Dailene. 2014. Risk Series: Fostering a Risk Inteligent Culture- Why Behaviour Matters. Canada.
19. Maddison, a et al. 2008. "Managing Public–Private Megaprojects: Paradoxes, Complexity, and Project Design." International Journal of Project Management 28(2): 337–42.
20. Mauelshagen, Craig William. 2012. "Opening the Black Box : What Makes Risk Management Pervasive in Organisations ?" Cranfield Univeristy.
21. Mcging, Sean, and Andrew Brown. 2014. 61 Financial Services Forum Risk Culture Leadership, Measurement & Management – a Comparison across Industries. Sydney, Australia. http://www.actuaries.asn.au/Library/Events/FSF/2014/BrownMcGIng.pdf.
22. Palermo, Tommaso, Michael Power, and Simon Ashby. 2017. "Navigating Institutional Complexity: The Production of Risk Culture in the Financial Sector." Journal of Management Studies 54(2): 154–81.
23. Schoenfeld, D. 2013. "Organisational Risk Culture: Differences between Managerial Expectations and Employees Perception." University of Gloucestershire.
24. Sheedy, Elizabeth. 2016. "Risk Governance and Culture." Governance Directions 68(1): 19–22.
25. Skutle, Thomas R. 2016. "Risk Culture and Processes: An Analysis of OneSubsea M&MS." University of Stavanger.
26. Tohidi, Hamid, and Mohammad Mehdi Jabbari. 2012. 31 Procedia - Social and Behavioral Sciences Organizational Culture and Leadership. THIRD EDIT. eds. Hamid Tohidi and Mohammad Mehdi Jabbari. United States of America: Bass Jossey, Wiley Imprint.
27. Union of Investment Companies. 2016. Risk Cultre. Kuwait: aafaq.