

Decentralized Decision Authority, Balanced Scorecard and Managerial Satisfaction: PLS-SEM Analysis

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Abstract: Organisations has recently experienced many operational difficulties hence the performance measurement systems (PMSs) have a great deal of importance in understanding organisational effectiveness in the wake of pandemic. Organisations use different types of PMSs according to their specific conditions. This situation is explained by contingency theory that the environmental and/or firm-specific factors cause organisations to use different types of PMSs. One of the organisational factors is the management's structure; particularly decentralised decision authority, is described as the delegation of decision rights throughout the organisation. In this type of an organisational structure, innovative PMS such as the balanced scorecard (BSC) is more effective to meet the information needs of organisations. Numerous studies investigated the relationship between the decentralised decision authority, different PMSs and organisational effectiveness. Nevertheless, researchers emphasise the need for a better understanding of factors influencing the use of innovative PMSs. Furthermore, previous studies only investigated organisational performance but, managerial satisfaction is another outcome of performance measurement implementation and given the received scant attention, it is needed to advance our understanding on this topic. Reviewed literature also indicates the need for more research on the firm's contingent factors, PMS, and managerial satisfaction relationship. In light of methodological developments in PLS-SEM domain, the current study answers this call by conducting research in the hotel industry. Hotel industry is a dynamic industry hence, decentralised decision authority enables to provide effective and timely decisions for arising conditions. Therefore, using the contingency theory, this study proposes and tests a research model which investigates the BSC as a mediator between decentralised decision authority and managerial satisfaction. Data was collected from hotel managers in Turkey and analysed using PLS-SEM. The findings demonstrate that decentralised decision authority has a positive effect on the BSC use which gives rise to increase managerial satisfaction. The results thus reveal that decentralised decision authority is related with the managerial satisfaction only through the BSC. This study makes a significant contribution to the largely neglected area in the hospitality performance measurement literature by investigating the aforementioned relationships. It also provides managerial practical implications of the findings.

Keywords: Decentralised Decision Authority, Balanced Scorecard, Performance Measurement System, Managerial Satisfaction

1. Introduction

Hotel organisations has experienced many operational difficulties which lead them to pay particular attention to their performance measurement systems (PMSs) in understanding organisational effectiveness in the wake of pandemic. At this point, it is worth mentioning that organisations adopt and use various types of PMSs as their context is different from each other. Related to this, contingency theory highlights that environmental and/or firm-specific factors are the main reason for an adoption and use of different types of PMSs by firms (Chenhall 2003; Otley 2016). Therefore, these factors should not be ignored by organisations as they impact on the design and use of an effective PMS. More importantly, organisational effectiveness depend on the fit between a PMS and these factors (Abdel-Kader & Luther 2008; King, Clarkson & Wallace 2010). There are various firm-specific or internal factors such as organisational culture, leadership etc. This study will focus on the decentralised decision authority in organisations as a type of management structure. It is described as the distribution of decision rights throughout the organisation (Arasli, Alphon & Arici 2019; Bangchokdee & Mia 2016). Hotel industry is a dynamic industry and is highly exposed to human interaction as it is people-oriented (Auzair & Langfield-Smith 2005; Sainaghi 2010; Sharma 2002). Therefore, a decentralised decision authority is believed to provide effective and timely decisions for arising situations which are critical for ensuring customer satisfaction (Arasli, Alphon & Arici 2019; Bangchokdee & Mia 2016; Sharma 2002). In such organisations, managers need more information which facilitates their planning, controlling, and decision-making (Widener,

Shackell & Demers 2008). The contemporary PMS such as the balanced scorecard (BSC) is more effective system to provide the information needs of these organisations which having a decentralised organisational structure. The BSC helps firms to collect information in relation to four aspects: financial, customer, internal business processes, and innovation and learning (Kaplan & Norton 1996, 2010). In the literature, numerous studies investigated the relationship between the organisations' management structure, PMSs and organisational effectiveness (Bangchokdee & Mia 2016; King, Clarkson & Wallace 2010; Uyar & Kuzey 2016). For instance, Uyar and Kuzey (2016) revealed that budgeting system mediates the association between decentralised structure and firm performance. However, these studies only investigated organisational performance as an outcome of implementing PMS but managerial satisfaction is another outcome of performance measurement implementation and given the received scant attention in the literature, it is needed to advance our understanding on this topic. Related to this, reviewed literature also indicates the necessity for more research on the firm's contingent factors, PMS, and managerial satisfaction relationship (Alphon, Sainaghi & Turker 2023; Sandt, Schäffer & Weber 2001). The current research thus answers this call by addressing how decentralised decision authority in hotel organisations create a need for the BSC use which in turn affects managerial satisfaction with the system. Specifically, considering the contingency theory, this study proposes and tests a research model in which the BSC plays as a full mediator role between the decentralised decision authority and the managerial satisfaction. Thus, this study makes a significant contribution to the largely neglected area in the hospitality performance measurement literature by investigating the aforementioned relationships with the consideration of Turkish hotel managers' perspective.

This paper is organised as follows. The next section explains the reviewed literature and develops the research hypotheses. Then, the research methodology outlines the method of collecting the data, sample, and measurements, which is followed by the empirical results. In the conclusion section, the findings are discussed, and the arguments emerging from our research are underlined, pointing out the similarities to the body of literature. In closing, a series of implications, limitations, and suggestions for future research are put forward.

2. Literature review and hypotheses development

This study draws from contingency theory to develop hypotheses as it provides the necessary theoretical approach for studies examine the factors that have relation with the use of PMSs and subsequent organisational results. (Abdel-Kader & Luther 2008; Chenhall 2003; Otley 2016).

2.1 Decentralised Decision Authority, the Balanced Scorecard and Managerial Satisfaction

All business industries have experienced many uncertainties and complexities, especially with the devastating impact of pandemic. Hence, continuous improvement of business operations has become very important as it helps organisations to identify value added activities in the operational processes which is critical for achievement of competitive advantage (Bititci et al, 2003; Haldma & Lääts 2002; Kaplan & Norton 1996). In service organisations, where customers are one of their primary stakeholders, adopting innovative approaches and having flexible operations have gained prominence in order to cope with current challenges. In this context, designing the suitable management structure is one of the issues must be taken into account by organisations. As a type of management structure, decentralised decision authority is described as the distribution of decision rights throughout the organisation (Bangchokdee & Mia 2016; Chenhall & Morris 1986; Moers 2006) and is one of the central variables in the contingency theory (Abernethy & Bouwens 2005; Gordon & Narayanan 1984). Related to this, studies stressed that in dynamic environments, this type of structure enables organisational managers to have quick decision-making for changing market conditions thus leads to higher performance (Andersen 2004; Uyar & Kuzey 2016).

In hotel organisations, departmental managers are usually closer to operational processes compared to top managers and they also have more contact with employees and customers (Arasli, Alphon & Arici 2019). With decision authority, middle managers can make decisions for their business units, have more flexibility and also faster communication among the other managers and staff. Thus, they can respond rapidly to the environment (e.g. customer requests, arising problems) which is critical for ensuring customer satisfaction. In addition, authorised hotel managers can have a positive sense of purpose toward their jobs, feel satisfied and are self-motivated for continuous improvement of their organisations so enhance business performance. For instance, Burgess (2013) indicated that decentralised structures in hotels let managers to operate in their own way which motivates them toward their job, enhance their efficiency and thus develop more innovation in operations.

In the wake of pandemic, issues such as customers' care, flexible and innovative business operations, and sustainable financial stability have become very crucial hence, create a need for hotel organisations to obtain these information. The function of PMSs is to collect the necessary information and enable managers to infer a result about organisational performance (Alphon, Sainaghi & Turker 2023). Nevertheless, it is worth noting that financial measures alone are not sufficient to provide such information (e.g., innovativeness) to organisations as these measures only provide the past indicators and do not focus on the long-term business planning (Bose & Thomas 2007; Kaplan & Norton 1996). In hotel organisations, departmental managers face complex situations and experience uncertainty in their decision making. Herein, the non-financial measures can be beneficial for these managers therefore, these measures are also involved in the hotel PMS for considering all aspects of the firm's value chain (Bangchokdee & Mia 2016). In this respect, an innovative BSC provides the results of past actions (financial) as well as the drivers of future performance (non-financial) in order to reveal value-added activities of organisations which improve competitiveness (Bose & Thomas 2007). In particular, this system, with its four aspects (financial, customer, internal business processes, innovation and learning) helps managers to unveil the level of organisational effectiveness (Kaplan & Norton 1996, 2010; Phillips & Louvieris 2005).

With respect to abovementioned explanations, several studies have investigated the role of decentralised decision authority on the different types of PMSs' use (Quesado, Guzman & Rodrigues 2014; Sharma 2002). While some studies found the association between decentralised decision authority and use of financial performance measures (Moers 2006; O'Connor, Deng & Luo 2006); others showed opposite results (Indjejikian & Matejka 2012). The argument for the latter is in decentralised structural organisations, managers more likely depend on non-financial and process type of measurements and therefore, they more utilise from innovative PMS (Abernethy & Bouwens 2005). Nonetheless, with few exceptions in the hospitality context (Arasli, Alphon & Arici 2019; Bangchokdee & Mia 2016), there is a need for further research on this topic based on a contingency approach. Hence, we propose that;

Hypothesis 1: Decentralised decision authority has a positive influence on the BSC use in hotels.

Recent ambiguous and complex issues has caused organisations to give more attention to the outcomes of PMSs such as performance results (Decoene & Bruggeman 2006), employees' affective reactions (Molina, González, Florencio & González 2014), reward practices (Franco-Santos, Bourne & Huntington 2004). Decoene and Bruggeman (2006) for example reported that in the BSC design and implementation process, strategic alignment between the corporate-level goals and operational-level goals results in better organisational performance. In addition, Rampersad (2008) introduced the personal BSC as involving personal - level mission, vision, objectives and performance measures which the organisations use to engage employees and thus, achieving high-performance.

Similarly, in today's competitive hotel industry, innovative PMSs should be tailored to enhance positive organisational outcomes. Related to this, studies showed that if hotel managers make use of only financial performance measures to improve short-term profitability, can affect negatively other performance areas (e.g., service quality) and ultimately have an adverse impact on firm's future performance (Bangchokdee & Mia 2016; Phillips & Louvieris 2005). Other researches similarly found a positive relationship between innovative PMS and organisational performance (Arasli, Alphon & Arici 2019). However, these studies only investigated organisational performance as an outcome of implementing PMS whereas managerial satisfaction which is another outcome, largely neglected in the hospitality performance measurement literature, with a recent exception (Alphon, Sainaghi & Turker 2023). Therefore, it is hypothesised that;

Hypothesis 2: The BSC use has a positive influence on the managerial satisfaction in hotels.

In addition, studies reported a positive relationship between decentralised decision authority, PMSs and organisational performance (Bangchokdee & Mia 2016; Uyar & Kuzey 2016). Similarly, a research in financial services sector found that budgetary participation of managers lead to improved company performance and job satisfaction. (Chong, Eggleton & Leong 2005). Moreover, an involvement of middle management positively impacts firm performance through organisational capabilities (Ouakouak, Ouedraogo & Mbengue 2014) such as an implementation of modern PMS.

Previously, it was argued that decision authority lead managers to have better work motivation, etc. At this point, unlike the other PMSs, the BSC can measure these aspects (e.g. staff satisfaction). Besides, hotels provide services through their various departments which require different skills. So, if the BSC functions effectively and provide necessary information about the business, then managers become satisfied. Regarding this, reviewed literature indicates a critical gap with regards to the association between the organisation's contingent factors,

PMS and managerial satisfaction. Drury and Tayles (2005) stressed that managers' dissatisfaction with the costing system is attributed to the lack of 'fit' between the contextual factors and the costing system and recommended its determination. Other studies also stressed that this issue should be elucidated (Alphon, Sainaghi & Turker 2023; Sandt, Schäffer & Weber 2001). Hence, we formulate below hypothesis;

Hypothesis 3: The BSC use fully mediates the effect of decentralised decision authority on the managerial satisfaction in hotels.

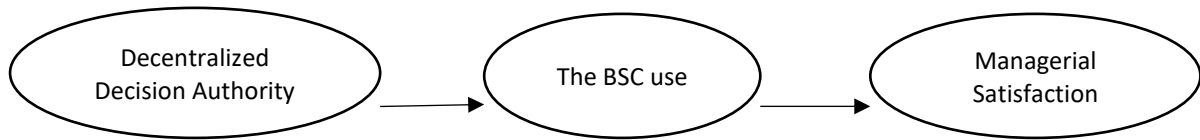


Figure 1: Research model.

3. Research Methodology

3.1 Procedure and Sample

This study was done with four and five star hotel managers in Turkey. Turkey is one of the most popular tourism destinations and the hotel industry has a great contribution in Turkey's economic prosperity. Before starting to collect the data, we did pilot study to ensure the clarity of research questions and then we sent online survey to the managers. One hundred forty five valid responses was obtained from the data collection. The demographic profile of the respondents is summarised as follows: among the hotel managers, 84.1% were male and 15.9% were female; the majority of participants were aged between 38 and 57 years (69.7%); 69% held a bachelor's and postgraduate degree; approximately 14% had a junior college degree; 17.3% had a high-school diploma or below; 65.5% of respondents had a tenure of five years or less at their current hotel companies.

3.2 Measures

In this study, Gordon and Narayanan (1984)'s scale was used to measure decentralised decision authority with a six-item scale. The BSC scale was adopted by Elbanna, Eid and Kamel (2015) and measured with thirty three items. Lastly, managerial satisfaction scale was adopted by Ittner, Larcker and Randall (2003) and measured with three items. All variables were validated and used in the previous studies.

4. Results

This study used the Partial Least Squares Structural Equation Modeling (PLS-SEM) for analysing the data which has become advanced method in business management research. The disjoint two-stage approach was followed so, while the decentralised decision authority and managerial satisfaction were included as reflective constructs, the BSC was included as a second-order reflective-formative construct. Using a two-stage approach, the second-order construct was established for assessing the measurement model of the initial framework (Ali et al, 2018). In the first stage, reliability and the convergent validity of the measurement model which includes reflective first-order constructs were evaluated by examining the outer loadings of the constructs' items, Cronbach's alpha, composite reliability (CR), Rho-A, and average variance extracted (AVE) (Ali et al, 2018). The outer loadings, Cronbach's alpha, CR, and rho-A of the constructs should exceed 0.7 for establishing reliability and AVE values should be higher than 0.5 for establishing convergent validity (Ali et al, 2018). Nevertheless, if CR and AVE meet the threshold, loadings between 0.5 and 0.7 are still acceptable (Hair et al, 2017). Table 1 indicates that the reliability and convergent validity are established for the study's model.

Table 1: Results: Measurement model assessment for first-order constructs

Construct's items	Outer loadings	Cronbach's alpha	CR	Rho-A	AVE
Decentralised Decision Authority		0.806	0.865	0.825	0.563
DDA1					
DDA2	0.716				
DDA3	0.667				
DDA4	0.835				
DDA5	0.800				
	0.722				

Construct's items	Outer loadings	Cronbach's alpha	CR	Rho-A	AVE
BSC-Finance Dimension		0.923	0.936	0.933	0.621
FINA1	0.740				
FINA2	0.763				
FINA3	0.821				
FINA4	0.815				
FINA5	0.806				
FINA6	0.664				
FINA7	0.865				
FINA8	0.818				
FINA9	0.785				
BSC-Customer Dimension		0.900	0.919	0.902	0.558
CUST1	0.844				
CUST2	0.758				
CUST3	0.800				
CUST4	0.679				
CUST5	0.771				
CUST6	0.710				
CUST7	0.789				
CUST8	0.696				
CUST9	0.652				
BSC- Internal Business Process Dimension		0.786	0.864	0.786	0.617
IBP1	0.823				
IBP2	0.865				
IBP3	0.813				
IBP6	0.619				
BSC- Innovation & Learning Dimension		0.882	0.909	0.889	0.589
IL1	0.754				
IL2	0.785				
IL3	0.741				
IL6	0.655				
IL7	0.855				
IL8	0.849				
IL9	0.712				
Managerial Satisfaction		0.935	0.958	0.937	0.885
SAT1	0.920				
SAT2	0.961				
SAT3	0.941				

The Fornell–Larcker criterion and heterotrait–monotrait (HTMT) approaches were used to evaluate the discriminant validity. Herein, the square root of the AVE value for each construct must be greater than its correlation with other constructs to establish discriminant validity (Fornell & Larcker 1981). According to the HTMT approach, the value of all constructs should be less than 0.9 (Henseler et al, 2015). In Tables 2 and 3, the results display that the discriminant validity is established.

Table 2: Discriminant Validity; Fornell - Larcker

	1	2	3	4	5	6
1. IBP dimension of BSC	0.786					
2. Customer dimension of BSC	0.754	0.747				
3. Financial dimension of BSC	0.414	0.574	0.788			
4. Managerial Satisfaction	0.484	0.562	0.376	0.941		
5. Decentralised Decision Authority	0.456	0.419	0.306	0.360	0.750	
6. I&L dimension of BSC	0.726	0.705	0.406	0.501	0.511	0.768

Abbreviations: BSC, balanced scorecard; IBP, internal business process; I&L, innovation and learning.

Table 3. Discriminant Validity; HTMT

	1	2	3	4	5	6
1. IBP dimension of BSC						
2. Customer dimension of BSC	0.895					
3. Financial dimension of BSC	0.477	0.639				
4. Managerial Satisfaction	0.563	0.605	0.392			
5. Decentralised Decision Authority	0.573	0.485	0.330	0.419		
6. I&L dimension of BSC	0.876	0.785	0.440	0.545	0.598	

Abbreviations: BSC, balanced scorecard; IBP, internal business process; I&L, innovation and learning.

In the second stage, the BSC as second-order formative construct was established by using the score of its related four dimensions from the first stage. In this stage, there is one second-order formative and two reflective constructs in the model. To evaluate the formative construct, multicollinearity test was done. The values of variance inflation factor (VIF) should be less than 5 (Ali et al, 2018). The VIF values for the BSC's four perspectives were between 1.495 and 3.175 thus, it is provided that multicollinearity was not an issue for the study model.

After the measurement model is validated, the structural model is evaluated. The coefficient of determination (R^2) explains the amount of variance in the model. The R^2 value for managerial satisfaction was 0.352 showing that the condition of this variable is satisfactory. The results of the hypothesised relationships were presented in Table 4. A bootstrapping procedure was performed to evaluate the significance of the path coefficients (Chin 1998). According to our results, all the hypotheses are supported.

Table 4: Hypotheses Results

	Path Coefficient	P Value	t Value	Confidence interval (bias corrected)	Supported
H1. Decentralised decision authority → BSC	0.521	<0.01	9.780	[0.385, 0.588]	Yes
H2. BSC → Managerial satisfaction	0.565	<0.01	8.538	[0.430, 0.654]	Yes
H3. Decentralised decision authority → BSC → Managerial satisfaction	0.294	<0.01	5.882	[0.199, 0.359]	Yes

Abbreviations: BSC, balanced scorecard.

5. Conclusion

This study examined whether the BSC fully mediates the association between decentralised decision authority and managerial satisfaction with the system in the hotel industry. Data collected from hotel managers in Turkey indicated that our arguments pointing out the similarities to the body of literature.

Considering contingency theory as a theoretical basis for the current research (Chenhall 2003; Otley 2016), the results suggest that decentralised decision authority in hotels creates a need for an innovative PMS. In line with the study of Arasli, Alphon and Arici (2019), our findings demonstrated that the BSC helps managers to understand how effective to have such a managerial structure. Furthermore, the outcomes also confirmed that the BSC use results in managerial satisfaction. Thus, as the results suggest, the BSC has the full mediating mechanism between decentralised decision authority and managerial satisfaction.

The hotel industry is very dynamic industry and the operating environment is quickly changing. Especially, the pandemic has caused many new requirements for hotel organisations such as providing training for safe employee-guest encounters, focusing occupational safety and paying extra attention for clean services. These requirements and/or any arising needs or problems can be timely pinpointed by departmental managers who are usually involved in operational processes and closer to organisational people and guests. Therefore, it is important to design organisational structure in which the departmental managers are given the decision making authority for timely actions. At that point, the BSC helps decision making of these managers. For instance, internal business process dimension of the BSC provides information such as daily routine operations and thus it can detect and indicates the room for improvement in this dimension. Customer feedbacks and satisfaction measures are injected into the customer dimension of the BSC and according to the results obtained, managers can develop new approaches to improve customer service. In this way, the BSC overcomes deficiencies of traditional PMSs and helps hotels to measure the organisational effectiveness from different perspectives (Phillips & Louvieris 2005). As a result, providing a decentralised decision authority as a part of hotel organisation's management culture and using an innovative BSC can create managerial satisfaction.

The current research provides recommendations for hotel managers concerning the design of management structure, the BSC use and attainment of positive organisational results. First of all, in today's dynamic and volatile hotel environment, it is critical for managers to have decision authority in order to be able to continue flexible and efficient hotel services. Related to PMS, managers' priority should not only focused on the financial and/or the guests related matters. It is usually observable that organisations mainly concern with profitability, costing etc. and disregard the other points especially during the crisis and uncertain times. For example, cutting staff training costs during the period of economic downturn can help to increase profit, but will negatively affect the staff's ability to improve work performance in the future. The BSC with its various financial and non-financial

performance measures support the organisational strategy and long-term planning which in turn lead to managerial satisfaction.

Last but not least, although this research has faced certain limitations, the outcomes could be a fruitful input for future studies. Firstly, the study is limited to hotel organisations only therefore generalising our results to other industrial organisations should be made with caution. Furthermore, we only involved four and five star hotels. So that, future studies could test this study's model by taking into account the different types of hotels (e.g., family owned vs non-family owned hotels). Another shortcoming is the results related to BSC use and managerial satisfaction because these results represent managers' perceptual opinions which might raise questions about validity. Hence, future studies can consider to use other methodological designs to extend our findings. Lastly, future researches can involve the other contingent factors and examine how the fit between these factors and company's PMS impacts the managerial satisfaction.

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