

Social representations of value: An empirical investigation

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Abstract: Despite the extant conceptualisations of value in business literature, social representations of value (i.e. common sense knowledge about value) are yet to be fully understood. Thus, this paper investigated these social representations as well as the relationship between extant representations of value by employing the structural social representation theory and its related methodology strategy as proposed by Doise et al (1993), as well as the ontology engineering method (Ma, et al, 2014). The analysis revealed that exchange-centricity, with economy-based concepts as its foundation, is the dominant representation of value, while experience-centred concepts constitute the peripheral elements in the overall network of value. Despite the different positions of these sub-networks (clusters) of value in the value network, they share common core elements, i.e. economy-related concepts. It is suggested that creating worth for firms is still the dominant representation of value that is shared in the public sphere. Theoretical and practical implications of these findings are discussed.

Introduction: Value is one of the foundational concepts in business literature, while value creation is viewed as the central purpose of economic activity. Conceptualisations of value are based on various theoretical foundations (Ng and Smith, 2012). Thus, it deemed necessary to establish ontological foundations value (Fragidis & Tarabanis, 2011). Scholars have have called for action in research on vocabularies, conceptual abstractions, relationship among concepts and analytical modelling to describe and represent value and value creation (Maglio et al, 2006; Ostrom et al., 2010; Vargo et al, 2008). In this context, this paper empirically investigated (1) social representations of value and (2) relationships between extant representations of value in business literature. In order to achieve this, we employed a structural social representation theory, and applied the methodology strategy proposed by Doise et al (1993), and operationalize it through an ontology engineering method (Ma et al, 2014).

By searching knowledge bases with “value” as the input concept, we identified a list of concepts that are semantically associated with “value”. Taking into account business literature on value and concepts as identified from the knowledge bases, we distinguished the shared reference points for constructing value networks. Using these as seeding concepts, we developed networks for the concept of value through three experiments (Exp1, Exp2 and Exp3). Network analysis revealed that in the overall network, economy-based concepts constitute the core elements for the social representation of value, while exchange- and experience-based concepts associated with value form the sub-networks (clusters). One cluster of concepts (exchange-centric with economy-based concepts as its foundation) is more representative than another cluster (experience-based for value). Hence, experiences based value could be viewed as the peripheral element in the overall network. Despite the different positions of these two clusters of value in the value network, they share common core elements, i.e. economy-based concepts. Thus, it can be suggested that creating worth for firms is still the dominant representation of value that is shared in the public sphere and well-documented in business literature.

Theoretical background: Social representation theory (SRT) Based on a structural approach to social representation theory, Abric (2001) described all reality as being represented and appropriated, reconstructed in the cognitive system, and integrated in the value system by the individual/group (Abric, 2001, p.42). Thus, reality is knowledge-constructed in the form of social concepts/ objects/constructs, which are “socially elaborated and shared [...] for the construction of common reality” (Jodelet, 1989, p.36; Abric, 2001, p.43). Social representations, i.e., common sense about abstract objects or theories (Clemence, 2001, p.83) could be constructed and formed by (1) discussion in the public sphere, and (2) knowledge exchanged and shared in the groups we are involved with (Clemence, 2001). It can be suggested that people would take their own positions by referring to common points of reference (Clemence, 2001). Social representation theory could potentially enable us to describe positions, and social groups taking these positions in the social construct network.

The extant conceptualisations of value can be referred to as representations of value. Despite the fact that representations of value are shared and accepted by different groups in the business community, representations of value (in business sense) for society as a whole (social representations of value) has yet to be investigated. Social representations entail articulations in terms of how individuals in a group construct the social object (concept/construct) and how the individual uses the social construct (Lahlou, 2001). Social representation theory would provide us with a framework to capture (1) the cognitive, normative (structure) and descriptive (practice) aspects of a common shared knowledge of value. By taking a structural approach to social representation theory, in this paper we focus more on the normative aspect of value. Theoretically, social representation theory would enable us to gain insights into many

aspects of value in business literature. In our study, we focus on the following issues: (1) identify the central core for the social representation of value; and (2) investigate the representativeness of representations of value and the relationships between various representations of value in business literature.

Methodology and Method: Doise et al (1993) proposed a methodology strategy for conducting structural social representation research. This strategy includes: (1) mapping shared reference points and developing a network or map of meanings for the social construct; (2) identifying organising principles and social positions of the clusters of concepts (sub-networks) in the network; and (3) linking positions, principles and individuals/groups in the network. In our study, an ontology engineering method (Ma, et al, 2014) was used to operationalise this methodology strategy based on the following rationale. First, the purpose of ontologies is to provide a shared understanding of a given domain of interest (Lassila & McGuinness, 2003). Neches et al. (1991) defined ontologies as “the basic terms and relations comprising the vocabulary of a topic area”. Ontology therefore can be considered as social representation that denotes a shared interpretation of a part of the world (Borst, 1997), by capturing and providing consensual knowledge that is accepted by, or derived from, a group (Davis et al., 2000) or a given society. Second, the ontological engineering method was built upon the foundation of the SENSUS methodology (Swartout, et al, 1997), which requires that a concept’s definition or description contain a small but highly relevant set of propositional terms in a semantically-connected network. The network with its nodes and the internal relationships among them further provide reasoning mechanisms to identify positions of shared references, and to inspect the linking positions and principles between individuals/groups. In essence, this method shares the principles of social representation theory and Doise et al (1993)’s methodology.

Our ontology engineering method involves (1) identifying seeding concepts, which are similar to the shared reference points described in Doise et al (1993)’s strategy. In this paper, we use these two terms interchangeably because seeding concepts make more sense in the ontology domain while shared reference points are more accepted in the social representation domain. The ontology engineering method also involves (2) mapping a larger structured set of texts/concepts (corpus) around shared reference points, and (3) identifying the internal connections among these concepts for further network analysis. The methodology was applied to three experiments to formulate network structured corpus (a large collection of relevant terms) for exchange-based and experience-oriented value ontologies (referred as Exp1, Exp2 and Exp3 hereafter). Exp1: we used terms that are relevant to value in economics and exchange: **value, worth, price and cost** as the seeding words. Exp2: we used terms that are relevant to value in experience: **value, values, meaning and experience**. Exp3: we used terms that are relevant to value in experience: **value, esteem, appreciate, and apprise**.

Findings: Network analysis later revealed that an economy-exchange-based network produced a far greater number of concepts that can collectively define value in the overall network. Hence, more representations have been identified in the economy-exchange-based value network. Exp1 (initiated by value, worth, price, cost) generated 4,098 concepts with 44,457 binary relationships, leading to a network density (average relationship per concept) of 10.85. In contrast, Exp2 (initiated by value, meanings, values, experience) constructed a corpus containing 2,799 concepts with 13,865 binary relationships among them. The network density was slightly over 4.95, which means that each concept was connected to slightly less than five other concepts. This indicates that the seeding concepts for Exp1 were more than doubly focused on its target domain because of the higher value of connections each concept could have compared to Exp2. This was also signified by the highest centrality in the network; 1,128 for Exp1’s most centralised concept charge (connected with 1,128 other concepts); but in comparison the most centralised concepts in Exp2 network were value and rate, with a centrality of 376. The lower number of relationship per concept that Exp2 developed indicated a less focused or even multiple focal domains/sub-networks. From a network analysis perspective, seeding words and related concepts in Exp2 were not commonly associated with each other when value was discussed. From a social representation perspective, it can be suggested that the proposed shared reference points for experience-based value were not the appropriate representatives for the concept of value. Based on such argument, we further reflected on the value literature, in particular experience-based value definition (Dreyfus 1993; Heelas 1996; Berger et al., 1974) that centred on individuals’ moral appreciation of value and their performance in fulfilling these morals and ethics. This notion of value suggested revised experience-based seeding words of “value, values, meaning and experience” as the shared reference points for Exp3.

As a result, Exp3 (initiated by value, esteem, appreciate and apprise) constructed a corpus containing 2,923 concepts with 19,820 binary relationships among them. The network density was 6.78, which means each concept was connected to more than six other concepts. The most centralised concept in the network was

value, with a centrality of 575 (connected with 575 other concepts). Other concepts with relatively higher centrality were esteem, rate, respect, regard, and honour with a centrality of 414, 367, 362, 321 and 285 respectively. The representativeness and connective of the leading concepts were signified when ‘noise’ was removed from these networks: Exp2 had a network density of 8.08 via its 859 concepts and the 6,937 relationships established among them; Exp3 had a network density of 12.10 via its 1,091 concepts and their 13,197 relationships. Comparing Exp3 with Exp2, the greater number of concepts in Exp3 shows that its seeding words and their related concepts were more relevant when people discussed their experiences in terms of value; namely, these concepts can be more representative of experience-based value. However, they may not be the core concepts for the value network for society as a whole. Since the removal of noise, Exp1 revealed that 1668 valid concepts shared 35,630 relationships, which led to even better connectivity as network density was raised to 21.36. The much greater number of concepts in Exp1 indicated that its exchange-based concepts are much more widely used in discussions of the concept of value in general. The conclusion was further supported by the valid proportion (non-noise) of concepts (40.70% in Exp1, 30.69% in Exp2 and 37.33% in Exp3), and the proportion of binary relationships that actually contributed to the valid concepts (80.15% in Exp1; 50.03% in Exp2 and 66.58% in exp 3). Therefore, we draw our conclusion from the network analysis perspective that an economic-exchange-based approach to value is more representative for value than an experience-based approach.

A more advanced analysis on relationships between representations of value demonstrated that a smaller number of concepts in each network (named “top zone” in this work) may collectively represent (define) network through their highly centralised position and wide connectives towards other concepts. The analysis suggested 144 such concepts for Exp 1 network, with 71 and 86 for Exp 2 and Exp3 respectively. Statistically, economy exchange-based top zone concepts are more representative for the respective network since they form a higher percentage (3.51%) of all concepts compared to the proportion for experience-based concepts (2.64% for Exp2 and 2.94% for Exp3). Top zone members in the Exp1 network were also more tightly connected with each other (network density of 212.99 for Exp1, 159.73 for Exp2 and 195.67 for Exp3). It was further observed that Exp1 has all its seeding concepts (Value, Worth, Price, Cost) in its top 10 concepts, indicating the high representativeness of the seeding concepts in the network reflected the strength of mutual relatedness between concepts within the economy-exchange-based value concept. Exp2 lost two of its seeding concepts – values and experience from its top zone (these concepts were in fact found as noise due to their extremely low centrality). Experience seemed so remotely related to the value definition that it failed to influence the nature of the network, even when serving as seeding concepts. In other words, the concept of value and certain economy-exchange-oriented concepts were so strongly connected, and they subsequently led the experience-oriented network towards the exchange-oriented direction. A clear improvement was detected in the Exp3 network. Not only did its seeding concepts (*value, esteem, appreciate, appraise*) appear as top zone members, but the concepts of *value* and *esteem* were among the network’s top 10 concepts. Moreover, 18 out of the top 20 centralised concepts in Exp3 also contributed to defining the Exp1 network. This observation suggested that Exp3 top zone members appeared to be closer to the Exp1 top zone member, indicating Exp3 experience-based concepts were more representative towards leading definitions of value in Exp1. Considering only 3 Exp2 and 10 Exp3 top zone members were not found in the Exp1 network, the economy-exchange-based value network practically “contained” experience-based value networks.

Discussion and implications: The empirical evidences suggested that the dominant representation of value in the public sphere is still the economy-exchange approach. It is in line with business literature in which economy-exchange is accepted as the dominant approach for value. One explanation for an economy-exchange-based representation of value being dominant in both the public sphere and the business community is the diffusion of scientific knowledge and its effects on common-sense knowledge. Also, as firms and practitioners accept such a value representation and employ it in their business practices, it therefore becomes the dominant representation of value at the societal level.

Another finding is that despite remaining in a peripheral position, experience-based concepts has emerged and formed a sub-network in the overall value network. More importantly, experience- and exchange-based concepts share the core elements, i.e. the economy-related concepts. This is also in line with business literature, where some scholars and practitioners have accepted an experience-based representation of value as an emergent value representation. Due to its marginal position however, its wider acceptance would take time and need more promotion and advocacy on the part of the business community. It is thus important to enhance the communication and collaboration with and between different schools of thoughts, to facilitate the value creation. The socially represented network driven in this research revealed clusters of value representation from difference perspective, their connections (relationships between concepts) and the

'betweeners' that may bridge different representations if we are to enhance communication and collaboration. In addition, the emerging experience-based value representation centres on external beliefs, norms, and ethics as the values that people strive to fulfill. This is the notion of values held by some moralist thinkers such as Plato etc. However, the notion of values suggested by the existentialist thinkers is not as dominant as that of the moralist thinkers. If we need to communicate with those in the experience-based sub-group, it is therefore a key to understand their notion of value and values.

This research also revealed empirical confirmations of extant representations of value in business literature such as GDL and SDL. Differences between such representations of value have been much described and discussed (Vargo and Lusch, 2004). However, whether it is possible to find ways to enhance communication between these two sub-groups held different views in the business community. This research constructed a network of terms that collectively define value, and revealed the concepts associated with value and the connections between these concepts. Our analysis shows that an economy-exchange-based approach to value (GDL) is the dominant representation of value in the overall value network whereas SDL as an experience-based notion (although the representative concepts vary from the SDL literature) of value forms a sub-network in a marginal/peripheral position. Although being in different positions however, both SDL and GDL share core elements, i.e. economy-based concepts such as worth etc. It can be suggested that even with different philosophical foundations, these two approaches share an economic foundation, i.e. creating worth for firms through the provision of offerings. This opens up the possibility of dialogue between these two different groups in the business community.

Thus, this research contributes to the understanding of the common knowledge of value in the public sphere. Via identifying two representations of value corresponding to the value conceptualisations in business literature, this research theoretically enhances value (co)creation between firms and customers, and also improves collaboration between groups. Methodologically, through the employment of an ontological engineering method and social network analysis, we were able to operationalise the methodology strategy for social representation theory in a systematic and quantitative manner, which could further enable us to investigate the social representations of other social constructs. This type of investigation is crucial for enhancing understanding, and to improve communication and collaboration between groups in society and the business community.

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