

# IMPACT OF FIRMS RELATIONSHIP WITH PAST AND EXISTING SUPPLIERS ON FUTURE SUPPLIER SELECTION DECISIONS: A FOCUS GROUP STUDY

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## ABSTRACT

Supplier selection is a critical process that directly affects overall firms' performance. There are various factors that come into play when firms are establishing supplier selection criteria. One of the key factors that directly influence firms' decision towards establishing supplier selection criteria is their relationships with current and previous suppliers. In this study, we qualitatively explore the impact of few decision biases that generates from firms' relationship with existing or previous suppliers on firms' supplier selection criteria for new suppliers. Focus group interviews were used as a tool to collect qualitative data. The data was analyzed, and results revealed that the selection criteria for new supplier is affected by reference point bias in decision making based on failed relationship between firm and a supplier.

**Keywords:** Decision making; Supplier selection; Firms' relationships; Selection criteria

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## Introduction

The competitive landscape of business organizations has put immense pressure to improve quality, delivery, performance, responsiveness, and customer centricity. The organizations are also required to ensure the adequate level of performance on these criteria being cost efficient. Firms are managing their supply chain function effectively to meet all the said criteria as supply chain covers sourcing, production, and distribution activities. Sourcing strategies play a pivotal role towards overall performance of the organization (Boulding and Hinrichs-Krapels, 2021). Efficient sourcing helps organizations to focus more on their core activities to add value. In this regard, role of supplier is critical towards overall performance of the organization in terms of supply chain efficiency. Supplier selection is important based on the fact that "it commits resources while simultaneously impacting such activities as inventory management, production planning and control, cash flow requirements, and

product quality" (Narasimhan, 1983; Pech et al., 2021). Supplier selection has gained considerable importance in recent years, as selecting reliable supplier and developing long-term collaborative relationship with supplier is imperative towards organizational performance. Multiple techniques are used to select, evaluate, and monitor performance of the suppliers including mathematical programming, Data Envelopment Analysis (DEA), goal programming, multi-objective programming), integer non-linear programming, Analytic Network Process (ANP), Fuzzy set theory, Analytic Hierarchy Process (AHP), Simple multi-attribute rating technique, case base reasoning, genetic algorithm (Ho et al., 2010). Majority of the previous studies have focused on quantitative methodologies to select appropriate suppliers.

Apart from cost and quality elements, supplier selection also depends on behavioral and risk dimensions of supply chain. This study mainly focuses on the supplier selection criteria and sub-criteria. Ojala and Hallikas (2006) argued that firms focus on investment risks when selecting key suppliers, whereas Olson and Wu (2006) discussed the role of broad supply chain risk categories towards supplier selection and how these risks might be controlled. Extant literature has modeled the supply chain risk element and its quantitative impact on the firm performance (Cohen and Lee, 1988; Lee and Billington, 1993; Thomas and Griffin, 1996; Graves and Willems, 2000) but there is a lack of literature in terms of understanding qualitative supplier selection criteria based on firms' current and previous supplier relationships. Behavioral sciences literature has argued upon the importance of trust and positive relationships as key foundations of stakeholder satisfaction (Mandják et al., 2017), but this area has not received much attention in supply chain literature. In this study, we explore the impact of firms' current and previous supplier relationship on future supplier selection criteria. The key research question is "What are the decision-making biases that come into play while selecting future suppliers based on firms' relationship with existing and previous suppliers?"

We use focus group to explore the degree to which decision biases come into play while establishing supplier selection criteria based on previous and current supplier relationships. This is one of the novel studies that uses qualitative research design to explore the key factors used by firms to make supplier selection decision. This study contributes to behavioral sciences and supply chain literature as it bridges the gap between these two streams of research.

Following is literature review conducted to engrain the phenomena of supplier selection and decision biases through previous studies. Literature also helps to come up with the scope of discussion in focus group study. Next is the methodology section that gives the rationale and procedure of using focus group in this study followed by the data analysis and discussion sections. Conclusion section gives an overall summary of the whole study, processes involved and ultimate findings.

### **Literature review and theoretical development**

A critical decision in any of the firms strategy is to decide what to buy and what to make (Belhadi et al., 2021). When producing a specific product within a firm is beneficial and when it is feasible to outsource it. These are the decisions that force any firm to go out of its boundary and interact with other players in the market i.e., suppliers. Now on what basis firm should make this decision is answered by Transaction Cost Economic theory. This theory states that economic cost of transaction will decide if a particular transaction is worth taking or not (Williamson, 1989). This cost will also identify the structure of governance as well that whether it should be market, hierarchy or alliance (Williamson, 2010). According to McIvor (2009) there are four basic hurdles and difficulties in conducting transactions. These hurdles are bounded rationality, opportunism, small numbers bargaining, and information impactedness. He referred to bounded rationality as “the cognitive limitations of the human mind, which increases the difficulties of understanding fully the complexities of all possible decisions.” Opportunism was defined as “decision makers acting with guile, as well as out of self-interest.” Small numbers bargaining was defined as “the degree to which the buyer has alternative sources of supply to meet its requirements.” And lastly, information impactedness was defined as “the presence of information asymmetries between the buyer and supplier, which means that either party may have more knowledge than the other.” Further moving on he explained that these costs and transactional difficulties are further enhanced in the presence of asset specificity, uncertainty, and infrequency. So, procurement becomes a critical decision for any organization when deciding on buy vs make problem.

Supply chain literature focuses on the imperative role of procurement in terms of performance and supply chain efficiency. Procurement function, in today’s business environment has a pivotal role to play in firm’s strategy formulation and risk management (Collins et al., 2010; Moses, 2011; ur Rehman et al., 2020; Ribas et al., 2021). Managing supply chain partners effectively directly affects firm’s performance (Collins et al., 2010).

Supplier selection is one of critically researched domain of procurement literature. Too many criteria for supplier evaluation have been used in different context in the literature (Kumar Kar and K. Pani, 2014) but the basis on which these criteria are filtered and used is still vague. Some classic work of Busch (1962) and Dickson (1996) focused on supplier selection criteria like quality, delivery schedule and warranties. Further studies also highlighted the importance of price, technical and production capability, financial position, vendor reputation, post-sale services and past business records. After 1990s there was a shift from quantitative criteria to qualitative criteria for supplier evaluation. (Kumar Kar and K. Pani, 2014). As the onset of globalization come into play, further development in criteria occurred including geographic locations, exchange rates, tariffs and customs, trade restrictions, quality management and other environmental factors. (Cusumano and Takeishi, 1991; Choi and Hartley, 1996; Braglia and Petroni, 2000; Narasimhan et al., 2001; Talluri and Narasimhan, 2005).

Research has shown that supplier's knowledge can affect buyer's ability to learn and bring change (Jarratt, 2004), however this mainly depends upon the degree of positive relationship that exist between buyer and supplier. Integrating with supplier depends mainly on the success of buyer-supplier relationship (Vanpoucke et al., 2014) which is largely based on supplier's selection and evaluation process. As discussed above, a range of suppliers' evaluation and selection techniques exists based on mathematical modeling and case reasoning (Ho et al., 2010). Kannan et al. (2008) used interpretive structural modeling and AHP for analyzing green suppliers. In another article, Hsu and Hu (2009) evaluated suppliers incorporating hazardous substance management through ANP. Büyüközkan and Görener (2015) used Fuzzy AHP for sustainable supplier selection with incomplete information. In another study by Shaw et al. (2012), fuzzy AHP and multi-objective linear programming was used to select suppliers for developing low carbon supply chain. Sarkis and Dhavale (2015) focused on Bayesian framework and Monte Carlo simulations for supplier selection for sustainable operations.

In spite the fact that use of supplier selection and evaluation criteria is highly case specific, the buyers' decision is not always objective. AHP gained importance because it has the ability to address human subjectivity in decision making and it can bring out non-deterministic requirements (Saaty, 1994). AHP helps to decompose the problem into a hierarchy of sub-problems that are more easily comprehended and can be analyzed independently. AHP can also measure the degree of consistency in priorities which making a

supplier selection. Our study focuses on the fact that this change in priorities and supplier selection criteria is highly influenced by a buyer's relationship with existing or past suppliers. Decision biases come into play when setting priorities in selection criteria for a particular supplier and it directly affects degree of risk an organization is willing to take being a buyer. This is where decision theory comes into play.

As explained by Transaction Cost Economic theory, bounded rationality of human beings increases the difficulties in transaction. Hence role of decision making, and rationality needs to be explored in the area of supply chain. According to Simons and Moore (1992) human beings are rational decision makers and they always act in their self-interest to get the best outcome of their choice and preferences. This was the basic assumption of "homo economicus" and it was also prevailed in the field of supply chain management in the form of institutional economic theory and transaction cost economics (Rindfleisch and Heide, 1997; Grover and Malhotra, 2003; McNally and Griffin, 2004). Even though basic assumption of human rationality has ruled the Supply Chain Management, but a new field of research has emerged within Supply Chain Management which has challenged this basic assumption and is known as Behavioral Supply Chain Management. It is defined by Carter et al. (2007) as "The Study of how judgement in supply management decision-making deviates from the assumptions of homo economicus". In his article, he reviewed a wide-ranging literature which is based on judgement and decision-making biases and integrated it by making taxonomies which can then be used in the field of supply management by supply managers and researchers. Literature has provided ample proof that human beings frequently violate the assumption of rationality and make biased decisions leading to results which are not fully optimal (Lichtenstein et al., 1978; Kahneman, 1992; Simons and Moore, 1992). Hence role of biases in Supply Chain decision-making cannot be ignored.

There are many areas where role of biases can be investigated in supply chain management. But supply chain management begins from selecting suppliers. So, supplier selection criteria and decision-making process is one the central task in supply management. It has been mainstream topic of research in the domain of supply chain management in which suppliers are selected on the principles of rationality drawn from transaction cost economics theory (Choi and Hartley, 1996; Grover and Malhotra, 2003; McNally and Griffin, 2004; Dreyer and Grønhaug, 2012; Huang et al., 2014). Even though majority of research are based on mathematical optimization of selection of supplier and its decision-making, but involvement of human beings makes it prone to use of heuristics and biases in decision making (Das et al.,

2006; Carter et al., 2007; Kaufmann et al., 2012; Kumar Kar and K. Pani, 2014). It results in suboptimal solutions because one may discard other alternatives available and instead just accept satisficing solution which Simon (1957) explained as to choose “good enough” instead of optimal solution (Carter et al., 2007).

There are many biases which can be relevant in decision-making process of supplier selection. Carter et al. (2007) studied around 76 biases and using cluster analysis he came up with 9 categories of biases which are relevant in the context of supply chain management. Out of these 9 categories, Reference Point Bias is one of bias which can potentially affect the decision-making process of supplier selection. For simplicity and focus, in this paper we will stick to this bias only and will explore its effect on supplier selection criteria. According to Carter et al. (2007) “The reference point bias occurs when evaluations and adjustments from an initial position or reference point are usually insufficient”. So, it can be argued that when selecting specific supplier and manager or company may create a reference point which can be its previous suppliers and it starts evaluating and adjusting the new supplier according to its experience with the previous supplier and this evaluation and adjustments can be insufficient according to the reference point bias.

According to Tversky and Kahneman (1974) the basic heuristic used for simplification of complex phenomenon by human beings is to start with an initial point and then alter and assess their opinions based on it. So suppliers may base their initial point as previous suppliers and make adjustments based on that experience but researchers have indicated that this alteration is usually insufficient to make optimal decision (Lichtenstein et al., 1978). Similarly, when it comes to negotiating with a new supplier then organization can make the initial offer based on the previous supplier so it will lead to biased negotiation between the two parties because previous studies has shown in many experiments that final agreement in negotiations are biased towards the initial offer (Galinsky and Mussweiler, 2001). Moreover, it has also been reported that even when initial point is selected arbitrary still human beings fall prey to this bias leading to inefficient decision making so in supplier selection case even if there is no previous supplier experience but still organization may start comparing it to randomly initial points (Epley and Gilovich, 2005). Carter et al. (2007) explained this phenomenon nicely with an example related to buyer supplier relationship. According to him “For instance, a buyer might demand only incremental improvements in price levels from a supplier, because the current price level “anchors” the buyer judgment. In reality, however, the supplier’s price may be far too high”. This shows that Reference Point bias have the

potential to effect supplier selection criteria because reference point can only be considered as rational if initial point is best indication of future selection which they are not (Hogarth, 1987).

### Conceptual Framework

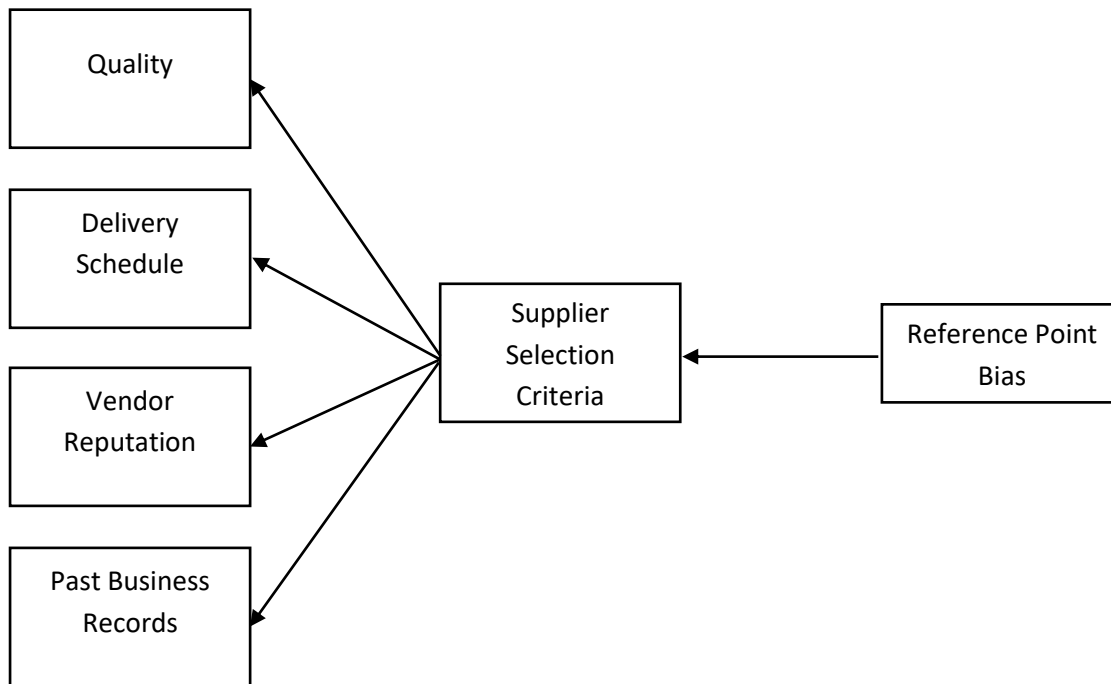


Figure 1

### Methodology

Literature review and focus group discussion was adopted as a method to conduct this study. Focus group is among the top used techniques used in social sciences as a tool to execute research (Alfalla-Luque et al., 2013). Many studies in the area of Supply Chain Management has used focus group as a research tool for example (Oehmen et al., 2010; Tate et al., 2010) and it has also been used in general Operations Management field as well (Dey et al., 2006; Binder and Edwards, 2010). Focus group is about a well-organized discussion among a group of 6-12 members on a specific topic (Kitzinger, 2006; Tate et al., 2010). Focus group was useful for our study because we were doing exploratory study to find what biases come into play in supplier selection criteria. Focus group discussions characterize specific themes that are explored in depth (Bryman, 2015). Gibbs (1997) highlighted the importance of use of focus group as a tool that may reveal respondents' attitudes, beliefs, experiences and reactions that might not be possible to cater through other means of data collection like surveys.

Experts from different industries were selected for focus group. These experts are currently or have already worked for more than 6 years, in procurement department of their companies which was responsible for supplier selection. Brief profile of the experts is given below in the table:

Table1: Details of respondents in focus group

No.	Name	Company	Designation	Education	Experience
1	Muhammad Bilal	Coca Cola	Procurement Specialist	MBA	7 years
2	Anayat Ali	Coca Cola	Procurement Manager	MBA	8 years
3	Haris Ali	HUBCO	Procurement and Planning Manager	Mechanical Engineer	10 years
4	Sheikh Latif	Packages Ltd.	Planning and Production Manager	MBA	15 years
5	Syed Muhammad Ahmed	Ali Murtaza and Co.	Procurement Manager	Master's in economics	8 years

Initially, a telephonic interview was conducted with these experts and objectives of the study were conveyed to them. Questions were explained that would be discussed in focus group discussion and their consent was taken if they are ready to participate in the study. It was also inquired that if they believe that they are eligible to answer the required questions.

### Tool

An interview guide was developed including few leading questions that cover the scope of selection criteria and different biases that may come into play while applying those criteria. Questions along with interview guide are attached in Appendix 1.

In the focus group, the experts were first about the general importance of supplier in overall supply chain. Everyone was of the view that relationship with supplier is a strategic key to success of whole supply chain. After the initial brainstorming on the role of supplier, focus group was moved towards the supplier selection criteria and role of bias in decision making. Review of the objectives was also repeated in focus group discussion. The focus group was managed and moderated by one of the researchers. Participants were also requested that they should give an overall view about supplier instead of specific point of view from the perspective of their individual companies to make it more general. A qualitative analysis was conducted on the discussion held during focus group and results from preliminary literature review were also incorporated.









## Procedure

The focus group discussion was planned to use a semi-structured interview guide and some key topics were drawn in the guide. Before discussing the decision biases, the respondents were asked about the key criteria they use for selection of suppliers in their respective organizations. Respondents came up with different responses. Thus, in the arguments section, both before and during discussion responses of the respondents are discussed. Two researchers were present during focus group discussion; one leading the discussion and other took notes. The interview lasted for around ninety minutes. Interview was recorded and transcribed for the purpose of analysis. Nvivo 11 was used to analyze the themes present in the transcribed interview.

## Data analysis

Transcribed materials were analyzed through thematic analysis (Boyatzis, 1998). Initially six themes were identified for coding 1-6. Further transcribed material was scrutinized, and all statements were reviewed to be associated with one or more themes. This allowed extracting subthemes. Table 2 shows the themes for code 1-6:

Table 2: Extracted themes

	Name
	Supplier selection criteria and effective procurement
	supplier screening process
	Bias in selecting new supplier
	Effect of previous supplier on new supplier selection
	Relationship sensitivity
	Common factors of failed supplier relationship

## Results

The thematic analysis of transcribed material expanded into six themes with various sub-themes shown in table 2. Two themes related to supplier selection criteria and supplier screening process whereas four themes concerned biases in decision making process, effect of previous supplier relationship on new supplier selection, supplier sensitivity and reasons behind failed supplier relationships.

Table 3: Themes and sub-themes

Sr. No.	Themes	Sub-themes
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1.	Supplier selection Criteria and effective procurement	1a. Competitiveness and cost 1b. Depends upon market, category of product and technical specifications
2.	Supplier screening process	2a. Research and Development 2b. Service level 2c. Suppliers' experience
3.	Bias in selecting new supplier	Bad relationship affects decision
4.	Effect of previous supplier on new supplier selection	4a. Intuition 4b. More subjective 4c. Increased resistance 4d. Reduced leverages to new suppliers 4e. Reference points
5.	Relationship sensitivity	5a. Industry and nature of supplies 5b. Integrity 5c. Compliance 5d. Sharing knowledge
6.	Common factors of Failed supplier relationships	6a. Delayed payments 6b. Delayed deliveries

### Supplier Selection and Effective Procurement

The initial responses covered both positive and negative aspects of supplier selection criteria. Supplier selection was discussed to be the most critical aspect of procurement process and it was also revealed that firms might bear high cost for overlooking this important dimension. Negative aspects revealed that it might be take ample time in trying to risk averse in this regard. So it is a trade-off between the risk a firm might be willing to take and cost they are interested in spending in selecting appropriate supplier. Vendors play a strategic role; world is transforming into a global village so organizations cannot rely on one supplier because they need competitiveness and cost cutting.

There is enormous literature available on supplier selection. Weber et al. (1991) carried out an extensive literature on supplier selection criteria and noted that quality, net price and delivery ranked at the top by 13 articles. Production facilities and capabilities were also present in the list of important criteria. 26 criteria were summarized into 8 factors including finances, consistency, relationship, flexibility, technological capability, reliability, price and customer service (Choi and Hartley, 1996).

The respondents in focus group also conform to the supplier selection criteria as highlighted in the literature discussed. Supplier selection and effective procurement largely depend upon the market, technical specifications of the products and a set of pre-qualifications including quality, suppliers' financial performance, logistics (delivery schedule) and price

Role of supplier selection in effective procurement also varies from industry to industry. There are some industries where there is monopoly of suppliers and organizations are left with little or no leverage on the suppliers. Almost all respondents agreed to some key supplier selection criteria as quality, price, financials, sustainability, and above all technical specifications.

Technical qualification is one of the most important criteria a supplier has to meet in supplier selection process of an organization. One of the respondents commented:

*“It works like filtering layers. The first filter is technical qualification. For example, there are some technical qualifications a supplier has to meet in my organization like few ISO standards, OHSAS etc. After these technical qualifications have been met, then we consider the second layer that is much flexible and might vary from supplier to supplier. For example, a supplier might be charging higher prices but giving value added services so we would be willing to pay high price for value added services.”*

### **Supplier Screening Process**

The second theme that was coded as a part of thematic analysis is suppliers' screening process. Two important considerations are there to discuss in supplier screening process. At the first level market intelligence system plays a pivotal role in supplier screening process in an organization. Industries in Pakistan are highly fragmented, and it is very easy to gather intelligence about repute of various suppliers in the market. Secondly, firms' own knowledge management systems are important in screening the key suppliers from a range of available suppliers in the market. Procurement function also generates information that helps future decisions.

Internet has also played a significant role in finding out suppliers that qualify firms' criteria. The discussion also revealed that background check on the supplier is also an important element in the screening process. Organizations need to check litigations on suppliers before extending business terms with them. All the respondents agreed to the fact that their respective organizations have an appropriate supplier screening process in practice.

## **Bias in Selecting New Supplier**

The most critical stage of focus group interview starts with this theme. Initially, the discussion was mainly centered at identifying the key criteria for supplier selection and supplier screening process. After icebreaking and preliminary discussion, the participants in the discussion were introduced to the phenomena of decision biases. Moderator presented a situation to the respondents in which their relationship with the supplier is affected due to some reason and now they are considering switching supplier. So, whether or not, the selection criteria or screening process will remain the same or it will be altered owing to some cognitive bias. There was a mix of responses from the participants in the focus group. Some participants commented that there exists a positive relationship between relationships with supplier and bias in future supplier selection and some participants responded that it purely depends on the circumstances and the degree of relationship sensitivity between buyer (organization) and supplier. This discussion allowed a new theme to emerge (relationship Sensitivity) discussed further.

The key argument raised in discussing decision biases is that the organization (procurement function) will become more sensitive in selecting new supplier. Definitely changes will be incorporated in the process of supplier selection because every organization wants to avoid the same mistake happening twice.

## **Effect of Previous Supplier Relationship on new Supplier Selection**

A more critical theme “Effect of previous supplier relationship on new supplier selection” emerged that highlighted different sub-themes in the coding process. All participants in the focus group discussion agreed to the fact that previous suppliers’ relationship definitely affects the selection of new suppliers.

*“You might be more considerate about something you overlooked. It is a continuous development and learning process. If you have to select a new supplier, the very first challenge is to break you comfort zone. If you willing for this, you have to reform your criteria and SOPs for supplier selection.”*

Another comment was that human element has to be reduced while refining the supplier selection criteria, which is not completely possible. There will be a human element and an unintentional decision bias might exist while selecting new supplier. In fact, Chen and Chao (2012) identified a highly structured mechanism to evaluate suppliers based on multi-criteria

decision making (MCDM) but the baseline criteria on which this model works is highly subjective and prone to human error. Another sub-theme that emerged from this theme is reduced leverage to the new supplier. Respondents believed that there are different leverages a firm may extend to their suppliers in terms of flexible lead time or timely payment schedules. When switching suppliers, the firm might reduce these leverages by focusing on strict lead times or demanding extended payment schedules. Trust is one of the reasons that will play a pivotal role in differentiating firms' relationship with previous and new supplier.

In order to explore the phenomena of decision biases, the moderator also asked about some of the bad experiences, the participants had with their suppliers that prove to be an anchor or reference point when making a decision of selecting new supplier. This phenomena is well grounded in literature as Behavioral Supply Management (BSM) and has raised the level of attention given to the deviations from standard assumptions of rational paradigms in decision making (Kaufmann et al., 2012). In many situations, reference-dependent valuation affects decision makers' behaviors that diverge from rationally optimized decision otherwise.

### **Relationship Sensitivity**

As discussed above, bias in supplier selection also emerged a new theme that is sensitivity in buyer-supplier relationship. The phenomenon of sensitivity was discussed by majority of the participants in focus group that may affect supplier selection decision. Degree of sensitivity in relationship depends on nature of supplies. For routine supplies, the relationship is quite sensitive as there a number of alternatives available. For strategic suppliers, the degree of sensitivity is quite low. Sensitivity also comes into play when buyer and supplier share the same process. As in case of outsourcing where an outsourced partner completes a part of a firm's process. In this case the relationship will be entirely different as the firm and its supplier are sharing common objectives. Sensitivity also depends on risk involved. Dupont et al. (2018) studied the impact of delivery failure risk on supplier selection decision. Higher the risk involve, greater would be the sensitivity of the relationship between buyer and supplier.

### **Common factors of failed buyer-supplier relationship**

The last theme that emerged from coding was the key factors that contribute towards failure of buyer supplier relationship. There are two key factors from buyer (firm) and supplier's end: Delayed payments and delayed deliveries respectively. Lack of trust is also an important reason that contributes towards a failed buyer-supplier relationship. Kim and Choi (2015) theorized two orthogonal aspects in buyer-supplier relationships: (1) relational posture

(means to what extent the firms regard each other as cooperative partners) and (2) relational intensity (means to what extent the operations of buyer and supplier are linked together). Based on these dimensions, a typology was developed that defined four types of buyer-supplier relationships: Deep, Sticky, Transient and Gracious. A sticky relationship is based on lack of trust and information sharing and most probably results in failure.

## Discussion

The in-depth examination of impact of decision biases on supplier selection unfolded different dimensions explained above in various themes and sub-themes. Supplier selection impacts effective procurement and becomes a reason for firms' effectiveness. There exists a significant positive relationship between procurement process and firm performance (Othman et al., 2015). Effective supplier selection is imperious for cost saving and thus offering better quality to customer (Tracey and Leng Tan, 2001). Screening suppliers is also an important aspect of procurement process. Conforming to the outcomes of our focus group discussion on supplier screening process, Rezaei et al. (2014) proposed a two layer model for supplier selection airline industry. The first phase is conjunctive screening phase in which the initial set of potential suppliers is reduced to a smaller set prior to a comprehensive analysis for final selection. Then, in the second phase, a quantitative model is used to evaluate suppliers against different criteria and sub-criteria.

Bias in decision making process comes into play at two stages: while establishing the selection criteria and while making final selection of the supplier. The interviews revealed strong concerns about interplay of bias and supplier selection criteria. Bias largely depends upon the degree of relationship sensitivity between buyer and supplier. Sensitivity can be affected by various factors like risk, price, lead time and quality. When establishing supplier selection criteria, it is evident from focus group interviews that reference points deeply affect supplier selection process and may deviate decision maker from highly rational and optimizing approach towards more intuitive and subjective decision making. Failed relationships become a trigger towards relationship sensitivity in future supplier relationship and can also be a source of decision bias especially when there is a need to make immediate switching decision. The failed relationship will become a reference point and new supplier will be screened and evaluated on the basis of that reference point. We use insights from transaction cost economics theory that explains that decisions are driven through bounded rationality and information impactedness. Our results conforms with the McIvor (2009) four

elements in transaction cost economics theory. Our qualitative analysis showed that there is indeed an impact of previous buyer supplier relationship on establishing supplier selection criteria for a new supplier and decision can be biased based on degree of sensitivity of the relationship with the previous supplier.

### **Conclusions**

The qualitative study explored the key supplier selection criteria that may be affected by any decision-making bias based on existing and past supplier relationship and relationship sensitivity. The results through focus group discussion revealed that there is indeed an impact of decision bias on supplier selection criteria, and it largely depends on intuition and subjectivity of the decision maker. The participants in focus group shared their own experiences in their respective organizations that further solidify our propositions. Thematic analysis was conducted in Nvivo 11 and based on the transcribed interviews; six themes emerged with various sub-themes. One major limitation of this study is that the results are reported from the outcome of discussion with one focus group. There are two key processes involved in supplier selection: supplier selection criteria and supplier evaluation. Supplier evaluation is majorly based on quantitative modeling techniques. This study focused primarily on supplier selection criteria.

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**Appendix I: Interview Protocol Form (Focus Group)****Interview Protocol**

Institutions/Company Name:

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Interviewee (Title and Name): \_\_\_\_\_

Post Interview Comments or Leads:

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**“Supplier Selection and Decision Biases” Interview****Introductory Protocol**

*To facilitate our note-taking, we would like to audio tape our conversations today. Please sign the protocol form. For your information, only researchers on the project will be privy to the tapes, which will eventually be transcribed for the study. Essentially, (1) all information will be held confidential, (2) your participation is voluntary and you may stop at any time if you want to. Thank you for your willingness to participate.*

*We have planned this interview to last no longer an hour. During this time, we have few questions that we would like to cover.*

Signature (consent to do the interview)

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**Introduction**

We are students of Lahore University of Management Sciences (LUMS) and currently studying a course on Decision Behavior as a mandatory requirement of our PhD program. You have been selected to speak with us today because you have been identified as someone who has a great deal of experience in procurement decisions in an organization. Our research focuses on understanding the criteria based on which a firm chooses its supply chain partners (vendors). What role is played by different biases in the decision-making process and what are the challenges you face while establishing criteria for procurement decisions.

**Vendor Selection Criteria:****Upfront Questions:**

1. What do you think is the role of selection criteria in selecting appropriate vendors for the organization?
2. Prioritize some of the key supplier selection criteria while making a decision.  
Probes: [What is your rationale behind this prioritizing? Has this criteria sustained or has it changed over time?]
3. Do you think your selection criteria are influenced by any bias?  
Probe: [What bias you might think has come into play while making vendor selection decision?]
4. How frequently your organization changes vendors?  
Probe: [To what extent vendor selection criteria changes as you switch from one supplier to another].
5. How sensitive is an organization's relationship with particular vendors?  
Probe: Do you think this sensitivity of the relationship affects your future vendor selection?
6. Suppose you have 1-2 minutes to conclude our talk about the role of supplier relationship that might bias your decision for future supplier selection, how would you conclude that?

**Back-end questions:**

1. What are supplier selection criteria in general?
2. What biases might come into play based on buyer-supplier relationship?
3. How do these biases affect future supplier selection?
4. What are the prioritizing principles of supplier selection criteria in the absence of any decision bias?
5. What are the prioritizing principles of supplier selection criteria in the presence of any decision bias?