

STRUCTURAL MODEL OF KNOWLEDGE ELEMENTS, MEDIATING
CONSTRUCTS AND PERFORMANCE FOR FACILITIES MANAGEMENT
ORGANISATION

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ABSTRACT

Despite the increasing interest in managing knowledge, there has been limited research on applying knowledge as the intangible source for competitive advantages in the Facilities Management (FM) organisational performance. A review of literature revealed that only limited number of studies related to the relationship between knowledge and FM organisational performance, resulting lack of understanding and good practices in FM implementation. This research elaborated on the theories of resource-based view (RBV) and knowledge-based view (KBV) to identify the importance of knowledge management. The aim of this study is to improve the existing model by developing a new dimension of the relationships between a group of constructs (knowledge elements, mediating constructs, and FM organisational performance) in the model of FM organisational performance. The model used in this research was tested using empirical data collected from survey involving practitioners in the organisation that practising FM. The survey collected 215 usable questionnaires. The collected data were analysed by using structural equation modeling. The research findings revealed that 10 out of 12 relationships were significant, which proves that all constructs are modelled based on the sample data. Two relationships were not significant, which are the relationship between knowledge management and dynamic capabilities; and the relationship between dynamic capabilities and FM organisational performance. Furthermore, there are three constructs that play the role of mediator between the relationship of knowledge management and FM organisational performance, which are customer performance, efficiency, and innovation. Therefore, this research showed the importance of knowledge elements and mediating constructs in creating a competitive advantage among the FM organisation.

ABSTRAK

Disebalik peningkatan permintaan dalam menguruskan pengetahuan, didapati penyelidikan sedia ada adalah terhad dalam mengaplikasikan pengetahuan sebagai sumber tidak ketara untuk kelebihan daya saing dalam prestasi organisasi pengurusan fasiliti (FM). Kajian literatur mendedahkan kajian yang berkaitan dengan hubungan antara pengetahuan dan prestasi organisasi FM adalah terhad, menyebabkan kekurangan pemahaman dan amalan terbaik dalam pelaksanaan FM. Kajian ini menghuraikan teori-teori pandangan berasaskan sumber (RBV) dan pandangan yang berasaskan pengetahuan (KBV) untuk mengenal pasti kepentingan dalam menguruskan pengetahuan. Tujuan kajian ini adalah untuk menambahbaik model sedia ada dengan membangunkan satu dimensi baru dalam hubungan antara sekumpulan konstruk (elemen-elemen pengetahuan, konstruk pengantara, dan prestasi organisasi FM) dalam model prestasi organisasi FM. Model yang digunakan dalam kajian ini telah diuji menggunakan data empirikal yang dikumpul daripada kaji selidik yang melibatkan pengamal dalam organisasi yang mengamalkan FM. Kaji selidik tersebut telah mengumpul 215 soal selidik yang boleh digunakan. Data yang dikumpul telah dianalisis menggunakan model persamaan struktur. Dapatan kajian menunjukkan bahawa 10 daripada 12 hubungan adalah signifikan, yang membuktikan bahawa semua konstruk dimodelkan berdasarkan data sampel. Dua hubungan adalah tidak signifikan, iaitu hubungan antara pengurusan pengetahuan dan keupayaan dinamik; dan hubungan antara keupayaan dinamik dan prestasi organisasi FM. Tambahan pula, terdapat tiga konstruk yang memainkan peranan pengantara antara hubungan pengurusan pengetahuan dan prestasi organisasi FM, iaitu prestasi pelanggan, kecekapan dan inovasi. Oleh itu, kajian ini menunjukkan betapa pentingnya elemen-elemen pengetahuan dan konstruk pengantara dalam mewujudkan kelebihan daya saing antara organisasi FM.

TABLE OF CONTENTS

CHAPTER	TITLE	PAGE
	DECLARATION	ii
	ACKNOWLEDGEMENT	iii
	ABSTRACT	iv
	ABSTRAK	v
	TABLE OF CONTENTS	vi
	LIST OF TABLES	xiii
	LIST OF FIGURES	xv
	LIST OF APPENDICES	xvii
1	INTRODUCTION	1
	1.1 Background	1
	1.2 Problem Statement	5
	1.3 Research Questions	7
	1.4 Research Aim and Research Objectives	9
	1.5 Significance of the Research	10
	1.6 Definitions of Terms	14
	1.7 Structure of the Thesis	18
	1.8 Chapter Summary	19

2	KNOWLEDGE AND THE FM ORGANISATIONAL PERFORMANCE	20
	2.1 Introduction	20
	2.2 The Theoretical Background	21
	2.2.1 Resource-based View (RBV)	21
	2.2.2 Knowledge-based View (KBV)	23
	2.3 The importance and growth of knowledge	24
	2.4 Overviews of Organisational Performance	29
	2.5 The Knowledge Elements	31
	2.5.1 Learning Culture	32
	2.5.2 Intellectual Capital (IC)	34
	2.5.3 Knowledge Management (KM)	36
	2.6 The Mediating Constructs	38
	2.6.1 Customer Performance	39
	2.6.2 Efficiency	43
	2.6.3 Innovation	46
	2.6.4 Dynamic Capabilities	49
	2.7 Overview of Knowledge in Facility Management (FM)	53
	2.8 The Importance of FM Organisational Performance	55
	2.9 Gaps in the Literature: Link between Knowledge Elements, Mediating Constructs and FM Organisational Performance	58
	2.10 Chapter Summary	75
3	RELATIONSHIPS IN THE PROPOSED MODEL	77
	3.1 Introduction	77
	3.2 Development of the Proposed Model of FM Organisational Performance	78
	3.3 Relationships of the Constructs in the Proposed Model	84
	3.3.1 The relationship between learning culture and intellectual capital	84
	3.3.2 The relationship between intellectual capital and knowledge management	85

3.3.3	The relationship between knowledge management and customer performance	87
3.3.4	The relationship between knowledge management and efficiency	88
3.3.5	The relationship between knowledge management and innovation	90
3.3.6	The relationship between knowledge management and dynamic capabilities	91
3.3.7	The relationship between intellectual capital and dynamic capabilities	92
3.3.8	The relationship between dynamic capabilities and innovation	93
3.3.9	The relationship between customer performance and FM organisational performance	94
3.3.10	The relationship between efficiency and FM organisational performance	95
3.3.11	The relationship between innovation and FM organisational performance	96
3.3.12	The relationship between dynamic capabilities and FM organisational performance	96
3.4	Chapter Summary	97
4	RESEARCH METHODOLOGY	99
4.1	Introduction	99
4.2	Justification on the Selection of Paradigm	100
4.3	Research Design	108
4.4	Operationalisation of the Constructs	111
4.5	Items Generation	117
4.6	The Survey Method	119
4.6.1	Survey questionnaire development	121
4.6.2	Questionnaire of this research	122
4.7	Pre-Test of the Modified Survey Questionnaire	125
4.7.1	Pre-test sampling frame	127
4.7.2	Pre-test procedures	127

4.8	Final Survey	130
4.8.1	Sampling frame for the final survey	130
4.8.2	Sample size for the final survey	131
4.9	Data Collection for the Final Survey	132
4.10	Data Analysis Background for this Research	134
4.10.1	Preliminary data analysis for this research	136
4.10.2	An overview of structural equation modelling (SEM) for this research	137
4.10.3	The selection of method in SEM used for the current research	142
4.10.4	SEM assumptions	144
4.10.5	Maximum likelihood (ML) estimation	146
4.10.6	Assessment of overall model fit	146
4.10.7	Reliability	149
4.10.8	Validity	150
4.11	Chapter Summary	152
5	ANALYSES AND RESULTS	153
5.1	Introduction	153
5.2	Preliminary Data Analysis	154
5.2.1	Data editing and coding	154
5.2.2	Data screening	155
5.3	Response Rate	161
5.4	Profile of Respondents	163
5.5	Analysis and Results of the Measurement Model (CFA): Stage 1	166
5.5.1	Assessment of Unidimensionality	167
5.5.1.1	Unidimensionality of the pooled measurement model	169
5.5.2	Reliability and validity of the constructs	175
5.5.3	Review of the Measurement Model (Stage 1)	180
5.6	Analysis and Results of the Structural Model: Stage 2	181
5.6.1	Structural Model 1 – (Testing Original Relationships)	184

5.6.2 Structural Model 2 – (R6 Removed)	186
5.6.3 Structural Model 3 – (R12 Removed)	188
5.6.4 Review of the Structural Model (Stage 2)	191
5.7 Results of Testing the Relationships of this Research	191
5.7.1 The relationship between learning culture and intellectual capital	192
5.7.2 The relationship between intellectual capital and knowledge management	193
5.7.3 The relationship between knowledge management and customer performance	193
5.7.4 The relationship between knowledge management and efficiency	193
5.7.5 The relationship between knowledge management and innovation	194
5.7.6 The relationship between intellectual capital and dynamic capabilities	194
5.7.7 The relationship between dynamic capabilities and innovation	194
5.7.8 The relationship between customer performance and FM organisational performance	195
5.7.9 The relationship between efficiency and FM organisational performance	195
5.7.10 The relationship between innovation and FM organisational performance	195
5.8 Testing the Mediation Effects in the Model using Conventional Approach and Bootstrapping	196
5.8.1 Customer performance as the mediator	200
5.8.2 Efficiency as the mediator	202
5.8.3 Innovation as the mediator	204
5.8.4 The bootstrapping results	206
5.9 Chapter Summary	208

6	DISCUSSION AND IMPLICATIONS	210
	6.1 Introduction	210
	6.2 An Overview of this Doctoral Research	211
	6.3 Discussion of the Findings	213
	6.3.1 The relationships testing among the knowledge elements and mediating constructs	213
	6.3.1.1 Learning culture and intellectual capital	213
	6.3.1.2 Intellectual capital and knowledge management	215
	6.3.1.3 Knowledge management and customer performance	217
	6.3.1.4 Knowledge management and efficiency	219
	6.3.1.5 Knowledge management and innovation	221
	6.3.1.6 Knowledge management and dynamic capabilities	222
	6.3.1.7 Intellectual capital and dynamic capabilities	223
	6.3.1.8 Dynamic capabilities and innovation	224
	6.3.2 The relationships testing between mediating constructs and FM organisational performance	225
	6.3.2.1 Customer performance and FM organisational performance	225
	6.3.2.2 Efficiency and FM organisational performance	227
	6.3.2.3 Innovation and FM organisational performance	228
	6.3.2.4 Dynamic capabilities and FM organisational performance	229

6.3.3 Mediating Constructs (Customer Performance, Efficiency, Innovation and Dynamic Capabilities) as the Mediator	230
6.3.3.1 Customer performance as the mediator	230
6.3.3.2 Efficiency as the mediator	231
6.3.3.3 Innovation as the mediator	232
6.3.3.4 Dynamic capabilities as the mediator	233
6.3.4 The validation of FM organisational performance model	234
6.4 Significant Implications of the Research	236
6.4.1 Theoretical implications	237
6.4.2 Managerial implications	240
6.5 Chapter Summary	242
7 CONCLUSION	243
7.1 Introduction	243
7.2 Limitations of the Research	243
7.3 Directions for Future Research	246
7.4 Final Summary	248
REFERENCES	250
Appendices A – C	282-287

LIST OF TABLES

TABLE NO.	TITLE	PAGE
2.1	Description of Potential Mismatch Links	57
4.1	Three Fundamental Questions	101
4.2	Assumptions of the Paradigm Elements	102
4.3	Nature of Constructs	104
4.4	List of Modified Items	112
4.5	List of Scale Items to Measure Each Construct in this Thesis	118
4.6	Procedures Used in the Pre-test	129
4.7	Covariance-Based Versus Variance-Based SEM. ^a	143
4.8	Summary of Goodness-of-Fit Indices	148
5.1	Measures of the Constructs and Descriptive Statistics	157
5.2	Summary on the Rate of Return of Questionnaires	161
5.3	Response Rate Reported in the Knowledge Management Research	162
5.4	Profile of Respondents	165
5.5	Deleted Items Under The Human Capital Component	170
5.6	Deleted Items Under The Organisational Capital Component	171
5.7	Deleted Items Under The Knowledge Application Component	172
5.8	The Fitness Indices for the Measurement Model	173
5.9	The CFA Results for the Measurement Model	176
5.10	The Discriminant Validity Index Summary	178

5.11	The Correlations Between The Respective Constructs	179
5.12	Underlying Relationships	182
5.13	The Results of the Original SEM Analysis and Relationships Testing	184
5.14	Results of SEM Analysis and Relationships Testing (R6 Removed)	186
5.15	The Results of SEM Analysis and Relationships Testing (R12 Removed)	189
5.16	The Standardised Regression Weights and its Significance for Each Path (based on the Final Model)	200
5.17	The Standardised Regression Weights and its Significance for Each Path (based on the Final Model)	202
5.18	The Standardised Regression Weights and its Significance for Each Path (based on the Final Model)	204
5.19	Bootstrapping Results: The Standardised Indirect Effects (based on AMOS actual analysis results)	206
5.20	The P-value (indirect effects) between knowledge management and FM organisational performance	206
5.21	The Standardised Direct Effects between knowledge management and FM organisational performance	207
5.22	The P-value (direct effects) between knowledge management and FM organisational performance	207
5.23	The Summary: The Significance of Direct and Indirect Effects	208

LIST OF FIGURES

FIGURE NO.	TITLE	PAGE
1.1	Implementation of a job scope is based on human, place and process. Source: Nutt (2000, p. 129)	4
1.2	The diagram explaining the background of the research	5
2.1	The Nature of Dynamic Capabilities. Source: Adopted from Easterby-Smith and Prieto (2008, p. 243)	50
2.2	Alignment between business component and facility management component. Source: Adopted from Then and Tan (2006, p. 345)	56
2.3	The Model of Innovation Management. Source: Adopted from Mudrak et al. (2005, pg. 105)	72
2.4	The conceptual framework: The relationships between knowledge elements, mediating constructs and FM organisational performance	75
3.1	The detailed proposed model with relationship links between knowledge elements, mediating constructs, and FM organisational performance	82
4.1	The deductive approach typically used in quantitative research. Adopted from Creswell (2009, p. 57)	108
4.2	The seven (7) steps in research design	109
4.3	The summary of data analysis procedures	135

4.4	The framework for applying structural equation modelling. Adopted from Urbach and Ahlemann (2010, p. 15)	138
4.5	Two stages of SEM that have been used in this research	139
5.1	The initial CFA results for pooled measurement model	169
5.2	The CFA results after deleting seven (7) items	174
5.3	The original structural model and its relevant relationships	185
5.4	The structural model and its relevant relationships (R6 removed)	187
5.5	The final structural model and its relevant relationships (R12 removed)	190
5.6	Illustration of the final structural model (R6 and R12 removed)	192
5.7	Illustration of a mediation design, X has a direct relationship with Y and also has an indirectly relationship through M	196
5.8	The Procedure for testing the mediation (customer performance)	201
5.9	The Procedure for Testing Mediation (Efficiency)	203
5.10	The Procedure for testing of the mediation (innovation)	205
6.1	The final structural model (Model of FM organisational performance)	235

LIST OF APPENDICES

APPENDIX	TITLE	PAGE
A	Items in the FM Organisational Performance Measurement Model	282
B	Putrajaya Committee on GLC High Performance	286
C	Questionnaire	287

CHAPTER 1

INTRODUCTION

1.1 Background

Organisations are seeking for a competitive advantage to improve their competitiveness and enhance their organisational performance (Kaya et al., 2004; Nutt, 2000; Pathirage et al., 2008). Furthermore, it is important for the management of an organisation to realise the benefits from their enormous investment in managing physical facilities. The benefits would be obtained by continuously matching the supply and demand in delivery services and efficiency of intangible factors such as the management processes and knowledge base (Pathirage et al., 2008; Then & Tan, 2006). Lerro et al. (2012) contended that knowledge is the key value that drives the organisation to continuously innovate and enhance the skills and know-how among the employees. The growth of knowledge needs to be identified by the fact that knowledge represents one of the fundamental constituents of any organisation. Therefore, Schiuma (2012) supported this notion by claiming that the managing of knowledge is at the core of the organisational performance. The importance of knowledge is explained further by elaborating on the theoretical foundation related to knowledge.

In the context of organisation, one of the important theoretical perspective is resource-based view (RBV). Resource-based view is defined as an approach in protecting an organisation's competitive advantage that consists of two sets of complementary, namely resources and capabilities (Amit & Schoemaker, 1993). In addition, the resource-based view suggested that the organisation must have the capabilities which are valuable, rare and inimitable (Barney, 1991). Specifically, resource-based view focuses its attention on the value of intangible resources as an important aspect in competitive advantage. As such, Grant (1996) has specifically stated that the accumulation and development of knowledge, which are a form of interaction among knowledge resources, are the very essence of capabilities that an organisation can possess. Thus, the intangible resources has led to an extension of resource-based view, which is the knowledge-based view (KBV) of the organisation (Barney, 1991; Decarolis & Deeds, 1999). Spender and Grant (1996) and Grant (1997) highlighted that a knowledge-based view concentrates on the primary interest of the knowledge as an intangible resource for ensuring an organisation's long-term survival and success. Therefore, knowledge is the most strategically important resource that determines the organisation's capabilities (Decarolis & Deeds, 1999; Grant, 1996).

According to Decarolis and Deeds (1999), the concept of knowledge for the organisation can be explained in the form of stocks of knowledge and flows of knowledge. They further explained that the stock of knowledge is the result of the knowledge accumulation that will become a valuable asset to the organisation; whereas, the flows of knowledge represent the process in managing knowledge in the organisation which may be assimilated and developed into stocks of knowledge. The current knowledge-based view of the organisation has led to the literature emphasising on knowledge management (KM) (Hsu & Sabherwal, 2012; Lee et al., 2012; Lima & Carpinetti, 2012) and intellectual capital (IC) (Kang & Snell, 2009; Menor et al., 2007; Subramaniam & Youndt, 2005). These literatures emphasised knowledge as an important resource in creating a sustainable competitive advantage for an organisation.

Therefore, knowledge-based view acknowledged the importance of intellectual capital and knowledge management to incorporate the relationship between people and knowledge. Intellectual capital in the organisation has been defined as managing the learning and accumulating the knowledge within organisations, while knowledge management is about knowledge processes and how knowledge is effectively managed to produce profit in an organisation. In other words, in achieving the competitive advantage, the processes and practices in knowledge management are used to manage intellectual capital in an organisation (Easterby-Smith & Prieto, 2008; Egbu, 2004; Hsu & Sabherwal, 2012). In addition, Gold et al. (2001) contended the importance of learning culture in an organisation that motivates the knowledge development (intellectual capital and knowledge management). Therefore, this research incorporates the learning culture that would have a potential relationship with intellectual capital. As such, this research allocates the three constructs of learning culture, intellectual capital and knowledge management in one group, namely knowledge elements. However, this view of knowledge elements has not yet been rigorously examined in relations to facilities management (FM).

Facilities management (FM) encompasses various disciplines to ensure workplace environment functionality by implementing integration between people, place, process, and technology (IFMA, 2009). The integration is very important in supporting the planning utilisation of the organisational resources in order to derive competitive advantages that have relationships with the organisational performance. A further explanation of FM is based on the concept illustrated in Figure 1.1, which is fundamental to the FM field where knowledge connects people, place, and process. Thus, without having the particular knowledge of the people that inhabit a building and the processes involved in the building operations, it will be difficult to manage the place or building effectively.

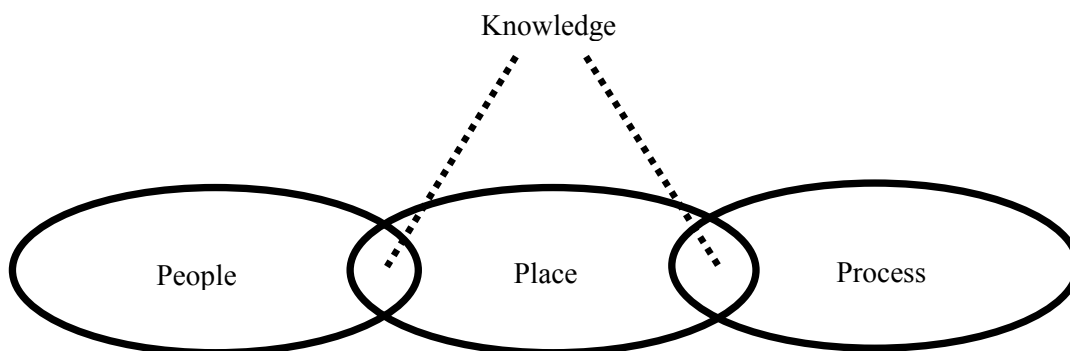


Figure 1.1: Implementation of a job scope is based on human, place and process.

Source: Nutt (2000, p. 129)

Despite the growing research on knowledge contribution to organisational performance, Andreeva and Kianto (2012) maintained that there is a possibility to imply on construct that mediate the relationship between knowledge and organisational performance. Besides that, empirical evidence was found in the knowledge management literature that emphasised on the importance of linking the knowledge resources (intellectual capital) and knowledge processes (knowledge management) with mediating constructs that connect the benefits of knowledge with organisational performance (Easterby-Smith & Prieto, 2008; Gold et al., 2001; Heeseok Lee & Choi, 2003). Iii (2012) argued that there is a “missing link” in identifying the suitable construct that enables knowledge management to translate into superior organisational performance. Therefore, it is important to investigate the relationship between knowledge, mediating constructs and organisational performance in the context of FM. Figure 1.2 shows the background of the research.

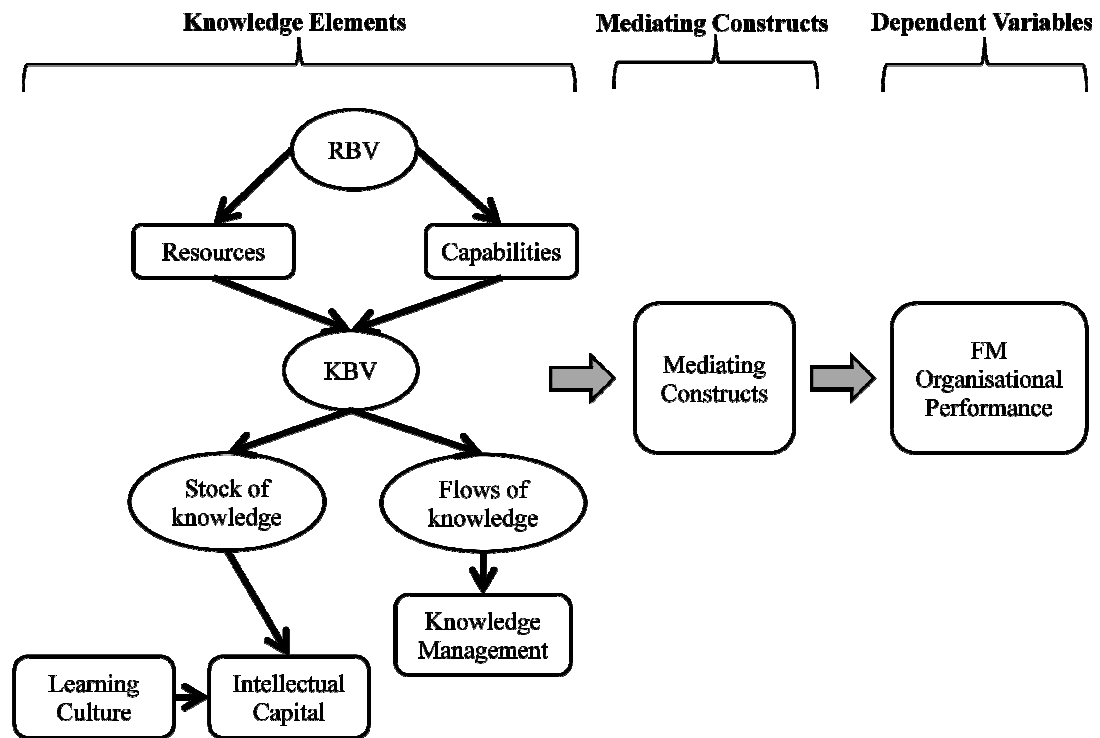


Figure 1.2: The diagram explaining the background of the research

1.2 Problem Statement

The development of FM knowledge base still in a continuous process because most of the area in FM field has not been fully explored. The sequence started with a view of data rich, followed by saturation of information, but led to lack of knowledge. Although recognition was given from businesses, industries and governments for the contribution of FM, the FM field still in the process of establishing its own management skills and technical knowledge without dependent on other fields (Grimshaw, 1999). From there on, it became a priority for the FM to develop specialized knowledge, provide best practices, and to reduce the gap between theory and achievements in the field of FM (Gao & Cao, 2011; Mclellan, 2000; Nutt, 2000).

Moreover, the profession in the field of facilities management has suffered an identity crisis due to the occurrence of the overlapping in the scope of works between FM and other fields. This situation has led to confusion over the FM field that resulting the research activities for the development of the theory is far behind the practice demand (Gao & Cao, 2011; Grimshaw, 2003; Nutt, 1999; Price, 2001). In other words, the field of facilities management is not yet supported by an adequate knowledge base to underpin best practices, advance the field, and bridge the gap between its promise and performance (Nutt, 1999).

An article written by Alexander and Nielsen (2012) published in the EuroFM bulletin (issue 23, December 2012) has highlighted the usability of academic FM research for practitioners. The article further discusses the conference paper, “FM research for practice”, that was presented in the Nordic FM Conference 2011. At the conference, most of the feedback from practitioners was that the current research is often too distant from practical challenges (Alexander & Nielsen, 2012). Therefore, it is important to collaborate between researchers, practitioners and educators to improve the quality of knowledge available for the decision making in FM organisation (Alexander & Nielsen, 2012). This shows the importance in managing the body of knowledge, especially on FM to ensure the effectiveness in reducing the gaps between knowledge and practice. In a similar vein, the report produced by IFMA (2011) noted that the three broad categories of trends (external, internal, and organisation driven) are critical to the success of FM professionals in the future. One of the important steps is the elevating of the FM profession by demonstrating the strategic value of the organisation’s core business. As FM continues to evolve strategically, the importance of knowledge management in FM will be accentuated.

In addition, Pathirage et al. (2008) pointed out that the application of the continuous improvement on FM knowledge will generate strategic value in an FM organisation. Furthermore, the growth of knowledge in FM is very important to disseminate a collective knowledge base in FM, and to identify and carry out best practices (Alexander, 2003; Nutt, 2000).

The findings highlighted by Syed Mustapa and Adnan (2008), Kamaruzzaman and Zawawi (2010), and Myeda and Pitt (2014), whereby the lack of managing and applying FM knowledge base in Malaysia have resulted in a lack of understanding and good practices in FM implementation. Therefore, providing a strategic approach to managing such knowledge will create a competitive advantage and potentially influence the organisational performance (Erickson & Rothberg, 2013; Gravier, Randall, & Strutton, 2008; Pathirage et al., 2008). As such, this research studied the relationships between knowledge elements, mediating constructs, and FM organisational performance.

1.3 Research Questions

First, this research extends (Baharum & Pitt, 2009; Gao & Cao, 2011; Pathirage et al., 2008; Yiu, 2008) the work on investigating the relationship between knowledge and organisational performance, and exploring the management of knowledge within the FM context. Nutt (2000) contended that FM is challenged to establish its own knowledge base for the purpose of advancing the field of FM and it is associated with better performance of FM organisation in the future. In addition, Decarolis and Deeds (1999) and Grant (1996) supported this notion by claiming knowledge as the most important resource that can contribute to advance organisational performance. Furthermore, Barney (1991) pointed out that organisational performance is very important for every organisation to sustain their competitive advantage and profitability. As Alexander and Nielsen (2012) contended that it is important to collaborate between researchers, practitioners and educators in the improving of the quality of knowledge available for the decision making in an FM organisation. This shows the importance in managing body of knowledge, especially on FM to ensure the effectiveness in reducing the gaps between theory and practice.

Secondly, this research contributes to the growing of knowledge in the FM organisational performance by reviewing and recognise the relationship between the knowledge elements (learning culture, intellectual capital, and knowledge management), mediating constructs and FM organisational performance. It also raised some interesting framework to produce a useful model for future implementation on how FM organisation can get the best performance from the management of knowledge. In a similar vein, the proposed model, perhaps, would assist the FM organisation to utilise their resources more effectively in trying to control or improve their performance. Furthermore, an intensive review of literature was unable to find any studies on the relationships between knowledge elements, mediating constructs and FM organisational performance that was tested simultaneously.

Based on the discussion above, this research sets out to address four research questions:

- (i) What are the relationships between the knowledge elements and mediating constructs?
- (ii) What are the relationships between mediating constructs and FM organisational performance?
- (iii) Which of the mediating constructs affect the relationship between either intellectual capital or knowledge management with FM organisational performance?
- (iv) Does the improve model based on the relationship between the knowledge elements, mediating constructs and FM organisational performance fit the sample data?

1.4 Research Aim and Research Objectives

A study of relationships between knowledge and organisational performance have been done by Hsu and Sabherwal (2012), but the study targeted for non-specific organisations and the model did not develop in a group of constructs. This research concentrates on FM organisations. Thus, this research aim is to improve the existing model developed by Hsu and Sabherwal (2012) by developing a new dimension of the relationships between a group of constructs (knowledge elements, mediating constructs, and FM organisational performance) in the model of FM organisational performance.

Based on the above research questions and research aim, this research is designed to achieve the following specific objectives:

- (1) To determine the relationship between knowledge elements and mediating constructs.
- (2) To determine the relationship between mediating constructs and FM organisational performance.
- (3) To determine the mediating effect on FM organisational performance.
- (4) To improve and validate the model of FM organisational performance.

1.5 Significance of the Research

This research contributes to the growing body of knowledge specifically on the relationships between the knowledge elements, mediating constructs and FM organisational performance.

An organisational performance is very important for every organisation to sustain their competitive advantage and profitability (Barney, 1991). As discussed in the Section 1.2, it is important to recognise the knowledge elements and mediating constructs that have a relationship with the organisational performance. The investigation on the relationship between knowledge and organisational performance would help managers to take appropriate steps in initiating a strategic action in their organisation (Abu-jarad et al., 2010; Venkatraman & Ramanujam, 1986).

First, the identification of the knowledge elements and mediating constructs may supply the conceptual framework in developing the FM organisational performance model. The conceptual framework is about how to perform a research by connecting certain aspects of research such as theories, key factors, concepts and relationship of the variables (Mexwell, 2012; Miles & Huberman, 1994). Whereas, a conceptual model is defined as a set of relatively abstract and general concept that describe the phenomena of interest in a research (Fawcett & DeSanto-Madeya, 2013). A model is an assumption based on concepts given in any framework in order to explain the phenomena and allow investigations by getting correspondence from the real world (Gregory, 1993). Therefore, this research used the conceptual framework to guide the concepts and identify the knowledge elements and mediating constructs. From the conceptual framework, this research has proposed a model that explains the empirical relationship between the constructs. The assessment of the proposed model was done through the implementation of surveys to validate the correlational relationship between the constructs.

The research done by Hsu and Sabherwal (2012) have developed a research model that examined the relationship between intellectual capital, knowledge management and organisational performance. However, their study is more on the type of general management which focuses on sample of organisations in Taiwan. In addition, different samples used in the research can impact the learning culture, in which the characteristics of a distinct culture is highly potential in preventing the sharing of knowledge (Hsu, 2006). Thus, the prior research has not examined how learning culture, intellectual capital and knowledge management have an effect when these three aspects are simultaneously examined on FM organisational performance. Furthermore, FM environment is involved in managing people, place, process, and technology (IFMA, 2009), where knowledge plays an important role to incorporate these and make sure all aspects in facilities management are functioning effectively.

In addition, the research done by Hsu and Sabherwal (2012) investigated the causal relationship from the research model that will affect the financial profit for organisations in Taiwan. FM is not intended solely to obtain a business profit. FM is much emphasised on management aspects such as to increase adaptability to changing business needs, to improve service quality, improve the productivity effectiveness among the employees, and exploit the potential of new technologies (Alexander, 2003).

The nature of relationships can be defined as correspondence between two constructs (Trochim, 2006). There are two types of relationships, namely a correlational relationship and a causal relationship. An example of a correlational relationship, such as an organisation that has good knowledge management, has a better tendency to be better in organisational performance. This means that the two constructs are correlated, but it does not indicate whether one causes the other. The example of a causal relationship, such as poor financial management will result in bad organisational performance and vice versa. This means that one construct has a potential to cause or influence the other. Thus, this research studied the correlational relationships between knowledge elements, mediating constructs, and FM organisational performance.

The reason is that no related research has been done in the context of FM organisation in Malaysia and there is no evidence to prove whether one construct, either from knowledge elements or mediating constructs, can affect the other. Additionally, the FM organisation in Malaysia is still in the development process to strengthen the FM field, which is related to the growth of knowledge and organisational practices according to the FM industry needs in Malaysia (Firdauz, Sapri, & Mohammad, 2015). According to research done by Babones (2008), there is an indication of a significant correlational relationship between income inequality and population health, but weak in causal relationship. Therefore, the presence of a correlational relationship between two variables does not necessarily imply the existence of a causal relationship between them (Iriondo et al., 2003). Hence, this research is expected to bring about a new dimension of findings from the perspective of FM organisational performance.

FM organisation also involves a hierarchy of organisational management, such as strategic, tactical and operational that incorporates the relationship among the employees. Moreover, the FM field also aims to have a good relationship with customers, which involves service quality and performance that will generate customer performance. Hence, it is a must to consider customer performance as an additional mediating construct that has a relationship with the organisational performance (Homburg et al., 2008; Homburg et al., 2007; Kim & Kim, 2009). An existing model that has been examined by Hsu and Sabherwal (2012) used efficiency, innovation and dynamic capabilities as the mediation role. Therefore, this study adopted the existing model developed by Hsu and Sabherwal (2012) and improves the model by adding a new mediating construct and measurements related to customer performance (Peltier et al., 2013; Santos-Vijande et al., 2012) into a new research model. The modifications and improvement on the existing model will contribute to the identification of all constructs in a form of group called as knowledge elements and mediating constructs that have relationships with the FM organisational performance.

The model will expand the knowledge for FM practitioners to understand how the FM organisational performance can be enhanced. Despite FM still depend on technical orientation and reactive, exploring FM knowledge will provide a beneficial contribution to the FM organisational performance (Pathirage et al., 2008). Therefore, investigating the relationships between constructs in the proposed model could possibly derive a conceptual mechanism on how the knowledge elements and mediating constructs would have relationships with the FM organisational performance.

Secondly, with the validation of the proposed model, further explanation has been provided on the significant relationship between the knowledge elements, mediating constructs and FM organisational performance. The aim is to provide further understanding of the pattern of interrelationships among the constructs in knowledge elements, mediating constructs and FM organisational performance. In addition, this research employed structural equation modelling (SEM) to examine all proposed relationships. By using SEM, this research is able to reveal the relationships between the constructs. Constructs can be defined as conceptual abstractions of phenomena that cannot be directly observed (Suddaby, 2010). Theoretical definitions are used to provide conceptual clarity by using synonyms to express the construct we are interested in. For example, knowledge and efficiency are the organisational constructs that can be measured using questionnaires. Moreover, SEM takes into account the measurement error variances. Thus, the accuracy of analysing the relationships can be obtained (Byrne, 2010; Preacher & Hayes, 2004).

Finally, the findings of this research could indicate mediating constructs that lead the management of knowledge to benefit the FM organisational performance. By having these mediating constructs in managing the knowledge, perhaps, an organisation could then fully optimise their resources more effectively in trying to improve their employees' productivity.

1.6 Definitions of Terms

This section explained briefly the definition of terminologies used in this research. The purpose is to avoid any potential misleading interpretation of the concepts employed in this research.

Facilities management

Facilities management (FM) encompasses various disciplines to ensure workplace environment functionality by implementing integration between people, place, process, and technology (IFMA, 2009).

Organisational performance

Organisational performance can be explained as the reflection of achievements of each organisational function and the organisational objectives (Shieh, 2011).

Correlational relationship

The relationship between two elements which indicates a significant relationship.

Causal relationship

The relationship between two elements which produces a causal effect.

Construct

Constructs can be defined as conceptual abstractions of phenomena that cannot be directly observed (Suddaby, 2010).

Conceptual framework

Conceptual framework is about how to perform a research by connecting certain aspects of research such as theories, key factors, concepts and relationship of the variables (Mexwell, 2012; Miles & Huberman, 1994).

Proposed model

The proposed model is defined as a set of relatively abstract and general concepts that describe the phenomena of interest in a research (Fawcett & DeSanto-Madeya, 2013). A proposed model is also about assumptions based on concepts given in any framework in order to explain the phenomena and allow the investigation by getting correspondence from the real world (Gregory, 1993).

Customer Relationship Management (CRM)

CRM is a strategic approach that is concerned with the acquisition of customer knowledge, creating improved shareholder value through the development of appropriate relationships with related customers, analysing data and producing data quality about customer behaviour, and this helps in the organisational decision making process (Payne & Frow, 2005; Peltier et al., 2013; Zahay & Griffin, 2004; Zahay, Peltier, & Krishen, 2012).

Resource-based view (RBV)

The resource-based view (RBV) suggests that an organisation capabilities, which are precious, uncommon and unique, will determine its long term competitive advantage (Barney, 1991).

Knowledge-based view (KBV)

The knowledge-based view (KBV) of an organisation was developed as an extension of the resource-based theory of the organisation (Barney, 1991), with the primary interest of the knowledge as an intangible resource for ensuring an organisation's long-term survival and success (Decarolis & Deeds, 1999; Grant, 1997; Spender & Grant, 1996).

Learning culture

A learning culture in an organisation viewed as an important factor that encourages the knowledge process (i.e., acquisition, conversion and application) in developing organisational effectiveness (Gold et al., 2001).

Knowledge management (KM)

Knowledge management is defined as the action used by the organisation in optimising the usage of knowledge resources, which is the tacit and explicit knowledge (Sabherwal & Becerra-Fernandez, 2003).

Intellectual Capital (IC)

Intellectual capital is defined as the accumulated knowledge resources owned by the organisation, which has been obtained from within or outside of the organisation (Subramaniam & Youndt, 2005).

Customer performance

Customer performance is an organisation's ability to effectively satisfy customers and develop a loyal customer base, which ultimately links to a higher level of organisational performance (Peltier et al., 2013; Santos-Vijande et al., 2012).

Efficiency

Efficiency is a way to exploit existing resources such as knowledge, financial, procedures, and system to be more sufficient, in which these may have a relationship with the organisational performance (Kang & Snell, 2009).

Innovation

Innovation is a way for organisations to enhance organisation performance and to obtain superior profit margins through improved products or services for a greater customer responsiveness (Bae & Lawler, 2000; Brown & Eisenhardt, 1997).

Dynamic Capabilities

The dynamic capabilities can be explained as the ability of the organisation to develop, integrate, and reconfigure internal and external competencies to sustain competitive advantage in the rapidly changing environments (Eisenhardt & Martin, 2000; Teece, Pisano, & Shuen, 1997; Teece, 2007; Zollo & Winter, 2002).

1.7 Structure of the Thesis

This section elaborates briefly on the structure of the thesis. The proposed thesis would consist of six chapters, as follows :

Chapter One: This chapter presents the background and overall content of the whole thesis. It introduces the subject matter, the rationale of the research, the objectives and the significance of the research.

Chapter Two: A review of the theoretical background, and the growth of knowledge and organisational performance within the context of FM. This chapter also discussed the empirical identification of the knowledge elements and mediating constructs that have relationships with the FM organisational performance.

Chapter Three: This chapter empirically justifies the significance of all constructs in the proposed model and elaborated the proposed relationships between the knowledge elements, mediating constructs and FM organisational performance in the FM organisational performance model.

Chapter Four: This chapter discusses the research paradigm, research methodology, the scope of study, method of data collection and the analysis techniques employed.

Chapter Five: This chapter presents a detailed data collection and statistical analysis of the questionnaire survey data from FM organisations and practitioners. AMOS Structural Equation Modelling (SEM) is used as a confirmatory method providing a comprehensive means for assessing and modifying the measurement models as well as a structural model. This method has the ability to assess the unidimensionality, validity and reliability of a measurement model.

Chapter Six: This chapter presents the results and implications obtained from the results of the analysis in Chapter 5.

Chapter Seven: This chapter presents the limitations, recommendations for future research and conclusions of this research.

1.8 Chapter Summary

The current situation obviously leverages the importance of utilising knowledge through the identification of the mediating constructs that have relationships with the FM organisational performance. This research proposed an area of research within epistemology that is related to FM. Also, there will be an empirical testing for a comprehensive model on the mutual relationship (Awang & Ariffin, 2012) between all constructs in the model of FM organisational performance. Thus, this research aim is to improve the existing model developed by Hsu and Sabherwal (2012) by developing a new dimension of the relationships between a group of constructs (knowledge elements, mediating constructs, and FM organisational performance) in the model of FM organisational performance. The results from the future analysis will be reviewed as to whether the model is consistent with the discussion in the prior literature. Thus, the findings from this research will provide insights on optimising the power of knowledge by bridging the gap towards the best performance in FM organisation.

Moreover, the findings revealed the significant mediating effects of the three constructs (customer performance, efficiency and innovation) on the relationship between knowledge management and the FM organisational performance. Thus, the third objective to determine the constructs that play the role of mediator was achieved. These mediators could function as the capabilities in creating competitive advantage which has been emphasised in the resource-based view.

This research has produced the statistical findings that supported the proposed model in Chapter 3 and achieved the fourth objective of this research. Thus, this research has provided a further understanding of managing knowledge for the purpose of achieving the organisational performance, which would help both academics and practitioners in the FM field to leverage the use of the knowledge elements and mediating constructs into the organisational strategic approach.

Furthermore, besides findings of this research providing the significance of the FM organisational performance model based on theory and empirical study, further advances in expanding the benefits of this model can be made by deepening the search for the sources of the best FM knowledge base and FM practices, and by expanding this research across industries and national boundaries. Therefore, the researcher hopes that this study serves as a foundation for an effort to sharpen the understanding on the relationship between the knowledge elements, mediating constructs and the FM organisational performance.

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