

The Concept of added value of FM

Jensen, PA; van der Voordt, DJM; Coenen, C; von Felten, D; Balslev-Nielsen, S; Sarasoja, AL; Riratanaphong, C; Pfenninger, M

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THE ADDED VALUE OF FACILITIES MANAGEMENT CONCEPTS, FINDINGS AND PERSPECTIVES

PER ANKER JENSEN, THEO VAN DER VOORDT AND CHRISTIAN COENEN
(EDITORS)



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CONCEPTS, FINDINGS AND PERSPECTIVES

© Centre for Facilities Management – Realdania Research

Centre for Facilities Management – Realdania Research
DTU Management Engineering
Technical University of Denmark
Produktionstorvet
Building 424
DK-2800 Lyngby
Denmark
www.cfm.dtu.dk

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4. THE CONCEPT OF ADDED VALUE OF FM

Per Anker Jensen, Theo van der Voordt, Christian Coenen, Daniel von Felten, Anna-Liisa Sara-soja, Susanne Balslev Nielsen, Chaiwat Riratanaphong and Mirjam Pfenninger

ABSTRACT

Purpose: This chapter presents research perspectives and theoretical reflections on the concept of added value of FM from a variety of academic fields.

Methodology: A literature review of the most influential journals within the academic fields of Facilities Management (FM), Corporate Real Estate Management (CREM) and Business to Business Marketing (B2B Marketing).

Findings: The research shows different definitions and focus points, dependent on the academic field and the area of application. The different research perspectives explored a holistic view on the added value of FM by the integration of an external market based view (with a focus on the aimed output) and the internal resource based view (with a focus on the input from FM and real estate). Good relationship management and building on trust shows to be equally important as delivering the agreed services.

Practical implications: A clear conceptualization of the concept of added value of FM is of utmost importance for further research into the added value of FM and well-considered, evidence-based Value Adding Management in practice.

Research limitations: Due to limited time not all FM-related journals could be included in the literature review. The included journals were analysed over a time period of ten years, with a focus on interesting topics and less on a thematic cross-paper analysis in-depth.

Originality/value: Usually the concept of added value is discussed from a mono-disciplinary point of view. The different backgrounds of the authors add value to an increased understanding of the added value of FM by comparing and testing different ways of conceptualising this issue.

Keywords: FM, CREM, B2B Marketing, Added Value, Relationship Management.

INTRODUCTION

This chapter presents theory reflections on the concept of value and added value in general and how these concepts have been dealt with in research literature on FM, CREM and B2B marketing. It is based on studies of literature by eight members of the research group that were first presented in a paper at EFMC2010 in Madrid (Jensen et al., 2010) and further elaborated in an article in Facilities (Jensen et al., 2012 – used by permission from Emerald). The literature studies were divided between the group members and included reviews of recent volumes of the most influential journals within the academic fields.

THE CONCEPT OF VALUE AND ADDED VALUE

Value as a concept has many different meanings and usages. There is a basic difference between value in singular, expressing the worth of something, and values in plural, which is related to personal belief and social behaviour.

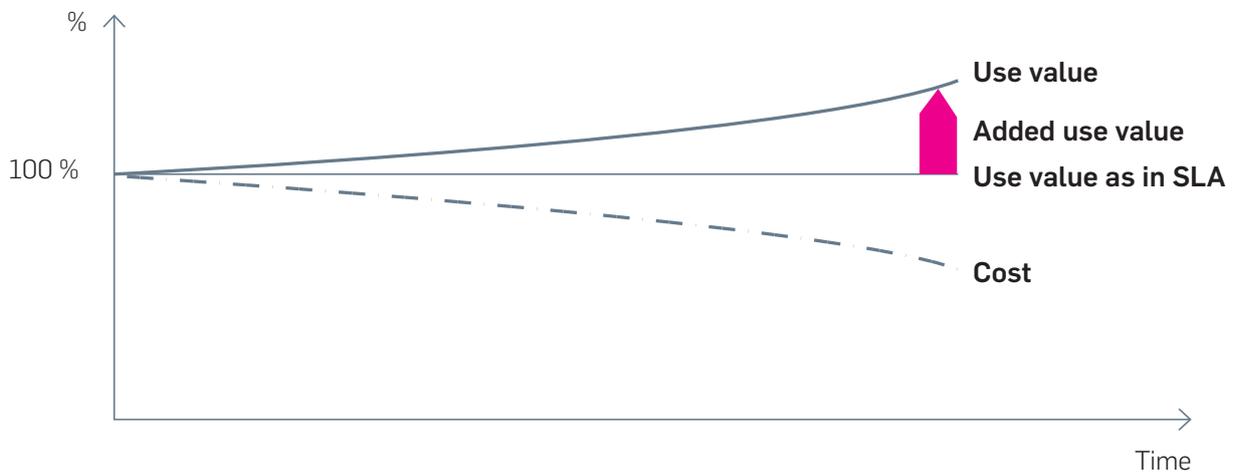
The distinction between exchange and use value was central to the way of thinking concerning value in classic economic theory in the 19th century. In neoclassic economic theory, the theory of value of labour from the classic economical theory was neglected, and value did not have a central role as a theoretical concept. In recent economic theory the concept of value has however got a renaissance – not least as the concept Economic Value Added (EVA) (Bennett Stewart III, 1991), which clearly relates to exchange. Exchange value is in general the starting point for most economic thinking about value (Jensen, 2007). For a detailed discussion on the various relevant value dimensions see also Chapter 5.

Furthermore, the concept of value has become increasingly popular in some of the literature on management – not least within strategy and marketing. Among the most well known is Porter's theory on value chains, which like most economic theory relates to exchange value (Porter, 1985). Another example is the strategy thinking by Teece (2007) about non-tradable assets like knowledge, innovative capabilities, brands and service concepts, which relate to use value.

In terms of exchange value the focus is on cost and the relationship between output and input in a business process. The added value can be defined as the value of the product reduced by the value of the resources used during the process. Thus reducing cost by increasing efficiency leads to added exchange value. Use value only relates to the output – and possibly the outcome of a process – but does not concern the process as such. Thus qualitatively different and improved output by increased effectiveness leads to added use value. For both exchange value and use value the added value is a relative concept which refers to a change over time.

The difference between added use value and cost reduction is illustrated in Figure 4.1. It shows the relative development over time of cost and use value of a service compared to a base line with use value as specified in a Service Level Agreement (SLA). The use value of the service can for instance be measured by a Key Performance Indicator (KPI) with a minimum level of customer satisfaction. A cost reduction occurs, if the cost/price of the service over time goes down without lowering the customer satisfaction below the minimum level. Contrarily, an increase in use value will occur, if the customer satisfaction over time gets higher than the minimum level of customer satisfaction. This does not necessary involve a change in the SLA, but it means that added use value is created.

Figure 4.1: Added use value and cost reductions (Jensen, 2010)



Within modern marketing oriented theory there is a strong tendency to make value a completely subjectively defined concept. According to some authors product value equals customer value. It is the individual needs of the customer that define the value of the product. Similar products thus can have different value for different customers even though they may have to pay the same price for the products. There are even some authors, who claim that the value creation of a product is dependent on the products participation in the customers own value creation. Value is in these theories created jointly (co-produced value) between deliverer and customer (Ramírez and Wallin, 2000). For further discussion on the co-creation of value see Chapter 5.

The apparent contradiction between objectively and subjectively definitions of value could be resolved using the definition of economic value formulated by Cook (1997). Opposite to the general understanding in economic theory that price is an expression of value, Cook's argument is that a product to be produced must have a value which exceeds its price. The difference between the price and the production cost makes up the producer's "free value" or "net value". The difference between the value and the price makes up the buyer's free or net value. Hence, both the producer and the buyer gain from the transaction.

It is remarkable that this understanding of value closely follows the understanding of value in the classic economic theory and at the same time is coherent with the fundamental market mechanism. In the theory of labour value, the basis for value creation is that labour creates more value than the cost of labour. The value of labour exceeds the price of labour. Why should this only apply to labour and not to all products? This means that the added value is redistributed to all products mediated by the market mechanism. The added value will be distributed between producers and buyers according to the relative power of supply and demand.

Based on Cook's understanding the product value can be divided in a relatively objective use value and a more subjective customer value. The use value is under market conditions ex-

pressed 'objectively' in quantitative terms by the exchange value, while the 'subjective' customer value is decisive on how the demand for potential customers is divided on competing products (Jensen, 2007).

ADDING VALUE BY FM

The oldest academic FM journal is *Facilities* from Emerald. From volume 8 in 1990 the journal is available electronically. A scan of the 1142 articles from 1990 to 2009 uncovers 9 titles of relevance in relation to the issue of added value of FM. However, two of these come from the field of CREM (Krumm et al., 1998 and Lindholm, 2008) and are covered by related articles in the following section. Two others (Chau et al., 2003; Hui et al., 2008) are focused on value enhancements of refurbishment and therefore purely on economical value. The article by Okoroh (2001) presents a case study of a partnering arrangement in the healthcare sector. One of the main results has been a reduction in staff absenteeism. Even though quality improvements in 110 areas are mentioned, the article seems more to focus on improving efficiency rather than effectiveness. The article by Green and Jack (2004) on creating stakeholder value is interesting by introducing the term "value mapping" with reference to the value chain of Porter (1985) and the EFQM Excellence Model (European Foundation for Quality Management, see www.efqm.org). The concept is very commercially orientated as "ValueMapping" and "ValueMapper" are mentioned respectively as a registered term and trade mark. The stakeholders are investors, employees, customers and society which are very similar to the stakeholders included in the FM Value Map (see chapter 3, figure 3.3), but there is no presentation of performance indicators. Wauters (2005) is focusing more on benchmarking than on added value and provides examples of combining cost benchmarking with indicators for user satisfaction, performance and service quality.

The last two articles are from 2009. Sarshar and Pitt (2009) provides an interesting contribution based theoretically on relationship marketing and empirically on four case studies from clients to the same provider company. With reference to Heskett et al. (1994) they present an equation for customer value:

$$\text{Customer value} = \frac{\text{Results produced for the customer} + \text{service process quality}}{\text{Price to the customer} + \text{cost and effort in acquiring the service}}$$

From the case studies was learned that clients have different views and requirements at different levels of the same organisation. Trust and no surprises are important for clients and transparency of cost can improve trust. Clients also appreciate to receive management information on demand, high level reporting beyond KPIs, and possibility of data tracking. Codinhoto et al. (2009) do not use the term 'added value' but they present an interesting conceptual framework of impacts of the built environment on health outcomes with a mapping that resembles the concept of the FM Value Map in a specific health care context.

The first issues of *Facilities* from 2010 document that the interest of added value of FM is an important current research topic. Besides the article of the FM Value Map (Jensen, 2010), issue 3/4 also includes an article by Appel-Meulenbroek (2010) about added value of facilities by knowledge sharing through co-presence in open plan office areas.

A similar scan of 164 articles from the start in 2002 to 2009 of the *Journal of Facilities Management*, also from Emerald, gives four articles related to the issue of added value of FM. Two articles by Lynch (2002a and 2002b) focus on maximising FM's contribution to shareholder value and therefore purely on economical value. The article by Cant (2005) presents a case study of a regional retail centre and mainly stresses the need of a more strategic role of FM. The article by Pathirage et al. (2008) focuses on knowledge management in FM. They present a general development of FM including the four generations mentioned in chapter 1.

ADDING VALUE BY CREM

CREM is usually defined as the management of the real estate portfolio of a corporation or public authority by aligning the portfolio and services to the needs of the core business, in order to "obtain maximum added value" for the business and to contribute optimally to the overall performance of the organisation (adapted from Dewulf et al., 2000). For this reason we selected the *Journal of Corporate Real Estate* published by Emerald in search for theoretical reflections and empirical data on adding value by real estate. The *Journal of Real Estate Research* published by American Real Estate Society was also selected as it has a long tradition in publishing articles on corporate real estate. The first articles (e.g. Nourse and Roulac, 1993) were published in this journal discussing the added value of corporate real estate management. It is also one of the very few real estate journals, which is ISI listed and has an impact factor (IF 0.585), and where corporate real estate is one of the journal themes.

From the review of the *Journal of Real Estate Research* (723 published articles between 1986 and 2009) 8 articles were identified regarding the added value of real estate. In most of these articles (Rutherford and Nourse, 1988; Manning, 1991; Manning and Roulac, 1996; Manning et al, 1999; Lindholm et al., 2006) the added value of corporate real estate is described as the ability of the real estate decisions, processes and inputs to create shareholder wealth. Rutherford and Nourse (1988) used stock prices as a value indicator, whilst others focused on describing the value channels, not actually proofing the value. All studies described the added value in economic terms: Cost cutting or profitability growth. Stakeholder value was mentioned only by Manning et al. (1999) who stated that real estate decisions have an impact on the quality of our environment and/or shareholder wealth.

Some studies focused on the importance of organisational issues in the value adding process. Pittman and Parker (1989) studied the performance of CREM departments. Their survey revealed that CREM executives consider communications and working relationships with the management and operating divisions to be particularly important to a top performing real

estate department. Manning and Roulac (1996) reviewed the tasks a CREM function should undertake to create more opportunities for the company's real estate department to increase shareholder wealth. They concluded that this could be best done by organising and managing the CRE function centrally, plus training a significant proportion of the CREM staff to work closely with the operating business units, their support staffs and local business units. Rutherford and Stone (1989) also concluded that a centralized CREM unit is more efficient and leads more often to money making opportunities.

Nourse and Roulac (1993) linked real estate decisions to corporate strategy by discussing how alternative real estate strategies can contribute to business objectives. They came to the conclusion that too often the dominant emphasis is on the financial goal of cost minimization. According to Nourse and Roulac, real estate strategies are required in order to effectively support a range of corporate objectives, multiple, rather than single. They link eight types of real property strategies, including common corporate real estate decisions regarding site selection, facility design, and leasing, to a number of possible aims of a firm. Some encompass the traditional goals of reducing occupancy costs and facilitating production, operations, and service delivery. However, Nourse and Roulac separate facilitating knowledge work from other operations, include flexibility as a real estate strategy and identify that real estate strategies can be integrated with other functional strategies, such as human resources and marketing. In line with Nourse and Roulac, Lindholm et al. (2006c) identified seven real estate strategies, which create added value to the core business and to the shareholder wealth.

A scan of the titles of 234 papers that have been published in the *Journal of Corporate Real Estate* in the period 1998 - 2009 traced 80 papers with a possible link to the concept of added value of FM or CREM. After a second scan based on the abstracts, 47 articles were left that more or less explicitly discuss how to provide added value to the core business by aligning real estate strategy to business strategy. The papers differ with regard to the attention paid to theoretical reflections and empirical research and a focus on the input (HR, information, capital, technology, real estate and other facilities), processes or output indicators. Improving productivity and decreasing costs turned out to be the most discussed areas of adding value by CREM. Improving productivity covers the areas of providing a more efficient working environment (input), e.g. less m² and lower costs, and providing effective accommodations and other facilities that support new ways of working and a high quality and quantity of production (output). A number of authors raised the issue of flexibility as a significant aspect that can add value to corporate business (Gibson, 2001; Bradley and Osborne, 1999; Latshaw, 2000; Hiang and Ooi, 2000; O'Roarty, 2001; Vos and Van der Voordt, 2001). Many authors discussed the importance of integration of technologies/IT, human resources, and corporate real estate in order to develop tomorrow's workplace (Bradley and Osborne, 1999; Duffy, 1999; Latshaw, 2000; O'Mara, 2000; Joroff, 2002; Drake, 2002; Allard and Barber, 2003).

Other interesting issues are the effects of corporate real estate and other facilities on learning organisations (e.g. the continuous improvements in the Toyota case, Joroff et al., 2003), the impact of collocation on interaction and identity (Becker et al., 2003), and the impact of corporate

location decisions on the employee quality of life (Rabianski, 2007). Reed and Wilkinson (2005) identified key benefits from sustainability that include increased energy efficiency and property values. Smith and Pitt (2009) identified the added value of sustainable workplaces to improving employee health and well-being and increasing productivity. In order to establish sustainable competitive advantage corporations have to be aware of their capabilities and resources. They should coordinate and align internal resources and capabilities carefully to improve corporate performance (Krumm et al., 1999). The link between added value and outsourcing is found in cost reduction objectives, ranging from redirecting capital, refocusing on corporate core business, transferring real estate related risks and increasing occupational flexibility (Farncombe and Waller, 2005; Louko, 2005).

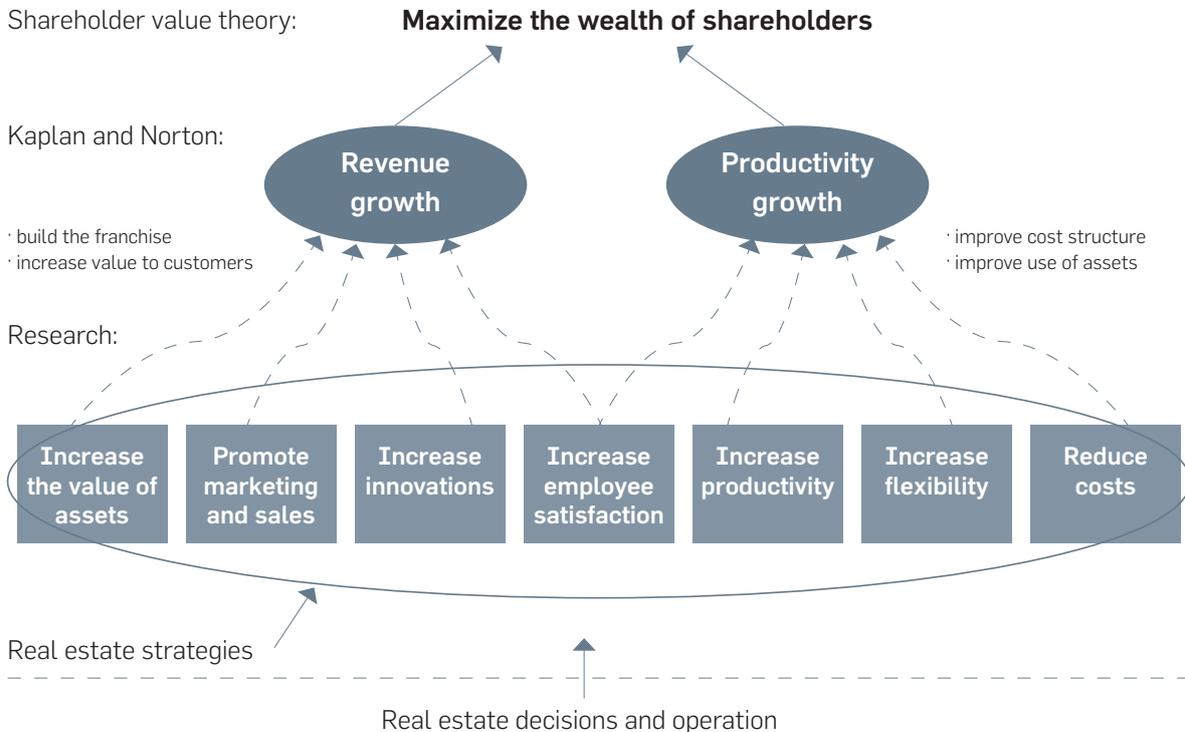
A promising approach is the analysis of the impact of CREM from both operational (space) and non-operational (asset) perspectives in order to improve our understanding of interactions between real estate strategy with corporate strategy in a non real estate company context (Hiang and Ooi, 2000). This impact can be different in different domains such as offices, manufacturing and leisure and retail. From the articles, however, no clear picture appeared of the focuses and roles of various stakeholders involved in CREM and how different stakeholders can contribute to the added value. Issues that have hardly been mentioned include the use of real estate to improve PR and marketing, to promote sales and selling processes, and to attract external capital. An obstacle to identify the added value to CREM was the lacking of quantitative data. Thus, the effects of interventions in CREM are still hard to tackle on the added value to business.

A list of performance indicators is rarely presented. Exceptions are the papers of Lindholm and Leväinen (2006a and 2006b) and De Vries et al. (2008). Both also present a well-structured framework of the added value of CREM. Lindholm and Leväinen (2006a) discuss strategic performance measurement systems (Balanced Score Card) and tactical techniques and methodologies (benchmarking, POE – Post-Occupancy Evaluation, etc.) with regard to practicability and comparison with other tools. Lindholm and Leväinen (2006b) proposed a model showing how real estate decisions support corporate strategies and core objectives. The paper discusses the significance of increasing revenues and cost reduction or capital minimization. A framework is presented with a set of strategies and performance measurement systems that can be used to evaluate how the real estate strategy can add value to the firm, see Figure 4.2.

De Vries et al. (2008) proposed a theoretical model of the impact of real estate interventions on organisational performance and tried to trace quantitative values of the effects. The added value of CREM was defined as the contribution of real estate interventions to productivity, profitability and competitive advantage, see Figure 4.3. This model shows facilities as one of the five resources of an organisation. Its added value can be measured by a number of performance indicators, taking into account that “performance is in the eye of the stakeholder” and affected by the external and internal context.

Competitive advantage is one of the business values in the definition of FM (Green and Price, 2000). Joroff et al. (2003) discussed the Xerox case with its business objective of developing

Figure 4.2: Added values according to Lindholm and Leväinen (2006a)



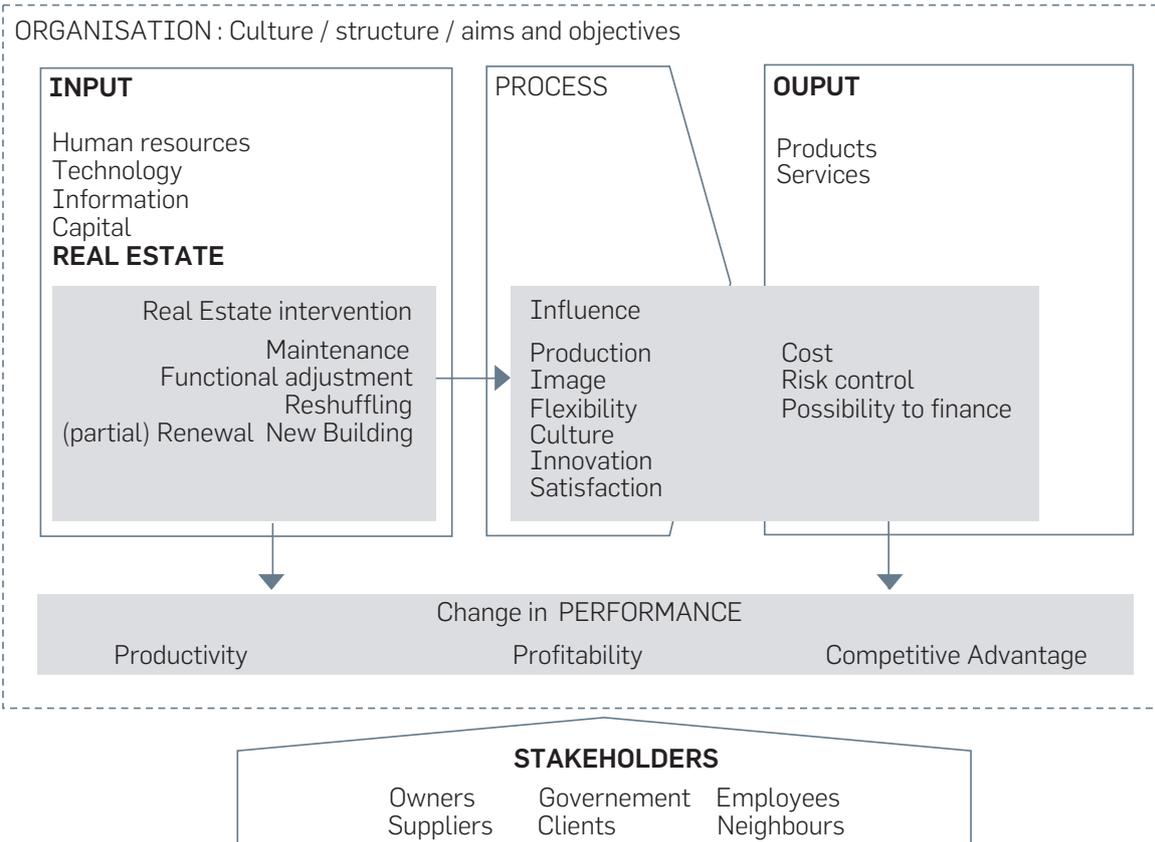
new ideas and new products and bringing them to the market within shorter time frames. The contribution to competitive advantage could be measured in terms of journal articles, patents, conference presentations and so forth. Another article that demonstrated a structure of value added comes from the network World Wide Workplace Web or W4 (Wilson et al., 2001). The W4 participants identified key performance indicators that are increasingly used to indicate success in public real estate management within the four perspectives of a generic scorecard: customer; financial; innovation and learning approaches that directly communicate the value added. The W4-group aims to demonstrate customer value of real estate and to develop balanced approaches.

ADDING VALUE BY B2B MARKETING

The *Journal of Business To Business Marketing* published by Taylor & Francis, London, is the premier scholarly journal for business marketing, and is positioned to focus on substantive issues in basic research about business marketing phenomena. In regard to FM it is the most appropriate journal to monitor the research activities of FM related value, because the published research deals with internal and external relationships in a B2B setting. Providing services in a B2B setting, this is what FM is all about. Besides the relation to FM, the criteria for this choice

Figure 4.3: Conceptual framework of De Vries et al. (2008)

CONTEXT: Legislation, society, market, demography



were academic positioning, research rigor, and empirical evidence. The volumes 5-16 of the journal (1998–2009) published a total number of 173 articles but no single article regarding FM. However, 12 articles - of which three empirical studies are selected here - deal with Relationship Value and/or Customer Value. Thus, insights from marketing and relationship management have the potential to shed some light on the value construct in FM.

The marketing literature contains a variety of definitions emphasizing different aspects of the value concept. According to Ulaga and Eggert (2005) four main characteristics can be identified: (1) customer value is a subjective concept (Kortge and Okonkwo, 1993); (2) it is conceptualised as a trade-off between benefits and sacrifices (Zeithaml, 1988); (3) benefits and sacrifices can be multi-faceted (Grisaffe and Kumar, 1998); and (4) value perceptions are relative to competition (Anderson and Narus, 1999; Gale, 1994). The concept of value is the foundation of the exchange view of marketing (Bagozzi, 1975; Hunt, 1991). All parties involved in the exchange expect to be better off after the exchange. According to Kotler (2000) value is the primary force

that drives market transactions and relationships. Anderson (1995) stresses the relevance of value by stating that *"value creation and value sharing can be regarded as the raison d'être of collaborative customer-supplier relationships"*. Though according to Hutt and Speh (1998) *"... in essence, value equals quality relative to price"* there is a general convergence in literature from various fields suggesting *"that customer value is derived from sources that include, but also go beyond the price-quality trade-off"* (Grisaffe and Kumar, 1998). Anderson and Narus (1998) have called for a shift from the traditional narrow view of value being determined by price and quality, but so far there has been very limited empirical evidence to support their position.

Menon et al. (2005) provide a rather precise conceptualisation of customer value in B2B relationships. The authors agree with the existing conceptualisation that views benefit and sacrifice as determinants of customer value. However, in contrast to previous treatment of the value construct, they argue that benefits should be categorised into "core benefits" and "add-on benefits". Besides, a more precise view of sacrifice needs to include a broad set of costs. So as to provide a complete view of sacrifice in a business relationship the authors include "acquisition costs" and "operations costs" in addition to the basic "purchase price." Results of Menon et al. (2005) suggest that add-on benefits have a stronger influence on customer perceived value than core benefits. A reason for this finding could be that while core benefits are influential drivers of customer value, it is a discipline in which all qualified providers perform well. Customers appear to view add-on benefits to be the differentiator for customer value among providers of equal core benefits. Therefore, issues such as supplier flexibility, supplier commitment, and joint working arrangements that influence add-on benefits become increasingly critical in shaping customer value in B2B relationships. A second finding of importance is the stronger overall impact of benefits (both core and add-on) on perceived customer value relative to the impact of sacrifices on perceived customer value. This finding suggests that when assessing value in business relationships, customers tend to focus more on the overall benefits that accumulate from the relationship and less on the sacrifices involved. Thus, managers should be encouraged to emphasise benefits resulting from a relationship and not focus solely on lowering the purchase price and related costs when managing customer value. Another finding in this study is that trust is a strong driver of benefits and sacrifices. Clearly, the results indicate that trust (i.e., the customer trusting the supplier) influences core benefits that business customers consider necessary in business relationships. In fact, results indicate that trust has a stronger impact on core benefits than the product characteristics.

Ulaga and Eggert (2005) identified seven common core dimensions of relationship value. The authors define customer value in business relationships as the *"trade-off between (1) product, (2) service, (3) know-how, (4) time-to-market and (5) social benefits, as well as (6) price and (7) process costs in a supplier relationship, as perceived by key decision-makers in the customer's organisation, and taking into consideration the available alternative supplier relationships."* Results of Ulaga and Eggert (2005) are similar to results of Menon et al. (2005). The data reveal that relationship benefits are stronger correlated with the overall value measure than relationship sacrifices. Previous research on buyer-supplier relationships confirms this result

and shows that client organisations emphasise relationship benefits, whereas suppliers mainly focus on relationship sacrifices (Lyons et al., 1990). In addition, the authors point out that it is necessary to capture value perceptions differently in particular business market settings. The contextual dimensions depend on variables such as the type of industry, the nature of the relationship, and the category of product or service under consideration.

Kumar and Grisaffe (2004) focus specifically on the benefit component. They introduce three extrinsic attributes relevant for the perceived customer value: (1) Perceived industry leadership of the supplier may be defined as buyer perceptions of a firm's overall position in an industry relative to the competition; (2) innovativeness of the supplier refers to the extent to which buyers perceive a firm and its offerings as being creative and radically different from the competitor's products/services and offering unique benefits to the buyer; and (3) customer focus of the supplier is defined as the extent to which a firm focuses on their customers' needs. In B2B settings customers often evaluate a firm's focus on their needs, not only in terms of product and service offerings, but also in terms of responsiveness and how easy it is to do business with the firm. As the results of Kumar and Grisaffe's (2004) research show, extrinsic attributes like customer focus and innovativeness can create and enhance the value of the firm's offering to buyers in B2B contexts. Among the attributes, customer focus was the most influential. Its effect on quality was four times greater and its effects on value were almost two times greater than the effects of the other extrinsic factors. The effects of customer focus varied across the goods and service industries. In the service industry where there is more interaction between the firm's employees and customers, where customers are often an integral part of the service production process, and where there is more customisation, customer focus has a greater influence on customer value than in the goods industry, which is often characterised by a greater level of standardisation.

When comparing these findings with the FM Value Map, it becomes apparent that in addition to the attention paid in the FM Value Map to FM resources, FM processes and FM provisions, thus focusing on *internal* aspects of value *creation*, most of the issues from marketing and relationship management concern the very top of the value map, thus focusing on *external* aspects of value *perception*. Following the value map's logic of input-output-outcome, it can be stated that the relationship value approach reverses this chronology by starting with the outcome dimension.

DISCUSSION

The research shows a number of different definitions and focus points of added value of FM, dependent on the academic field and the area of application. The different research perspectives provide in combination a holistic view by the integration of an external market based view (with a focus on the aimed output) and the internal resource based view (with a focus on the input from FM and CREM).

With regard to the conceptualisation of value of FM and its measurement, the FM Value Map provides a very broad and qualitative framework. From relationship marketing and practice cases several examples came up of simplified equations and ratios with attempts to quantify the results in various degrees. The focus in the FM Value Map on broad stakeholder value rather than shareholder value has been supported by the recent development in FM and CREM research, while the focus in B2B marketing is mostly limited to customers and clients/owners. The crucial part of value adding lies in the interface between provisions from FM and the impact on the core business as perceived by the stakeholders. B2B marketing puts particular focus on the relationship aspects of this interface.

The differences between the described academic fields provide exciting promises for the possibilities and benefits of developing a common trans-disciplinary framework of mapping added value. The categorisation of the impact parameters in the FM Value Map can be further refined in this process. But in spite of a growing body of knowledge from academic work and theoretical models that explain connections between real estate decisions, business strategies and organisational performance, reliable quantitative empirical data are still scarce. A reason for this lack of data and problematic interpretations of cause-effect relationships may be the broad scope of FM and intermediary effects of different and changing contexts and all kind of other interventions, for instance in organisation policy or Human Resources. This makes it difficult to trace and measure the impact of particular FM input. Clear standard performance indicators are in its infancy.

CONCLUSIONS

The main lessons from the literature reviews are listed below to inspire those who want to develop an FM strategy that explicitly addresses value adding or measures the added value of FM:

1. The concept of added value puts focus on the strategic aspects of FM

FM is often considered as management of mainly operational services, but by introducing the concept of added value the focus can be changed towards the business impacts and effects of FM. Thereby, it becomes easier to address the corporate top management, because adding value relates to their language and perspective.

2. The focus has changed from economical value towards a more holistic value concept

This is particular the case within the fields of FM and CREM and can be related to the phases in the development of FM. This changing focus is reflected in the fact that whereas previously shareholder value was the main perspective, nowadays a more holistic stakeholder perspective as included in the FM Value Map has become more accepted. Inspiration for value mapping has been found in management models like Balanced Score Card and EFQM Excellence Model.

3. FM value is a result of linking input and throughput to output

Most of the issues from marketing and relationship management concern the top of the value map, thus focusing on an external market based view of value perception. As such this field adds an outside-in perspective to the inside-out perspective of most FM and CREM literature with a focus on an internal resource based-view. Both approaches should not be considered as contradicting extremes but as complementing elements of a holistic view.

4. FM value is multidimensional

Research on value conceptualisation in relationship management literature shows very explicit portraits of benefits and cost dimensions. E.g., authors describe the differences between "core benefits" and "add-on benefits" as well as "acquisition costs", "operations costs", and "purchase price". In addition, it is worth considering that relationship benefits are stronger correlated with value measures than relationship sacrifices. This distinguished characterisation of various value dimensions helps to differentiate between several FM specific dimensions of benefits and costs.

5. FM value is relationship value

When considering the value of FM, FM has to be acknowledged as a relationship management discipline. On a high level of abstraction, FM is the management of internal or external customer/client supplier relationships. Perceived value can only exist and be produced within this specific network of relationships.

6. FM value is subjective

The character of value within these relationships includes a strong subjective element that is dependent on the customer's/client's perception. As pointed out by the presented research on the value of relationships, customer organisations tend to emphasise relationship benefits, whereas suppliers mainly focus on sacrifices. Only the subjective perception of the customer/client determines the value of the relationships within FM and the rule "perception is reality" applies here as well.

7. FM value depends on "Value for Whom"

Priorities and appraisal of the added value of FM depend on who benefits from the added value and who bears the risks and burdens. So it is important to take into account the views and interests of different stakeholders such as the organisation itself (policymakers, staff, controllers, FM/CREM managers), owners (investors, shareholders), visitors, suppliers, customers, and society (local, regional, national, global).

8. FM value depends on conditions (context)

In addition, the subjective value of FM can be very different, depending on market settings, type of relationship, industry sector, specific situation, etc. This leads to a major challenge when conceptualising a holistic formula for determining the value of FM.

9. FM value research needs both qualitative and quantitative research methods

To determine the multidimensional and subjectively perceived value of FM, surveys are needed that integrate the different perspectives mentioned above, with differentiated measurement methods such as using multi-item scales and structural equation modeling (SEM). Quantitative surveys should be triangulated by applying qualitative data collection methods such as personal interviews, focus groups with professionals, and content analysis.

These findings have improved our understanding of the added value of FM, both on a conceptual level and from an instrumental point of view. This is of great importance to FM research and evidence based FM as a sound basis for the long term recognition of FM. However, still much work has to be done to learn more about adding value of FM. For instance, surprisingly little attention has been paid to environmental efficiency of FM, whereas "Green FM" (see chapter 12) is undoubtedly one of the major ways to influence the core business positively and create added value through many "value channels" (save energy, reduce costs, improve image, support productivity etc.). Corporate Social Responsibility (CSR) is another area, where FM has great potential to add value, but little research has so far been undertaken on FM and CSR. With regard to CREM, the literature shows a growing understanding of the impact of real estate on corporate performance and how to cope with the interests and needs of different stakeholders. In particular attention is being paid to the impact of real estate on cost reduction, employee satisfaction and perceived productivity. So far less attention has been paid to the impact of real estate on corporate image, PR & Marketing, and sales & selling processes. So much further research is needed to provide the knowledge that we need to learn about the added value of FM.

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