The Concept of Value for Owners and Users of Buildings - A literature study of value in different contexts

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Abstract

The concept of Value has been studied and developed in different contexts. There are numerous definitions of value depending on which context it has been studied in. Value management has been introduced to the construction projects, real estate and facility management business during the last decades. The long lasting life cycle of buildings and constant change in user’s needs suggest that the concept of value and value management should be focused on users’ as well as owners’ needs in order to maximize the value creation and capture. An understanding of the concept of the value for users and owners of buildings will contribute to successful projects, sustainable buildings and greater value creation.

The objective of this paper is first, to draw a map of how value is defined in different contexts and second, to establish an understanding of the concept of value which can be related to value creation for users and owners of buildings. This paper is exploring the literature within the following contexts:
- Industrial economics and manufacturing
- Consumer economics and marketing
- Psychology and sociology
- Real Estate (RE) and Facility management (FM) business

The paper starts with providing an overview of theories and literature within the over mentioned contexts. Thereafter, the common ground in defining “value” in different contexts is discussed. The concept of value is then related to users and owners of buildings.

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1. Introduction

Value and value management have been discussed in management and marketing literature during the last decades (Zeithaml, 1988; Dodds et al., 1991; Holbrook, 1994&1999; Babin et al., 1994; Woodruff, 1997; Parasuraman, 1997; Kaufman 1998; Kelly et al. 2015, etc.). Different stakeholders try to define value from their own perspectives. The understanding of the concept of value has however not been thoroughly investigated in project management context. The long lasting life cycle of buildings and the constant change in users’ needs suggests that the focus in defining value should be towards the users and the owners of the buildings. These stakeholders are nevertheless, the reasons why the building is built. Thereby, it is important to see how the conceptualization of value in different contexts can be linked to users and owners of the building. The main purpose of this paper is not to conduct an extensive review of the literature within the conceptualization of value. The paper intends to investigate the major research streams within conceptualization of value in different contexts in order to see if there is a “common ground” in defining what “Value” is. The findings are thereafter used to suggest what should be taken into consideration in early phase of the projects in order to maximize the value creation in a project.

The paper is a result of a literature review. The review has attempt to have a critical look into existing research streams that have tried to conceptualize value in four particular contexts i) manufacturing and industrial economics ii) marketing and consumer economics iii) Psychology and sociology iv) Real Estate (RE) and Facility Management (FM). The focus has been to identify what the existing knowledge and theories are and investigating if there is a common understanding of how value is defined and how it can be created. After collecting data through the literature review, the data is discussed and evaluated in small workshops of two to five persons. The discussion and a conclusion chapter of this report is a result of the author’s evaluation of workshops based on the findings from literature review.

2. Findings and research results

2.1. Concept of value in industrial economics and manufacturing

The pursuit towards defining value is of ancient character. The discussion and debate has been going on since Aristotle (4th century BC) who first distinguished between two meanings: “use-value” and “exchange value” (Fleetwood, 1997). Adam Smith brought the discussion further in the middle of the 18th century. He focused on “productive” activities that contributed to exchange value through the manufacturing and distribution of tangible goods. Although the purpose of economic exchange is to manufacture and distribute goods to be sold, the exchange value of a good is represented by the marked price and what consumers are willing to pay (Vargo, Maglio, & Akaka, 2008).

Research on defining what the “productive activities” which create value for customers has been extensively conducted during the last century. Already in 1926 Henry Ford indicated the significance of focus on customer’s value and its importance for industrial manufacturing. According to Henry Ford focusing on organization of industry to serve people is not in any conflict with the profitableness of the industry. (Ford & Crowther, 1926)

A growing number of companies seems to have adopted the value generation models since the beginning of the 1980s by various initiatives like customer driven company, customer orientation, mass customization and value-based management (Koskela, 2000). Although there has been numerous amount of research on streamlining production processes based on value, it seem that the conceptualization of value in manufacturing has its emphasis on consumer’s value and reducing “waste” which is defined as- non value creating activities. “Value can only be defined by the ultimate customer. And it’s only meaningful when expressed in terms of a specific product (a good or a service, and often both at once) which meets the customer’s need at a specific price at a specific time” (Womack & Jones, 1996, p. 16). The importance of the customers in conceptualization of value led the authors to a review of research streams in the field of marketing and consumer economics.
2.2. Concept of value in consumer economics and marketing

The study reveals that the research toward conceptualizing value has been conducted extensively in the field of marketing. The difficulty of defining value is acknowledged of many authors and stems from the fact that customers value is being a dynamic concept and evolves over time (Khalifa, 2004). The literature shows that there are numerous models in which value can be defined and categorized (Khalifa, 2004, Sánchez-Fernández & Iniesta-Bonillo, 2007, Smith & Colgate, 2007, Gummerus, 2013). In services marketing, the value concept appears frequently. Clear definitions of the value concept will however first be found in literature on pricing (Ravald & Grönroos, 1996).

**Price-based studies** Sanchez-Fernandez et al (2007) refers to the price-based research stream as the “Monroe’s research stream” and mentions that Monroe’s study of price-based value led to the initial conceptualization of value by Dodds et al. as a “... cognitive trade-off between perceptions of quality and sacrifice” (Dodds et al., 1991, p. 308). Khalifa (2004) refers to this research stream as “benefit/cost ratio models” and points out that in these models value is defined as the difference between customer’s perception of benefits received and sacrifices incurred. Zeithaml (1988) points out that perceived value is subjective and individual and hence varies among consumers. She defines customer-perceived value as the customer’s overall assessment of the utility of a product based on a perception of what is received and what is given (Zeithaml, 1988). Zeithaml employed means-end chains as a theoretical base. Despite that, her work has been investigated as price-based studies since her study identified “give” and “get” components. Therefore, Gummerus (2013) suggests that the value as benefit/sacrifices research stream is built upon Zeithaml’s theory. Zeithaml (1988) noted four types of consumer definition of value:

- Value as low price
- Value as the quality obtained for the price paid
- Value as what customer gets for what he/she sacrifices.
- Value in whatever the customer wants in a product or service

Zeithaml’s (1998) model reflects that the price, quality and value (total tradeoff between benefit and sacrifice) are three different levels of attributes. Perceived price is lower-level attribute, the perceived quality is a higher-level attribute and the perceived value is the higher level construct that is implied from the perceived sacrifice and quality (Sánchez-Fernández & Iniesta-Bonillo, 2007). The last definition reveals a focus on utility and functional aspects of perceived value. Zeithaml’s (1998) theory results in another research stream, which is referred to as Mean-end theory.

**Means-end theory:** A challenge in conceptualizing value only by attributes like quality, worth, benefit and utility is that these terms are not well defined themselves. Woodruff (1997) argues that the customer’s value concept also depends on the situation within which customer thinks of value. The characteristics of value for the customer are for example not the same at the point where the purchase decision is taken as it is after the use of the product. Mean-ends models are based on the assumption that customers acquire and use products or services in order to achieve favorable ends (Khalifa, 2004). According to Woodruff (1997) value can be perceived at different levels. The product attribute and the performance of the product attribute at the lowest, the desired consequence of the product in use at the middle and goals and purposes at the highest. Woodruff’s Means-end theory is based on the “customer value hierarchy” proposed by Woodruff and Gardial (1996). The customer value hierarchy suggests the three hierarchical levels of value (attributes, consequences, and desired end state) and states that the higher levels are ends which are achieved by the lower level means (R. B. Woodruff & Gardial, 1996).
Fig. 1. Different levels of perceived value (R. Woodruff, 1997)

A building can possess attributes like quality, esthetic, functional but the perceived value, based on Woodruff’s theory, would also be linked to which consequences these attributes have for the user and whether these consequences can contribute to achieve the goals and objectives that the customer have when using the building.

**Multi-component/multi-dimensional models:** This approach conceives perceived value as a construct of several interrelated attributes or dimensions that results in a holistic representation of a complex phenomenon (Sánchez-Fernández & Iniesta-Bonillo, 2007). There are several models and theories within the multi-dimensional approach.

**Want, worth, need model:** According to Kaufman (1998) there are three elements that are the principals for the value: a) Esteem value (want) b) Exchange value (worth) c) Utility value (need). Esteem value or “want” is what invokes the buyer’s desire to own only for the sake of ownership. The reason why the product is in the buyers interest and how and when it will be used in the exchange value or “worth”. The performance and physical characteristics of the product is described by the utility value or the “need” element. (Kaufman, 1998).

**Utilitarian and hedonic value model:** Babin et al. (1994) based the scale for assessing customers’ evaluation on shopping experience with two dimensions, “Utilitarian Value” and “Hedonic value”. Utilitarian value refers to rational, functional, cognitive, task related, instrumental and means to an end type of value. Hedonic value is about the experimental and affective value and reflects the entertainment and emotional worth of shopping.

**Consumption value:** Sheth et al (1991) introduced 5 consumption values which influence consumer’s choice in this model; Functional value, Social value, Emotional Value, Epistemic Value, and Conditional Value. Functional value refers to the fulfilment of the requested functional, utilitarian, physical performance in a product. The product’s association with one or more social groups acquires social value. The social value is acquired through association with for example positively or negatively stereotypes, social images, cultural groups. Emotional value pertains to the products ability to arouse feelings or affective states. The products ability to arouse curiosity, provide novelty, and/or satisfy a desire for knowledge creates Epistemic value. Finally, Conditional value is an based on the fact that some choices are depended on the specific situation or set of circumstances facing the customers (Sheth, Newman, & Gross, 1991). Although Kaufman, Babin, Sheth and other researchers who have followed their research stream conceptualize the value on a logical, simple and understandable way, none of them gives a comprehensive concept of the value that includes all the aspects at the same time.

**Helbrook’s three dimensions of value:** Helbrook (1994, 1999) defines value in three dimensions: a) Extrinsic vs. intrinsic, b)Self-oriented vs. other-oriented, c) Active vs. reactive. The extrinsic vs intrinsic is a mean-end view on value where extrinsic refers to an object’s value as a mean to achieve an end and intrinsic is when an object is of value for its own sake. Self-oriented vs. other-oriented refers to whether the value is driven by self-interest (ones own sake) or it is sought for others. The active vs. reactive dimension refers to how a subject (i.e. a consumer) and an object/experience (i.e. a product or a service) act upon each other. Active means that the subject’s activity on a product or a service results in value while reactive means that the subject doesn’t engage in actions, but lets the product or service have an effect on him/her (Holbrook, 1999).

Helbrook’s approach is the most comprehensive approach since it captures all of the economics, social, hedonic, and altruistic components of perceived value. Despite its richness and complexity, it does have limitations. The complex structure complicates capturing of certain types of value- such as ethical value and spiritual value (Sánchez-Fernández & Iniesta-Bonillo, 2007).
2.3. Concept of value in Psychology and Sociology:

Spatial behavior and real estate market changes are linked to the concepts of values from different perspectives, where concepts of values are mutually tightly intertwined. According to Rokeach (1960) value is a sustainable belief, specific form of behavior or finite state of existence, which is individually or socially more desired behavioral form from the opposite form of behavior or finite existence. Value system is a relatively robust organization and structure of beliefs that pertain to the more desirable individual and social forms of behavior and finite states of existence in the continuum of relative significance.

As an example, the main questions in environmental researches are connected with interaction between built environment and social behavior, and their assimilation to changes which are caused (Rus, 1994, Rivlin, 1984, Piaget, 1965). The interaction models between individual and environment are gathering on analyses of social variables (individual and group, personality, culture, part, organization, social-economic environmental processing, sphere and frequencies characteristics) considering the influence of physical facts and variable’s analyses of nature and shaped environment (characteristics of architecture and landscape, characteristics of the processes).

Dittmar (1992) discusses value from the standpoint of “social psychology of material possession”. According to Dittmar, we are aware of:

- intrusive qualities of objects (Permanence, economy, financial evaluation, rarity, esthetics)
- their instrumentality (enabling social contacts, entertainment, relaxation, freedom, independence, financial safety, information, knowledge, privacy or loneliness)
- other characteristics linked with the use (enabling social contacts, entertainment, relaxation, freedom, independence, financial safety, information, knowledge, privacy or loneliness)
- effort needed for the acquisition and maintenance,
- emotional comfort related to the property (emotional attachment, regulator of emotion, escapism, emotional 'therapy', comfort in safety, self-confidence)
- manner of self-expression (for oneself, for others, individuation, as a symbol of future personal aims or of personal skills and capacities)
- personal values (or social, political, economic, cultural)
- history (in relation with events and places, in connection with the past, as a symbol of continuity or a symbol of the relationship with other people, companies and groups)

Dittmar’s (1992) discussion is the most comprehensive explanation that can be directly related to how users and owners of building the perceived value. Although the discussion is not trying to conceptualize perceived value, almost every named element in this discussion can be related to the theories that are mentioned in marketing chapter especially Holbrook’s (1994, 1999) typology.

2.4. Real Estate and Facility Management

Many researchers has stressed the changes of value perspectives in FM– especially the change from cost reduction orientation to value added or value creation orientation (Jensen et al., 2013, Coenen et al, 2012, Sarasoa and Aaltonen, 2012). In the findings, they state a number of different definitions and focus points on 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 integration of an external market based view (aimed output) and the internal resource based view (input from FM and RE). Jensen et al. (2013) write a list of emphasis for added value of FM, including at the beginning the focus on strategic aspect of FM towards the business impacts and effects.

Coenen et al. (2012) listed different multiple dimensions of FM value, based on literature research findings: exchange value, use value, environmental value, relationship value and financial value. For them, key stakeholders are no longer seen as separate but rather as an integrated economic system to co-create value in FM. Jensen et al. (2013) state that the key learning point is that the success of a collaborative relationship leads to the success of value delivering to the stakeholders. From the concept of 'Value Adding Management', which focuses on the relationships between FM and the core business at different levels (strategic, tactical and operational) they argued that the relationships with the stakeholders should be managed differently at each level.

At the strategic level FM should have a business orientation, where considerations for the whole corporation are
in focus. This calls for joint decision making involving all main stakeholders at management level, which can take the form of a coalition. At the tactical level FM should have a customer orientation, where the specific needs of each business unit are in focus. This calls for a bilateral negotiation and decision making. At the operational level FM should have a service orientation, where the individual users’ needs are in focus and the services are either provided based on price per order or based on a service charge.

Focusing on value creation to create shareholder wealth was found in different researches (Jensen et al., 2013, Finch, 2011, Lindholm, 2008, Manning et al., 1999). Especially when it leads to benefits on customer value and core benefits (Menon et al., 2005). From FM focus on customer value in business relationship, Jensen et al. (2013) stated, based on Eggert et al. (2005) that it is the trade-off between: product, service, know-how, time-to market, social benefits, price and process costs in supplier relationship. Coenen et al. (2012) proposed FM as a ‘Value network’ as a network of relationships, which creates perceived value amongst key stakeholders (clients, customers and end users). They stated that success of collaborative relationship leads to the success of value delivering to the stakeholders.

Hjelmbrekke et al. (2013) stress that value creation is the result of human activity and that this one is the only source of new value. Not all value that is created is actually captured, and not necessarily by the same actors that create the value. Jensen et al. (2013) proposed FM to be considered as a network of relationships, which creates perceived value amongst key stakeholders (clients, customers and end users). They think the perceived value can only exist and be produced within this specific network of relationships. Success of collaborative relationship leads to the success of value delivering to the stakeholders.

3. Discussion and conclusion

Although different theories and research streams are applied in different contexts to conceptualize “Value”, we can see that the common ground is the focus on the customers and users. The real value of a goods or service can only be defined by the ultimate customer (Womack & Jones, 1996). The ultimate customer in a construction project is complicated to define. The owner of the building is considered as the suppliers’ customer in a construction project, but the ultimate customer is the users of the building. How the value is perceived by the users depends also on whether we think of the core business in the building as the user or the employees and clients of the core business as the users. Womach et. al (1996) points out that value is only meaningful when it is expressed in terms of a specific product that meets the customer’s needs at a specific price at a specific time. Although this leads us to the individuals using the building as the end users, the fact that every stakeholder has its own value perception cannot be neglected.

Value creation in a construction project depends on three main roles whom their needs should be assessed: i) the owner, ii) the suppliers iii) the users. The owner’s prerequisite in order to create value can be summarized in profitable/optimal operation of the building and fulfilling the customer’s needs. The suppliers, based on the literature on manufacturing processes, is required to minimize the waste-non value creating activities and to fulfill the customer’s (owner and user) needs in order to create value in the product they have manufactured. The ultimate objective of the project should then be to fulfill user’s needs in order to increase the “customer’s perceived value”. Although in many construction projects user involvement is becoming an integrated part of the project management process, we have witnessed that the most successful products manufactured during the last decades are based on innovative solutions that fulfill customer’s known or (up to the introduction of the product) unknown needs. This means that the user’s active role in defining the value is not necessarily enough in order to maximize the value creation in a project. The owner and the suppliers should actively reach for innovative solutions during the project to increasing the user’s perceived value after the project. The innovation can be in both related to the product and/or the manufacturing processes. The relationship between the main roles in the project and their requirements that can contribute to value creation is summarized in

Figure 1.
The end users’ perceived value is complicated. It would seem that the situation-specific nature of value is a function of the changing standards on which evaluative judgments hinge. These standards tend to change according to the circumstances, culture, time, and location in which they are made (Holbrook, 1999). The assessment of perceived value is not therefore a ‘one-off’ phenomenon; rather, it must be seen as an ongoing assessment within an evolving consumer relationship (Sánchez-Fernández & Iniesta-Bonillo, 2007). This, nevertheless, emphasizes the importance of the focus on life cycle perspective in a project. Evolving a good customer relationship will require less effort if the building is reliable, functional and satisfies the users’ utilitarian and hedonic value. We agree with (Thompson, 2002) that experts should be educated at the schools equally on the cultural and technical level because the importance of natural and humanistic sciences is on the same level for the integral personal growth, especially in Real Estate and FM fields.

We also agree with the definition of Sødal et al. (2014) that higher level of collaboration between design team and contractors in the design stage and stronger incentives connected to joint objectives, results in better performance with regards to budget, schedule quality, environment, work environment and innovation. We add that beside positive involvement of a contractor on work of the architects and engineers as the main issue for integrated design process, lean project delivery principles and constructability, it is important to have competences of value creation in all phases of designing and constructing.

From socio-psychological view, we can underline that ‘every environment surrounding ‘humanity’ has certain features, characteristics that need special attention, simply because they are very important for humans, their life, survival, living, leisure and work’ (Temeljotov Salaj, 2005). Different responses on built environment depends on climate, self-evaluation, values, lifestyle, culture and identity, what can be reflected in the relation toward real estate status of the family, living place, organisation, evaluation of inheritance and nation.

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