



Heuristics as an Aid to Inter-organizational Value Creation

Ganesh Prasad Neupane*

Norwegian School of Economics, Norway. *Email: neupane_ganesh@yahoo.com

ABSTRACT

The purpose of this paper is to analyze the moderating effects of heuristics on the relationship between asset specificity, formal contracting/relational contracting and value creation. More importantly, this paper explores the role of heuristics on the inter-organizational relationships. An integrative theoretical framework is proposed, grounded on literature review on transaction cost economics and heuristics. Then, the relationships between heuristics, asset specificity, formal contracting/relational contracting and value creation are analyzed, using the proposed theoretical framework. Heuristics has different implications to the choice of governance mechanisms (formal contracting and relational contracting) and value creation. Moreover, this work develops hypotheses indicating how heuristics moderates the relations between these constructs and highlights future research directions relating to inter-organizational relationships. Heuristics, assets specificity and governance mechanisms alone have limited capacity of improving inter-organizational value creation, but combined they can support improvement initiatives. Nevertheless, heuristics, assets specificity and governance mechanisms can also suppose some novel obstacles to effective inter-organizational value creation. Several studies have analyzed value creation in the inter-organizational relationships, but, to the best of our knowledge no study has focused on the role of heuristics. This work can draw attention of the managers by making them aware of how important is heuristics as a decision-making tool which can influence governance of asset specificities.

Keywords: Transaction Cost Economics, Supplier-manufacturer Relationship, Strategy, Governance, Social Factors

JEL Classifications: M30, M31

1. INTRODUCTION

Transaction cost economics (TCE) provides “rational economic reasons” to craft the governance mechanism (Williamson, 1985, p. 52). Using TCE, the choice of a governance mechanism is determined through the combined or single influence of the transactional attributes (e.g. asset specificity). Malone and Crowston (1994) argue that the executives having responsibility of managing inter-organizational relationships should be able to distinguish among value creation alternatives and then find a better match with different management strategies. Cohendet (1999) asserts that multinational firms seek to govern routine activities differently from what they do for innovative activities. Given such notions on possible strategies, heuristics could be considered as a simple strategy that could facilitate governance decision on asset specificities.

Chesbrough and Rosenbloom (2002) claim that a successful business model creates a heuristics logic that connect technical potential with the realization of economic value. It is, therefore meaningful to consider heuristics as a tool or strategy as it can

help firms in deciding efficient governance mechanisms for their specific investments. There is limited understanding on whether heuristics can be used to foster value creation objective in the inter-organizational relationships. In such a context, this paper aims to explore the role of heuristics in the inter-organizational relationships where a major focus is given to the governance of asset specificities. Many firms have been practicing heuristics considering that it is a simple, affordable and valuable means of decision makings since long back in the history. However, heuristics has been reported both as beneficial and/or devastating in the extant literature. Kahneman and Tversky (2000) state that individuals attempt to be cognitively consistent when making choices. A firm thus being a place of individuals working together, may also attempt to be cognitively consistent during the courses of making decisions. These statements clearly support the possibility of using heuristics in business decisions. Moreover, the questions; what helps firms manage activities differently from what they do for innovative activities? What helps firms while distinguishing among value creation alternatives? And so on, could be tackled using reflexive and reproduction heuristics. Heuristic refers to experience-based techniques for problem solving, learning, and

discovery that give a solution which is not guaranteed to be optimal, heuristic methods are used to speed up the process of finding a satisfactory solution through the mental shortcuts to facilitate the cognitive load of making a decision, examples of this method include using a rule of thumb, an educated guess, an intuitive judgment, stereotyping, or common sense (“<http://en.wikipedia.org/wiki/Heuristics>”).

The focus of this paper is to explore the moderating role of the reflexive and reproduction heuristics on the safeguarding of asset specificity. It is argued that the use of heuristics in decision makings could reduce transaction costs. Heuristics, being a fast and frugal individual based decision mechanism can influence firms to device an efficient and effective governance mechanism for their transactions.

This paper argues in two main respects, first the interaction of heuristics with the firms’ asset specificities can lead to value creation (for this study, value creation is limited to the performance outcomes such as developing sustainable capabilities and cost reduction). Second, the decision-making individuals in the firms do use heuristics that guides them to find better safeguarding for their asset specificities, even though these shortcuts reflect shared social heuristics that improve coordination among exchange partners within a wider and complex supply chain. It is to note that the terms: Heuristics, social heuristics, judgmental heuristics, decision heuristics, and reflexive and reproduction heuristics are interchangeably used in this paper.

This study has both theoretical and practical implications. The theoretical implication is that it explores the role of heuristics in an inter-organizational value creation arena; this is because such heuristics are a source of market order much as price in markets, hierarchy in firms (Williamson, 1975; 1992). We believe heuristics can play critical role in value chain coordination, especially in exchange settings where shared action is placed in semiautonomous networks. Similarly, the practical implication is that such heuristics can preclude the willingness of decision making authorities in an exchange to embrace novelty/innovation and change. This is perhaps due to preoccupied risk adverse nature of most people as they satisfy at minimum cost. However, others would not simply satisfy themselves rather they become ambitious and challenge heuristics just because of their easy access to advanced resources or highly reliable mechanisms.

2. LITERATURE REVIEW

This section presents a brief review on TCE perspective with special focus on asset specificity, governance mechanisms (i.e., formal/relational contracting). Furthermore, basic understanding on heuristics (i.e., reflexive and reproduction heuristics) also follows through some discussions, argumentations, and articulations explaining the role of heuristics in the process of deciding mechanisms that safeguard asset specificity.

Increase in asset specificity needs appropriate safeguarding mechanisms ex ante so that the safeguard of asset is ensured (Williamson, 1981; 1985). In TCE, transaction is used as the unit

of analysis, where the level of asset specificity, the transaction frequencies, and the uncertainties surrounding to transactions determine the efficient way of organizing and governing inter-firm relationships (Williamson, 1981). Thus, the intent of the TCE is to provide safeguarding mechanisms for asset specificities. Several studies have confirmed the logics for safeguarding asset specificity. Asset specificities are the durable investments that are undertaken in support of particular transactions (Williamson, 1985; Williamson, 1996), which have a lower value in an alternative use or user (e.g., site specificity, physical specificity, human asset specificity, dedicated assets, and brand name). Rindfleisch and Heide (1997) state that asset specificity creates safeguarding problems in buyer supplier relationships. Such investment causes bilateral dependence and lock-in effects living room for opportunism.

Contract specifies detail guidelines and safeguarding devices (Reuer and Ariño, 2007). However, formal contracting is a cumbersome affair as it demands much of the effort, information, and other resources too. All together drafting formal contract becomes costly; therefore, the consequences of a contractual break are significant in order for the contracting parties to agree on detailed formal contracting (Poppo and Zenger, 2002). Moreover, formal contract specifies “conditions that exacerbate the potential for ex post inefficiencies should lead to more exhaustive agreements” (Crocker and Reynolds, 1993. p. 127). Thus, formal contracts usually specify the terms of an agreement between two parties and represent the transaction or work to be done in a variety of forms that can range from informal promises to formalized agreements; from explicit and complete to incomplete phrasing of task execution and output; and many more (Schepker et al., 2014).

There are a number of empirical studies supporting the positive association between asset specificity and formal contracting (Buvik and Haugland, 2005; Buvik and Reve, 2001; Cannon and Perreault, 1999; Ghosh and John, 2009; Haugland et al., 2002; Heide, 2003; Poppo and Zenger, 2002; Sande, 2008; Sunde, 2007; Svendsen, 2005).

Heide and John (1992) state relational norms (e.g., solidarity, flexibility, and information exchange) can control opportunistic behavior through providing safeguards to the asset specificities. This shows relational norms can provide control in buyer supplier relationships, Poppo and Zenger (2002) state that the way formal contract safeguards, is not different from the way relational norms safeguards asset specificities. The past studies (e.g., Andersen and Buvik, 2001; Bercovitz et al., 2006; Haugland et al., 2002; Heide and John, 1990; Poppo and Zenger, 2002; Sunde 2007; Zhou et al., 2008) have reported positive associations between asset specificities and relational norms.

Firms, markets, and relational contracting are important economic institutions (Williamson, 1985). TCE has been popular as a theory that highlights the importance of sociological factors such as the behavioral norms between transactors in determining the effectiveness of governance mechanisms (Macneil, 1980). Relational norms are perceived as strong governance mechanisms (Artz and Brush, 2000; Blois and Ivens, 2007). These norms

reduce exchange cost through changing behavioral orientation of the alliance (Artz and Brush, 2000).

There has been a rise in the use of heuristics by modern small and medium sized firms as a decision making tool (Shah and Oppenheimer, 2008). Thus, heuristics may be considered as a tool/strategy complementing decision making in a firm. “A heuristic is a strategy that ignores part of the information, with the goal of making decisions more quickly, frugally, and/or accurately than more complex methods” (Gigerenzer and Wolfgang, 2011, p. 454). Heuristics trade off some level of accuracy for less effort, nonetheless, this may result beyond such classical assumption. Furthermore, heuristics aims to facilitate judgment process more accurately by ignoring other information which in some way may sound strange but this is how it works. We have pursued the term reflexive very much as described by Encarta Dictionary: English U.K., that states: Reactions produced automatically, unthinkingly, and totally predictably in response to events. This means reflexive heuristics are extremely faster and applied immediately without any preparation. Similarly, reproduction heuristics denote the straight forward act of reproducing something. In this way, this paper recognizes ‘reflexive and reproduction heuristics’ as the immediate reactions mostly reproduced by the decision makers/managers.

Reflexive heuristics are based on a priori decision rules that provide a point of reflection and ex post facto justification, for instance, answering on how we know firms have done right things in this market, similarly the reproduction heuristics provides a social proxy for search, choice, and judgment that reproduces status quo, for instance, answers on how firms secure a successful future in the market (Beamish and Biggart, 2010). Reflexive and reproduction heuristics could be understood as simple cognitive shortcuts that help individuals in making evaluations by using some rules or cues. These heuristics thereby avoid the processing and time costs related to exploring comprehensive possibilities. Furthermore, such heuristics may also be used to search for preferences, to build and catalogue perceptions, or to choose between competing choices. Reflexive and reproduction heuristics could help individuals and groups in solving problems encountered with imperfect information, and structural complexity.

TCE deals with the interaction between asset specificities and governance mechanisms, whereas reflexive and reproduction heuristics are the judgment strategies. Moreover, such heuristics could be pursued as conventionalized solutions that address a routine challenge and thus seek socially defensible options.

It is well understood that the asset specificity fosters the firms’ value creation objective. Finding a proper safeguarding mechanism has already been established by Williamson’s TCE, but, rather we believe in the role of heuristics as strategies leading to compliment the safeguarding mechanisms. Furthermore, heuristics could perhaps be considered as one dimension of the firms’ micro foundations (i.e., microeconomic analysis of the firms’ behavior) which exert influence on decisional episode of the governance fixing stage that serves safeguarding to asset specificity either made by the buyer or by the supplier. Furthermore, the interplay

between reflexive and reproduction heuristics and asset specificity could perhaps trigger enhancement in value creation. As the asset specificity deserves higher value inside the relationship, it needs safeguarding to foster eventual investments needs and value creation. Value creation in an inter-organizational perspective constitutes some special focus on dyadic relationships and processes. Firms can’t create value in isolation; there have been several instances of cooperation between firms that fundamentally reshaped the field of marketing strategy (Webster, 1992). Cooperation and coordination between firms has become fundamental to the success of many prominent companies in a variety of channel contexts for example, Toyota and its Keiretsu system, Caterpillar’s dealer network, Wintel system of Microsoft and Intel, business-format franchising executed by McDonald and Coca-Cola (Lilien and Grewal, 2012).

Thus, both the formal contracting and relational contracting could help attain safeguarding of the asset specificities. Following this we argue that the reflexive and reproduction heuristics moderates the relations: Between asset specificity and formal contracting, and asset specificity and relational contracting. The use of this heuristics has some specific influences over the safeguarding of asset specificities. We firmly believe that, the higher the use of reflexive and reproduction heuristics the greater would be the safeguarding of asset specificity. These heuristics could come from stronger individual reflections and more importantly can be expected to remain convincing in establishing the appropriate governance mechanism.

3. THEORETICAL MODEL AND HYPOTHESES

As we state, this paper deals with the role of reflexive and reproduction heuristics at the time when governing asset specificities. These heuristics are normally employed by the managers to activate the pre-decision procedures that garner special focus insuring strong expectation on asset specificities. This means reflexive and reproduction heuristics have become common tools for the firm level decision on governance choice, which should be employed based on sufficient homework by the responsible managers. This homework is performed with the help of several activities or tasks for example, inter-firm coordination, information gathering, information sharing, simulating post specific investment consequences, thorough analysis of potential pros and cons associated with the proposed specific investment, and so on so forth. All such tasks are performed along the use of reflexive, and reproduction heuristics. Basically, the managers in the firms are responsible to make use of such heuristics. In most forms, there are several managers dedicating to specialized functions and all of them expect coordination throughout their performance.

Synchronization of such small but pivotal tasks can bring major changes within firms and that has enormous impact on the backward and forward value chain. We firmly believe that reflexive and reproduction heuristics serve as highly valued micro foundation that deal with various aspects of assets specificity while undergoing through the procedures leading towards the

establishment of a governance mechanism. Such heuristics could be used along the proper adjustment tactics. Moreover, the qualified managers design heuristics mechanisms as per the need emerged across the functioning of the firm.

Based on the underpinnings from the literatures, and the discussion, the theoretical model below depicts the moderating effect of reflexive and reproduction heuristics on the relationship between asset specificity and value creation along with some predictions that are subject to future empirical tests. Figure 1 clearly conveys the association between asset specificity, formal and relational governance modes, and value creation. Taking a simple look on the association between asset specificities and governance mechanisms, we argue that reflexive and reproduction heuristics exert influences on the process of fixing governance mechanism. The framework below presents a more interesting way on how the association between asset specificity and value creation is bridged along the moderating effects of reflexive and reproduction heuristics.

The theoretical model in Figure 1 predicts specific relationships; between asset specificity, relational contracting and value creation, and between asset specificity, formal contracting, and value creation within high and low use of reflexive and reproduction heuristics. Dashed lines represent the predicted relationship between asset specificity and value creation within each use (i.e. high or low) of reflexive and reproduction heuristics. More

importantly, all these perceived relationships are clearly spelled below as specific hypotheses.

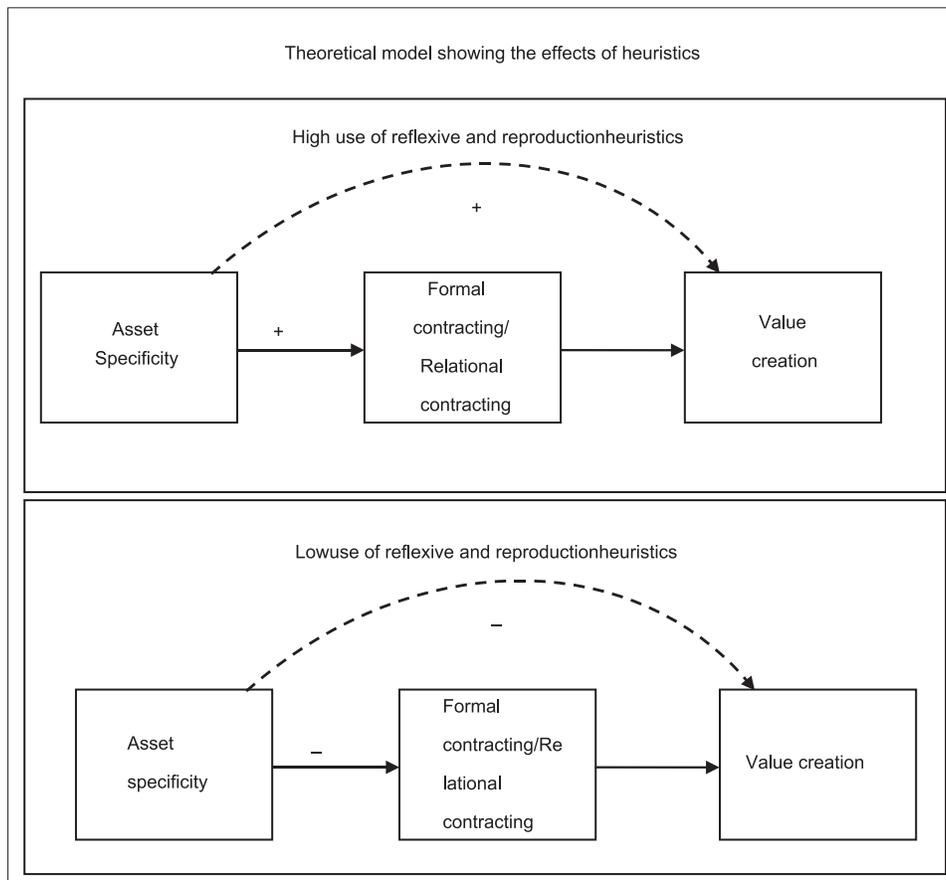
To explore the role of reflexive and reproduction heuristics in the inter-organizational relationships, we can use observations of the patterns of the associations. For instance, it could be observed that the managers are the think tank of firms, they are presumed to bear experiences and exposures of many ups and down business situations both within firms and outside firms that make them equipped with substantial knowledge. Some portions of such knowledge could be regarded as idiosyncratic one and that can best serve segment of the problem. Perhaps this is the reason that most firms used to pay handsome incentives to the experienced managers. Most firms are eager to entertain their managers' reflexion and reproduction skill in the due course of operations. The framework below basically depicts the underlying relationships between the stated variables which can even further guide in understanding the implications of reflexive and reproduction heuristics.

Following section focus more on this model where connections between asset specificity, governance mechanisms, reflexive and reproduction heuristics, and value creation are discussed briefly.

3.1. Judgmental Heuristics as a Moderator to Safeguard Asset Specificity

In the 1970s, judgmental heuristics were recognized as an important uncertainty reduction strategy for individuals solving

Figure 1: Theoretical model showing the effects of reflexive and reproduction heuristics



complex problems (Alhakami and Slovic, 1994; Heap, 1992; Kahneman et al., 1982; Kahneman and Tversky, 1979; Tversky and Kahneman, 1974). Judgmental heuristics function as “rules of thumb,” reasonable shortcuts based on experience and careful remembrance. Cognitive psychologists find that when challenged with complex tasks, such as assessing probabilities, estimating numeric outcomes, and assessing risk through, for example, costs-to-benefit ratios, people rely on judgmental heuristics.

Judgmental heuristics are basically used to assess probabilities and predict values, even though these heuristics are prone to biases. Such judgmental heuristics could be used to simplify and thus enable complex and timely decisions. While they are “highly economical and unusually effective,” based on some laboratory researches, judgmental heuristics can lead to “systematic and predictable errors in estimation” (Kahneman et al., 1982; Kahneman and Tversky, 2000; Tversky and Kahneman, 1974). This shortcoming has become a concern to the cognitive psychologists (Gigerenzer and Brighton, 2009).

Even though heuristics may not be an effective solution always, it's use has always been increasing not only in individual level but also in organizational level, and this could be because of some attributes for instance easy access, economy, promising and so on. A study by Parikh (1994) shows most managers in Europe, North America, Japan, Brazil, and India rely on “intuitive” heuristics rather than on this or similar statistical forecasting methods. Further, Shah and Oppenheimer (2008) claim that heuristics consists of the accurateness effort trade-off, and the ecological rationality; people save effort with heuristics but at the cost of accuracy. This has become a worth claim as the real-world phenomena corroborate the growing influence of heuristics.

Most literature agree on the fact that heuristics is concerned with human brains that synthesize information and abruptly use them to derive solutions in critical conditions.

Given the presence of several social heuristics it is necessary to make proper choice of heuristics that can truly contribute in a value chain setting. The variations and conflicts among exchange actors increases complexity in decision making, and this is frequently the case in most value chains. In order to find win-win solutions for all exchange partners a carefully thought heuristic approach is inevitable. Beamish and Biggart (2009) have stated consensus, reflexive, and reproduction heuristics are useful in networked production market. This paper intends to presume even deeper, that the firms' use of reflexive and reproduction heuristics could influence the degree of safeguarding asset specificity. This means more reliable safeguarding is ensured through the higher use of reflexive and reproduction heuristics. These heuristics serve as micro foundation to build a specific governance mechanism that gives rise to value creation outcomes (i.e., cost reduction, or increase sustainability).

Understanding systematic patterns of social behavior and forming cooperative relationships are rather effective using such heuristics. Going through the established literature, it can be learnt that such heuristics have been collectively constructed

over the years in history and are considered to employ sufficient interpretative decision making frames. More importantly, they deserve influence on economic decision making practices and even the value creation processes. These heuristics are could be sensitive to formal contracting especially when concern regarding asset specificity arises.

We argue that the asset specificity positively associates with formal and relational contracting given the high use of reflexive and reproduction heuristics. Because, the higher the use of these heuristics the greater as well as faster would be the volume of transactions. This situation enhances performance of the firm. This is because of the fast and frugal nature of reflexive and reproduction heuristics as they offer a flexible mechanism to enhance the value chain performance. Consequently, less exercise of such heuristics may jeopardize the possibility of enhancing value. Based on this argument we would like to state - the higher the use of reflexive and reproduction heuristics the greater the association between asset specificity and formal contracting and so also the association between asset specificity and relational contracting, and vice versa.

Following the aforesaid understanding, and speculation the researcher states hypotheses H1 and H2 as follows.

H1: The relationship between asset specificity and relational contracting will be moderated by reflexive and reproduction heuristic, such that the relationship will be positive under conditions of high use, and negative under conditions of low use of reflexive and reproduction heuristics.

H2: The relationship between asset specificity and formal contracting will be moderated using reflexive and reproduction heuristic, such that the relationship will be positive under conditions of high use, and negative under conditions of low use of this heuristic.

Asset specificity is a major decision of the firm that needs to ensure full fledge protection at least up to some point after complete recovery. Buvik and Haugland (2005) have found positive effect of buyer - specific assets on contractual coordination. Higher relationship duration was important especially for a vulnerable and unilaterally dependent party. A relaxed contractual coordination was experienced along the increment in relationship duration when both actors mutually deployed specific assets.

Sunde (2007) found that project specific investment positively relates with customer and contractor value creation potential and innovative performance. However, we think there is something that plays role to enhance positive relation between such asset specificity and value creation potential. Thus, we argue that the magnitude of the interaction between reflexive and reproduction heuristics and asset specificity can influence value creation outcome. Such interactions either allow the choice of formal contracting or relational contracting, both ways can contribute to value creation.

When making, decisions relating to value creations, managers do not blindly go after theoretical underpinnings rather they instantly

confirm their choice based on their reflexions. Nonetheless, they should produce convincing evidences to defend their choice. Reflexion should not necessarily come from managers' own experience; they may accumulate it from the outside world experience too. Depending upon the frame of reference given to the managers, they need to be flexible with the use of available heuristics. Based on this line of reasoning we argue that a firm's governance choice for asset specificity is partly backed by reflexive heuristics. Again, for the case of reproduction heuristics, similar claims could be made. The essence of reproduction heuristics is to ensure promising outcomes as the firm has already experienced of them. For example, most firms might be able to produce satisfactory results from their existing operations and they expect same from the new courses of actions. To get this situation, firms initiate several middle ground tasks that are mostly perceived safe to foster at least status quo results. If we think about decision on governance choice for a given specific investment, a firm starts thinking from reproduction perspective which means that the firm has to initiate some tasks that establish relation with the concerned partner, or the firm itself may go for gathering possible information that perhaps lead to ensure similar benefits or outcomes as attained previously.

Thus, it is apparent that such tasks are basically performed using heuristic that has strong potential to perform fast with no extra financial burden to the firm. This shows reproduction heuristics being the micro foundation of the governance choice procedures contributes to find better governance that can create value for the whole value chain. If we look on some social heuristics, they are found to be widely institutionalized and commonly relied upon devices used to cope with uncertainty. Furthermore, they provide actors with both a priori and ex post facto justifications for economic decisions that appear socially rational. If we take a deep look on the value chains, social heuristics could be observed sustaining market order, but not necessarily always, in some cases it could also result into antagonistic effect discouraging novel technologies thereby causing to hinder innovation.

It is, therefore logical to argue that the degree of interaction between the asset specificity and the reflexive and reproduction heuristics would decide the depth of relationship between asset specificity and formal and relational contracting. TCE Literature agree that the increased interactions most likely increase the value creation through the mediating role of either formal or relational or both contracting. More importantly, it would be interesting to see how such heuristics positively curb the safeguarding need of specific assets using formal or relational means. The higher the use of reflexive and reproduction heuristics the better would be the relationship between asset specificity and value creation and vice versa. Based on this reasoning, we would like to argue that the reflexive and reproduction heuristics exert moderating effect over the relationships between asset specificity and value creation. Most importantly, the use of reflexive and reproduction heuristics should have some interactions with different types of assets specificity which is mediated through formal or informal or both contracting mechanisms for contributing to value creation. In congruence with the above-mentioned speculation, articulation and understanding, the hypotheses H3 and H4 are stated as follows:

H3: The relationship between asset specificity and value creation will be moderated by reflexive and reproduction heuristic, such that the relationship will be positive under conditions of high use, and negative under conditions of low use of this heuristic.

H4: The interaction between asset specificity and the reflexive and reproduction heuristics will result in value creation of asset specificity, such that the higher the interaction the better the value creation could be and the lower the interaction the value creation.

4. SUMMARY AND CONCLUSION

This paper explores the role of reflexive and reproduction heuristics on the inter-organizational relationships. There has been a lot of understanding on the proper safeguarding of specific assets. Many of previous researches have confirmed the safeguarding potential of formal and relational contracting. This paper does not endeavor to contradict with such findings; rather it compliments them by exploring the influence of reflexive and reproduction heuristics in the form of micro foundations. This paper presumed the chosen heuristics are serving as micro foundations and more importantly they exert moderating effects on the safeguarding and value creating need of assets specificity. Such heuristics and asset specificity could be observed interacting with each other thereby producing positive influence on value creation aspects. Thus, this paper explores the influence of reflexive and reproduction heuristics in the inter-organizational relationships. Governance mechanisms as dealt by TCE are a kind of prescriptions for the specific business circumstances. Given such prescriptions, this paper concludes, use of heuristics is a common phenomenon that compliments the formal and relational contracting mechanism when safeguarding asset specificities.

The proposed framework demonstrates the moderating effects of reflexive and reproduction heuristics while designing safeguarding on asset specificity and value creation. The interaction between asset specificity and the stated heuristics consecutively lead either to formal contracting or to relational contracting governance mode and eventually ensure value enhancement in one way or other. Therefore, we propose value creation possibilities along the interaction between the said heuristics and asset specificities. The role of reflexive and reproduction heuristics throughout the process of inter-organizational value creation process is envisioned; however detailed explanation may still fall short.

5. FURTHER RESEARCH AVENUES

This paper open research avenues to future studies that can taste the aforesaid hypotheses and the refutable statements as made in the paper. This paper mostly portrays simple way of connecting heuristics and value creation perspective. Several new facets of study both theoretical and empirical could be designed to further link heuristics with the doings of firms engaged in inter-organizational relationships. An interesting study could be to address empirically, how heuristics helps in making judgments more quickly and frugally that fosters value creation motive of firms. Many case studies intending to find implications of different

social heuristics using both small and giant enterprises in their regular undertakings could be devised to infer strong connections of heuristics in both firm level and value chain level value creating endeavors.

REFERENCES

- Alhakami, A.S., Slovic, P. (1994), A psychological study of the inverse relationship between perceived risk and perceived benefit. *Risk Analysis*, 14(6), 1085-1096.
- Andersen, O., Buvik, A. (2001), Inter-firm co-ordination: International versus domestic buyer-seller relationships. *Omega*, 29(2), 207-219.
- Artz, K.W., Brush, T.H. (2000), Asset specificity, uncertainty and relational norms: An examination of coordination costs in collaborative strategic alliances. *Journal of Economic Behavior and Organization*, 41(4), 337-362.
- Available from: <http://www.en.wikipedia.org/wiki/Heuristics>. [Last retrieved on 2014 Mar 19].
- Beamish, T.D., Biggart, N.W. (2009), Business Cycles, Entrepreneurship, and Economic Crisis in the Commercial Building Market: Toward a Meso-economics, Paper Presented at the in Markets on Trial Workshop. Evanston, IL: Kellogg School of Management, Northwestern University.
- Beamish, T.D., Biggart, N.W. (2010), Social Heuristics: Decision Making and Innovation in a Networked Production Market. Davis, CA: University of California, Department of Sociology.
- Bercovitz, J., Jap, S.D., Nickerson, J.A. (2006), The antecedents and performance implications of cooperative exchange norms. *Organization Science*, 17(6), 724-740.
- Blois, K.J., Ivens, B.S. (2007), Method issues in the measurement of relational norms. *Journal of Business Research*, 60(5), 556-565.
- Buvik, A., Haugland, S.A. (2005), The allocation of specific assets, relationship duration, and contractual coordination in buyer-seller relationships. *Scandinavian Journal of Management*, 21(1), 41-60.
- Buvik, A., Reve, T. (2001), Asymmetrical deployment of specific assets and contractual safeguarding in industrial purchasing relationships. *Journal of Business Research*, 51(2), 101-113.
- Cannon, J.P., Perreault, W.D.Jr. (1999), Buyer-seller relationships in business markets. *Journal of Marketing Research*, 36(4), 439-460.
- Chesbrough, H., Rosenbloom, R.S. (2002), The role of the business model in capturing value from innovation: Evidence from Xerox Corporation's technology spin-off companies. *Industrial and Corporate Change*, 11(3), 529-555.
- Cohendet, P. (1999), Learning and adaptation in decentralised business networks. *Environment and Planning D: Society and Space*, 17, 87-104.
- Crocker, K.J., Reynolds, K.J. (1993), The efficiency of incomplete contracts: An empirical analysis of air force engine procurement. *The RAND Journal of Economics*, 24(1), 126-146.
- Ghosh, M., John, G. (2009), When should original equipment manufacturers use branded component contracts with suppliers? *Journal of Marketing Research*, 46(5), 597-611.
- Gigerenzer, G., Brighton, H. (2009), Homo heuristicus: Why biased minds make better inferences. *Topics in Cognitive Science*, 1(1), 107-143.
- Gigerenzer, G., Wolfgang, G. (2011), Heuristic decision making. *Annual Review of Psychology*, 62, 451-482.
- Haugland, S., Reve, T., Grønhaug, K. (2002), Governance Modes in International Business-to-Business Relationships, Paper Presented at the Oliver E. Williamson Symposium. Berkeley, CA: University of California.
- Heap, S.H. (1992), *The Theory of Choice: A Critical Guide*. Oxford, UK, Cambridge, MA: Blackwell.
- Heide, J.B. (2003), Plural governance in industrial purchasing. *Journal of Marketing*, 67(4), 18-29.
- Heide, J.B., John, G. (1990), Alliances in industrial purchasing: The determinants of joint action in buyer-supplier relationships. *Journal of Marketing Research* (JMR), 27(1), 24-36.
- Heide, J.B., John, G. (1992), Do norms matter in marketing relationships? *The Journal of Marketing*, 56(2), 32-44.
- Kahneman, D., Slovic, P., Tversky, A. (1982), *Judgment Under Uncertainty: Heuristics and Biases*. Cambridge: Cambridge University Press.
- Kahneman, D., Tversky, A. (1979), Prospect theory: An analysis of decision under risk. *Econometrica: Journal of the Econometric Society*, 47(2), 263-291.
- Kahneman, D., Tversky, A. (2000), *Choices, Values, and Frames*. Cambridge, UK: Cambridge University Press.
- Lilien, G.L., Grewal, R. (2012), *Handbook on Business to Business Marketing*. Cheltenham, UK: Edward Elgar Publishing.
- Macneil, I.R. (1980), *The New Social Contract*. New Haven, CT: Yale University Press.
- Malone, T.W., Crowston, K. (1994), The interdisciplinary study of coordination. *ACM Computing Surveys (CSUR)*, 26(1), 87-119.
- Parikh, J. (1994), *Intuition: The New Frontier of Management*. Oxford, UK, Blackwell Business.
- Poppo, L., Zenger, T. (2002), Do formal contracts and relational governance function as substitutes or complements? *Strategic Management Journal*, 23(8), 707-725.
- Reuer, J.J., Ariño, A. (2007), Strategic alliance contracts: Dimensions and determinants of contractual complexity. *Strategic Management Journal*, 28(3), 313-330.
- Rindfleisch, A., Heide, J.B. (1997), Transaction cost analysis: Past, present, and future applications. *Journal of Marketing*, 61(4), 30-54.
- Sande, J.B. (2008), *The Role of Common Knowledge in Buyer-Supplier Relationships*, (PhD), Norwegian University of Life Sciences, Ås.
- Schepker, D.J., Oh, W.Y., Martynov, A., Poppo, L. (2014), The many futures of contracts moving beyond structure and safeguarding to coordination and adaptation. *Journal of Management*, 40(1), 193-225.
- Shah, A.K., Oppenheimer, D.M. (2008), Heuristics made easy: An effort-reduction framework. *Psychological Bulletin*, 134(2), 207.
- Sunde, P.A. (2007), *Governance and Asset Specificity as Facilitators and Sources of Innovation and Value Creation*, (PhD), NHH Norwegian School of Economics.
- Svendsen, M.F. (2005), *Governing International Customer Relationships: The Influences of Product Differentiation, Customer Market Attractiveness, and Relational Capability*, (PhD), NHH Norwegian School of Economics.
- Tversky, A., Kahneman, D. (1974), Judgment under uncertainty: Heuristics and biases. *Science*, 185(4157), 1124-1131.
- Webster, F.E.Jr. (1992), The changing role of marketing in the corporation. *Journal of Marketing*, 56(4), 1-17.
- Williamson, O.E. (1975), *Markets and Hierarchies*. New York: Free Press. p26-30.
- Williamson, O.E. (1981), The economics of organization: The transaction cost approach. *American Journal of Sociology*, 87(3), 548-577.
- Williamson, O.E. (1985), *The Economic Institutions of Capitalism*. New York: The Free Press.
- Williamson, O.E. (1992), Markets, hierarchies, and the modern corporation: An unfolding perspective. *Journal of Economic Behavior and Organization*, 17(3), 335-352.
- Williamson, O.E. (1996), Economic organization: The case for candor. *Academy of Management Review*, 21(1), 48-57.
- Zhou, K.Z., Poppo, L., Yang, Z. (2008), Relational ties or customized contracts? An examination of alternative governance choices in China. *Journal of International Business Studies*, 39(3), 526-534.