

Impact of Integrated Thinking and Reporting on Organisational Decision Making: Case Study of Public Sector Enterprises in Oman

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Abstract

The purpose of this study is to determine the impact of integrated thinking and reporting on organisational decision making; Case study of Public sector Enterprises in Oman. This study was quantitative in nature in which the data has been gathered from 369 respondents through survey questionnaire. Besides, the researcher used the SEM model as the technique for analysing the data while determining the moderating effect along with path assessment and CFA. The findings of this research suggest that there is impact of Balancing Financial and Non-Financial Information was determined on the organisational decision making. Moreover, the external environment was determined to have significant moderator in the relationship of Balancing Financial and Non-Financial Information and Risk Identification and Management with organisational decision making. The study is limited to the public sector enterprise of Oman.

Keywords

Balancing financial and non-financial information, collaboration, interdependency, risk identification and management, organisation decision making, Oman

1. Introduction

Effective decision-making is more needed than ever before due to the fact that organisations have been operating in a time of flatter structures, learning networks, self-managing teams and other horizontal organizational forms, where the hierarchy is (almost) absent (Galbraith, 2014). Solutions to problems are increasing in the hands of several parties who depend on each other and who often also have different interests. In such a setting, decision-making can easily lead to endless discussion and even lead to hasty decisions. Decision making is the fuel that every organization, large or small, runs on. But even in more classically structured organizations, it often goes wrong with decision-making (Kourdi, 2015). For example, there must be a new work process or a different procedure, and that's what it's all about (Kourdi, 2015). The result: people often take a decision too quickly and want to work towards the solution immediately. The creation of commitment is as important as the focus on results. If the organisation skips necessary steps in the decision-making process, such as reflection and looking for alternative solutions it can become a significant issue to make effective decision according to the pertinent external environment (Sharma et al., 2014).

A growing number of companies are publishing an integrated report. The integrated reports are also of increasingly high quality. In integrated reports, companies not only show how they create value in the financial field, but also in non-financial areas, such as in the areas of personnel, society or the environment (Frias-Aceituno et al., 2013; Maas et al., 2016). The research shows that many companies do not find it easy to describe the business model properly, in other words how the financial and non-financial resources are used to achieve the operating result (Burke & Clark, 2016). In addition, it is difficult to describe the results clearly in relation to concrete objectives. Especially for the non-financial resources, the necessary objectives are often lacking (for example the consumption of natural capital) and these are often not included in the usual (financial) planning and control cycles (Ates et al., 2013). Integrated thinking, in which the impact on the various capitals is included in all relevant management decisions can help the organisations to ensure that their decisions are according to the challenges and change present in the external business environment (Steyn, 2014).

The privatization of state-owned companies in Oman is also being considered to absorb the fiscal deficits (Arabian Business, 2018). Especially companies in the electricity, water, transport, logistics and downstream petrochemical sectors are potential candidates for this. However, the efficiency and performance of several public companies must also first increase, before the private sector will invest in them. Many public sector organisations are inclined towards finding how to survive in the market for a long term. They also want to know which forms of reporting will become important in the future (Choi & Chandler, 2015). Hence, the key aim of this study is to find the influence of integrated thinking and reporting on organisational decision making of public enterprises in Oman and how external environment plays a moderating role amid them.

2. Literature Review

Making the link between the strategy, governance and financial performance of the organisation on the one hand and the social, economic and sustainable environment on the other, that is Integrated Reporting in a nutshell (Bommel, 2014). The organisations are inclined to promote the implementation and integration of financial and non-financial data by means of technology. Delivering reports and combining financial and non-financial data now often comes down to cutting and pasting (Robson et al., 2018). Many different data sources complicate insight into the quality of the figures and make analyses. An integrated IT landscape is therefore a must have for integrated thinking and reporting within an organisation. Decision-making is a process in which a choice is made from alternatives. A company makes small and large decisions every day, which can be taken individually or with a group (Saaty, 2016). An individual decision is taken by the officer who is authorized to do so, taking such decisions is part of his position.

Decision-making is directly related to the responsibilities and powers of, for example, the manager. When responsibilities and powers are not clear, decision-making is a grey area (Rao & Tilt, 2016). If people trust and embrace the decision-making process, they are likely to trust and embrace the decision. The team members know the route taken that led to the decision: the group has framed the problem and the circumstances, they have identified their concerns, they have made thoughtful considerations, and some ideas have been parked. By paying attention to the shape of organisational decision-making, with clear steps that lead to a result, the firm can give people confidence. When people are used to a fair and transparent process, more and more people will be willing to leave decisions to others and trust that they are involved when needed (Schnackenberg & Tomlinson, 2016). This is especially the case when the entire organizational culture is focused on transparency and collaboration and integrates both financial and non-financial information in the decision making (Schnackenberg & Tomlinson, 2016). Productivity and empowerment increase with transparency and clarity about decision-making.

A joint decision is taken by a group, after consultation. A distinction is made here between participation and employee participation. The framework helps organizations to report how they create value through collaboration and interdependency (Rinaldi et al., 2018). Making it clear what the organisation stands for in an easy-to-communicate manner often turns out to be more difficult than expected. It can be distinguished through different steps to fully integrated reporting. However, firstly, it is important that financial and non-financial data are better integrated (Sofian & Dumitru, 2017). Second, this information will have to be more consistent and less error prone. Integrated thinking means that in terms of strategy, internal business operations are also geared to integrate reporting. Ultimately, the goal of Integrated Reporting is to enable capital providers to make better decisions based on what the reporting says about what value creation will occur in the future

(Dumay et al., 2017). Several companies are still engaged in the process of 'integrated thinking' and the integration of sustainability risks and opportunities into the company's strategy and business model. The concept of integrated thinking is at the basis of integrated reporting.

With integrated thinking, the company establishes a relationship between the strategy, economic context, environment, social environment, risks, and opportunities. Its purpose is to create value in the (medium) long term (Feng et al., 2017). Integrated reporting is therefore more than just publishing a report with financial and non-financial information (sustainability information) (Reimsbach et al., 2018). Integrated reporting enables investors to make investment decisions with a greater degree of confidence and trade-offs with a broader understanding of long-term interests (Reimsbach et al., 2018). Integrated reporting presents a more coherent picture of a company by presenting only material and relevant information that is important for estimating a company's value-creating capacity (García-Sánchez & Noguera-Gámez, 2017). But before integrated reporting becomes commonplace, it is necessary for investors and analysts to recognize and acknowledge its potential and ask companies to provide this information.

A management culture focused on collaboration, an attitude towards multiple value creation and result-based corporate governance these are the building blocks of 'Integrated thinking', the output of which is an 'integrated report' (Steyn, 2014). Above all, integrated thinking is a unifying concept and strategic tool that helps management bring order to the clearly complex environment in which organizations must operate in the 21st century. Integrated thinking is not only good for business performance, but also translates into better governance, where risks are identified and managed earlier (Churet & Eccles, 2014). The application of multiple value creation gives direction to risk management and internal audit in the direction of a better grip on the strategy, influencing information flows to the board. Management processes focus on the connectivity between resources and relationships in strategy, governance, performance and prospects for short, medium and long-term value creation through effective decision making (Steyn, 2014).

3. Theoretical Review

Organizational decision-making theory is associated with the management approach to select the most logical choice from the available options to create the best situation (Sharma et al., 2014). Decision-making is a common thought process in modern management. Every professional or manager makes hundreds of decisions in the challenging work environment where the organization works. It is an important process because he or she must prioritize both organizational and management activities based on time, resources, and other influential variables (Hayes, 2013). Making decisions at the management level are important because they are often related to business activities, organizational functioning, and business goals.

Many scientific and practical studies have been conducted on the decision-making process from learning and developing point of view.

4. Conceptual Framework

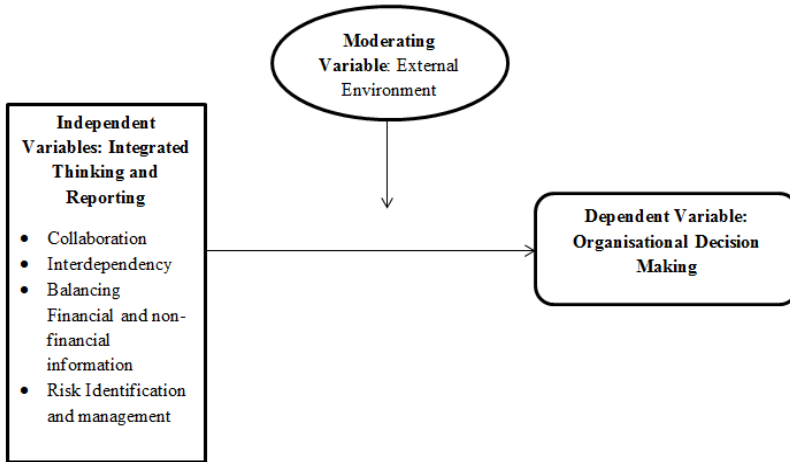


Figure 1: Conceptual Framework

H1: There is a significant impact of integrated thinking and reporting on organisational decision making.

H2: External environment moderates' relationship between integrated thinking and reporting and organisational decision making.

5. Research Method and Design

5.1. Data Collection Process

The numeric data has been gathered from the primary sources as the study is quantitative in nature. In this manner, the data has been gathered from employees and managers working in the public sector enterprises in Oman. Moreover, the sample size determination was carried out with the help of formula as provided in the study of Ryan (2013). This formula is provided below:

$$n = \frac{z^2 \times p \times q}{e^2}$$

$$n = \frac{(1.96)^2 \times 0.5 \times (0.5)}{(0.05)^2} = 384$$

Where 'z' refers to the confidence interval having standard score of 95% which is calculated at 1.96. Moreover, 'p' refers to the portion of the population while 'q' refers to the % of population that has not been included in this study. The value of both the variables is 0.5. On the other hand, the 'e' in the equation denotes to error which is estimated at 5%. The calculation depicts that the sample size must be 384.

5.2. Sampling Technique

In this study, the purposive sampling has been adopted by the researcher. As per the study of Daniel (2011), the purposive sampling is the type of non-probability sampling in which the selection of sample is based on the purpose. As the purpose of this study is to determine the impact of integrated thinking and reporting on original decision making which is the case study of public sector enterprise in Oman; therefore, the employees and managers are considered from public sector enterprise in Oman. In addition to this, the response rate has been calculated as there were 369 respondents as 390 questionnaires were distributed. This calculation is provided below:

$$\text{Response Rate} = \frac{\text{Number of respondents responded}}{\text{Total Number of Questionnaire distributed}} \times 100$$

$$\text{Response Rate} = \frac{369}{390} \times 100 = 94.61\%$$

5.3. Research Instrument

As this study is based on the moderation effect analysis and include the quantitative design, therefore the instrument adopted by the researcher in terms of gathering the responses is closed-ended survey questionnaire. The scale of the instrument is based on the 5 points Likert scale which range from strongly agree to strongly disagree.

5.4. Data Analysis Technique

In order to achieve the aim of the study, the SEM modelling has been adopted by the researcher as the statistical technique with the help of SmartPLS. As per the study of Hoyle (2012), the SEM is the third-generation technique which is used to assess the structural associations with the help of Confirmatory Factor Analysis (CFA) and regression analysis. According to the study of Brown (2015), the analysis is carried out for the purpose of testing the reliability which is evaluated based on the composite reliability and Cronbach's Alpha which depicts the internal consistency. Additionally, the AVE has also been conducted for the purpose of checking the convergent validity which depicts the relationship among latent constructs. Furthermore, the variances among the latent constructs are assessed with the help of discriminant validity (Civelek, 2018).

6. Results and Analysis

6.1. Confirmatory Factor Analysis (CFA)

The initial aspect which is to be evaluated in the CFA is the factor loadings. As per the study of Charles and Kumar (2014), the threshold for factor loadings is 0.6. Based on the below Table 1 that the minimum value for the factor loadings is determined to be 0.658. Therefore, it depicts that the variables of this study meet the criteria of factor loadings. On the other hand, it has been argued in the study of Leung et al., (2013) that the threshold for composite reliability and Cronbach's Alpha is 0.6. In this manner, it can be identified from Table 1 that the lowest value for Cronbach's Alpha is 0.731 which posits that all the variables meet the criteria of Cronbach's Alpha. Moreover, the minimum composite reliability for all the variables was determined to be 0.852 which also depicts that the variables also meets the criteria of composite reliability. In addition to this, the AVE has also been conducted for the purpose of testing the convergent validity. As per the study of Kramberger (2016), it has been stated that the AVE must be above 0.5 for the constructs to be statistically valid. In this manner, it has been determined from the below table that the lowest value for the AVE is determined to be 0.660 which fulfils the criteria of AVE and confirms the validity of all the variables.

Table 1: Convergent Validity and Reliability Assessment of the Factors and Latent Constructs

Latent Constructs	Items	Factor Loadings	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Balancing Financial and Non-Financial Information	BFI1	0.906	0.906	0.941	0.841
	BFI2	0.907			
	BFI3	0.938			
Collaboration	COLL1	0.864	0.830	0.898	0.747
	COLL2	0.873			
	COLL3	0.856			
External Environment	EE1	0.882	0.795	0.879	0.709
	EE2	0.901			
	EE3	0.735			
Interdependency	ID1	0.868	0.731	0.852	0.660
	ID2	0.892			
	ID3	0.658			
Organisational Decision Making	ODM1	0.901	0.906	0.941	0.842
	ODM2	0.937			
	ODM3	0.915			
Risk Identification and Management	RIM1	0.915	0.890	0.931	0.819
	RIM2	0.927			
	RIM3	0.873			

The other aspect of the CFA is considered as the discriminant validity which has been assessed using the HTMT ratio. As per the study of Ab Hamid et al. (2017), the threshold for HTMT is 0.85 however, the threshold of 0.9 is also considered by the liberal criteria. On the basis of the above threshold values, it is evident from Table 2 that none of the values exceed the threshold of 0.9. In this manner, the data set is eligible for the statistical analysis.

Table 2: Discriminant Validity of the Constructs

	Balancing Financial and Non-Financial Information	Collaboration	External Environment	Interdependency	Organisational Decision Making
Balancing Financial and Non-Financial Information	0.574				
Collaboration	0.582	0.656			
External Environment	0.700	0.752	0.608		
Interdependency	0.467	0.331	0.628	0.448	
Organisational Decision Making	0.495	0.380	0.556	0.495	0.559
Risk Identification and Management					

6.2. Path Assessment

For testing the model provided in figure 2, the researcher has conducted the path analysis. In this manner, it can be determined from the below Table 3 that there is a significant effect of Balancing Financial and Non-Financial Information on the organisational decision making. It is due to the reason that the coefficient is determined to be $B = 0.248$ [$p = 0.00 < 0.05$]. It posits that the increase in Balancing Financial and Non-Financial Information will also have increase in the capability of organisational decision making. On the other hand, it has also been determined from the Table 3 that there is moderation of external environment on the association among Balancing Financial and Non-Financial Information and organisational decision making as $B = 0.182$ [$p = 0.001 < 0.05$]. In addition to this, the moderation of external environment is also significant on the relationship among risk identification and management and organisational decision making. However, the effect was determined to be negative as $B = -0.220$ [$p = 0.00 < 0.05$]. Lastly, the effect of moderator external environment also had significant effect on the organisational decision making as $B = 0.367$ [$p = 0.00$]. It depicts that the changes in external environment of the public sector enterprise will also influence the change in organisational decision making of the public sector enterprise.

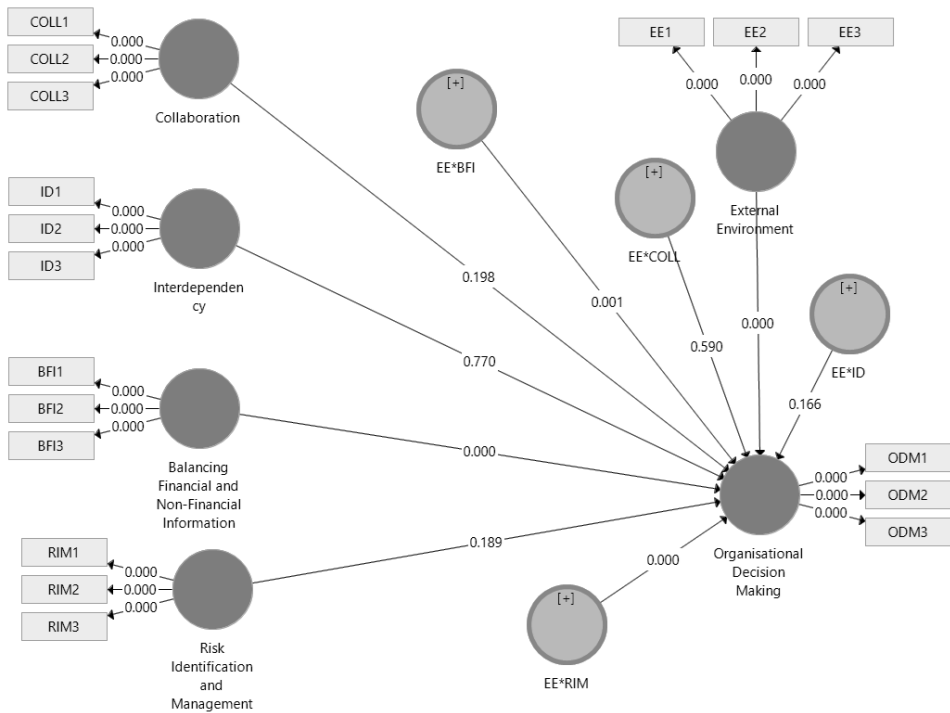


Figure 2: Measurement Model of the Study

Table 3: Path Assessment of the Proposed Model

	Coefficients	T Statistics (O/STDEV)	P Values
Balancing Financial and Non-Financial Information -> Organisational Decision Making	0.248***	4.308	0.000
Collaboration -> Organisational Decision Making	-0.072	1.288	0.198
EE*BFI -> Organisational Decision Making	0.182***	3.193	0.001
EE*COLL -> Organisational Decision Making	0.035	0.538	0.590
EE*ID -> Organisational Decision Making	-0.072	1.384	0.166
EE*RIM -> Organisational Decision Making	-0.220***	4.854	0.000
External Environment -> Organisational Decision Making	0.367***	5.447	0.000
Interdependency -> Organisational Decision Making	0.015	0.293	0.770
Risk Identification and Management -> Organisational Decision Making	0.086	1.313	0.189

***: significant at 1%; **: significant at 5%

6.3. Quality Assessment of the Model

In furtherance to this, the researcher has also calculated the variance in organisational decision making along with the moderation of external environment. This variance has been calculated with the assistance of R-square and adjusted R-square. In this manner, it can be determined from the Table 4 that variance in Balancing Financial and Non-Financial Information, Collaboration, Interdependency and Risk Identification and Management is explaining 49% of the variance in organisational decision making. However, this variance is obtained to be 47.7% after the adjustment.

Table 4: Testing Quality of the Model

	R Square	R Square Adjusted
Organisational Decision Making	0.490	0.477

7. Discussion and Summary of Hypothesis

The below Table 5 depicts the summary of hypothesis which have been tested throughout the study. In this manner, it has been determined from the below Table 5 that there is insignificant effect of collaboration on the organisational decision making. It contradicts with the findings of Schnackenberg and Tomlinson (2016) that there is a significant effect of collaboration on the organisational decision making of the company. Also, the insignificant effect of interdependency on the organisational decision making has also been determined. It also contradicts with the study of Rinaldi et al., (2018) that interdependency significantly affects the decision making of the company. In addition to this, the hypothesis that there is a significant effect of Balancing Financial and Non-Financial Information on the organisational decision making. It also aligns with the study of Bommel (2014) that there is a significant association among the financial information and decision-making capability of the company. Moreover, the hypothesis that there is a significant moderation of external environment on the relationship among Balancing Financial and Non-Financial Information and organisational decision making has also been accepted. As per the study of Bommel (2014) that external environment supports the decision making of the company with the assistance of financial information.

Table 5: Hypotheses Assessment Summary

S.NO	Hypothesis	Status
H ₁	There is a significant effect of collaboration on the organisational decision making.	Rejected
H ₂	There is a significant effect of interdependency on the organisational decision making.	Rejected
H ₃	There is a significant effect of Balancing Financial and Non-Financial Information on the organisational decision making.	Accepted
H ₄	There is a significant effect of Risk Identification and Management on the organisational decision making.	Rejected

H ₅	There is a significant moderation of external environment on the relationship among collaboration and organisational decision making.	Rejected
H ₆	There is a significant moderation of external environment on the relationship among interdependency and the organisational decision making.	Rejected
H ₇	There is a significant moderation of external environment on the relationship among Balancing Financial and Non-Financial Information and organisational decision making.	Accepted
H ₈	There is a significant moderation of external environment on the relationship among Risk Identification and Management and the organisational decision making.	Accepted

8. Conclusion and Recommendations

Effective decision-making is more required than ever before since organisations have been operating in a time of flatter structures, learning networks, self-managing teams and other horizontal organizational forms. In this manner, this study has emphasised over determining the impact of integrated thinking and reporting on organisational decision making which is the case study of public sector enterprise in Oman. In this manner, the data has been gathered from the employees and managers working in the public sector enterprise of Oman. The data has been analysed using SEM model in which the CFA and path assessment were conducted. The results of the study determined that collaboration, interdependency and Risk Identification and Management had insignificant effect on the organisational decision making. On the other hand, the significant effect of Balancing Financial and Non-Financial Information was determined on the organisational decision making was identified. With respect to the moderation, the external environment was determined to have significant moderator in the relationship of Balancing Financial and Non-Financial Information and Risk Identification and Management with organisational decision making. Therefore, it is suggested for the public sector enterprise in Oman to focus more on the external environment. In addition to this, it is also suggested for the companies to focus on Balancing Financial and Non-Financial Information as it affects the organisation decision making.

9. Limitations and Future Implications

Since this study has focused on determining the impact of integrated thinking and reporting on organisational decision making which is the case study of public sector enterprise in Oman therefore, the results of this study are only applicable to the public sector enterprise in Oman. Therefore, it is suggested for the future researchers to focus on public sector enterprises of other countries as well.

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