What’s in it for me? Conceptualizing the perceived value of knowledge sharing

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Abstract

Social theories suggest that individuals expect something in return when they decide to share knowledge. These expectations of benefits vary from tangible incentives provided by organizations to positive feelings aroused by altruistic behavior. The theory of consumption values (TCV) allows a specification of distinct types of benefits (functional, social, emotional, epistemic and conditional) which individuals consider before they decide to share knowledge. Furthermore, the perceived costs of sharing can reduce the perceived value of knowledge sharing. These costs are non-monetary sacrifices (effort and risks) reducing the perceived value of sharing.

In this work we develop the perceived value of knowledge sharing as a multidimensional construct, grounded in assumptions of social exchange theory, consumer research and knowledge sharing literature. This conceptualization is intended to serve as a basis for the operationalization of perceived knowledge value in a future study on knowledge sharing intentions.

1. Introduction

Successfully managed knowledge can result in a sustainable competitive advantage for an organization [27]. Investment on such systems (e.g. intranets, bulletin boards, electronic repositories) is significant: over 60% of global companies have spent over $4.8 billion on knowledge management systems [3,62]. An assumption that employees will automatically contribute to these systems resulted in major issues and monetary losses. Fortune 500 companies are estimated to have lost over $31.5 billion per year due to failures in knowledge sharing [3]. Recently, in 2012, the majority (52%) of 255 financial executives in a Gartner’s survey considered the business process area of knowledge management to require the most significant improvement in technological support [60]. Thus, the information systems discipline can significantly contribute by understanding underlying processes and later by the creation of an effective environment for knowledge sharing. Participation of employees in knowledge sharing is a critical factor for a success of a knowledge management system, often serving as a center of a knowledge management initiative [1]. Scientific literature addresses research questions associated with the identification and understanding of factors which encourage employees to share what they know [61], and most of these factors positively affect knowledge sharing intention and behavior [69]. By this generally positive influence, however, our understanding of sharing specifics is limited [69]. We attempt to address this gap by integrating a value perspective into a specific potential knowledge sharing situation. We draw on the assumptions of social exchange theory, commonly used in knowledge sharing literature, enhancing it by the theory of consumption values (TCV), well established in marketing to predict
consumers’ choice, with the goal to address the role of value of a potential sharing situation.

This work builds on the individuals’ self-interest when deciding whether to participate in sharing or withhold relevant knowledge. Individuals make an explicit or implicit decision to share. This decision can be driven cognitively, emotionally or both. Imagine you receive a question from someone else in an organizational community of practice on a topic in which you are knowledgeable. While reading the post, you realize that the person raising the question has helped you with respect to your last question posted. You assume that you can maintain that connection in order to get more help in the future. You immediately decide to reply and prepare a comprehensive answer to the question. Thus, you have made a quick evaluation of the future consequences of information sharing and you have decided to share your knowledge.

The evaluation of possible costs and benefits happens prior to the sharing decision. Social theories [4,23] support the assumption that this evaluation mobilizes individuals’ motivational forces, which finally lead to a certain behavior. Management literature also recognizes and emphasizes the role of individual motivation in knowledge sharing (e.g. [19,28]). In literature on knowledge sharing motivational forces relate to cost and benefit assessment and the overall benefit of sharing as an outcome [61]. Thus, individuals evaluate whether sharing information has value for them. We devote our attention to consumer research literature, which has widely explored the complex construct of value in their research.

The paper is organized as follows: the next section introduces the major theoretical background on knowledge sharing. Then we discuss the benefits of sharing in a specific situation according to the theory of consumption values (TCV). We then turn to the costs of knowledge sharing based on non-monetary benefits. Next, we present the derived model. Finally, we discuss the contributions and limitations of this study and propose ideas for future research.

2. Theoretical background

2.1. Knowledge and information

A distinction between knowledge and information is based on the hierarchical view on data, information and knowledge, which is well established among researchers [21,43]. Nonaka [49] defines information as “a flow of messages” whereas knowledge is information as it is perceived by users and shaped by their beliefs. Consistently, Dretske [21] considers information to be objective and independent of what we think or believe and claims that the existence of knowledge depends on conscious being. A definition of knowledge evolved over time and can be defined from two epistemological standpoints: individuals (or teams or even organizations) can possess knowledge as a property (“epistemology of possession”); or knowledge is rather embedded in practice, i.e. constructed through social interactions (“epistemology of practice”) [48]. This epistemological stance is in line with Elliott and O’Dell [22], who define knowledge as information in action, and supports that knowledge includes know-how in addition to any kind of information [43,61]. We are able to rely on the “epistemology of practice” to study knowledge sharing as state-of-the-art technologies offer space for social interactions (e.g. joint editing, comments, or feedback). Based on this epistemology and reviewed literature, we rely on a definition of knowledge to include information, ideas, facts, and expertise relevant for performing tasks at hand in an organizational context [1,61].

2.2. Definitions in knowledge sharing

Literature differentiates between knowledge sharing, knowledge transfer and knowledge exchange. Knowledge sharing is the act of providing organizationally related helpful information and know-how as a reaction to a request of information [2]. In contrast, knowledge transfer refers to knowledge flows among different divisions or organizational units rather than those on individual level [58]. Knowledge exchange is often used interchangeably with knowledge sharing. Knowledge exchange, however, also includes knowledge seeking, i.e. employees seeking knowledge from others [61].

2.3 The process of knowledge sharing

In this study, we refer to knowledge sharing from the perspective of the sharer. We assume a self-interested nature of humans, but attribute it not only to cognition and rationality but also to emotional aspects of benefits individuals assume to obtain [51] from sharing. These benefits are not necessarily tangible, and, for example, can be related to feelings aroused during or after the act of sharing.

The overall process of sharing can be summarized as follows (figure 1). A trigger initiates a potential need of sharing. This trigger can be external, when someone asks for information, or internal, arising from within an individual [38]. Once the trigger is
perceived, the person evaluates potential benefits and costs of sharing. If expected benefits exceed potential costs, individuals will decide to share requested information [4]. Therefore, sharing knowledge is considered to be a choice.

Figure 1. Process of a sharing decision (following [4,38])

Value evaluations of a product or service are made at the pre-purchase stage, i.e. prior to or without buying or using the product or service [57]. This is similar with respect to the evaluation of the value of sharing, but after the evaluation, individuals do not obtain any physical product or service. Thus, we conceptualize value as a formative construct in line with marketing literature and utility-based assumptions as a higher order construct, which incorporates get and give components [72]. To address the get dimensions we build on TCV [52], whereas for the give dimensions we refer to non-monetary sacrifices [17], which is consistent with recent research [40].

3. The get dimensions of knowledge sharing value and the theory of consumption values

To address the get component of value, we follow the theory of consumption values (TCV) [52]. The TCV has a strong theoretical grounding in multiple disciplines, such as economics, biology, sociology, psychology and consumer behavior [40]. Furthermore, it offers empirical evidence of relevance for IS research in studies on online purchase [36] as well as non-purchase behaviors, such as e-government adoption [31], mobile auction use [59], and social network use [11].

This theory represents a multidimensional value construct from a utilitarian and hedonic perspective [51]. The TCV has been widely used to understand and predict consumers’ choices involving a broad range of products or services, both tangible and intangible [52] with over 200 applications [40]. The theory consists of five values: these are functional value, social value, emotional value, epistemic value, and conditional value. The major propositions of the theory are: (1) consumer choice is a function of multiple consumption values; (2) the consumption values make differential contributions in any given choice situation; (3) consumption values are independent [52]. We refer to perceived benefits of the get component of knowledge sharing value based on the types of values from the TCV.

Although it would be appropriate, we do not formulate individual propositions to avoid the repetition of logical statements that a certain benefit additively increases the overall value.

3.1. Functional value

The TCV defines functional value as “the perceived utility acquired from an alternative’s capacity for functional, utilitarian, or physical performance” [52], p.160]. This value is supposed to be the major driver of consumer choice and assumes “a rational economic man” from an economic utility theory perspective [52,56,66]. In a knowledge sharing context, this value refers to perceived benefits from sharing in form of monetary incentives, compensations or promotions [53].

Organizational and expected rewards (e.g. [6,35,37] are not explicitly [6] but rather implicitly related to knowledge sharing [16]. However, incentives for contribution to organizational knowledge through knowledge management systems have been widely explored in IS literature. In addition, tangible monetary gains are inseparable from rational economic assumptions of functional value and represent the first kind of functional value in our research framework.

Another type of functional value refers to an immediate application of shared knowledge to a problem or a task at hand. Such a functional value has significant influence on the value of sharing and subsequent motivation to share [32,64].

3.2. Social value

The TCV defines social value as “the perceived utility acquired from an alternative’s association with one or more specific social groups” [52], p.161] and relates it to power, image, or a reputational aspect of expectation [52]. In the context of knowledge sharing, this value refers to social exchanges and complements the purely economic perspective on these exchanges, as people do not have clear presumptions on what exactly they will get [33]. This view is generally claimed to govern information exchange [9,18].
Knowledge sharing literature has widely explored social values. This can be traced back to the theories of social exchange, often serving as a foundation of studies [42]. Three major directions of social values have been addressed in the literature: reciprocity (e.g. [5,10,30,64,65], image and reputation (e.g. [16,30,64,65], as well as power [15,35]. The studies agree that individuals cherish these values and that sharing serves as a means of establishing future or addressing former helpful relationships (reciprocity), enhancing reputation, image and power [41].

3.3. Emotional value

The TCV defines emotional value as “the perceived utility acquired from an alternative’s capacity to arouse feelings or affective states” [52], p.161]. This value also includes non-cognitive and unconscious motives of knowledge sharing. This value refers to more pleasant affective states, i.e. positive feelings or emotions [73] associated with knowledge sharing.

Literature addresses the emotional value in knowledge sharing in two major ways. First, there are emotions associated with helping others [30,35] or a meaningful contribution to a community [64] or organization [16]. Another type of emotional antecedents addresses the feelings related to self-efficacy [35] and pride [15] or recognizing own self-efficacy [6]. Literature proposes that both types of emotional values are favored and appreciated by individuals and influence knowledge sharing in a positive way.

3.4. Epistemic value

The TCV defines epistemic value as “the perceived utility acquired from an alternative’s capacity to arouse curiosity, provide novelty, and/or satisfy a desire for knowledge” [52], p.162]. In knowledge sharing this value corresponds to learning aspects in which an individual can learn through the act of sharing.

The existing literature neglects epistemic aspects of information sharing. Sharing as a behavior providing learning opportunities for a sharer is not quite obvious, as the person sharing information usually passes knowledge to another person. However, there are some studies which address epistemic value by relating sharing to feedback and interaction processes for developing better solutions or deriving innovation [64] for the sharer, to gaining better understanding of a subject [30], or learning [70] through sharing. There is also preliminary evidence that the absence of any epistemic value, i.e. boredom or lack of meaningfulness, leads to a disengagement from sharing [24]. This perspective implies that this value for the sharer can rise if a piece of knowledge has some epistemic value for the person seeking knowledge and the seeker can communicate this value to the sharer. This value offers potential for future research to understand the complexity of knowledge sharing as learning experience for both parties.

3.5. Conditional value

The TCV defines conditional value as “the perceived utility acquired by an alternative as the result of the specific situation or set of circumstances facing the choice maker” [52], p.162]. This value is measured on a profile of contingencies. For example, Christmas cards or winter coats have only seasonal value, or ambulance service is only valuable in an emergency [52].

This value “is derived from a moderating effect of a situation on perceptions of functional and social value on outcomes” [57], p.217]. In addition, situational aspects also moderate the effects of emotional value instead of having a direct impact on the overall value [57]. Based on its moderating role and limited evidence of this value in knowledge management literature [12,13], we do not include conditional value in our further theorizing.

4. The give dimensions of knowledge sharing value and non-monetary sacrifices

To define the give components, we refer to non-monetary sacrifices [17] associated with sharing. This corresponds to the benefit and cost perspective on human decisions [4,23]. Perceived sacrifices are considered as a loss and can be derived from the short- and long-term costs of a product or service. They can be monetary or non-monetary [63]. In the context of knowledge sharing we refer to the latter type of sacrifices, because usually there are no monetary costs involved for the sharer. The non-monetary sacrifices consist of effort and risks [17]. Effort, associated with knowledge sharing, is an important motivational factor [61] and refers to short-term sacrifices, as it is relevant for the process of sharing. Risks have also been recognized to influence human decisions and represent longer-term implications of a decision [57]. People try to maximize their gains and minimize their costs when exchanging something with others [47]. As the give components refer to short- or long-term costs of
sharing, these factors are proposed to negatively affect the construct of the overall value.

4.1. Effort

Effort is defined as a voluntary allocation of mental energy or attentional resources to a task [34]. This effort increases with task complexity as such tasks place higher cognitive demands on task-doers, because they require more immediate resources to comprehend and execute a task [8]. In an knowledge sharing context, individuals have to decide to allocate effort for a sharing activity, in addition to their currently ongoing tasks [53]. On the one hand, information complexity refers to the diversity, variety and multiplicity of the knowledge involved [71]. On the other hand, it addresses “the degree of depth and specialization of the internalized knowledge of human experts” [46].

In knowledge sharing literature the concept of effort has been addressed as codification effort and has shown to negatively impact knowledge sharing (e.g. [35,61]). Furthermore, it can be positively associated with knowledge hiding [14].

The effort of knowledge sharing refers to an immediate involvement of personal resources required to share information and is associated with higher short-term costs, i.e. it decreases the overall value of sharing.

4.2. Risks

In addition to effort, individuals tend to separately assess risks in comparison to benefits associated with a decision [17]. Thus, we separately refer to risks associated with social or emotional aspects and propose their influence on value.

Risk is defined as an individual’s perception of how risky a situation is in terms of probabilistic estimates of situational uncertainty, and controllability of that uncertainty, as well as confidence in the estimates [54]. Uncertainty in a sharing context can refer to future negative consequences of sharing and make people reluctant to pass their knowledge to others [26]. In the analyzed sharing literature such negative consequences vary from fear of losing unique value [50,65] being used [64] or losing power [24,35]. These factors decrease the value of knowledge sharing and consequently knowledge sharing intentions (e.g. [24,50]).

5. Research model

Perceived individual benefits of information or knowledge sharing have already been greatly acknowledged in early research [15]. The risk-rewards perspective has also been applied in the early works on human information behavior [67,68] and has been widely accepted in knowledge sharing literature [61]. However, to our best knowledge, there has been no conceptualization of the perceived value of information sharing.

We develop a compensatory positivist framework to conceptualize the multidimensional construct of perceived value of sharing in the domain of organizational knowledge sharing via electronic knowledge management systems. Figure 2 shows the a-priori model, which can be used to operationalize the perceived value of knowledge sharing.

Figure 2. A-priori model

The construct of perceived value of knowledge sharing is conceptualized as a multidimensional formative construct with two components: get (benefits) and give (sacrifices). Dimensions of these components relate additively, which is natural for modeling cognitive processes [17]. To derive the get dimensions we rely on four values from the TCV. The dimension of conditional value is excluded, as recent research proposes its rather moderating role on other values [57]. Each of these dimensions increases the overall value of an act of sharing. To develop the give dimensions, we refer to the two types of non-monetary losses, which represent the short-term (effort) and long-term (risk) sacrifices. These dimensions form the give component, which reduces the value of information sharing.

Should the evaluation of perceived benefits (get) and costs (give) for a knowledge request result in a prevalence of perceived benefits, individuals conclude that sharing that piece of knowledge has a value for them and they will probably be inclined to share the information. The model could be used to understand knowledge-sharing intentions based on individual evaluations of a sharing situation.
6. Discussion

6.1. Contributions

Social exchange theory is a well recognized foundation for studying knowledge sharing [42]. This theory assumes evaluation of costs and benefits when participating in knowledge sharing. This work integrates a consumer behavior theory to consider this self-interest and integration of assessment of value of a knowledge-sharing situation. As this is the first step towards a potential extension of the social exchange theory by a consumer lens, this work mainly contributes to research by introducing a multidimensional construct – *perceived value of sharing* – which could be used in future research to deepen our understanding of individuals’ sharing behavior in organizational knowledge management systems. By integrating the consumer theory for the four benefit dimensions (*get*) and the non-monetary sacrifices for the two cost dimensions (*give*), this study addresses the costs along with anticipated benefits of information sharing as perceived by individuals.

The TCV allows structuring the evaluation of sharing value according to distinct types of value. Particularly epistemic value, i.e. the utility of knowledge in terms of learning for both, the sharer and receiver, offers avenue for future research. We contribute to the theoretical understanding of knowledge sharing by addressing this aspect of sharing. The value of sharing can increase if the sender expects to learn something from the sharing, as well as if the receiver of knowledge can convince the sender that this knowledge has a high learning effect for him or her.

Further, this study emphasizes the pragmatism of information sharing decisions. The more business and private life are mixed through the new options provided by IS [29], the more pragmatically and consumer-like individuals act with information. Having this view, the main distinction of this study from previous attempts in analyzing knowledge sharing behavior is using a consumer behavior lens to study motivations of sharing.

Finally, not only does this study consider cognitive and rational sides of knowledge sharing, but it also includes emotional, affective and even unconscious aspects, which have become an important component of contemporary studies in IS [73].

6.2. Limitations

The limitations of this paper also mostly refer to the boundaries of a consumer’s perspective in research on knowledge sharing. First, it describes aspects of sharing that relate to a single sharing situation and individual. The context of interaction is an intra-organizational electronic knowledge management system, enabling employees to share organizational knowledge with their colleagues. The model does not yet include context variables, such as organizational norms, culture, or team dynamics, or individual characteristics. However, these variables are rather stable within a company or an individual and we intend to control for them in future empirical work.

Second, sharing usually does not contain any tangible artifacts, such as a product or service. Although we assume that the attribution of values to sharing consequences still takes place, and this is supported by social theories, additional investigations are required to elaborate whether this is the case for any sharing situation.

Third, we refer to the perceived value of knowledge sharing before an actual act of sharing. At the moment, we do not refer to the perception of realized value, which could only be measured after sharing as a behavior took place. The realized value could have a strong impact on future intentions, but is not included in the current model.

Finally, an individual researcher has executed a narrative literature review and the coding of the literature with respect to the TCV and non-monetary sacrifices. We recognize general bias related to this approach and we plan to address this limitation in future by including an additional reviewer and a systematic literature review to overcome this limitation.

6.3. Future Work

This study suggests a conceptual model to define the information sharing value as a formative construct, which can be used to estimate knowledge-sharing intentions. To measure this construct in the next step, the existing operationalization of values in the area of intangible targets, such as services or education [40] could be applied. With the support of such an operationalization, we target understand correlation of sharing value with knowledge sharing intentions [55,57]. Consistent with [40] this study will adopt and modify scales developed by [39] to measure the get benefits and scales developed by [17] to measure give sacrifices.
To hypothesize and validate the suggested measurement model this study will follow guidelines applied by Gable at al. [25], which are based on [7,44,45]. These guidelines suggest a definition phase followed by a research cycle that involves two main phases: an exploratory phase and a confirmatory phase. The exploratory phase assists in hypothesizing a measurement model, while the confirmatory phase assists in validating the hypothesized measurement model against newly gathered data.

The proposed conceptualization of different value dimensions and findings from literature uncover opportunities for more extensive future research as well. First, different individuals could cherish different values. Research should pay attention to the attitudes of individuals toward distinct values. It would also be of particular interest, how different contexts are able to shape the dynamics of value.

Finally, relations between values in a knowledge sharing context can differ from those in a consumer context. A recent application of the theory [57] suggested that the dimensions might not be independent because of a possible relationship between utilitarian and hedonic components of attitude. Additional research in the knowledge sharing domain is required to understand how the values relate to each other and which influences or even hierarchies exist among the values.

References


