

**THE VALUE OF VALUES: THE ROLE OF PERSONAL VALUES,
ORGANIZATIONAL VALUES AND VALUES-CONGRUENCY IN BUSINESS
PURCHASE DECISIONS.**

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Dedication

This research thesis is dedicated to my mother, who has been the inspiration behind all my academic achievements since grade 1. I couldn't have come this far without her unfailing and unconditional encouragement, support and prayers.

Abstract

The study proposed and tested a theoretical framework incorporating the role of personal values, organizational values and values-congruency in the business purchase decisions. Using the Supply Chain Management Association of Canada as the sampling frame, the study tested hypotheses about the potential relationships between perceived personal values of employees, the perceived organizational values, values-congruency of personal/ organizational values, and the perceived role values play in the business purchase decisions. The study found a significant relationship between the perceived humaneness or benevolence values of the organizations and the perceived role the same values played in the business purchase decisions. The study also showed a similar significant relationship between the perceived humanity or compassion values of the organizations and the perceived role played by the profitability values in the business purchase decisions. Lastly, the study found a significant relationship between the perceived level of formalization in the business purchasing function within the organizations and the perceived role values play in the business purchase decisions. The study proposes theoretical and managerial implications in the fields of business purchasing, supply chain management and business-to-business marketing.

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Introduction

Pat was frustrated as he walked out of the purchasing manager's office. As a sales rep for a reputed supplier of industrial products, he had been pursuing sales opportunities with this company for over 3 years. He expected to win this order as he believed that he truly understood the customer's requirements. He had quoted a cost-effective solution and had taken the time to demonstrate that using total cost analysis. He had developed an excellent rapport with the customer's purchasing and operations teams. His proposal exceeded customer expectations as expressed by several members of the purchasing team. On top of all that, he had also thrown in some free extras to sway the customer. Despite all this, he still failed to get the order.

Pat shook his head in disbelief as he got into his car. He wondered what he was overlooking. What was it that all his years of schooling and experience in business-to-business/ industrial sales and marketing had not taught him? "If only I could read the purchasing manager's mind", he mused to himself. He paused at this thought for a moment and realized that he hadn't paid much attention to the psychological or behavioral factors that may have influenced the decision. The more he thought about this, the more he realized that he is not alone, as psychological or behavioral factors have not received much attention in the business purchasing profession or academia. He wondered if understanding the influence of the purchasing manager's personal values and organizational values on the business purchase decision would have helped him win the order.

The above story represents the state of the business purchasing profession as well as research literature. There is a lack of understanding of the influence of psychological or

behavioral factors, especially personal and organization values, and values-congruency on business purchase decisions. The scholarly literature in the field has long recognized the influence of behavioral or psychological factors (Sheth, 1973; Webster and Wind, 1972; Sashi, 2009; Kauffman, 1996; Kohli, 1989; Bellizzi, 1999) including values (Plank, Landeros and Plank, 1994; Sheth, 1973; Webster and Wind, 1972; Sashi, 2009; Fritzsche and Oz, 2007) on business purchase decisions. However, this area has not received much theoretical nor empirical attention by scholars in the business purchasing realm (Carter, Kaufman and Michel, 2007; Bendoly, Croson and Schultz, 2010; Sashi, 2009; Kaufman, Michel and Carter, 2009; Plank et al., 1994). There are two major schools of thought in the business purchasing literature. The first school treats business purchasing agents as rational decision makers and focuses on the influence of economic factors on business purchase decisions (Sashi, 2009; Katsikopoulos and Gigerenzer, 2013; Bendoly et al., 2010). The second school considers business purchasing situations as socially constructed realities and focuses on the influence of social factors on business purchasing decisions (Sashi, 2009; Kohli, 1989). The former school of thought appears to be more prevalent than the latter one in the business purchase literature.

Scholars have recently started to incorporate behavioral or psychological factors in business purchasing research (Carter et al., 2007; Bellizzi, 1999; Kaufmann, Michel and Carter, 2009; Bendoly et al., 2010; Katsikopoulos and Gigerenzer, 2013). However, this stream of work appears to be focused on identifying decision biases in business purchasing situations and proposing strategies to counter them to improve the quality and effectiveness of the business purchase decisions (Kaufmann et al., 2007; Carter et al., 2007; Kaufmann, Carter and Buhrmann, 2010, 2012). Interestingly, except for a few isolated studies (Plank

et al., 1994), the literature has not utilized personal and (or) organizational values, or values-congruency, to understand business purchase behavior, contrary to their extensive use in organizational research and consumer marketing. Scholars lack effective tools and methods to examine the influence of personal/ organizational values and values-congruency on business purchasing (Meglino and Ravlin, 1998; McDonald and Gandz, 1991, 1993; Finegan, 2000; Suar and Khuntia, 2010; Liedtka, 1989; Sheth, 1996). There is also a general lack of theory in business purchase literature, being a field which is considered still in its infancy (Buvik, 2001; Chicksand, Watson, Radnor and Johnston, 2012; Sheth, 1996).

The present study attempts to address these gaps, by examining the relationship between personal values, organizational values and values-congruency and business purchase decisions. In doing so the study also contributes to the theory as well as tools and methods to study this phenomenon, including validating and expanding the list of values relevant to business purchasing research. The study also identifies implications and strategies for both practitioners and scholars in the fields of business purchasing, supply chain management and business-to-business marketing to optimize buying, selling and marketing activities/ operations.

The author has over fifteen years of experience in the industry, most of which has been spent in business purchasing, both on the buying and selling/ marketing sides. The author has been interested in understanding business purchasing behavior most of his professional career and has leveraged his industrial/ business knowledge and experience in the present study.

The rest of the thesis consists of the following major sections: (1) literature review, (2) research objectives and questions, (3) theoretical framework and research hypotheses, (4) research method, (5) data analysis, (6) discussion and findings, (7) contributions and implications, (8) limitations and future research, and (9) conclusion.

Literature Review

Defining Business Purchasing

Business purchasing falls under the supply chain management function, which includes activities such as procurement, conversion, logistics and distribution to manage the firms' supply chain (Morali and Searcy; 2012; Sarkis, 2012). Business purchasing is a critical business activity (Carter and Narasimhan, 1996; Kaufmann et al., 2009), which involves sourcing goods and services in support of the firm's value chain to produce goods and services for its customers (Kausik and Mahadevan, 2012). The importance of the purchasing function in businesses is exemplified by large volumes and values involved in the purchase decisions, and significant investments in resources and capabilities by organizations in the purchasing function (Bellizzi, 1999). In today's global market place, business purchasing is gaining in importance for firms of all sizes (Carter and Narasimhan, 1996) as they are: (1) under pressure to reduce their input costs while maintaining and (or) improving the quality, reliability and performance of the goods and services purchased (Kausik and Mahadevan, 2012), and (2) facing increasingly complex and uncertain purchase situations (Carter et al., 2007). Business purchasing is therefore becoming a strategic area for firms introducing significant changes to how firms approach, organize and handle the purchasing function to yield competitive advantages (Kausik and Mahadevan, 2012; Carter and Narasimhan, 1996; Sheth, 1996).

Webster and Wind (1972) defined business purchasing as a decision making process by individuals in a business, industrial or organizational setting. These are complex decisions as they happen over longer periods of time, require information from multiple sources and include several inter and intra organizational interactions amongst the various

stakeholders (Webster and Wind, 1972; Sheth, 1973). The business purchasing decision process typically involves six steps: (1) identification of buying need, (2) development of specifications, (3) generation of alternatives, (4) evaluation of alternatives, and (5) selection of supplier or product/ service (Webster and Wind, 1972; Bellizzi, 1999; Kaufman, Michel and Carter, 2009) and (6) post purchase evaluation (Bellizzi, 1999). The business buying process is expected to result in the maximum value received by the business buyer from the purchase decision (Sashi, 2009) in line with the organizational goals and objectives (Bellizzi, 1999). However, such optimal decisions may not occur in most or all of the situations as several other factors also come into play (Webster and Wind, 1972; Sheth, 1973; Sashi, 2009; Kohli, 1989; Kauffman, 1996; Johnston and Bonoma, 1981), that are covered later in this section.

Being a relatively new field, the research agenda in the business or industrial purchasing area is very diverse and expanding (Chicksand et al., 2012; Sheth, 1996), drawing from a range of theories both from within and from other disciplines (Chicksand et al., 2012; Bauvik, 2001). A number of scholars have pointed towards a general lack of theoretical frameworks and dominant theories in business purchasing (Buvik, 2001; Chicksand et al., 2012; Sheth, 1996). The industrial buying behavior/ industrial marketing and principal agent theory are the few known theories in the literature that are based on behavioral or psychological factors (Chicksand et al., 2012; Bauvik, 2001). However, they fail to sufficiently cover several important behavioral or psychological factors, including the concept of values in business purchasing, as discussed in the following sub-sections.

Overall Factors Influencing Business Purchasing

The buyer behavior in business or industrial markets has received much less scholarly attention compared to the consumer markets (Sashi, 2009; Sheth, 1973, 1996; Webster & Wind, 1972; Bellizzi, 1999). This is peculiar as understanding buyer behavior in the business markets is important for businesses to develop successful marketing strategies (Sashi, 2009, Webster and Wind, 1972). The buyer behavior in business markets is more complex than in the consumer markets due to the intricate and risky nature of business purchasing decisions and the involvement of a large number of stakeholders in the buying process (Sashi, 2009, Sheth, 1973; Webster and Wind, 1972).

A number of models have been proposed in the literature for explaining business or industrial buying behavior (Sheth, 1973; Wind and Webster, 1972; Sashi, 2009, Kauffman, 1996; Kohli, 1989). The earlier models for business buyer behavior (Sheth, 1973; Webster and Wind, 1972) were derived from the consumer buying behavior field (Howards and Sheth, 1967 cf: Sheth, 1973) and listed various factors that influence business or industrial buying behavior. However, these earlier models did not go to the length of addressing relationships amongst the various variables, which is important to gain understanding of the business buying behavior (Sashi, 2009; Kauffman, 1996). Even though these earlier models identified both rational and non-rational/ behavioral factors, and acknowledged the importance of both, in understanding the business purchasing behavior (Sheth, 1973; Webster and Wind, 1972; Kohli, 1989; Kauffman, 1996), they failed to create significant scholarly interest in the non-rational/ behavioral factors to understand the business purchase behavior, except for a few isolated studies with limited

scope and implications (Carter, Kaufmann and Michel, 2007; Kaufmann et al., 2009, Kaufmann et al., 2010, 2012; Plank et al., 1994).

The later models in the business buyer behavior expanded the earlier models to include more variables as well as the relationships amongst them to improve the understanding of business purchase decisions (Kohli, 1989; Kauffman, 1996; Sashi, 2009). Together, the major factors discussed by the earlier and later models that influence business buyer behavior are: (1) personal factors (Sheth, 1973; Webster and Wind, 1972; Kauffman, 1996; Kohli, 1989), (2) organizational factors (Sheth, 1973; Webster and Wind, 1972; Kauffman, 1996; Johnston and Bonoma, 1981), (3) group or social factors (Sheth, 1973; Webster and Wind; Sashi, 2009; Kauffman, 1996; Kohli, 1989; Johnston and Bonoma, 1981), (4) environmental factors (Webster and Wind, 1972; Kauffman, 1996;), (5) product and market factors (Sheth, 1973; Sashi, 2009; Kaufmann, 1996; Johnston and Bonoma, 1981), (6) decision process factors (Sheth, 1973, Kaufmann, 1996; Sashi, 2009) and (7) situational factors (Kauffman, 1996, Sashi, 2009; Kohli, 1989; Johnston and Bonoma, 1981).

Most of the research in the field of business purchasing has utilized economic models and theories to explain business buying behavior (Sashi, 2009; Webster and Wind, 1972, Bellizzi, 1999). This can be attributed to the implicit rational decision making assumption in business purchasing (Sashi, 2009; Bendoly et al., 2010; Bellizzi, 1999), due to: (1) the significant values and volumes involved, (2) the need for the decisions to be in line with organizational goals and objectives, (3) the requirement to justify purchase decisions to others (Bellizzi, 1999), and (4) the availability of business purchasing resources and expertise within organizations to facilitate rational decision making

(Bendoly et al., 2010). Under this traditional view, business buyers engage in rational decision making processes after collecting and processing all relevant information (Katsikopoulos and Gigerenzer, 2013; Bellizzi, 1999) with an objective to get the lowest cost (Sashi, 2009) and highest functional or utilitarian value (Bellizzi, 1999) from the business purchase decisions for the organization.

The influence of social or group factors on business purchase decisions has also received considerable attention in the business purchase literature (Sheth, 1973; Webster and Wind; Sashi, 2009; Kauffman, 1996; Kohli, 1989; Bendoly et al., 2010; Johnston and Bonoma, 1981). Social and interpersonal influences consist of internal and external relationships and interactions surrounding the purchase situation (Webster and Wind, 1972). Most of the business purchase decisions are combined decisions involving several stakeholders that form buying centers (Sheth, 1973; Sashi, 2009; Kauffman, 1996). A buying center is comprised of all people in the organization who are involved in the business purchase decision (Webster and Wind, 1972; Kauffman, 1996). The members of the buying center change with the type of purchase situation (Johnston and Bonoma, 1981) and differ in their purchase criteria (Sheth, 1973), role expectations, behavior and relationships (Webster and Wind, 1972). Organizations with similar needs but different buying centers will differ in their buying behavior (Sashi, 2009). The business-to-business sellers and marketers therefore need to develop products and services (Sashi, 2009), and marketing communication strategies for targeting the members of the buying center at the purchasing organizations.

In recent years, Sashi (2009) proposed an “integrative” model for business buyer behavior by combining various economic and behavioral models and variables from the

business or industrial buying literature. However, the model assigns high importance to the buying center and the role it plays in the business or industrial buying situation and neglects the psychological or behavioral background of the primary purchasing agents and members of the buying center. The model also does not incorporate several organizational, environmental and situational factors that appear in the earlier models of business buying behavior, limiting its comprehensiveness.

Behavioral Factors in Business Purchasing

The influence of personal/ individual, behavioral and psychological factors in business purchase decisions has failed to receive much theoretical or empirical attention in the literature (Carter et al., 2007; Kaufmann et al., 2009; Bendoly et al., 2010). Lately, researchers have begun to address this gap by incorporating non-rational, non-utilitarian or behavioral aspects in the field of business purchasing by applying concepts from cognitive and social psychology, economics and decision making/ human judgment (Carter et al., 2007, Kaufmann et al., 2009, Kaufmann et al., 2010, 2012). This research interest in the non-rational or behavioral/ psychological approach in the business purchasing decisions is expected to grow in the future with the increase in the complexity and uncertainty in business purchase decisions (Carter et al., 2007). Scholars have argued that business buyers may not follow a completely rational approach in their business purchase decisions (Bendoly et. al., 2010; Bellizzi, 1999; Kaufmann et al., 2009; Kaufmann et al., 2010, 2012; Carter et al., 2007; Katsikopoulos and Gigerenzer, 2013) as: (1) they are humans and their emotions and biases are likely to influence their decisions (Bellizzi, 1999); (2) they may be looking for a satisfactory rather than an optimizing decision, attempting to work under time and resource constraints (Kaufmann et al., 2009), and (3) they become influenced by

the buying center and (or) situational factors involved in the business purchase situations (Kohli, 1989).

Individuals are at the heart of the business purchasing process, and act as “constrained decision makers”, whereby their psychological or behavioral factors are influenced by the inter-personal and organizational context (Webster and Wind, 1972). As discussed earlier, several behavioral or non-rational factors related to the business purchase decisions have been identified in the literature (Webster and Wind, 1972; Sheth, 1973; Sashi, 2009; Kohli, 1989; Kauffman, 1996; Carter et al., 2007; Bendoly et al., 2010; Kaufmann et al., 2009; Kaufmann et al., 2010, 2012; Katsikopoulos and Gigerenzer, 2013; Bellizzi, 1999). These can be broadly categorized as, personal or individual variables (Webster and Wind, 1972; Sheth, 1973), and social or group variables (Webster and Wind, 1972; Kohli, 1989; Kaufman, 1996). The personal or individuals factors identified in the literature include: (1) personality characteristics (Webster and Wind, 1972; Sheth, 1973; Bellizzi, 1999), (2) motivation (Webster and Wind, 1972; Bendoly et al., 2010), (3) biases and heuristics (Bendoly et al., 2010; Carter et al., 2007; Kaufmann et al., 2009; Kaufmann et al., 2010, 2012; Katsikopoulos and Gigerenzer, 2013), and (4) miscellaneous psychological factors like personal goals, “perceived role set”, and learning (Webster and Wind, 1972); background, access to information, past experiences and “perceptual distortion” (Sheth, 1973); “perceived risk” (Kohli, 1989; Kauffman, 1996); and influence (Kohli, 1989). Similarly, the social or group factors identified in the literature relate to business purchase decisions, include: (1) group dynamics (Bendoly et al. 2010; (2) social relationships/ interactions (Webster and Wind, 1972), (3) social power (Webster and Wind,

1972; Kohli, 1989), and (4) buying center (Webster and Wind, 1972; Sheth, 1973; Kohli, 1989; Sashi, 2009; Kauffman, 1996; Johnston and Bonoma, 1981).

As mentioned earlier, from amongst the social or group factors, the buying center has been studied quite extensively by scholars in the business purchasing field (Johnston and Bonoma, 1981, Bellizzi, 1989; Kohli, 1989). Lately, biases and heuristics, which falls under the personal or individual factors, have started to receive attention in the business purchasing literature (Carter et al., 2007; Kaufmann et al., 2009; Katsikopoulos and Gigerenzer, 2013; Bendoly et al., 2010, Kaufmann et al., 2010, 2012). Researchers have named this recent stream of work “behavioral supply management” (Carter et al., 2007; Kaufmann et al., 2009; Kaufmann et al., 2010, 2012) or “behavioral operations management” (Bendoly et al., 2010; Katsikopoulos and Gigerenzer, 2013). Following in the footsteps of fields like Marketing, Finance and Accounting, this relatively new field is drawing extensively from the fields of social/ behavioral sciences, psychology and economics (Katsikopoulos and Gigerenzer, 2013) to understand the influence of heuristics and biases on business purchase and operations decisions (Carter et al., 2007).

Biases are “systematic” deviations or “errors” in the decision making process (Bendoly, et al., 2010), whereas, heuristics are simple “rules of thumb” to arrive at decisions quickly under uncertainty (Tversky and Kahneman, 1975), saving time, effort and resources (Katsikopoulos and Gigerenzer, 2013; Bendoly et al., 2010). Biases and heuristics increase the efficiency and potential effectiveness of decisions (Tversky and Kahneman, 1975) including business purchase decisions (Carter et al., 2007). However, they may also lead to errors (Tversky and Kahneman, 1975) or reduce the effectiveness (Carter et al., 2007) of decisions. Heuristics and biases have been used by several fields in

the business and management area e.g. Marketing, Finance and Accounting (Carter et al., 2007) on the premise that understanding them, and their causes would help in avoiding them and thereby improving the quality of decision making (Carter et al., 2007; Tversky and Kahneman, 1975; Kaufmann et al., 2009; Kaufmann et al., 2010, 2012). It is important to note that heuristics are not always undesired as some heuristics can also save time and still be accurate (Tversky and Kahneman, 1975; Katsikopoulos and Gigerenzer, 2013).

It is encouraging to see the emerging interest in the behavioral side of business purchasing that incorporates psychological and behavioral factors in improving the understanding of business purchase decisions (Carter et al., 2007; Bendoly et al., 2010; Katsikopoulos and Gigerenzer, 2013). However, the focus of the scholars in this exciting area seems to be limited to identifying biases and heuristics (Carter et al., 2007; Bendoly et al., 2010; Katsikopoulos and Gigerenzer, 2013), understanding their causes, and proposing debiasing strategies to counter them (Kaufmann et al., 2009; Kaufmann et al., 2010, 2012). There is a need for considering the impacts of individual as well as corporate cultures and personality characteristics on business purchase decisions in the literature (Carter et al., 2007; Bellizzi, 1989; Sheth, 1973; Webster and Wind, 1972). The concept of values, which closely aligns with both organizational cultures and individual/ personal characteristics (Plank et al., 1994), has received very little attention in the business purchase literature despite its extensive use in consumer marketing/ behavior and organizational/ business research. This area is explored in detail in the next sub-section of the literature review as it forms the basis of the current study.

Values in Decision Making

Values and behavior. Several scholars have argued that values influence individual/ consumer behavior (Rokeach, 1973; Schwartz and Bilsky, 1987, 1990; Cai and Shannon, 2012; Zhou, Thøgersen, Ruan and Hunag, 2013; Teck Weng and Cyril de Run, 2013; Manchiraju and Sadachar, 2013; Shaw, Grehan, Shui, Hassan and Thomsen, 2005; Ajzen and Driver, 1992; Ajzen, 1991, 2002; Madden, Ellen and Ajzen, 1992), as well as organizational behavior (Posner, 2010; Suar and Khuntia, 2010; Finegan, 2000; McGuire, Garvan, Saha and O'Donnell, 2006; Chatman, 1989; McDonald and Gandz, 1991, 1993; Kumar, 2012; Liedtka, 1989; Fritzsche and Oz, 2007) such as business purchase behavior (Sheth, 1973; Webster and Wind, 1972; Sashi, 2009; Plank et al., 1994). Behavior which is inconsistent with an individual's values is likely to result in dissatisfaction, whereas, similarities in values are expected to result in improved performance (Meglino and Ravlin, 1998). According to scholars, organizational values define the organization's culture (Suar and Khuntia, 2010; Chatman, 1989; Plank et al., 1994) and are as important as personal values (Rokeach, 1973). Both personal and organizational values are therefore expected to influence business purchase behavior and decisions (Plank et al., 1994).

Contrary to the limited attention in organization, business-to-business/ industrial marketing (Fritzsche and Oz, 2007) and business purchasing literature (Plank et al, 1994), personal values have been used extensively in the consumer marketing and consumer behavior fields to understand consumer behavior and decision making (Zhou et al., 2013, Cai and Shannon, 2012; Teck Weng and Cyril de Run, 2013; Manchiraju and Sadachar, 2013; Shaw et al., 2005). Examples include studies of the influence of personal values on: (1) mall shopping behavior (Cai and Shannon, 2012), (2) ethical consumption (Manchiraju

and Sadachar, 2013; Shaw et al., 2005), (3) sales promotion techniques preferences (Teck Weng and Cyril de Run, 2013), and (4) organic food purchase (Zhou et al., 2013).

The theory of planned behavior (Ajzen, 1991, 2002; Madden et al., 1992; Ajzen and Driver, 1992) has emerged as one of the most widely used theories in the field of consumer behavior (Zhou et al., 2013; Teck Weng and Cyril de Run, 2013; Ajzen, 1991; Madden et al., 1992). The theory incorporates values and reinforces the utility of using them in understanding behavior. According to the theory, attitude towards behavior, subjective norms and perceived behavioral control influence behavioral intentions, and in turn, behavioral intentions and the perceived behavioral control, influence the actual behavior (Ajzen, 1992; Madden, Ellen and Ajzen, 1992; Ajzen, 2002; Zhou et al., 2013; Teck Weng and Cyril de Run, 2013; Ajzen and Driver, 1992). The theory further proposes that behavioral, normative and control beliefs, or values, act as the antecedents for the attitude towards the behavior, social norms and perceived behavioral control (Ajzen, 1991, 2002; Madden et al., 1992; Ajzen and Driver, 1992). The perceived moral obligation or values also improve the prediction of behavioral intentions and actual behavior from the theory of planned behavior (Ajzen, 1991; Madden et al., 1992).

Values. A value is defined as a stable “belief” that (1) defines a particular “mode of conduct” or “end-state of existence”, (2) directs, justifies and assesses actions and decisions, (3) goes beyond specific situations remaining relatively stable over time, and (4) exists in a hierarchy based on relative significance forming a “value system” (Rokeach, 1973; Schwartz and Bilsky, 1987, 1990). Values represent concepts that are considered “desirable” by individuals and society (Suar and Khuntia, 2010) reflecting their “oughtness” or righteousness (Rokeach, 1973).

Several explanations have been proposed in literature on how values are formed. According to some scholars, values are formed under the influence of “societal”, “cultural” and “personal” experiences and learning (Rokeach, 1973) including exposures to organizations or work settings (McGuire et al., 2006; Suar and Khuntia, 2010), and are a product of “context” (Suar and Khuntia, 2010; Chatman, 1989). Other researchers have attributed basic human needs, such as: biological, social interaction and group survival needs, for the development of values (Schwartz and Bilsky, 1987, 1990). Values are mostly formed in the early stages of life (McGuire et al., 2006; Suar and Khuntia, 2010) and stay relatively stable over the rest of one’s life (Rokeach, 1973; Schwartz and Bilsky, 1987, 1990). However, they may change under certain conditions (Meglino and Ravin, 1998; Chatman, 1989) or over time due to changes in societal, cultural and personal experiences (Rokeach, 1968 and 1971, cf: Rokeach, 1973).

Values Taxonomies. Several classifications have been proposed in the literature for understanding and measuring values (e.g. Allport, Vernon and Lindzey, 1960; cf: McDonald and Gandz, 1991; England, 1967; cf: McDonald and Gandz, 1991, 1993; Rokeach, 1973; Schwartz and Bilsky, 1987, 1990; McDonald and Gandz, 1991, 1993). Most of these taxonomies have roots in the fields of social psychology with focus on individuals and society, and therefore have limited relevance for the organizations (McDonald and Gandz, 1991, 1993). Values are distinguished based on whether they relate to the “desirable end state” (terminal values) or a means to achieving it (instrumental values) (Rokeach, 1973; Schwartz and Bilsky, 1987, 1990). Values are also differentiated based on whether they serve collectivist or individualist concerns, or both (Schwartz and Bilsky, 1987, 1990).

The initial taxonomies for values in the literature were developed by Allport et al. (1960; cf: McDonald and Gandz, 1991, 1993) and England (1967; cf: McDonald and Gandz, 1991, 1993) and formed the basis for the later list of values (Rokeach, 1973; Schwartz and Bilsky, 1987, 1990). The values model by Allport et al. (1960; cf: McDonald and Gandz, 1991, 1993) addressed individual or personal values and was based on six types of personality characteristics: (1) theoretical, (2) economical, (3) aesthetic, (4) social, (5) political, and (6) religious. On the other hand, England (1967; cf: McDonald and Gandz, 1991, 1993) addressed organizational values by identifying sixty six values classified into five categories: (1) goals of business, (2) personal goals, (3) groups of people, (4) ideas tied to people, and (5) ideas related to general topics. Both these earlier classifications/ lists of values suffered from several limitations. The Allport et al. (1960; cf: McDonald and Gandz, 1991, 1993) model of values lacked specificity and relevance to organizations (McDonald and Gandz, 1991, 1993), whereas, the values identified by England (1967; cf: McDonald and Gandz, 1991, 1993) contained superfluous items and lacked practicality due to a large list of values (McDonald and Gandz, 1991, 1993).

Rokeach (1973) and Schwartz and Bilsky (1987, 1990) are the most widely used lists of values used in the literature. Rokeach (1973) identified 18 terminal and 18 instrumental values that have been widely used to measure personal as well as organizational values. However, Rokeach's (1973) list of values has been criticized by some researchers for its lack of empirical roots and relevance to organizations (McDonald and Gandz, 1991, 1993). Using the Rokeach values as "markers" Schwartz and Bilsky (1987, 1990) proposed several value types to define the structure of values: enjoyment, security, achievement, self-direction, restrictive conformity, pro-social and maturity,

power, self-determination, equity, and social justice. These value types can be placed on a two-dimensional plane consisting of two bi-polar sets: openness to change and conservation on one axis, and self-transcendence and self-enhancement on an orthogonal axis, to categorize the values (Schwartz and Bilsky 1987, 1990). Since the purpose of Schwartz and Bilsky (1987, 1990) was to develop a “universal structure” of values, this taxonomy suffers from a lack of relevance to organizational research (McDonald and Gandz, 1991, 1993), similar to Rokeach’s list of values (Rokeach; 1973).

In order to address the limitations of earlier values’ taxonomies and models, especially with respect to the organizational or business research, McDonald and Gandz (1991, 1993) identified 24 values relevant to organizations. They grouped them into four categories: (1) task oriented, (2) relationship oriented, (3) change related and (4) status quo related; to assist organizational researchers and practitioners. Twenty two of the twenty four values proposed by McDonald and Gandz (1991, 1993) overlap with the earlier taxonomies such as Rokeach (1973) and Schwartz and Bilsky (1987, 1990). The authors argue that their list of values is more specific, less cumbersome and more relevant to organizations (McDonald and Gandz, 1991, 1993). However, to date this taxonomy has received limited use by organizational researchers (Kumar, 2012; Finegan, 2000). Few researchers have categorized McDonald and Gandz’s list of values through factor analysis (Kumar, 2012; Finegan, 2000). Finegan (2000) identified four factors: (1) humanity, (2) adherence to convention, (3) bottom-line, and (4) vision, whereas, Kumar (2012) identified eight factors: (1) harmony, (2) justice, (3) bottom-line, (4) progress, (5) conservative, (6) orderliness, (7) leadership, and (8) freedom. Since the list of values by McDonald and Gandz (1991, 1993) has been developed and applied primarily in the human resource

management field, it may have some limitations with respect to its application in business purchasing research.

Organizational Values. Organizational values define the organization's culture (Suar and Khuntia, 2010) and influence organizational goals and decision making (Liedtka, 1989; Posner, 2010; Chatman, 1989; Finegan, 2000) including business purchase decisions (Plank et al., 1994). Values are formed by the socialization process in the organizations (Suar and Khuntia, 2010; Chatman 1989; McDonald and Gandz, 1993), and are composed of the individual/ personal values of its members (Meglino and Ravlin, 1998; Kumar, 2012). Organizational values are influenced by organizations' "context" and are ingrained into the organization through its "rules, policies and processes" (Suar and Khuntia, 2010). Organizational values are formed and nurtured under the influence of organizations' leaders, founders, "significant events" and "industry affiliations" (McDonald and Gandz, 1993) and are the distinguishing characteristics of organizations or institutions (Rokeach, 1979; cf: Meglino and Ravlin, 1989).

There is a growing interest in studying values as organizations become more people-oriented (McGuire et al., 2006) and expect more from the work force to stay competitive in a global world (McDonald and Gandz, 1991, 1993). Scholars differ on which values are important for organizations (Meglino and Ravlin, 1998) but appear to agree that organizational values are as important as individual or personal values (Rokeach, 1973). Organizational values not only influence the organizations' goals and decision making processes (Liedtka, 1989; Posner, 2010; Chatman, 1989), but also help in "internal integration" as well as "external adaptation" in support of the organization's performance and survival (Meglino and Ravlin, 1998).

According to some scholars, the relationship between values and organizational decision making is “dynamic” and “complex” (McGuire et al., 2006) and has received limited attention in the literature (Liedtka, 1989; McGuire et al., 2006), especially in the organizational behavior area (Meglino and Ravlin, 1998). Some scholars on the contrary have argued that several studies have looked into the influence of values on the individual and organizational performance and outcomes (Posner and Schmidt, 1993). The current literature review found only a handful of studies in organizational research that have looked into the influence of personal and (or) organizational values on the organizational outcomes/ decision making process. Examples include studies examining the influence of personal and organizational values on: (1) job satisfaction (Kumar, 2012), (2) human resource decisions (McGuire et al., 2006); (3) ethical decision making (Suar and Khuntia, 2010); and (4) ethical purchase decisions (Plank et al., 1994; Fritzsche and Oz, 2005). Few studies which also considered values-congruency along with personal and organizational values are discussed in the next sub section.

These studies found both personal and organizational values respectively to influence organizational outcomes/ decisions. Some scholars found organizational values to influence organizational behavior (McGuire et al., 2006) more than personal values (Finegan, 2000; Kumar, 2012). Whereas others found personal values to influence the organizational decision making (Plank et al., 1994; Fritzsche and Oz, 2005; Suar and Khuntia, 2010). Some of this discrepancy can be attributed to the particular decision situation that the respective study attempted to address. Nevertheless, this does point towards a lack of consistent empirical findings related to the relationship between personal/ individual and (or) organizational values and organizational decision making.

Values-congruency. Scholars have argued that in addition to personal and organizational values, values-congruency also needs to be considered for understanding individual and organizational behavior (Chatman, 1989; Liedtka, 1989). Values-congruency refers to alignment, consistency, clarity or similarity between personal and organizational values (Posner, 2010; Liedtka, 1989; Chatman, 1989). There could be situations where the values of employees do not “align” with the organization’s values (Kumar, 2012). Placing employees in organizations with differing values will result in employee dissatisfaction and poor performance, which is not good for either the employees or the organizations (Kumar, 2012; Meglino and Ravlin, 1998; Suar and Khuntia, 2010; Finegan, 2000). On the other hand, values alignment or congruency is good for both individuals and organizations, as employees become more comfortable and productive in environments matching their values, which results in improved organizational performance (Finegan, 2000; Suar and Khuntia, 2010; McDonald and Gandz, 1993, Meglino and Ravlin, 1998; Chatman, 1989).

Several researchers have attempted to study values-congruency (Liedtka, 1989; Meglino and Ravlin, 1998; Posner and Schmidt, 1993; Posner, 2010; Suar and Khuntia, 2010; Kumar, 2012; Chatman, 1989; Finegan, 2000). Scholars have argued that organizational decisions depend on the alignment and interaction between organizational and personal values (Liedtka, 1989; Chatman, 1989). Any gap in the values “congruence” would lead to negative employee work attitude (Meglino and Ravlin, 1998) and poor organizational performance and outcomes (Liedtka, 1989; Kumar, 2012; Finegan, 2000; Suar and Khuntia, 2010; McDonald and Gandz, 1993; Chatman, 1989). Values-congruency can also help predict the changes to, and impact of, personal and organizational values on

each other (Chatman, 1989; McDonald and Gandz, 1993). Awareness of a lack of values-congruency can also lead employees to develop the values desired by their respective organizations to achieve values-congruency (McDonald and Gandz, 1991). Organizations can achieve values-congruency through “selection” and (or) “socialization processes” by recruiting people with values similar to the organizations and (or) exposing them to the organizational values after hiring (Chatman, 1989; Suar and Khuntia, 2010; McDonald and Gandz, 1993). However, some researchers have cautioned that there is an optimal level of values-congruency, beyond which, it becomes detrimental to both individuals and organizations (Chatman, 1989).

The influence of organizational values on the decision making process varies by the values of individuals and the specifics around the decision situation (Liedtka, 1989; Meglino and Ravlin, 1998; Chatman, 1989; Fritzsche and Oz, 2007). McDonald and Gandz (1993) argued that organizational vision and values are “interwoven” and complementary to each other whereby, the organizational vision feeds the “hard” and “soft” systems of the organization to influence behavior. In case of any conflicts between personal and organizational values, the stronger or clearer values will prevail, as the individuals and (or) the organization or institution will attempt to minimize the conflict in order to achieve internal and external harmony through achieving values-congruency (Liedtka, 1989).

Some researchers have attempted to empirically test values-congruency (Posner and Schmidt, 1993; Posner, 2010). Posner and Schmidt (1993) found strong support of Liedtka’s (1989) model and showed that personal values “congruence” and organizational values “clarity” are related to employees’ work commitment and perceived organizational ethical practices. Later, Posner (2010) replicated the study to confirm that the results held

over time and to understand the influence (if any) of demographic variables on values congruence. The study upheld the earlier results (Posner and Schmidt, 1993) and found that employee age, characterized by years of managerial experience and hierarchical position held in the organization, impacts individual values “congruency” and organizational values “clarity”, which is good for both employees and organizations (Posner, 2010). A significant shortcoming of the approach used in these studies though is asking respondents their perception of values-congruency rather than understanding the specific differences in values (Suar and Khuntia, 2010).

A handful of empirical studies looking into values-congruency along with the influence of personal and organizational values arrived at differing results (Finegan, 2000; Suar and Khuntia, 2010; Edwards and Cable, 2009). Suar and Khuntia (2010), found high values-congruency in private versus public organizations and showed that personal values are more influential in reducing unethical work practices and enhancing work behaviors than values-congruency or organizational values (Suar and Khuntia, 2010). In a similar study, Finegan (2000) found organizational values to be more influential on organizational commitment compared to values congruence or personal values. The study results showed that different sets of values impacted different types of organizational commitment (Finegan, 2000). Edwards and Cable (2009) found trust to explain the influence of values congruence, however, the study provided limited support to predictability of outcomes by values congruence. It is evident that further research is required in this area to improve the understanding of values-congruency and its impact on organizational outcomes and decision making in general (Edwards and Cable, 2009; Suar and Khuntia, 2010; Finegan, 2000), and business purchase decisions in particular.

Measuring Values and Values-congruency. Several scholars have acknowledged the complexity of measuring values and values-congruency calling for improving the existing tools and methods (Meglino and Ravlin, 1998; McDonald and Gandz, 1991, 1993; Finegan, 2000; Suar and Khuntia, 2013; Liedtka, 1989; Sheth, 1996). Multiple methods have been used in the literature to measure values and values-congruency. Researchers have therefore argued that the research question and theory should guide the selection of the method for measuring values and values-congruency (Meglino and Ravlin, 1998).

As most of the earlier values lists or scales were developed in the field of social psychology targeting a broad or universal application, they suffer from a lack of relevance to measure organizational values (McDonald and Gandz, 1991, 1993). In order to bridge this gap, McDonald and Gandz (1991, 1992) developed a list of values relevant to organizational research, working within the Human Resource Management area. Opportunity therefore exists to validate and refine McDonald and Gandz's list of values (McDonald and Gandz, 1991, 1993) to improve its application to organizational research in general and business purchasing research in particular. Finegan (2000) argued that measuring organizational values as perceived by individuals versus collective perceptions of individuals is a more accurate way to predict influence of organizational values on individuals.

Both ranking and rating scales have been used in the literature to measure values. Some researchers have preferred to use a ranking scale as it allows understanding of the relative importance or hierarchy of values (Rokeach, 1973; Schwartz and Bilsky, 1987, 1990; Chatman, 1989) despite being difficult to administer and limiting the level of statistical analysis that can be applied (Meglino and Ravlin, 1998; McGuire et al., 2006).

However, most of the researchers have preferred using a rating scale as it allows measuring values in “absolute” terms and applying higher order statistical analysis (Liedtka, 1989; Meglino and Ravlin, 1998; McGuire et al, 2006; Suar and Khuntia, 2010; Kumar, 2012; Edwards and Cable, 2009; Zhou et al., 2013; Teck Weng and Cyril de Run, 2013; Shaw et al., 2005; Manchiraju and Sadachar, 2014), with a few using a combination of rating and ranking scales as well (Cai and Shannon, 2012). Amidst this controversy, a few scholars have pointed out the possibility of transforming ranking data to rating data and vice versa, without any significant impact to the data integrity (McDonald, 1993; Finegan, 2000). However, some scholars have argued that this may lead to data quality issues (Meglino and Ravlin, 1998),

Several methods have been used in the literature to measure values-congruency with varying levels of accuracy and reliability (Kumar, 2012). These methods include: (1) asking respondents to rate values-congruency, with or without the provision of definitions for various values (Posner, 2010; Posner and Schmidt, 1993), (2) asking respondents to fill two similar surveys, one for their personal values and another for the organizational values (Kumar, 2012; Finegan, 2000), and (3) asking respondents to fill out a survey for personal values and independently/ separately assessing organizational values using the same survey/ list of values (Suar and Khuntia, 2010).

Chatman (1998) used Q-sort methodology to compare personal and organizational values profiles as a means to determine the “fit” and predict behavior. Edwards (1994) proposed a three dimensional model using hierarchical polynomial regression for measuring values-congruency, where x-axis represents personal values, y-axis represents organizational values and z-axis represents the outcome variable. Researchers have argued

that this three dimensional, curvilinear approach is superior to the traditional linear, bivariate and profile fit approaches (Edwards, 1994; Finegan, 2000; Edwards and Cable, 2009).

Summary of Gaps

It is evident from the literature review above that behavioral or psychological factors, both from seller and buyer perspectives, have not received much attention, especially empirically, in the business purchasing, supply chain management and business-to-business/ industrial marketing literature (Carter et al., 2007; Kufmann et al., 2009; Bendoly et al., 2010; Katsikopoulos and Gigerenzer, 2013). Even though scholars have started to incorporate behavioral and psychological factors in business purchasing, their focus seems to be on heuristics and biases, and the debiasing strategies (Carter et al., 2007; Kaufmann et al., 2009; Bendoly et al., 2010; Katsikopoulos and Gigerenzer, 2013; Kaufmann et al., 2010; 2012), with very limited empirical studies to date looking into this phenomenon (Kaufmann, 2012).

Values, which have been utilized quite extensively in the consumer marketing/ consumer behavior research (Cai and Shannon, 2012; Zhou et al., 2013; Teck Weng and Cyril de Run, 2013; Manchiraju and Sadachar, 2013; Shaw et al., 2005), as well as in the organizational research (Kumar, 2012; McGuire et al., 2006; Suar and Khuntia, 2010; Finegan, 2000; Posner, 2010; Posner and Schmidt, 1993; Chatman, 1989; Liedtka, 1989; Fritzsche and Oz, 2007), have received scant use in the business purchasing literature to understand business buyer decisions. Except for a few isolated studies (Plank et al., 1994), personal values, organizational values and values-congruency have not been utilized by researchers to understand the business buyer behavior.

Although a number of theoretical models exist in the organizational and business literature on the relationship between personal and organizational values, values-congruency, and organizational decision making (Liedtka, 1989; Chatman, 1989), there is room for further development of theoretical models to improve the understanding of organizational decision making in general and business purchase decisions in particular (Kumar, 2012; McGuire et al., 2006; Chatman, 1989; Buvik, 2001; Chicksand et al., 2012; Sheth, 1996).

The tools and methods to measure personal and organizational values, and values-congruency, and their influence on business purchase decisions, also need to be improved to help further inquiry in the field (Meglino and Ravlin, 1998; McDonald and Gandz, 1991, 1993; Finegan, 2000; Suar and Khuntia; Liedtka, 1989; Sheth, 1996; Edwards, 1994; Sheth, 1996). The list of values for business or organizational research developed by McDonald and Gandz (1991, 1993) in the Human Resource Management field, needs to be validated and improved for use in organizational research in general and in business purchasing research in particular. The polynomial regression approach to test the influence of values-congruency suggested by Edwards (1994) though promising hasn't been used much in the organization research in general and in the business purchasing research in particular.

The present study addresses above gaps and opportunities in the literature by utilizing personal and organizational values, and values-congruency, to understand business purchasing decisions. The study thereby significantly contributes to the body of knowledge by enhancing the understanding of the complex process of business buying behavior through incorporating behavioral or psychological factors. This knowledge is

needed more than ever due to the increasing importance of business purchasing and the role played by individuals in business purchase decisions.

Research Objectives and Questions

The objective of this study is to understand the impact of employees' personal and organizational values, and values-congruency, on business purchasing behavior. Business purchase behavior has been measured in the literature in three ways: (1) by studying actual business purchase situations (Money, Gilly & Graham, 2001), (2) by using business purchase vignettes or scenarios (Hawkins, Gravier and Powley, 2011; Plank et al., 1994; Rungtusanatham, Wallin and Eckerd, 2011), and (3) by measuring the importance of predictor variables on business purchase behavior (Bowen, Cousins, Laming and Farukt, 2001; Min and Galle, 2001; Walley, Custance, Taylor, Lindgree and Hingley 2007). Despite its inherent limitations, the perceived importance scale has been used in the business purchasing, supply chain management and business-to-business marketing research (Bowen et al., 2001; Min and Galle, 2001; Walley et al., 2007). Being one of the earlier studies of its kind and due to a lack of relevant vignettes/ scenarios in the business purchasing literature, the current study used the importance of values in the business purchase decision to assess the business purchase behavior. However, in order to clearly differentiate the importance scale for personal/ organizational values (independent variables) from the values-importance scale in business purchase decisions (dependent variable), it was decided to label the latter as the role of values scale.

Following research questions were identified to guide the study in line with the researched objectives.

1. Do personal and (or) organizational values influence the role values play in business purchase behavior?

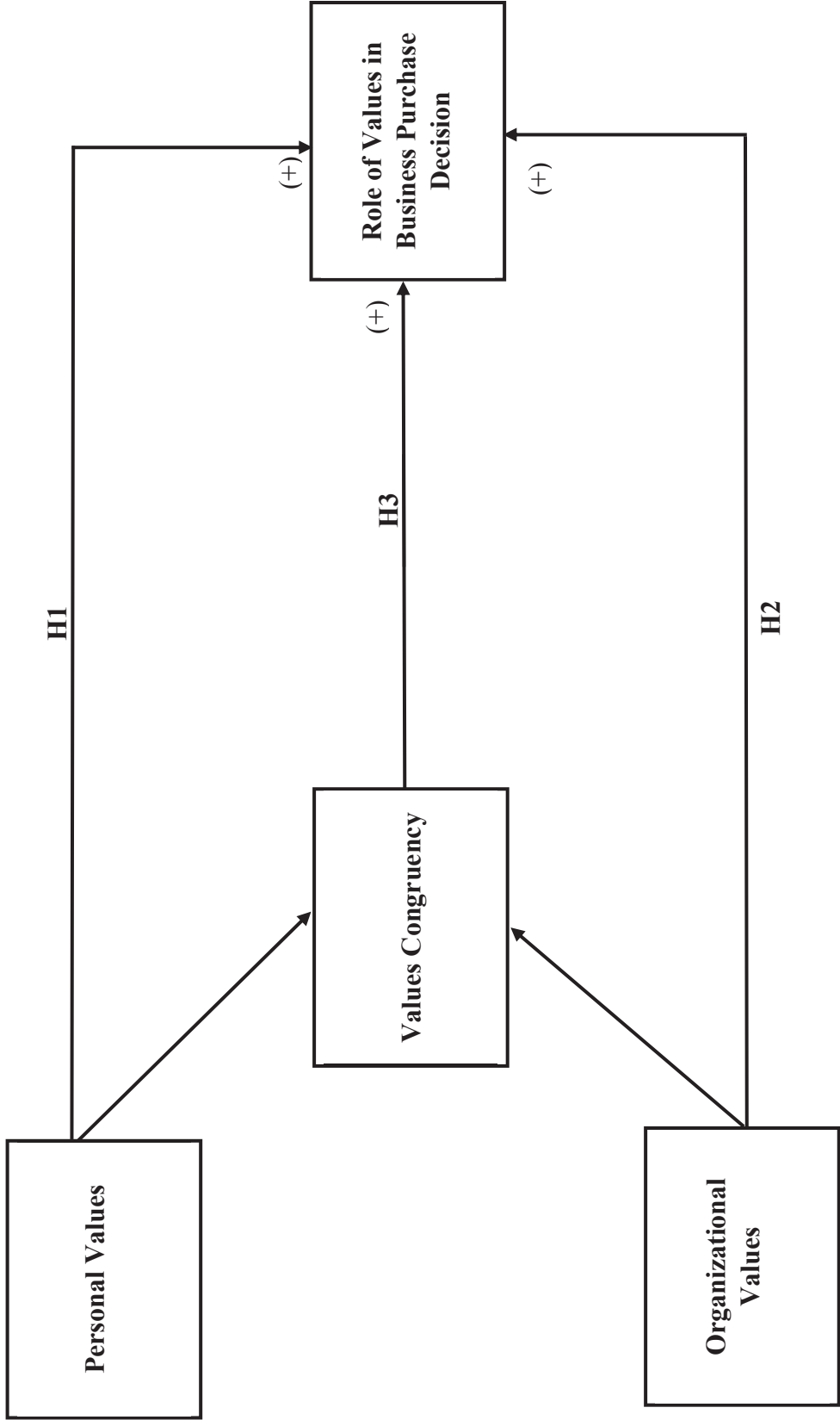
2. Does values-congruency of personal and organizational values influence the role values play in business purchase behavior?

Theoretical Framework and Research Hypotheses

Figure 1 depicts the theoretical framework for the proposed study including the various research hypotheses developed, discussed in detail below.

Business purchasing is a complex decision making process by individuals in a business, industrial or organizational setting that occurs over long periods of time, requires information from multiple sources and includes several inter and intra organizational interactions amongst the various stakeholders (Webster and Wind, 1972; Sheth, 1973). The behavioral, normative and control beliefs, or values, act as the antecedents for the attitude towards the behavior, social norms and perceived behavioral control (Ajzen, 1991, 2002; Madden et al., 1992; Ajzen and Driver, 1992). The perceived moral obligations or values improve the prediction of behavioral intentions and actual behavior (Ajzen, 1991; Madden et al., 1992).

Values are stable “beliefs” that define “modes of conduct” or “end-states of existence” that direct, justify and assess actions and decisions (Rokeach, 1973; Schwartz and Bilsky, 1987, 1990). Several researchers have argued that values influence individual behavior (Rokeach, 1973; Schwartz and Bilsky, 1987, 1990; Cai and Shannon, 2012; Zhou et al, 2013; Teck Weng and Cyril de Run, 2013; Manchiraju and Sadachar, 2013; Shaw et al., 2005; Ajzen & Driver, 1992; Ajzen, 1991, 2002; Madden et al., 1992). Also, individuals are at the center of the business or industrial purchasing process (Webster and Wind, 1972; Sheth, 1973; Bellizzi, 1999; Kohli, 1989) as most business purchase decisions involve several stakeholders, each playing a part in the business purchase decision (Sheth, 1973; Webster and Wind, 1972; Sashi, 2009; Kohli, 1989; Kauffman, 1996; Bellizzi, 1999; Johnston and Bonoma, 1981). Personal values may therefore be expected to influence



Note: Personal demographics, purchase situation attributes and organizational structure items were used as control variables.

Figure 1: Theoretical Model for Explaining Influence of Personal/ Organizational Values, and Values-Congruency, on Role of Values in Business Purchase Decisions.

business purchase behavior and decisions (Plank et al., 1994; Fritzsche and Oz, 2005; Suar and Khuntia, 2010) leading to the first research hypothesis.

H1: The stronger the perceived personal values the higher will be the perceived role values play in the business purchase decisions.

Scholars have also argued that organizational values influence organizational behavior (Posner, 2010; Suar and Khuntia, 2010; Finegan, 2000; McGuire, Garvan, Saha & O'Donnell, 2006; Chatman, 1989; McDonald and Gandz, 1991, 1993; Kumar, 2012; Liedtka, 1989; Fritzsche and Oz, 2007) such as business purchase behavior (Sheth, 1973; Webster and Wind, 1972; Sashi, 2009; Plank et al., 1994). According to some researchers the organizational values are as important as personal values (Rokeach, 1973) and define the organization's culture (Suar and Khuntia, 2010) and influence organizational goals and decision making (Liedtka, 1989; Posner, 2010; Chatman, 1989; Finegan, 2000) including business purchase decisions (Plank et a., 1994). The organizational values are therefore also expected to influence business purchase behavior and decisions (Chatman, 1989; Kumar, 2012; McGuire et al. 2006). It is therefore hypothesized that organizational values will likely influence the role of values in business purchase decisions, which is the second research hypothesis below.

H2: The stronger the perceived organizational values the higher will be the perceived role of values in the business purchase decisions.

Scholars have argued that organizational decisions also depend on the alignment and interaction between organizational and personal values (Liedtka, 1989; Chatman, 1989) as there could be situations where the values of employees do not "align" with the

organizational values (Kumar, 2012; Chatman, 1989). Any gap in the values “congruence” would lead to negative employee work attitude (Meglino and Ravlin, 1998) and poor organizational performance and outcomes (Liedtka, 1989; Kumar, 2012; Finegan, 2000; Suar and Khuntia, 2010; McDonald and Gandz, 1993; Chatman, 1989). Individual and organizational values as well as their interaction need to be considered for understanding individual and organizational behavior (Chatman, 1989). This leads to the third research hypothesis around the potential influence of values-congruency between personal and organizational values on the role of values in business purchase decisions.

H3: The higher the perceived values-congruency between personal and organizational values the higher will be the perceived role of values in the business purchase decisions.

According to researchers, personal demographics, purchase situation attributes and organizational structure also influence business purchase decisions (Sheth, 1973; Webster and Wind, 1992; Kohli, 1989; Sashi, 2009; Kauffman, 1996; Johnston and Bonoma, 1981). Various items such as “importance”, “complexity”, “novelty”, “purchase class” and “buying center” for purchase situation attributes; and, “size”, “complexity”, “formalization” and “centralization” for organizational structure items are also expected to influence business purchase decisions (Johnston and Bonoma, 1981; Sheth, 1973; Webster and Wind, 1972; Sashi, 2009). These factors along with personal demographics were used as control variables to enhance the testing of the proposed theoretical model and understand their relationships with the business purchase decisions.

Rokeach argued that values exist in a hierarchical system that allows individuals to prioritize values against each other (Rokeach, 1973). Following additional research

question was therefore added to understand the relative priority of the various values dimensions/ factors respectively for personal values, organizational values, and values-congruency in the role of values in business purchase decisions.

R1: What relative importance is given to each values dimension/ factor respectively for perceived personal values, perceived organizational values, and values-congruency in the perceived role values play in the business purchase decisions?

Research Method

The study comprised of three phases: (1) a pilot study, (2) a pre-test, and (3) a main study. The objectives of the respective study phases are outlined in Table 1.

Table 1 – Description of Study Phases.

Study Phase	Objectives
Pilot Study	Validate and enhance the list of values relevant for business purchasing context.
Pre-test	Ensure effectiveness of the survey questionnaire in collecting the desired data and improve its format, flow, and language.
Main Study	Understand the influence of personal values, organizational values, and values-congruency on the role of values in business purchasing decisions.

Pilot Study

The purpose of the pilot study was to validate and enhance the list of values relevant for organizational research developed by McDonald and Gandz (1991, 1993), to suit business purchase situations. The pilot study also assisted in developing and validating the survey questionnaire. The author used his industry contacts for drawing a convenience sample of supply chain professionals, who are involved in business purchasing as a primary or major function of their jobs. The procurement department of a large organization headquartered in Edmonton Alberta with operations across Western Canada was used as the sampling frame. The organization employs about 4500 employees with an annual revenue of over CA\$3B. It is in the business of heavy equipment sales and service to mining, construction, forestry and oil and gas sectors and has been in existence for over 80

years. The survey was distributed to the relevant members of the procurement team by the director of the department through the respective managers/ supervisors. The department consists of 25 employees out of which 4 were excluded as their role was strictly focused on data analytics with no exposure to business purchase decisions. After a series of reminders and individual follow-ups by the author via email/ phone with the director and the respective managers/ supervisors, a total of 20 responses were received with 11 fully completed responses.

The pilot study utilized a questionnaire as a guide to collect data for the above purpose. The questionnaire asked respondents to rate the list of values by McDonald and Gandz (1991, 1993) with respect to the relevance to business purchase decision making. The respondents were asked to provide and rate any additional values that they think are important for business purchase decisions. The questionnaire also asked the respondents to rate the level of differentiation between the concept of importance of values in a general sense and the role of values in specific business purchase decisions. The purpose of this question was to check the validity of the dependent variable for the main study. Refer to the Appendix D for the questionnaire used in the pilot study.

Pre-test

The survey questionnaire was pre-tested using a convenience sample to ensure its effectiveness in collecting the desired data. Ten members of Supply Chain Management Association (SCMA), the sampling frame for the main study, were approached for the pre-test through SCMA's Marketing and Communications department (refer to the next section for further details on SCMA and its suitability as the sampling frame for the study). After each question/ section, the respondents were asked if they were able to clearly understand

the questions and to list any suggestions for improving them. A total of four responses including two completely finished responses were received after an email reminder sent out by SCMA. The author then approached a couple of his personal contacts who are also members of SCMA to get additional responses. This resulted in two additional responses with one completely finished response. Therefore, a total of six responses including three completely finished responses were received for the pre-test.

Main Study

The main study had a cross-sectional design utilizing the survey method to collect data using members of the SCMA as the sampling frame. SCMA provides a valid sampling frame for the main study as it represents over 7,500 supply chain professionals, primarily purchasing managers, across Canada, claimed to control over CA\$130B in annual spending. These professionals are involved extensively with business purchase decisions directly or indirectly in their respective organizations. Refer to Appendix A and <http://www.scma.com/en/about-scma> for further information on SCMA. Use of business and industry associations as sampling frames for studies in supply chain and business purchasing is common in the literature (Min and Galle, 2001; Plank et al., 1994)

Research Instrument. The survey questionnaire for the main study was developed in both English and French languages to meet the bi-lingual requirements of SCMA being a national organization. It was translated from English to French by a professional translator. The translated version was then reviewed by another professional translator to ensure accuracy. Lastly, the author used a graduate bi-lingual student to compare the two questionnaires in English and French languages respectively to ensure consistency.

The questionnaire consisted of three major sections. The first section asked respondents to rate the importance of values in their personal lives and in their organizations respectively using a seven-point Likert scale (from 1 not important to 7 very important). This section ended by asking respondents to rate their values-congruency using the scale adapted from Posner and Schmidt (1993) (refer to the Measurements section below for the details). The second section asked respondents to recall and answer questions on the last business purchase situation that they were involved with in their respective organizations. The respondents were asked to provide information around the respective purchase situation followed by a request to rate the role of values in the respective business purchase decision using a 7 point Likert scale (from 1 extremely low to 7 extremely high). The third and the final section asked respondents demographic questions about themselves and their respective organizations/ employers, including information on the organizational structure items.

The SCMA members were offered a chance to win one of five \$100 Visa or Amazon gift cards to improve the response rate. The respondents were redirected to a separate short survey after they finished the main survey to collect contact information for the draw. The participants were asked to email the researcher to be entered in the survey if they chose to exit the survey earlier by closing their internet browser window. Refer to Appendix B for the main study questionnaire in English language.

Sampling. The target sample size was calculated using Zikmund's (2003) formula related to questions involving means. The formula is $(Z.S/E)^2$, where Z is the standardized value of confidence level, S is the expected standard deviation (SD), and E is the acceptable error. In the study, for 95% confidence level, Z is 1.96, SD on a 7 point scale is expected

to be less than 3.0 (to be on the conservative side), while the acceptable error should be 0.50. The sample size therefore turns out to be 138. Considering the limited availability of SCMA members being working professionals, it was expected that a sample size slightly less than the target sample size may be more likely.

The study drew a convenience sample through an online survey e-mailed to SCMA members via its e-newsletter, which has approximately 4400 subscribers, and posted on SCMA's website. A reminder was included in a subsequent e-newsletter three days prior to the survey end date. This resulted in 194 total responses with 117 finished responses. The author then approached his own contacts who are also members of the SCMA to obtain additional responses. This resulted in 4 additional responses with 2 finished responses. Thereby a total of 198 responses were received with 119 finished responses versus a target of 138.

Measurements. The various measurements used in the study are discussed next. Refer to Table 2 for list of measurements included in the main study along with the respective survey question numbers and types.

Personal Values and Organizational Values. Personal and organizational values were measured adapting the list of values relevant to business/ organizational research developed by McDonald and Gandz (1991, 1993). Respondents were asked to rate the importance of these values in their personal lives and in their organizations respectively on a seven-point Likert scale. A rating scale was used instead of a ranking scale in consideration of the research objectives/ questions and intended statistical analysis. A ranking scale allows understanding of the relative importance or hierarchy of values (Rokeach, 1973), however, it is difficult to administer and limits the level of statistical

analysis that can be applied (Meglino and Ravlin, 1998; McGuire et al, 2006). On the contrary, a rating scale measures values in “absolute” terms, is almost equally good in understanding relative importance or hierarchy of values, and allows use of higher order statistical analysis (Meglino and Ravlin, 1998; McGuire et al, 2006), leading to its choice for the main study.

Table 2 – Measurements included in the Main Study.

Concept	Variable Type	Question Number(s)	Comments
Personal Values	Independent	Q1	23 items, 7-point Likert Scale
Organizational Values	Independent	Q2	23 items, 7-point Likert Scale
Values-Congruency*	Independent	Q3	3 items, 7-point Likert Scale (2 items reverse coded)
Role of Values in Business Purchasing	Dependent	Q4	23 items, 7-point Likert Scale
Purchase Situation Attributes	Control	Q5-Q11	Not all items were included in the regression analysis for testing the hypotheses
Organizational Demographics	Control	Q13-Q18	Not all items were included in the regression analysis for testing the hypotheses
Personal Demographics	Control	Q19-Q27	Not all items were included in the regression analysis for testing the hypotheses

*Values-Congruency was also measured by Polynomial regression following procedure by Edwards (1994)

Note: Q12 not included in the table as it asked about the difference between the concepts of Importance of Values in personal/ organizational values and the Role of Values in business purchase decisions.

Business Purchase Behavior. As discussed above, the study used the perceived role of values in business purchase decisions to assess business purchase behavior. The respondents were asked to recall the last purchase situation in their respective organizations that they were part of regardless whether it was made by them alone or by a group of people

in the organization. They were then asked to rate how high a role each of the values adapted from McDonald and Gandz (1991, 1993) played or had in the business purchase decision on a seven point scale (from 1 extremely low to 7 extremely high).

Values-congruency. Values-congruency was targeted to be measured in two ways. First, by calculating the product/ interaction of personal and organizational values ratings/ scores provided by respondents per the method outlined by Edwards (1994) used by some scholars (Finegan, 2000; Edwards and Cable, 2009) (refer to sub-section Edwards Method below for the details). Secondly, by asking respondents to rate values-congruency using the modified “shared values” scale developed by Posner and Schmidt (1993). A seven-point Likert scale (1 strongly disagree to 7 strongly agree) was used for the below three items (items 2 and 3 were reverse coded for analysis purposes).

1. “My personal values are generally compatible with the values of the organization.”
2. “I find that sometimes I have to compromise personal principles to conform to my organization’s expectations.”
3. “I find that sometimes I have to compromise the organizational expectations to conform to my personal principles.”

Purchase Situation Attributes and Organizational Structure Items. Purchase situation attributes and organizational structure items were measured by adapting items developed by Johnston and Bonoma (1981) and leveraging other models of business purchase behavior in the literature (Sheth, 1973; Webster and Wind, 1972; Sashi, 2009; Kohli, 1989; Kauffman, 1996; Bellizzi, 1989). The following organizational structure items were included in the organizational demographics section of the questionnaire: “importance”, “complexity”, “novelty”, “purchase class” and “buying center” for purchase

situation attributes; and, “size”, “complexity”, “formalization” and “centralization” for organizational structure items (Johnston and Bonoma, 1981). Refer to Appendix B for the respective questions in the survey questionnaire.

Edwards Method. The study utilized the polynomial regression procedure outlined by Edwards (1994, 2009) to test the research hypotheses, answer the additional research question, and understand the nature of the influence of values-congruency through response surface analysis (purchase situation attributes, organization structure items, and personal demographics were controlled to improve the strength of the regression analysis). Researchers have argued that the three-dimensional, curvilinear approach to measuring values-congruency, where x-axis represents personal values, y-axis represents organizational values, and z-axis represents the outcome variable, is superior to the traditional, linear bivariate and profile fit approaches (Edwards, 1994; Finegan, 2000; Edwards and Cable, 2009; Shanock, Baran, Gentry, Pattison and Heggstad, 2010).

The three-dimensional approach proposed by Edwards (1994) is represented by the mathematical equation below (Finegan, 2000). The person x organization term represents the values-congruency or fit (interaction) of personal and organizational values, whereas the person² and organization² terms account for the non-linear or quadratic relationship between the personal/ organizational and the dependent variable. Further details of this approach are discussed in the Data Analysis section.

$$Z = \text{person} + \text{organization} + (\text{person} \times \text{organization}) + \text{person}^2 + \text{organization}^2$$

Response Surface Analysis. In order to further interpret the results from the polynomial regression analysis, response surface analysis was carried out following the process suggested by Edward (1994) and explained by Shanock et al (2010). The method

utilizes the regression coefficients for plotting the three dimensional “response surface patterns” (Edwards, 1994; Finegan, 2000; Shancok et al., 2010). The resulting visual allows interpreting the relationship between values-congruency and the dependent variable in three ways: (1) how the “agreement” between personal values and organizational values influence the dependent variable, (2) how the “degree” of discrepancy” between personal values and organizational values influence the dependent variable, and (3) how the “direction of discrepancy” influences the dependent variable.

Data Analysis

Pilot Study

Values-Importance. Cronbach's alpha for the Values-Importance scale based on the list of values by McDonald and Gandz (1991, 1993) was 0.85 indicating acceptable level of reliability. Refer to Table 3 for the descriptives of values-importance scores.

Table 3 – Descriptives for Importance of Values Scores.

Value	N	Mean	Std. Deviation
Adaptability	11	6.27	0.47
Aggressiveness	11	5.18	1.17
Autonomy	11	5.18	1.08
Broad Mindedness	11	5.82	0.60
Cautiousness	11	5.91	0.94
Consideration	11	4.91	1.30
Cooperation	11	6.18	0.60
Courtesy	11	5.91	1.14
Creativity	11	5.64	0.92
Development	11	5.91	1.22
Diligence	10	5.50	1.18
Economy	11	5.73	0.90
Experimentation	11	4.36	1.63
Fairness	11	5.64	0.92
Forgiveness	11	5.18	1.60
Formality	11	4.00	1.41
Humor	11	4.91	1.45
Initiative	11	5.64	1.12
Logic	11	6.45	0.69
Moral Integrity	11	6.36	0.92
Obedience	11	5.18	0.87
Openness	11	6.00	1.18
Orderliness	11	5.36	1.12
Social Equity	11	5.36	1.29

Formality, Experimentation, Humor and Consideration have a mean importance score of less than 5 (i.e. neutral or not important). Based on the low importance scores and lack of relevance to business purchase decisions according to the literature, Formality and Humor values were dropped from the list of values for the main study survey (Webster and Wind, 1972; Sheth, 1973; Kauffman, 1996). However, Experimentation and Consideration items were retained despite the low mean importance scores due to their relevance to business purchasing based on the literature (Carter and Narasimhan, 1996; Sheth, 1996; Webster and Wind, 1972). Researchers have argued for the need for businesses to embrace innovation and experimentation in business purchasing (Carter and Narasimhan, 1996) to gain competitive advantage through the supply chain (Sheth, 1996). Literature has also recognized the importance of buyer-seller relationships or a relational approach in business purchasing (Sheth, 1996; Webster and Wind, 1972), which points towards the relevance of Consideration item to business purchase decisions, as firms are becoming more and more interdependent in supplier-buyer relationships (Sashi, 2009).

The correlations matrix for the Values-Importance scale appears in Table 4. Most of the value items were not correlated ($p < .05$). However, some correlations were significant and strong ($r > .5$) in both positive and negative directions.

Additional Values Relevant to Business Purchase Decisions. Using the open-ended response option, the respondents provided an additional 15 values relevant to business purchase decisions. The respondents also provided importance scores as well as brief explanations for these additional values. A detailed review of this data was carried out in line with the literature. As a result, Responsibility value was added from Rokeach's

Table 4 – Correlations Matrix for Importance of Values (Pearson Correlation).

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1. Adaptability	1																								
2. Aggressiveness	.63*	1																							
3. Autonomy	.69*	.84**	1																						
4. Broad Mindedness	.55	.34	.67*	1																					
5. Cautiousness	.06	.11	.31	.50	1																				
6. Consideration	.37	.47	.58	.49	.07	1																			
7. Cooperation	.16	-.05	.10	.10	.38	.53	1																		
8. Courtesy	.24	.24	.10	-.03	-.10	.67*	.61*	1																	
9. Creativity	.25	.25	-.03	-.13	-.50	.39	.13	.54	1																
10. Development	.57	.22	.39	.52	.34	.62*	.70*	.35	.23	1															
11. Diligence	.68*	.12	.33	.45	.10	.51	.45	.45	.00	.77**	1														
12. Economy	.19	-.14	-.05	-.28	-.03	-.53	-.08	-.42	-.49	-.12	.34	1													
13. Experimentation	-.01	-.04	.13	.48	.09	.30	.03	-.25	.10	.42	.17	-.47	1												
14. Fairness	-.21	-.12	.17	.05	.07	.05	.13	-.32	-.52	-.03	.06	.23	.36	1											
15. Forgiveness	.46	.35	.38	.35	.01	.68*	.48	.78**	.18	.42	.56	-.31	.01	.05	1										
16. Formality	-.30	-.61*	-.52	-.12	-.15	.05	.23	.12	.15	.29	.19	-.16	.13	-.31	-.13	1									
17. Humor	.63*	.66*	.65*	.32	.07	.69*	.48	.42	.27	.731*	.57	-.10	.31	.20	.61*	-.20	1								
18. Initiative	.59	.28	.31	.04	-.03	-.02	.26	.05	-.04	.41	.40	.48	-.08	.15	.32	-.13	.59	1							
19. Logic	.51	.26	.55	.70*	.22	.16	-.22	-.33	-.34	.17	.54	.22	.28	.29	.10	-.41	.15	-.02	1						
20. Moral Integrity	.44	.49	.33	.13	-.30	.53	.05	.70*	.64*	.03	.18	-.35	-.36	-.53	.49	-.15	.18	-.15	.03	1					
21. Obedience	.36	.55	.60	.45	.63*	.28	.31	-.08	.09	.49	.05	-.18	.37	.09	-.03	-.40	.49	.18	.18	-.09	1				
22. Openness	.36	.22	.24	.00	-.18	.13	.28	.37	.09	.07	.04	.09	-.16	.27	.63*	-.36	.41	.68*	-.12	.18	.00	1			
23. Orderliness	.17	.10	.02	-.19	.22	-.32	.04	.11	-.34	-.12	.00	.50	.79**	-.34	.07	.00	-.10	.43	-.24	.05	-.18	.23	1		
24. Social Equity	.15	.42	.52	.09	.28	.20	.29	-.18	-.21	.28	.08	.18	.31	.71*	.06	-.49	.611*	.45	.13	-.37	.65*	.33	-.17	1	

list of values (Rokeach, 1973) to cover the “accountability”, “commitment” and “responsibility” values suggested by the respondents. Also, the value explanations for Cooperation and Economy values were expanded to include building relationships (Sheth, 1996; Webster and Wind, 1972; Sashi, 2009), and total cost of ownership/ life cycle costs (Allport et al., 1967; cf. McDonald and Gandz, 1991, 1993) concepts respectively to incorporate the feedback from the respondents. The expansion to the Economy item explanation is also in line with the "Economic" value included in the Allport et al. list of values (Allport et al., 1967; cf. McDonald and Gandz, 1991, 1993). Refer to Appendix E for the review summary and decisions for the additional values by the respondents.

Difference between Values-Importance and Role. To verify the validity of the dependent variable, i.e. role of the value concept, the respondents were asked the following question:

“In the questions above, you indicated the "Importance" of values in business purchase decisions in a general sense. If asked about the "role" these values play in specific business purchase situations, would you be able to differentiate between the "importance" of values in this general sense and the "role" of values in the specific business purchase decisions? Rate the level of differentiation on a seven point scale from 1 not distinct at all to 7 distinctly different.

For example, a purchasing manager may ascribe "high importance" to "Economy" value (being thrifty and careful in spending) in business purchase

decisions in a general sense, but this value may not play a "significant role" in a specific business purchase decision involving a high risk product or service where the manager may want to minimize the exposure."

One sample t-test was conducted on the resulting data which shows a significant mean of 4.60 and a standard deviation of 2.10 on a Likert scale of 1 to 7 ($t(9)=7.042$, $p<.001$). Eight respondents left comments for this question. A review of the comments revealed that at least two respondents did not understand the question clearly but did differentiate between the importance of personal/ organizational values and role of values in business purchase decisions concepts. Interestingly, both these respondents gave the lowest scores to the difference between the values-importance and role of values concepts question. The question was therefore revised to make the question clearer in the main study survey. Below are the two comments:

"I think a person's values system plays a very important part in their role. I hope I understood this question correctly."

"I think the role of a value should correlate with its importance. Otherwise, any non-correlation could result in time wasting activities."

Table 5 summarizes the changes made to the McDonald and Gandz (1991, 1993) list of values based on the pilot study findings.

Table 5: Summary of Changes to the McDonald and Gandz (1991, 1993) List of Values.

Value	Comments	Updated Definition (if applicable)
<i>Dropped</i>		
Formality	Removed due to low mean importance score in pilot study and lack of relevance to business purchasing.	
Humor	Removed due to low mean importance score in pilot study and lack of relevance to business purchasing.	
<i>Retained (Despite Low Score)</i>		
Consideration	Retained despite low mean importance score in pilot study due to relevance to business purchasing with growing reliance on suppliers and need for long term relationships (Webster and Wind, 1972, Sheth, 1973).	
Experimentation	Retained despite low mean importance score in pilot study due to relevance to business purchasing in an increasing competitive business environment (Sharma et al., 2010).	
<i>Expanded Definition</i>		
Cooperation	Expanded definition to include "relationship" aspect identified in the pilot study. Supported by the important role relationships play in business purchasing (Sheth, 1996; Webster and Wind, 1972; Sashi, 2009).	being cooperative, working well with others " <i>and building relationships</i> ".
Economy	Expanded definition to include "total cost of ownership/ life cycle costs" aspect identified in the pilot study. Supported by the "Economic" value in Allport et al. list (Allport et al., 1967; cf: McDonald and Gandz, 1991, 1993).	being careful in spending " <i>and considering total cost of ownership/ lifecycle costs</i> ".
<i>Added</i>		

Responsibility	Added Rokeach's "Responsible" value based on findings from the pilot study to include "Accountability/ Responsibility" aspect (Rokeach, 1973).	<i>"being dependable and reliable"</i>
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Demographics. A majority of the respondents were females (54.5%). Most of the respondents fell within 25-34 years (45.5%) followed by 35-44 years (27.3%). The respondents had a mean 14.4 years of education and a mean 15.8 years of experience. The mean tenure of respondents was 5.65 years. Most of the respondents belonged to the management, professional and related occupation (72.7%) followed by other (18.2%) and sales and office (9.1%). A majority of the respondents had an annual income in the range of \$150,000-\$200,000 (36.4%) and \$60,000 - \$79,999 (27.3%). A majority of the respondents are involved in business purchase decisions more than 2 times per week (81.8%). Purchaser was the most frequent role that the respondents played in business purchase decisions.

Pre-test

Most of the respondents skipped questions seeking their clarity on the questionnaire. Two responses indicated that the questions were clear and easy to understand. No adjustments were therefore made to the main study questionnaire.

Main Study

Sample. A total of 198 respondents responded to the survey of which 119 completed the instrument in its entirety (completion rate of 60.1%). All responses were in English even though the survey was also offered in French. A majority of the respondents (76.5%) were regular members of SCMA followed by student affiliates (15.1%) and

followers/ observers (4.2%). A break-down of the respondents with respect to their affiliation with the SCMA appears in Table 6 below.

Table 6 – Respondents Affiliation with Supply Chain Management Association of Canada.

SCMA Affiliation	Frequency	Percent	Valid Percent
Regular Member	91	76.47	77.78
Student Affiliate	18	15.13	15.38
Follower/ Observer	5	4.20	4.27
Retired Member	2	1.68	1.71
Other	1	0.84	0.85
Missing	2	1.68	
Total	119	100.00	100.00

Measurement System Analysis. In order to confirm the validity of the measurement system used for the main study before conducting factor analysis, reliability analysis was carried out on all items of personal values, organizational values, role of values and shared values/ value congruency scales respectively. The Cronbach’s alphas for the personal values, the organizational values, and the role of values were higher than a cutoff of .70, which is typically used to validate scales, indicating acceptable reliability. However, the Cronbach’s alpha for the values-congruency scale was .62 which being less than the cutoff of .70 indicated insufficient reliability. The “shared values”/ values-congruency scale adapted from Posner and Schmidt (1973) was therefore dropped from further analysis and only the polynomial regression method by Edwards (1994) was used to test the influence of values-congruency (Edwards and Cable, 2009; Finegan, 2000; Shanock et al.. 2010) in the main study. The Cronbach’s alpha for the various scales appear in Table 7 below.

Table 7 – Cronbach Alphas for the Various Scales Used in the Main Study.

Scale	Number of Items	Cronbach's alpha
Personal Values	23	.95
Organizational Values	23	.95
Role of Values	23	.96
Values-congruency	3	.62

To verify the validity of the dependent variable, i.e. role of the value concept, the respondents were asked following question updated from the pilot study:

*“Earlier in the survey you were asked about the **"Importance"** of values in your personal life and in your organization in a general sense. In the questions above, you indicated the **"Role"** respective values played or had in a specific business purchase situation. In your opinion how different are the concepts of the **"Importance of Values"** in the general sense and the **"Role of Values"** in specific business purchase decisions? Rate the level of differentiation on a seven point scale from 1 not distinct at all to 7 distinctly different.*

*For example, a purchasing manager may ascribe **"High Importance"** to **"Economy"** value (being careful in spending) in business purchase decisions in a general sense, but this value may not play a **"Significant Role"** in a specific business purchase decision involving a high risk product or service where the manager may want to minimize the exposure.”*

One sample t-test was conducted on the resulting data which shows a significant mean of 3.92 and a standard deviation of 1.60 on a Likert scale of 1 to 7 ($t(113)=26.211$, $p<.01$). Table 8 provides the frequency distribution of the scores.

Table 8 – Frequencies for the Perceived Difference between Values-Importance and Role of Values.

Score	Frequency	Percent	Valid Percent
1 - Not Distinct at All	8	6.70	7.00
2 - Moderately Distinct	14	11.80	12.30
3 - Slightly Similar	24	20.20	21.10
4 - Neutral	31	26.10	27.20
5 - Slightly Different	12	10.10	10.50
6 - Moderately Different	20	16.80	17.50
7 - Distinctly Different	5	4.20	4.40
Missing	5	4.20	
Total	114	100	100

Table 8 shows that 38.7% respondents (those who rated 1, 2, or 3) were not able to differentiate clearly between the concepts of the importance of values and the role of values, 26.1% were neutral and 31.1% were able to differentiate (those who rated 5, 6, or 7). To understand their opinions, the comments posted by 54 respondents (which is 47.4% of all respondents) was also analyzed. Of these, 31 comments were posted by those who had rated the quantitative question as 4 (neutral) or less and 23 by those who rated the question as 5, 6, or 7 (i.e. slightly different or more). Based on the 31 comments, it appears that the respondents did actually differentiate between the importance of values and the role of values concepts, while answering questions throughout the survey, but reflected confusion with the rating scale in response to the question. Below are few sample comments:

“I think a person value have effect on the organization value”

“In public procurement values and ethics as well as open and transparent is extremely important.”

“Generally, the role a value plays in the decision making is granted by the importance of that value.

“It took me three reads to find the question. Importance has more of a theoretical connotation, whereas role has the connotation of how well the theoretical ideal is met.”

It was therefore concluded that there was a problem with the understanding of the rating scale of the particular question and these respondents would have given a higher score if they had clearly understood the question.

Factor Analysis. Existing factors in the literature i.e. Finegan (2000) and Kumar (2012), were considered for conducting factor analysis on the personal Values-Importance scores. However, after a closer review the decision was made not to use the factors identified by Finegan (2000) due to their lack of relevance and comprehensiveness. Finegan (2000) came up with a limited number of factors and in the process dropped several items, some of which were deemed important for the study (as revealed by the pilot study). Attempts were therefore made in AMOS to conduct confirmatory factor analysis on ‘personal values-importance’ scores using the factors identified by Kumar (2012). The use of personal values for factor analysis has precedence in the literature (Kumar, 2012; Finegan, 2000). Unfortunately, the model was not identified in AMOS (Chi-square = 1570.36, p value < 0.001). Fit indices reveal that the data didn’t support the model fit (N=119, CFI=.31, RMSEA=.22). Figure 2 provides the input model diagram in AMOS and Table 9 provides the resulting model fit indices.

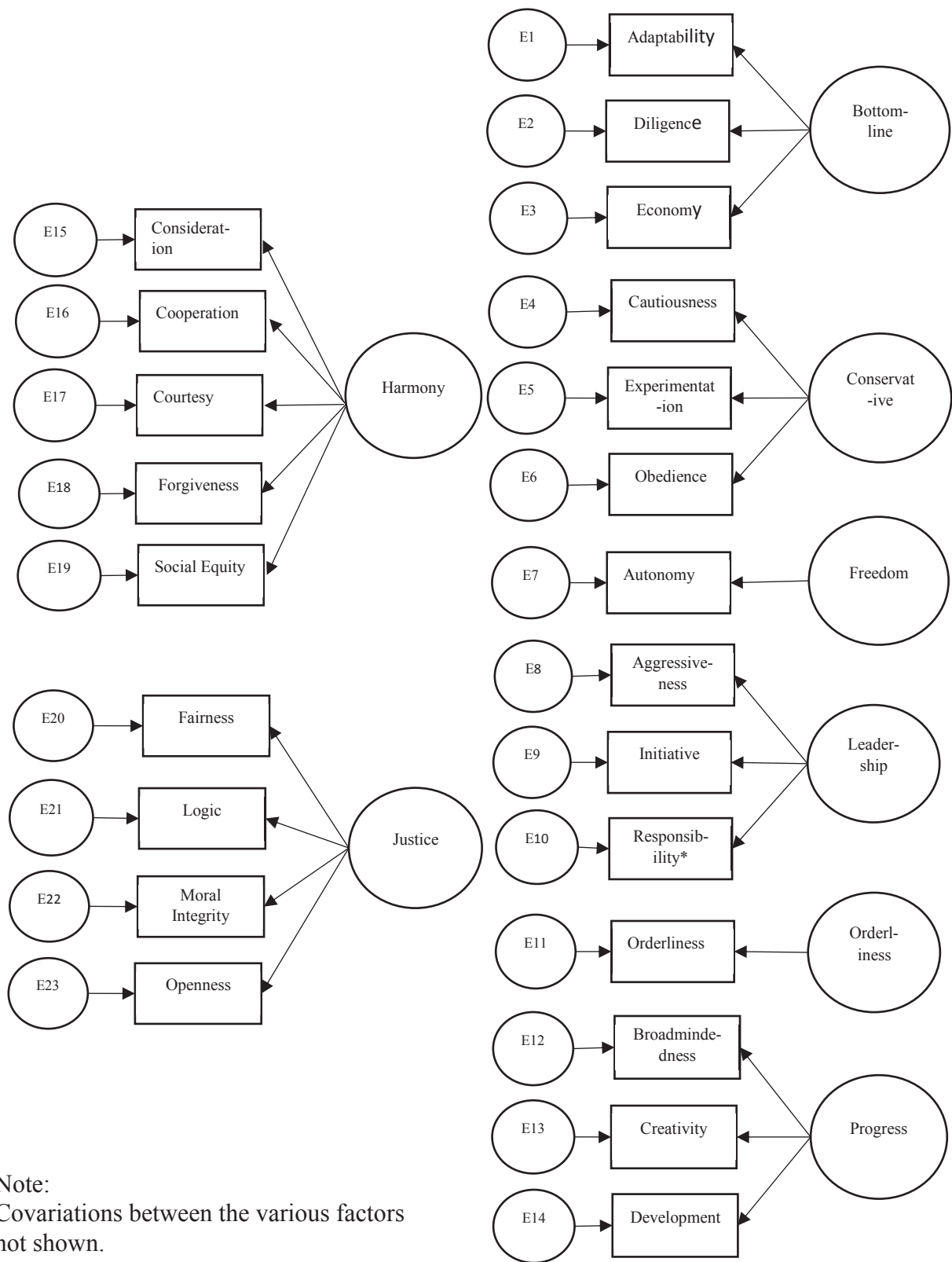


Figure 2 – Confirmatory Factor Analysis Input Path Model using Factors by Kumar (2012).

Table 9 – Confirmatory Factor Analysis Model Fit Indices.

N	Chi Sq.	Chi Sq./df	NFI	TLI	CFI	RMSEA
119	1570.36	6.77	0.29	0.17	0.31	0.22

As the confirmatory factor analysis model failed to be identified, exploratory factor analysis was conducted on ‘personal values-importance’ scores similar to the process followed by Kumar (2012) and Finegan (2000). Principal components extraction with Varimax rotation was carried out in SPSS v.25. Three factors emerged with eigen values greater than 1. A factor loading threshold of 0.5 was used to retain items within these factors. The three factors were labeled Humanity, Bottomline and Convention in line with the existing factors in the literature (Finegan 2000; Kumar, 2000). Next, the items with cross loadings difference of less than 0.2 were reviewed for conceptual/ theoretical validity. Item Autonomy was thereby dropped as it didn’t make conceptual sense with either Humanity or Bottomline factors. Lastly, all the remaining items within each factor were reviewed for conceptual/ theoretical validity with the respective factors. Thereby items Logic and Orderliness, were dropped from the factor Humanity, and Social Equity item was dropped from the Convention factor. The final factors had 10, 7 and 2 items for Humanity, Bottomline and Convention factors respectively. The exploratory factor analysis SPSS outputs appear in Tables 10 and 11.

Reliability analysis was conducted on the three final factors. Cronbach’s alpha for Humanity and Bottomline were higher than 0.7 (Humanity=0.95; Bottomline=0.88). The Cronbach alpha for the Convention factor was less than 0.7 at 0.62. However, the Convention factor was retained on the basis of inter-item correlation between Cautiousness

and Obedience items which was significant and strong (0.45, $p < 0.001$) (the third item Social Equity was dropped).

Table 10 – Exploratory Factor Analysis KMO and Bartlett's Test.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.91
Bartlett's Test of Sphericity	Approx. Chi-Square	2040.07
	Df	253
	Sig.	.000

Table 11 – Exploratory Factor Analysis Rotated Component Matrix.
Rotated Component Matrix

	Component		
	1	2	3
Adaptability	.54	.61	
Aggressiveness		.69	
Autonomy	.59	.52	
Broadmindedness	.61		
Cautiousness		.49	.54
Consideration	.68		
Cooperation	.62	.60	
Courteousness	.70	.49	
Creativity	.43	.68	
Development	.53	.68	
Diligence		.59	
Economy	.47	.66	
Experimentation		.54	
Fairness	.75		
Forgiveness	.77		
Initiative	.74		
Logic	.72		
Moral Integrity	.75	.44	
Obedience			.82
Openness	.61		.45
Orderliness	.54		

Responsibility	.76		
Social Equity			.58

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

The three factors thus identified were: (1) Humanity representing humaneness and benevolence items (Consideration, Cooperation, Courtesy, Forgiveness, Fairness, Moral Integrity, Broad-Mindedness, Initiative, Openness and Responsibility), (2) Bottomline representing profitability items (Adaptability, Diligence, Economy, Experimentation, Aggressiveness, Creativity and Development), and, (3) Convention representing the risk aversion or compliance items (Cautiousness and Obedience). Despite the differences in the respective research contexts, there are several similarities amongst the factors identified by the the present and earlier studies. All three factors identified by the present study i.e. Humanity. Bottomline and Convention aligned very well with the Humanity/ Harmony, Bottomline and Convention factors by Finegan (2000) and Kumar (2012). Finegan (2000) identified a fourth factor Vision which has a number of items included in the Bottomline factor of the current study. Similarly, Kumar (2012) identified five more factors out of which Progress and Justice factors had several items overlapping with the Humanity and Bottomline factors in the current study. A summary of the factor analysis procedure and results along with a comparison with the factors available in the literature (Finegan, 2000; Kumar, 2012) appear in Table 12.

Table 12 - Factor Analysis Comparison with Earlier Studies in the Literature.

	Finegan (2000)	Kumar (2012)	Anwer (2018)
Context:	Organizational Research	Human Resource Management	Business Purchasing

Sampling Frame:	Employees at a subsidiary plant of a petrochemical company	Employees at a public-sector organization	Members of association of supply chain management professionals
Sample Size:	121	220	119
Factor Analysis Technique:	Principal Components	Principal Components	Principal Components
Number of Factors	4	8	3
Factors/ Items	Humanity	Harmony	Humanity
	Consideration	Consideration	Consideration
	Cooperation	Cooperation	Cooperation
	Courtesy	Courtesy	Courtesy
	Forgiveness	Forgiveness	Forgiveness
	Fairness		Fairness
	Moral Integrity		Moral Integrity
		Social Equality	Broad-Mindedness
		Formality*	Initiative
		Humor*	Openness
			Responsibility**
	Bottom-line	Bottom-line	Bottom-line
		Adaptability	Adaptability
	Diligence	Diligence	Diligence
	Economy	Economy	Economy
	Experimentation		Experimentation
	Logic		Aggressiveness
			Creativity
			Development
	Adherence to Convention	Conservative	Convention
	Cautiousness	Cautiousness	Cautiousness
	Obedience	Obedience	Obedience
	Formality*	Experimentation	
	Vision	Leadership	
	Creativity		
	Development		
	Initiative	Initiative	
	Openness	Aggressiveness	
		Progress	

		Broad-Mindedness	
		Creativity	
		Development	
		Freedom	
		Autonomy	
		Justice	
		Fairness	
		Logic	
		Moral Integrity	
		Openness	
		Orderliness	
		Orderliness	

* Item dropped from the list of values based on pilot study.

** Item added to the McDonald and Gandz list of values based on the pilot study.

Following the procedure by Atwater et al. (2005 cf: Shanock et al., 2010), the personal and organizational values scores were centered around midpoint by subtracting 4 (which is midpoint of seven-point Likert scale used) from the raw scores before creating the three factors for personal values and organizational values. The centering addresses multi collinearity and assisted in further analysis (Aiken and West, 1991 cf: Shanock et al., 2010; Edwards, 1994) including response surface analysis as suggested by Edwards (Edwards, 1994; Shanock et al., 2010; Finegan, 2000; Edwards and Cable, 2009). Factors were also calculated for the role of values (dependent variables DVs) but without any centering. Subsequently, the squared personal values and organizational values were calculated for the three respective factors to understand the non-linear relationship, and product/ interaction of personal and organizational values terms calculated to understand the influence of value-congruency or fit into the analysis per the polynomial regression method by Edwards (1994).

Descriptive Statistics. The descriptives for the independent and dependent variables appear in Table 13.

Table 13 – Descriptives for Independent and Dependent Variables.

Variables	N	Mean	Std. Deviation
IV			
Personal Values			
Humanity	117	6.35	0.84
Bottomline	117	5.73	0.96
Convention	117	5.46	1.17
Organizational Values			
Humanity	117	5.81	1.12
Bottomline	117	5.59	0.96
Convention	117	6.04	1.00
DV			
Role of Values			
Humanity	117	5.33	1.27
Bottomline	117	4.97	1.21
Convention	117	5.74	1.26
Missing Values	2		

Personal Demographics. Females accounted for 44.5% of the respondents. The age groups of 35-44 years (31.9%) and 45-54 (28.6%) years accounted for almost one-third of the respondents each, followed by 25-34 years (22.7%), and 55-64 years (10.9%) representing majority of the respondents. Table 14 provides the age break-down for the respondents by age groups.

Table 14 – Age Group of Respondents.

Age Group	Frequency	Percent	Valid Percent
35 – 44	38	31.93	32.76
45 – 54	34	28.57	29.31
25 – 34	27	22.69	23.28
55 – 64	13	10.92	11.21
18 – 24	2	1.68	1.72
65 – 74	2	1.68	1.72

Missing	3	2.52	
Total	119	100.00	100.00

Majority of the respondents either had a professional degree (34.5%) or a 4-year degree (25.2%). The respondents' education level appears in Table 15.

Table 15 – Education of Respondents.

Education	Frequency	Percent	Valid Percent
Professional degree	41	34.45	35.04
4 year degree	30	25.21	25.64
2 year degree	18	15.13	15.38
Some college	15	12.61	12.82
Other	11	9.24	9.40
High school graduate	2	1.68	1.71
Missing	2	1.68	
Total	119	100.00	100.00

A majority of the respondents reported annual income between \$40,000 to \$99,999 (65.5%) and 21.8% reported an annual income between \$100,000 to \$200,000. The annual income of respondents appears in Table 16.

Table 16 – Annual Income of Respondents.

Annual Income	Frequency	Percent	Valid Percent
\$60,000 - \$79,999	28	23.53	25.69
\$40,000 - \$59,999	25	21.01	22.94
\$80,000 - \$99,999	25	21.01	22.94
\$100,000 - \$119,999	16	13.45	14.68
\$120,000 - \$149,999	8	6.72	7.34
Under \$40,000	4	3.36	3.67
\$150,000 - \$200,000	2	1.68	1.83
Over \$200,000	1	0.84	0.92
Missing	10	8.40	
Total	119	100.00	100.00

Most of the respondents had more than 10 years of experience (72.3%). The respondents' tenure was quite evenly distributed with 21.01% having 1 to less than 3 year, 19.33% 3 to less than 5 years, 18.49% 5 to less than 10 years, and 20.17% 10 to less than 20 years. The breakdown of respondents' experience and tenure appear in Tables 17 and 18 respectively.

Table 17 – Experience of Respondents.

Experience	Frequency	Percent	Valid Percent
10 years to 20 years	46	38.66	39.66
Greater than 20 years	40	33.61	34.48
5 years to less than 10 years	18	15.13	15.52
1 year to less than 3 years	6	5.04	5.17
3 years to less than 5 years	5	4.20	4.31
Less than 1 year	1	0.84	0.86
Missing	3	2.52	
Total	119	100.00	100.00

Table 18 – Tenure of Respondents

Tenure	Frequency	Percent	Valid Percent
1 year to less than 3 years	25	21.01	21.37
10 years to 20 years	24	20.17	20.51
3 years to less than 5 years	23	19.33	19.66
5 years to less than 10 years	22	18.49	18.80
Less than 1 year	14	11.76	11.97
More than 20 years	9	7.56	7.69
Missing	2	1.68	
Total	119	100.00	100.00

The respondents were asked about which purchasing roles they play in their respective organization as a multiple response question. Purchaser came up as the most frequent at 72.3% (45.5% of total cases) followed by influencer at 22.5% (35.7% of total

cases) and decision maker at 13.5% (21.7% of total cases). Table 19 provides the frequency distribution of the purchasing roles.

Table 19 - Purchasing Role Frequencies.

Purchasing Role	Responses		Percent of Cases
	N	Percent	
Purchaser	81	45.50	72.30
Influencer	40	22.50	35.70
Decision Maker	24	13.50	21.40
Observer	16	9.00	14.30
User	14	7.90	12.50
Other	3	1.70	2.70
Total	178	100.00	158.90

Note: Multiple response question

Organizational Demographics. A majority of of the organizations had annual revenue of CA\$5M to CA\$100M (38.57%) and CA\$100M to \$1B (31.1%). Table 20 provides the breakdown of annual revenue of the organizations.

Table 20 – Annual Revenue of Organizations.

Annual Revenue	Frequency	Percent	Valid Percent
\$5M to less than \$50M	21	17.65	19.44
Less than \$ 5M	20	16.81	18.52
\$500M to less than \$1B	19	15.97	17.59
\$100M to less than \$500M	18	15.13	16.67
\$50M to less than \$100M	13	10.92	12.04
\$1B to \$5B	12	10.08	11.11
Greater than \$5B	5	4.20	4.63
Missing	11	9.24	
Total	119	100.00	100.00

The organizations prdeominantly fell under the private sector (52.1%) followed by the public sector (32.8%). Table 21 details the ownership type of the organizations.

Table 21 – Ownership Type of Organizations.

Ownership Type	Frequency	Percent	Valid Percent
Private Sector	62	52.10	52.99
Public Sector	39	32.77	33.33
Other	10	8.40	8.55
Joint Sector	6	5.04	5.13
Missing	2	1.68	
Total	119	100.00	100.00

A majority of the organizations have been in business for greater than 30 years (66.4%). Table 22 provides the breakdown of organization by age groups.

Table 22 – Age of Organizations.

Age of Organizations	Frequency	Percent	Valid Percent
Greater than 50 years	59	49.58	50.00
30 years to less than 50 years	20	16.81	16.95
15 years to less than 30 years	19	15.97	16.10
5 years to less than 15 years	11	9.24	9.32
1 year to less than 5 years	6	5.04	5.08
Missing	3	2.52	2.54
Less than 1 year	1	0.84	
Total	119	100.00	100.00

The respondents belonged to organizations from diverse industries. The top 3 were manufacturing (13.4%), education services (11.8%) and other (27.7%). Table 23 shows the industries that the respondents' organizations belonged to.

Table 23 – Organization's Industry.

Industry	Frequency	Percent	Valid Percent
Other.	33	27.73	28.45
Manufacturing	16	13.45	13.79
Educational services	14	11.76	12.07
Health care or social assistance	9	7.56	7.76
Mining	7	5.88	6.03

Professional, scientific or technical services	7	5.88	6.03
Transportation or warehousing	7	5.88	6.03
Utilities	5	4.20	4.31
Construction	3	2.52	2.59
Finance or insurance	3	2.52	2.59
Forestry, fishing, hunting, agriculture	3	2.52	2.59
Admin, support	2	1.68	1.72
Retail trade	2	1.68	1.72
Wholesale trade	2	1.68	1.72
Information	1	0.84	0.86
Management of companies or enterprises	1	0.84	0.86
Real estate or rental and leasing	1	0.84	0.86
Missing	3	2.52	
Total	119	100.00	100.00

Most of the organizations had either a centralized purchase function operation (45.4%) or a combination/ hybrid (centralized and decentralized) purchase function operation (34.5%). Table 24 provides the breakdown of purchase function operations in the respondents' organizations.

Table 24 – Purchase Function Operation in Organizations.

Purchasing Operation	Frequency	Percent	Valid Percent
Centralized	54	46.15	46.15
Combination/ hybrid	41	35.04	35.04
Decentralized	21	17.95	17.95
Other	1	0.85	0.85
Missing	2	1.71	
Total	119	100.00	100.00

A majority of the organizations had a high level of formalization around the purchasing function (62.2%) followed by medium level of formalization (27.35%). Table 25 shows the details of purchasing formalization in the organizations.

Table 25 – Purchasing Formalization in Organizations.

Purchasing Formalization	Frequency	Percent	Valid Percent
High level of formalization	74	62.18	63.25
Medium level of formalization	32	26.89	27.35
Low level of formalization	11	9.24	9.40
Missing	2	1.68	
Total	119	100.00	100.00

Purchase Situation Attributes. Table 26 below provides the descriptives for the various purchase situation attributes collected in the study. The average days since the last decision was made was 59.38 days (SD = 141.20, N =112), the average number of days decisions took to make was 56.72 days (SD = 100.10, N =116), the mean decision importance score was 5.49 on a scale of 1 to 7 (SD = 1.66, N =117) and the average number of people involved in the purchase decisions (buying center) was 5.23 people (SD = 5.81, N =116).

Table 26 – Descriptives for Purchase Situation Attributes.

Purchase Situation Attribute	N	Mean	SD
Days since Decision was made	112	59.38	141.20
Days Decision took to make	116	56.72	100.10
Decision Importance (on a seven-point Likert scale)	117	5.49	1.66
People involved in the Decision (Buying Center)	116	5.23	5.81

Table 27 provides the multi response frequencies for decision role(s) assumed by the respondents in the respective purchase situations. Purchaser was the highest recurring decision role at 49.70% (68.4% of total cases) followed by influencer at 19.90% (27.4% of total cases).

Table 27 – Frequencies for Purchase Situation Attribute of Decision Role.

Decision Role	Responses		Percent of Cases
	N	Percent	
Purchaser	80	49.70	68.40
Influencer	32	19.90	27.40
Observer	20	12.40	17.10
Decision Maker	17	10.60	14.50
User	7	4.30	6.00
Other	5	3.10	4.30
Total	161	100.00	137.60

Note: Multiple response question

Personal and organizational demographics as well as purchase situation attributes were controlled in the regression models to improve the strength of the analysis. Due to expediency considerations and in light of low sample size, it was decided to include six variables out of a total of twenty three collected in the survey. The author used his industry experience and business purchasing literature (Webster and Wind, 1972; Sheth, 1973; Sashi, 2009; Johnston and Bonoma, 1981; Kohli, 1989; Bellizzi, 1989; Kauffman, 1996) to select the control variables (CVs). Decision importance, number of people in the buying center, annual revenue, purchase formalization, education and tenure were thereby selected based on the relevance to business purchase decisions.

Hypotheses Testing. The hypotheses were tested with the help of polynomial regression method suggested by Edwards (1994) and used by Edwards and Cable (2009) and Finegan (2000). As discussed earlier, the procedure allows incorporating the influence of congruency or fit between the IVs on the DVs as well as the non-linear/ quadratic influence of IVs in addition to their linear effects in the regression analysis.

Correlations matrix for CVs, IVs and DVs appears in Table 28. Only the control variables, that were continuous in nature, were included (decision importance, buying center number and education years). The correlations table shows significant correlations ($p > .05$) between most of the items including several strong correlations ($r > .5$). However, some of these significant and strong correlations are between the linear and quadratic terms for the respective personal and organizational values, and therefore can be ignored. The only significant and strong correlation between IV and DV (role of values) is between OV (Organizational Values) Humanity and RV (Role of Values) Humanity. Interestingly the control variables show some significant correlations but none of them are strong.

As suggested by Edwards (1994), discrepant analysis between personal and organizational values was carried out to ensure that adequate discrepancy exists for each factor (Humanity, Bottomline, and Convention) between personal values and organizational values to make further value-congruency/ fit analysis meaningful (Shanock et al., 2010). This was carried out by calculating standardized scores (Z scores) for both personal and organizational values-importance scores, calculating their differences, and then categorizing them based on the level/ direction of agreement using half a standard deviation as the threshold in either direction (Fleenor et. al., 1996; cf: Shanock et al., 2010). The analysis shows roughly a fifty-fifty split between “in agreement” and “not in agreement” categories (combined “personal values less than organizational values”, and “personal values greater than organizational values”) for all three factors (Humanity: 55.5% and 42.8%; Bottomline: 52.1% and 46.2%; Convention: 53.8% and 44.5% respectively).

Table 28 – Correlations Matrix for CVs, IVs and DVs in the Regression Analysis.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Personal Values																					
1. Humanity	1																				
2. Bottomline	.80**	1																			
3. Convention	.48**	.48**	1																		
Organizational Values																					
4. Humanity	.43**	.36**	.34**	1																	
5. Bottomline	.41**	.46**	.49**	.76**	1																
6. Convention	.50**	.49**	.38**	.50**	.49**	1															
Personal Values²																					
7. Humanity	.62**	.52**	.36**	.25**	.20*	.28**	1														
8. Bottomline	.26**	.62**	.29**	0.16	.27**	.31**	.55**	1													
9. Convention	.27**	.28**	.73**	.22*	.28**	.28**	.47**	.40**	1												
Organizational Values²																					
10. Humanity	.26**	.24**	.32**	.70**	.50**	.29**	.54**	.39**	.45**	1											
11. Bottomline	0.08	.25**	.34**	.50**	.73**	.24**	.36**	.49**	.45**	.71**	1										
12. Convention	.21*	.30**	.25**	.29**	.27**	.78**	.43**	.51**	.41**	.43**	.41**	1									
Personal Values X Organizational Values																					
13. Humanity	.37**	.33**	.28**	.80**	.54**	.31**	.56**	.37**	.40**	.86**	.65**	.45**	1								
14. Bottomline	.30**	.56**	.40**	.47**	.64**	.26**	.51**	.70**	.50**	.66**	.86**	.47**	.73**	1							
15. Convention	.24*	.36**	.79**	.33**	.41**	.46**	.45**	.49**	.78**	.54**	.57**	.62**	.51**	.62**	1						
Control Variables																					
16. Decision Importance	.14	.29**	.12	.14	.23*	.32**	.13	.310**	.07	.10	.21*	.34**	.15	.27**	.23*	1					
17. Buying Center Number	-.06	-.04	-.11	.01	.02	-.02	-.06	-.02	-.10	-.09	.00	-.04	-.05	-.04	-.11	.18*	1				
18. Education (Years)	.25**	.14	.14	.14	.17	.14	.08	-.09	.05	.02	.02	-.01	.10	.02	.03	.22*	.08	1			
Role of Values																					
19. Humanity	.39**	.36**	.41**	.72**	.57**	.39**	.32**	.27**	.34**	.57**	.39**	.28**	.59**	.40**	.40**	.12	.03	.08	1		
20. Bottomline	.38**	.45**	.47**	.59**	.59**	.38**	.33**	.41**	.34**	.48**	.47**	.27**	.48**	.48**	.42**	.18	.03	.13	.83**	1	
21. Convention	.33**	.30**	.19*	.48**	.33**	.56**	.22*	.24**	.18*	.30**	0.13	.41**	.31**	.14	.24**	.15	.12	.06	.63**	.51**	1

** Correlation is significant at 0.01 level (2 tailed)

* Correlation is significant at 0.05 level (2 tailed)

Note: CVs Annual Revenue, Purchase Formalization and Tenure not included as they are categorical in nature.

This shows that adequate discrepancy exists between personal and organizational values to allow further analysis using values-congruency/ fit between the personal and organizational values. Table 29 provides the discrepancy frequencies thus calculated for personal and organizational values for the three factors respectively.

Table 29 – Discrepancy Frequencies for Standardized Scores for personal/ organizational Values.

	Frequency	Percent	Valid Percent	Cumulative Percent
Humanity				
In agreement	66	55.50	55.50	57.10
PV less than OV	26	21.80	21.80	79.00
PV more than OV	25	21.00	21.00	100.00
Missing	2	1.70	1.70	1.70
Total	119	100.00	100.00	
Bottomline				
In agreement	62	52.10	52.10	53.80
PV less than OV	30	25.20	25.20	79.00
PV more than OV	25	21.00	21.00	100.00
Missing	2	1.70	1.70	1.70
Total	119	100.00	100.00	
Convention				
In agreement	64	53.80	53.80	55.50
PV less than OV	23	19.30	19.30	74.80
PV more than OV	30	25.20	25.20	100.00
Missing	2	1.70	1.70	1.70
Total	119	100.00	100.00	

The results for the polynomial regression model using step-wise linear regression function in SPSS appear in Table 30. The regression output reveals a strong variance with R² values of 68.8%, 61% and 57.4% for the three DVs RV Humanity, RV Bottomline and RV Convention respectively. The F-values are also significant for the regression for the

three DV's respectively (Humanity: $F=8.708$, $p<.01$; Bottomline: $F=6.332$, $p<.01$; Convention: $F=5.446$, $p<.01$).

Table 30 – Polynomial Regression Model for Personal/ Organizational Values and Values-Congruency on Role of Values in Business Purchase Decisions.

Values	Role of Values - Humanity	Role of Values - Bottomline	Role of Values - Convention
Control Variables			
Decision Importance	0.01	0.02	0.02
Buying Center Number	0.05	0.01	0.09
Education	-0.01	0.07	-0.06
Annual Revenue	-0.05	0.00	0.02
Purchase Formalization	0.26***	0.19*	0.27**
Tenure	0.00	-0.13	-0.10
Personal			
Humanity	0.24	0.06	0.27
Bottomline	0.02	-0.07	-0.11
Convention	-0.21	0.24	-0.60*
Organization			
Humanity	0.971*	0.877*	0.87
Bottomline	0.08	-0.25	-0.14
Convention	-0.40	0.03	0.33
R^2	0.65	0.55	0.50
F	14.35***	9.60***	7.76***
Personal²			
Humanity	0.02	0.11	0.07
Bottomline	0.18	0.31	0.30
Convention	0.13	-0.010 [†]	0.19
Organization²			
Humanity	0.06	-0.11	-0.06
Bottomline	0.05	0.36	0.07
Convention	0.17	-0.10	-0.18
R^2	66.60%	60.00%	54.27%
R^2 Change	1.92%	4.95%	4.50%
F	9.75***	7.33***	5.80***
Personal X Organization			
Humanity	-0.45	-0.51	-0.61
Bottomline	-0.28	0.07	-0.23
Convention	0.38	0.00	0.55 [†]

<i>R</i> ²	68.76%	61.00%	57.37%
<i>R</i> ² Change	2.16%	1.00%	3.10%
<i>F</i>	8.91***	6.3***	5.45***

Variables presented in the table are standardized regression coefficients (betas) unless otherwise stated.

p*<0.05, *p*<.01, ****p*<.001, †*p*<.06

Notes: Personal and Organizational values are centered. Select Personal/ Demographic and Purchase Situation variables are controlled.

Hypothesis 1 proposed that the stronger the perceived personal values (PV), the higher will be the perceived role of values (RV) in the business purchase decision. The regression results show only a single significant relationship between PV Convention and RV Convention (beta=-0.60, *p*<.05). However, it is an inverse relationship as the beta value is negative. This shows that the stronger the PV Convention the lower will be the RV Convention in the business purchase decision, which is contrary to the proposed hypothesis 1. The null hypothesis for H1 is therefore not rejected. The proposed hypothesis that the higher the perceived level of importance of personal values of employees the higher would be the perceived role that values play in the business purchase decisions is not supported. However, there is a significant yet inverse relationship between the perceived personal values of Convention (risk avoidance and compliance values) and the perceived role of same values in the business purchase decisions.

Hypothesis 2 proposed that the stronger the perceived organizational values (OV), the higher will be the perceived role of values (RV) in the business purchase decision. The regression results show a significant positive relationship between the OV Humanity and the RV Humanity (beta=0.97, *p* value<.05) as well as the RV Bottomline (beta=0.88, *p* value<.05). Therefore, the null hypothesis for H2 is partially rejected and the hypothesis

H2 is partially supported showing that the stronger the OV Humanity, the higher is the RV Humanity and the RV Bottomline respectively in the business purchase decisions. The proposed hypothesis that higher the perceived level of importance of organizational values the higher would be the perceived role of values in the business purchase decisions is therefore partially supported. The perceived Humanity (humaneness or benevolence) values of the organization have a positive relationship with the perceived role that the same values play in the business purchase decisions. Similarly, the perceived Humanity values of the organizations have a positive relationship with the perceived role of Bottomline (profitability) values in the business purchase decisions. Freedman (2009) has argued that the size of beta values can be used to interpret the impact of relationships. Therefore, perceived organizational values of Humanity may have a higher impact on the perceived role of Humanity (humaneness) values than the perceived role of Bottomline (profitability) values in business purchase decisions.

Hypothesis 3 proposed that the higher the congruency of personal and organizational values, the higher is the role of values in the business purchase decision. The regression results do not show any significant relationships between the product/interaction of personal and organizational values that represents values-congruency, and the role of values for any of the factors (Humanity, Bottomline and Convention). The null hypothesis for H3 is therefore not rejected. The proposed hypothesis that higher the values-congruency between the perceived personal and organizational values the higher will be the perceived role of values in the business purchase decisions is not supported.

As discussed in the theoretical framework section, the study also included an additional research question R1 to understand what relative importance is given to each

values dimension/ factor respectively for personal values, organizational values, and values-congruency on the role of values in the business purchase decisions. The regression results provide limited insights into which personal and organizational values get priority in influencing the role of values in business purchase decisions due to few significant relationships (none of the relationships between values-congruency and the role of values was significant). The size of beta values for the few significant relationships found in the study indicate that the OV Humanity has higher impact on the RV Humanity (beta=0.97, p value<.05) and the RV Bottomline (beta=0.88, p value<.05) as compared to the influence of the PV Convention on the RV Convention (beta=-0.60, p<.05), which had an inverse relationship.

As discussed earlier, decision importance, number of people in the buying center, annual revenue, purchase formalization, education and tenure were included as control variables in the regression analysis. Out of these the regression analysis found a significant relationship for only purchase formalization with the RVs. Interestingly, the purchase formalization, which refers to the level of formalization around business purchasing within organizations, showed significant positive relationships with all three RVs i.e. RV Humanity (beta=0.26, p value<.001), RV Bottomline (beta=0.19, p value<.05) and RV Convention (beta=0.27, p value<.001) respectively. This shows that as the organizations increase the perceived level of formalization around business purchasing, the perceived role of values in the business purchase decisions also increases.

It is important to note that none of the quadratic terms for perceived personal values or perceived organizational values had a significant relationship with the perceived role of values in business purchase decisions showing an absence of any non-linear relationships.

The regression analysis also highlighted a number of interesting marginally significant relationships. The influence of the PV² Convention on RV Bottomline is marginally significant (beta=0.010, p value<.06) indicating that the relationship between PV Convention and RV Bottomline is likely to be non-linear/ quadratic and positive in direction. Similarly, there is a marginally significant relationship between the PV X OV Convention on the RV Convention (beta=0.55, p value<.06) showing that the value congruency or fit of PV Convention and OV Convention is likely to influence the RV Convention in business purchase decisions. Future studies could further examine these relationships.

Response Surface Analysis. As discussed in the Research Method section, the study intended to conduct response surface analysis to further understand the relationship between values-congruency of perceived personal and organizational values, and the perceived role of values following the process recommended by Edwards (1994). Unfortunately, the study didn't show any significant relationships between values-congruency and the perceived role of values. There was only one marginally significant relationship between the values-congruency (VC) Convention and RV Convention. The response surface analysis was carried out for this relationship to showcase the additional insights that response surface analysis can provide around the influence of values-congruency on the perceived role of values in business purchase decisions to help future research.

Figure 3 gives the response surface diagram for PV/OV (values-congruency) Convention on RV Convention developed utilizing the process outlined by Shanock et al., (2010) based on Edwards (1994). The agreement between the PV and OV is represented

by the solid diagonal line on the base of the graph ($X=Y$ line). The graph shows that the RV convention increases as the agreement between the PV Convention and OV Convention increases. The discrepancy or incongruence between the PV Convention and OV Convention is shown by the dashed diagonal line on the base of the graph ($X=-Y$ line). The graph shows that as PV Convention and OV Convention become more discrepant by moving on this line away from the center to the either side, the RV Convention either stays flat or reduces. The graph also shows that the RV Convention is low with $PV\ Convention > OV\ Convention$ (the bottom right of the graph) and it is high when $OV\ Convention > PV\ Convention$ (bottom left of the graph).

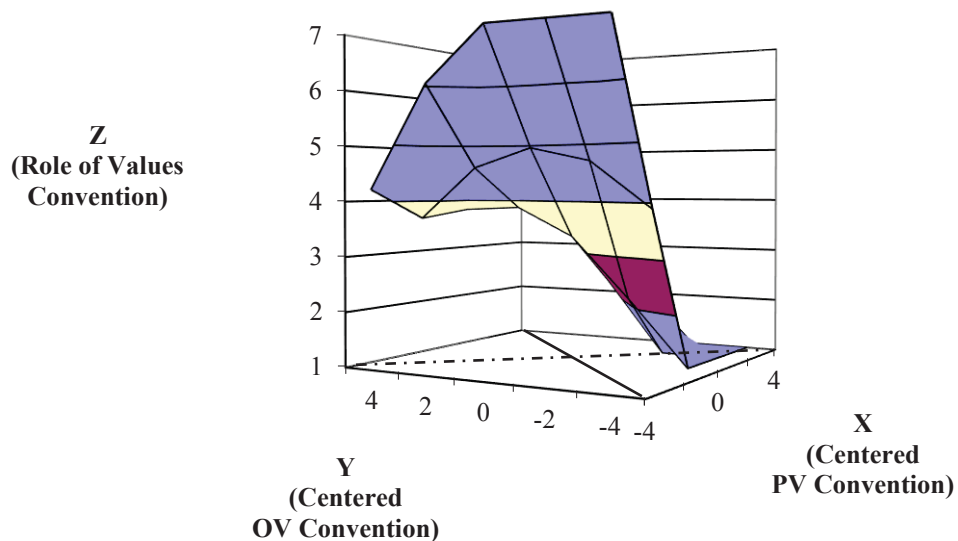


Figure 3 - Role of Convention Values as Predicted by Personal and Organizational Convention Values.

This shows that the perceived role of Convention (risk aversion and compliance) values in business purchase decisions increases as the agreement between perceived

personal and organizational Convention values increases. Also, the perceived role of Convention values in business purchase decisions is higher when the perceived organizational values have a higher level of importance than the perceived personal values. It is important to note that none of the tests for slopes and curves for the figure were significant. Refer to Appendix F for the detailed make-up and supporting calculations for the response surface diagram.

Discussion and Findings

Business purchasing is a critical business activity which is gaining in importance for firms of all sizes (Carter and Narasimhan, 1996; Kaufmann et al., 2009). Business purchase decisions are complex and time consuming processes that involve several individuals, multiple sources of information and internal/ external interactions (Webster and Wind, 1972; Sheth, 1973). Values influence individual (Rokeach, 1973; Schwartz and Bilsky, 1987, 1990; Cai and Shannon, 2012; Zhou et al., 2013; Teck Weng and Cyril de Run, 2013; Manchiraju and Sadachar, 2013; Shaw et al.,; Ajzen and Driver, 1992; Ajzen, 1991, 2002; Madden et al., 1992) as well as organizational behavior (Sheth, 1973; Webster and Wind, 1972; Sashi, 2009; Plank et al., 1994). Organizational decisions also depend on the alignment and interaction between organizational and personal values (Liedtka, 1989; Chatman, 1989). Gaps in the values “congruence” may lead to negative employee work attitude (Meglino and Ravlin, 1998) and poor organizational performance and outcomes (Liedtka, 1989; Kumar, 2012; Finegan, 2000; Suar and Khuntia, 2010; McDonald and Gandz, 1993; Chatman, 1989). Therefore personal and organizational values as well as their interaction or values-congruency need to be considered for understanding individual and organizational behavior (Chatman, 1989). The study examined this phenomenon by surveying members of SCMA, which represents the supply chain management professionals in Canada.

The first hypothesis was: the higher the perceived personal values of employees the higher is the perceived role of values in business purchase decisions. The study did not find support for this hypothesized relationship between the perceived personal values and the perceived role values play in business purchase decisions. The second hypothesis was: the

higher the perceived organizational values the higher is the perceived role values play in business purchase decisions. The study found partial support for this by showing significant relationships between the perceived organizational values of humaneness, and the perceived role of humaneness and profitability values in business purchase decisions. The third hypothesis was: the higher the values-congruency of perceived personal and organizational values, the higher the perceived role values play in business purchase decisions. The study also didn't find a significant relationship between the values-congruency or fit of perceived personal and organizational values of employees and the perceived role that values play in the business purchase decisions. These findings suggest that employees may be able to separate perceived personal values from the business purchase decisions, but are likely to incorporate perceived organizational values while making these decisions. Also, the level of agreement or disagreement between the perceived personal values of employees and the perceived values of their respective organizations, doesn't seem to have any impact on the perceived role the values play in business purchase decisions that occur in organizations. These findings both confirm and contradict prior studies of the role of values in the organizations (Finegan; 2000; Kumar, 2012; Suar and Khuntia, 2012; Ponser and Schmidt, 1993; Posner, 2010; McGuire et al., 2006; Fritzsche and Oz, 2005; Plank et al., 1994) as discussed in detail below.

It has been acknowledged in the literature that organizational values define the organization's culture (Suar and Khuntia, 2010; Chatman, 1989) and influence individual as well as organizational behavior (Rokeach, 1973; Schwartz and Bilsky, 1987, 1990; Cai and Shannon, 2012; Zhou et al., 2013; Teck Weng and Cyril de Run, 2013; Manchiraju and Sadachar, 2013; Shaw, Grehan, Shui, Hassan and Thomsen, 2005; Ajzen and Driver,

1992; Ajzen, 1991, 2002; Madden et al., 1992; Sheth, 1973; Webster and Wind, 1972; Sashi, 2009; Plank et al., 1994; Chatman, 1989). Even though the individuals are at the heart of the business purchase decisions, they work as “constrained agents” within the organizational context and culture (Webster and Wind, 1972; Sheth, 1973; Bellizzi, 1999; Kohli, 1989).

The present study identified three factors for the personal/ organizational values and the role values play in the business purchase decisions: (1) Humanity representing humaneness and benevolence items, (2) Bottomline representing profitability items, and (3) Convention representing risk aversion and compliance items. As discussed in the Research Method section, these factors aligned very well with the similar factors identified by Finegan (2000) and Kumar (2012). The polynomial regression analysis (Edwards, 1994; Edwards and Cable, 2009; Finegan, 2000; Shanock et al., 2010), at the respective factors level found a significant relationship between the perceived humaneness or benevolence values of the organization and the perceived role of the same values in the business purchase decisions. The polynomial regression analysis also pointed out a similar significant relationship between the perceived humanity or compassion values of organizations and the perceived role played by profitability values in the business purchase decisions. This means that in the organizations with cultures defined by strong humaneness or benevolence values, the employees are likely to consider the humanity/ compassion and profitability values in the business purchase decisions. As mentioned earlier, these findings are similar to Finegan (2000) and Kumar (2012), who also found that the perceived organizational values of humanity/ humaneness influence employees’ organizational commitment and job satisfaction respectively. Suar and Khuntia (2010) on the other hand,

showed that perceived personal values of employees are more important in reducing unethical work practices and enhancing work behaviors than perceived organizational values or values-congruency. There are also other studies that showed a relationship between personal values of employees and organizational decision making without including organizational values or values-congruency in the analysis (Plank et al., 1994; Fritzsche and Oz, 2005; McGuire et al, 2006).

The finding that both the perceived humaneness/ benevolence and profitability values play a role in the business purchase decisions may appear contradictory due to the seemingly conflicting nature of these values. However, this can be reconciled given the acknowledged relationship between good corporate citizenship and performance of organizations, as the goals of businesses and the society/ environment are intertwined (Menon & Menon, 1997). Firms can also generate profit for shareholders while safeguarding the environment and communities they operate in (Savitz & Weber, 2006; cf: Sharma, Mehrotra and Krishnan, 2010) and gain competitive advantage through environmental strategies (Menon & Menon, 1997).

Interestingly, the study showed a single significant relationship between the perceived strength of personal values of employees and the perceived role values played in the business purchase decisions for the risk aversion and compliance values. However, this was an inverse relationship contrary to the hypothesized relationship, suggesting that the stronger the employees' perceived personal values of cautiousness and obedience, the lower the perceived role these values will play in the business purchase decisions. It may be that employees are so much constrained by the organizational values, manifested in the form of organizational culture and rules and policies around business purchasing, that

personal values become irrelevant. One potential explanation for the single significant relationship would be that employees with high perceived personal values of cautiousness and obedience are likely to separate their personal values from the workplace and give higher importance to organizational values (and lower importance to the personal values) in business purchase decisions being more subservient to the organizational culture.

Finegan (2000) and Kumar (2012) also found few significant relationships between cautiousness and obedience values of employees and their commitment to organizations and job satisfaction respectively. However, the relationships in case of both of these studies were positive in direction similar to the current study, suggesting that the stronger the perceived risk aversion and compliance values of employees the more committed and satisfied they are likely to be with their organizations and jobs respectively. It is also important to note that few researchers have found perceived personal values as more important than the perceived organizational values in organizational outcomes and decision making such as: on employee's commitment towards work (Posner and Schmidt, 1993; Posner, 2010); and ethical practices (Posner and Schmidt, 1993). Even though this finding doesn't directly support the study hypothesis, it raises some important questions that may be further explored in future studies.

As discussed earlier, several scholars have also argued for considering the values-congruency or fit of personal and organizational values to understand the individual and organizational behavior (Liedtka, 1989; Meglino and Ravlin, 1998; Posner and Schmidt, 1993; Posner, 2010; Suar and Khuntia, 2010; Kumar, 2012; Chatman, 1989; Finegan, 2000; Liedtka, 1989). However, the study didn't find any significant relationships between the alignment (or misalignment) of the perceived personal/ organizational values and the

perceived role of values the business purchase decisions. It is important to point out that these results are despite the discrepant analysis conducted per Edwards (1994) that confirmed the existence of adequate discrepancy between perceived personal and organizational values in the study data. Literature has acknowledged that there could be situations where the values of employees do not “align” with the organizational values (Kumar, 2012; Chatman, 1989) and in such conflicting scenarios, the stronger or clearer values will be expected to prevail, as the individuals and (or) the organization or institution will attempt to minimize the conflict in order to achieve internal and external harmony through achieving values-congruency (Liedtka, 1989). However, the current study’s results failed to support these arguments. This suggests that in the business purchase situations where there is a conflict or misalignment between the personal values of employees and the values of the organization, the values-congruency is not likely to have any impact on the business purchase decisions.

Here again the present study’s findings are consistent with several earlier studies (Finegan, 2000, Suar and Khuntia, 2010, Edwards and Cable, 2009), which also found limited support for the influence of values-congruency on organizational commitment (Finegan, 2000), unethical work practices and work behaviors (Suar and Khuntia, 2010), and job satisfaction, organizational identification and intent to stay (Edwards and Cable, 2009). The limited support for the relationship between the perceived personal values of employees and the attributed role values play in the business purchase decisions discussed earlier may also be contributing to this lack of support for the perceived values-congruency’s influence on the role values play in the business purchase decisions. It may be argued that since the study shows limited support for a relationship between the

perceived personal values of employees and the perceived role values play in the business purchase decisions, the discrepancy or alignment between the personal and organization values may not come into play in the business purchase decisions as the organizational values would be likely to prevail and dominate the organizational decisions (Liedtka, 1989). However, few researchers have made contrary arguments that the perceived alignment or fit of perceived personal and organizational values or values-congruency does influence organizational behavior, such as attitude towards work (Posner and Schmidt, 1993, Posner, 2010) and ethical practices (Posner and Schmidt, 1993).

According to the literature, values exist in a hierarchy based on relative significance or priority forming a “value system” (Rokeach, 1973; Schwartz and Bilsky, 1987, 1990). As discussed in the Findings and Results section, the study provides some insights into which perceived personal and organizational values get priority in the role employees attribute to the values in business purchase decisions. The perceived values of humaneness or benevolence appear to play a more important role than the perceived profitability or bottomline values in the business purchase decisions. As discussed above, even though these two sets of values appear conflicting, they are inter-related as the goals of the organizations and the society are intertwined and complementary (Menon and Menon, 1997; Sharma, Mehrotra and Krishnan, 2010) including the firm’s profitability motives and the society’s requirements related to the environment and community stewardship (Savitz and Weber, 2006; cf: Sharma et al., 2010). However, it is likely that the perceived humaneness or benevolence values are more important than the perceived profitability values in business purchasing decisions because of the increased focus by the

organizations and society on corporate social responsibility (Menon and Menon, 1997; Sharma et al., 2010).

The study also incorporated personal/ organizational demographics, purchase situation attributes and organizational structure items as control variables due to their expected influence on the business purchase decisions (Sheth, 1973; Webster and Wind, 1992; Kohli, 1989; Sashi, 2009; Kauffman, 1996). Out of the six control variables included (decision importance, number of people in the buying center, annual revenue, purchase formalization, education and tenure) the study only found a relationship between the perceived level of formalization in the business purchasing function within the organizations, and the perceived role values play in the business purchase decisions. This suggests that as the level of formality around the business purchase decisions in the organizations increases, the perceived role of values in the business purchase decisions is also likely to increase. Organizations often adopt increased formality in the business purchasing function through investments in people, processes and systems for the sake of making business purchase decisions more efficient, transparent and effective (Johnston and Bonoma, 1981). These action may cause either the employees to separate their personal values from business purchase decisions, or the organizations to not allow room for the personal values to enter into business purchase decisions. As a result, the perceived organizational values may potentially play an important role in the business purchase decisions and render the perceived personal values and values-congruency inconsequential.

Scholars have only recently started to include personal/ organizational demographics, purchase situation attributes and organizational structure items in the study of values-congruency as control variables. These researchers have found experience

(Posner, 2010), age, and hierarchical level (Posner, 2010; Suar and Khuntia, 2010) of employees to influence perceived organizational commitment (Posner, 2010, Suar and Khuntia, 2010) and job satisfaction (Suar and Khuntia, 2010), education was not found to have a significant influence (Posner, 2010). It is therefore difficult to review/ compare the present study's findings related to the control variables of personal/ organizational values, purchase situation attributes and organizational structure items with the existing literature. However, future studies could examine this area further.

As evident from the above discussion, the present study's findings both confirm and contradict prior studies of the role of values in organizational outcomes and decision making. In addition to the theoretical explanations for the various differences discussed above, there are differences in the research contexts and methodologies that may have also contributed to these discrepancies. The data gathered by Kumar (2012) and Finegan (2000) were from human resource management employees, which would differ from the employees in the business purchasing field, where the present study is situated. Human resource management deals with systems and processes for managing people within organizations to meet organizational objectives (Armstrong, 2006). On the contrary business purchasing involves sourcing goods and services in support of the firm's value chain to produce goods and services for its customers (Kausik and Mahadevan, 2012). Therefore there are significant differences between the two areas of studies with respect to major theoretical concepts and assumptions as well as management practices. Human resources management has people resources as its primary focus, whereas business purchasing is focused on the material resources and services. The incentives, rewards/ compensation and performance management systems are quite different between the two

areas. Due to the above differences between the two fields, the employees in the human resource area may give more importance to perceived personal values in organizational decision making. On the other hand, the employees in business purchasing or supply chain management are expected to pay more attention to the perceived organizational values when it comes to organizational decisions including business purchasing. This suggests that perceived personal values and perceived values-congruency may play a less important role in the business purchase decisions as compared to human resource decision making or behavior.

It is also important to note that the majority of the value-congruence literature has examined personal outcomes such as organizational commitment (Finegan, 2000), and job satisfaction, organizational identification and intent to stay (Edwards and Cable, 2009) or organizational outcomes such as unethical work practices and work behaviors (Suar and Khuntia, 2010) rather than functional decision-making. The current study findings may be different from the existing literature as it looked at the functional decision making rather than personal or organizational outcomes by focusing on business purchase decisions.

With respect to the methodological differences, the present study utilized polynomial regression method (Edwards, 1994) which hasn't been used much in organizational research (Finegan, 2000, Edwards and Cable, 2009). Other studies either didn't include values-congruency (Kumar, 2012; Plank et al., 1994; Mcguire et al., 2006; Fritzsche Oz, 2005) or used different and less rigorous methods to measure it. Posner and Schmidt (1993) and Posner (2010) used "shared values scale", whereas Suar and Khuntia (2010) used correlations between personal and organizational values to measure the values-congruency. The current study regressed personal/ organizational values and values-

congruency factors/ variables simultaneously, whereas the other studies that have used polynomial regression method regressed them separately (Finegan, 2000; Edwards and Cable, 2009). The present study also incorporated control variables in the regression model, whereas most of the earlier studies in the area that used polynomial regression method by Edwards (1994) have not (Finegan, 2000; Edwards and Cable, 2009). The inclusion of control variables in the regression model by the present study is likely to result in stronger analysis but fewer significant relationships.

Contributions and Implications

By using the concept of personal values, organizational values, and values-congruency, in business purchase decisions, the proposed study incorporates the under-utilized behavioral or psychological factors in the field of business purchasing, supply chain management and business-to-business marketing, to improve the understanding of the complex business purchase behavior. The study found partial support for the perceived organizational values influencing the perceived role values play in the business purchase decisions. The study didn't find support for the perceived personal values or values-congruency of perceived personal/ organizational values influencing the perceived role values play in the business purchase decisions.

The study enhances theory in the field of business purchasing, supply chain management, and business-to-business marketing by proposing and testing a theoretical framework for understanding the role of personal/ organizational values and values-congruency on the business purchase decisions. The study also advances the literature by showing the nature of relationships between perceived personal values, perceived organizational values, values-congruency and the perceived role values play in the business purchase decisions. The study incorporated personal/ organizational demographics, purchase situation attributes and organizational structure items as control variables to improve the strength of analysis and understand potential relationships of these variables with the perceived role of values in the business purchase decisions.

Based on the study findings and discussion above, the study proposes following strategies and implications for the organizations, buyers and sellers/ marketers to potentially help improve and optimize the business purchasing, selling and marketing

operations and practices: (1) organizations may consider making organizational values clear to their employees as well as suppliers, and formalizing the purchase functions through investments in people, processes and systems, (2) the buyers may consider incorporating organizational values especially the humaneness/benevolence and profitability/ bottomline values in the business purchasing criteria/ processes, (3) the sellers/ marketers may identify the organizational values of their customer organizations especially humaneness/ benevolence and profitability/ bottomline values and tie-in/ position their products, services and organizations to respective customers accordingly, and (4) sellers/ marketers may also pay attention to the level of purchase function formalization at the customer organizations and consider adjusting their sales and marketing efforts, communications and strategies accordingly.

The study also improves the tools and methods to measure personal values, organizational values, and values-congruency and their influence on the business purchasing decisions. The study validates and enhances the list of values by McDonald and Gandz (1991, 1993) for research in the business purchasing field. The study also refines the polynomial regression method for measuring value congruency (Edwards, 1994) by regressing personal/ organizational values and values-congruency factors simultaneously and incorporating control variables in the polynomial regression analysis.

As discussed in detail in the Discussion and Findings section, the study findings both confirm and contradict prior studies on the role of personal/ organizational values and values-congruency in the organizations. The study is also one of the earlier studies in the literature utilizing the concept of personal/ organizational values and values-congruency to

understand business purchase decisions. The study therefore raises several interesting questions for future research in the area. These are discussed in detail in the next section.

Limitations and Future Research

This study has several limitations. The sample size for the pilot study used a small convenience sample from the purchasing department of a single organization. The main study drew a convenience sample from the Supply Chain Association of Canada (SCMA), which only represents supply chain professionals of Canada. Given the complexity of the research topic and method, the main study had a small sample size. The study utilized a survey questionnaire as the research instrument, which is susceptible to self-report and social desirability biases. The survey questionnaire adapted McDonald and Gandz's (1991, 1993) list of values, which were originated in the human resources management field for organizational research. This list may be more suitable to measure organizational values than personal values. The validated/ refined list of values used in the study may also suffer from limitations due to the small convenience sample used in the pilot study. The researchers may consider including other values relevant to organizational decision making/ business purchase decisions, such as: organizational efficiency (England, 1967; cf: McDonald and Gandz, 1991, 1993), tradition/ culture (Schwartz and Bilsky, 1987, 1990), social responsibility/ welfare (England, 1967; cf: McDonald and Gandz, 1991, 1993; Schwartz and Bilsky, 1987, 1990), and competitiveness. The study included a limited number of personal and organizational demographics, purchase situation attributes and organizational structure items as control variables. The study used the perceived role of values instead of behavioral intention or actual behavior to measure business purchasing behavior.

The study relied on respondents recalling recent purchase situations, which may have suffered from the "recency" effect/ bias and may have made comparisons across

various situations difficult. The study asked respondents to rate their organization's values, which may not correctly reflect the actual organizational values. The study only considered values-congruency between, and not within, personal and organizational values respectively. The study was conducted during a time when the local economy had just started to rebound from the down-turn, which may also have an impact on firms' recent business purchase decisions and the participants' responses to the survey questionnaire. The sample may include multiple respondents from same organizations as the respondents were not asked to identify their respective organizations for the sake of anonymity and confidentiality.

Being one of the earlier studies incorporating the concept of values in business purchasing, the study offers several interesting avenues for further study. Future studies could increase the sample size and expand the sampling frame to other countries and nations to increase the strength of statistical analysis and the generalizability of findings. Researchers could further refine/ improve the list of values used in the study to make it more relevant for measuring perceived personal and perceived organizational values in business purchasing research. This may also help improve the quality and reliability of factors identified for the personal and organizational values. Researchers could utilize a different list of values or develop a more pertinent and comprehensive list of values for measuring personal and organizational values in business purchasing context. Scholars could also incorporate organizational culture to represent organizational values. Future research should include additional personal/ organizational demographics, purchase situation attributes and organizational structure items as control variables. Research could also include relevant purchase situation attributes as independent variables (rather than

control variables) along with the perceived personal values, perceived organizational values, and values-congruency for enhanced understanding of business purchase decisions. Future studies could ask respondents about their organizations names to identify if there are multiple respondents from same organizations. Researchers could study the phenomenon in single organizations to control for variance in settings. Future research could also look at the influence of personal/ organizational values and values-congruency on organizational decisions outside business purchasing.

As discussed in the Discussion and Findings section, contrary to the study hypothesis, the study found an inverse relationship between the perceived personal values of cautiousness and obedience and the perceived role played by the same values in the business purchase decisions. This phenomenon should be explored further by researchers to confirm and understand the nature of the relationship between the perceived personal values and the perceived role values play in the business purchase decisions.

Future researchers could also consider utilizing an experimental design utilizing realistic purchase scenarios/ vignettes to understand the influence of perceived personal values, perceived organizational values and values-congruency on business purchase decisions. This could potentially incorporate the concept of behavioral intentions leveraging the theory of planned behavior (Ajzen & Driver, 1992; Ajzen, 1991, 2002; Madden et al., 1992). Researchers could conduct case studies across a number of organizations, and sample employees at different hierarchical levels in the organizations, to accurately measure organizational values, values-congruency and business purchase decisions and behavior. It would be interesting to understand if the perceived

organizational values and their influence on business purchase decisions vary by functional areas within organizations or industries.

Future studies should expand values-congruency to include the within congruency/ alignment for both the perceived personal values and the perceived organizational values respectively. Researchers should look into values-congruency between perceived personal values and perceived organizational values of buying and selling organizations, as well as the values portrayed by the products and services, and their influence on business purchase decisions. Future studies could also incorporate the quality or satisfaction aspects of business purchase decisions along with the role of personal/ organizational values and values-congruency. Researchers could consider longitudinal designs for studies in the area to capture and compare results over time. Lastly, the study could be repeated at a later stage after the economy has stabilized to validate and expand the findings.

Conclusion

Business purchasing is becoming a strategic area for firms to obtain competitive advantages (Kausik and Mahadevan, 2012; Carter and Narasimhan, 1996; Sheth, 1996). This study is one of the earlier studies in business purchasing that utilizes the concept of personal values, organizational values and values-congruency to understand the complex business purchasing behavior. The study thereby expands the use of otherwise under-utilized psychological or behavioral factors in the fields of business purchasing, supply chain management and business-to-business marketing.

The study proposed and tested a theoretical framework incorporating the perceived personal and organizational values, and values-congruency and the perceived role of values in the business purchase decisions. The study showed partial support for the influence of perceived organizational values on the perceived role values play in the business purchase decisions. The study found a significant relationship between the perceived humaneness or benevolence values of the organizations and the perceived role of same values in the business purchase decisions. The study also found a similar significant relationship between the perceived humanity or compassion values of organizations and the perceived role played by profitability values in the business purchase decisions. Interestingly, the study did not confirm any significant hypothesized relationships between the perceived personal values or the values-congruency of personal/ organizational values, and the perceived role values played in the business purchase decisions.

These findings suggest that in organizations with strong perceived humaneness or benevolence values, employees are likely to consider the perceived humanity/ compassion and profitability values in their business purchase decisions. The findings also suggest that

employees' perceived personal values may not play a role in the business purchase decisions as employees are likely to separate their perceived personal values from the business purchase decisions or the organizations to not allow room for the personal values to enter into business purchase decisions. Similarly, in the organizations where there is a conflict or misalignment between the perceived personal values of employees and the organization, the values-congruency (or incongruency) is not likely to have any impact on the perceived role values play in the business purchase decisions.

The study also found a significant relationship between the perceived level of formalization in the business purchasing function within the organizations, and the perceived role values play in the business purchase decisions. This suggests that as the level of formality in the business purchasing function in the organizations increases in the form of investments in people, processes and systems (Johnston and Bonoma, 1981), the perceived role of organizational values in the business purchase decisions is likely to increase.

The study validates and enhances the list of values by McDonald and Gandz (1991, 1993) for research in the business purchasing field. The study also refines the polynomial regression method for measuring value-congruency (Edwards, 1994) by regressing perceived personal/ organizational values and values-congruency factors simultaneously and incorporating control variables in the polynomial regression analysis.

The study proposes several strategies and implications for organizations, buyers and sellers/ marketers utilizing the perceived role of organizational values on the business purchase decisions to help improve and optimize the business purchasing, selling and marketing operations and practices. Lastly, being one of the early studies to use the concept

of personal values, organizational value and values-congruency to understand business purchasing behavior, the study also highlights several interesting avenues for future enquiry to further enhance the understanding of the business purchase decisions. There is a pressing need for developing this body of knowledge due to the increasing importance and complexity that business purchasing is assuming for the organizations.

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Appendix A

About Supply Chain Management Association of Canada (SCMA)

(Copied from Supply Chain Management Association of Canada's website.

<http://www.scma.com/en/about-scma>)

As the premier Canadian association for supply chain management professionals, the Supply Chain Management Association (SCMA) is the national voice for advancing and promoting the profession. SCMA sets the standard of excellence for professional skills, knowledge and integrity, and it was the first supply chain association in the world to require that all members adhere to a Code of Ethics.

With nearly 7,500 members working across the private and public sectors, SCMA is the principal source of supply chain training, education and professional development in the country. Through its ten Provincial and Territorial Institutes, SCMA grants the Supply Chain Management Professional (SCMP) designation, the highest achievement in the field and the mark of strategic supply chain leadership.

SCMA was formed in 2013 through the amalgamation of the Purchasing Management Association of Canada and Supply Chain and Logistics Association of Canada. With a combined history of more than 140 years, the association now embraces all aspects of strategic supply chain management, including:

- Purchasing/Procurement
- Strategic Sourcing
- Contract Management

- Materials/Inventory Management
- Logistics and Transportation

Impact of the Supply Chain Profession

The supply chain management profession makes a significant contribution to Canada's economy and provides a critical competitive advantage for all enterprises. Latest research reveals that SCMA members control more than \$130 billion in annual spend. The standard of living we all enjoy through timely, cost-effective access to a range of innovative, high-quality goods and services is directly linked to the professional practice of supply chain management. The profession favorably influences the social and economic success of, not only Canadians, but citizens worldwide.

SCMA is an original member of the International Federation of Purchasing and Supply Management (IFPSM) and the only Canadian association representing this country's supply chain management professionals in IFPSM.

Who are SCMA Members?

SCMA members add value to all sectors of the Canadian economy and are found within organizations of every size. Some of the largest sectors employing supply chain management professionals are:

- Manufacturing
- Services
- Natural Resources
- Retail
- Government, Health Care and Education

How is SCMA Structured?

A non-profit association, SCMA is a federation of the National Secretariat, and the Provincial and Territorial Institutes, working together to achieve a common mission and vision.

Education and accreditation programs are developed by the SCMA National office and delivered through the Institutes. Additionally, the National partner is responsible for national branding plans, federal government relations and international strategic alliances. Institute partners are responsible for communicating with their membership, recruiting new members and conferring the SCMP designation.

SCMA's strategic objectives are determined by a Board of Directors, with representatives both appointed by the Institutes and elected from the association membership. Headquartered in Toronto, the SCMA National office is managed by a full-time professional staff.

Appendix B

Survey Questionnaire - Main Study (English)

Consent Form

You are invited to participate in a research study on business purchasing behavior. This survey will take about ten minutes to complete. This research is being conducted as part of a Master's thesis at the University of Lethbridge, Alberta in collaboration with the Supply Chain Management Association of Canada (SCMA). On completing the survey, you will be eligible to enter in a draw to win one of five \$100 Amazon or Visa gift cards. Please help me gather data for my Masters degree.

By participating in this research, you will benefit others to better understand business purchasing behavior, and will learn about business purchasing decisions. You may also benefit by reading the results of this research, which you can receive by contacting the researcher Ehtisham Anwer at anwer@uleth.ca.

There are no anticipated risks or discomforts related to this research. Several steps will be taken to protect your anonymity and identity. The study data will not capture names or any other identifying information. The data will be stored on a password protected computer and will only be used in aggregate. Data will be destroyed after three years unless the publishing journal requires data archiving, in which case, anonymous data will be archived. Data will be stored on a server housed in the USA and would fall under the U.S. Patriot Act, which gives the Federal Bureau of Investigation (FBI) the authority to access any database without a court order, and prohibits the owner of a database from telling others about any access by the FBI. However, access to the data due to the Patriot Act is highly unlikely.

Your participation in this research is completely voluntary. You may withdraw from the study at any time for any reason without any adverse consequences. You may skip questions if you wish, though we hope you will answer all questions as they are important to the research results. You may exit any time during the survey by closing your internet browser window.

The results from this study may be presented in writing in journals read by academics, and purchasing, supply chain and marketing professionals, to help them better understand firms' purchasing behavior. The results may also be presented at academic conferences. At no time, however, will your name be used or any identifying information revealed about you or your organization.

Further details on the purpose of the study will be provided in the survey introduction and debrief. If you require any further information about the study, you may contact the researcher Ehtisham Anwer at anwer@uleth.ca. If you have any other questions regarding your rights as a participant in this research, you may also contact the researcher's supervisors Sameer Deshpande at sameer.deshpande@uleth.ca and/or Robbin Derry at robbin.derry@uleth.ca respectively.

Please check one of the boxes below to proceed.

- I am over 18 years old, have read the above disclosure, and agree to participate in this study. (1)
- I do not agree to participate in this study. (2)

Introduction You have been chosen to participate in this research study on business purchasing behavior based on your professional position and affiliation. This research is being conducted as part of a Master's thesis at the University of Lethbridge, Alberta in collaboration with the Supply Chain Management Association of Canada (SCMA). On completing the survey, you will be eligible to enter in a draw to win one of five \$100 Amazon or Visa gift cards. Please help me gather data for my Masters degree. By participating in this research, you will benefit others to better understand business purchasing behavior, and will learn about business purchasing decisions. You may also benefit by reading the results of this research, which you can receive by contacting the researcher Ehtisham Anwer at anwer@uleth.ca. This survey is composed of three sections. The first section asks questions on your personal and organizational values. The second section asks questions on a recent business purchase situation that you were part of in your organization. The third and the last section asks demographic questions about yourself and your organization. Further details on the purpose of the study will be provided in the survey debrief at the end of the survey. Please read the questions carefully before choosing your response. Thank you for your participation. Ehtisham Anwer
Graduate Student, Masters of Science in Management at the University of Lethbridge, Alberta, Canada

Personal and Organizational Values Values are beliefs that define conduct and help direct, justify and assess actions and decisions. Please answer the following questions on your personal and organizational values respectively. The personal values represent your own values as an individual. The organizational values represent values of the organization you work for, as a whole in practice.

Q1 In your opinion, how important is each of the following values as a guiding principle **in your personal life**? Rate on a seven point scale from 1 Extremely Unimportant to 7 Extremely Important. Please read each value description carefully before selecting your choice.

	Extremely Unimportant (1)	Moderately Unimportant (2)	Slightly Unimportant (3)	Neutral (4)	Slightly Important (5)	Moderately Important (6)	Extremely Important (7)
Adaptability: being flexible and changing in response to new circumstances. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Aggressiveness: being aggressive and pursuing goals vigorously. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Autonomy: being independent and free to act. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Broad-Mindedness: accepting different viewpoints and opinions. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cautiousness: being cautious and minimizing exposure to risk. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Consideration: being caring, kind and considerate. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q1 Continued (i) In your opinion, how important is each of the following values as a guiding principle **in your personal life**? Rate on a seven point scale from 1 Extremely Unimportant to 7 Extremely Important. Please read each value description carefully before selecting your choice.

	Extremely Unimportant (1)	Moderately Unimportant (2)	Slightly Unimportant (3)	Neutral (4)	Slightly Important (5)	Moderately Important (6)	Extremely Important (7)
Cooperation: being cooperative, working well with others and building relationships. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Courtesy: being polite and having respect for individual dignity. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Creativity: developing new ideas and applying innovative approaches. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Development: achieving personal growth, learning and development. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Diligence: working long and hard to achieve results. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Economy: being careful in spending and considering total cost of ownership/lifecycle costs. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q1 Continued (ii) In your opinion, how important is each of the following values as a guiding principle **in your personal life**? Rate on a seven point scale from 1 Extremely Unimportant to 7 Extremely Important. Please read each value description carefully before selecting your choice.</p>

	Extremely Unimportant (1)	Moderately Unimportant (2)	Slightly Unimportant (3)	Neutral (4)	Slightly Important (5)	Moderately Important (6)	Extremely Important (7)
Experimentation: taking a trial and error approach to problem solving. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fairness: being fair and providing just recognition based on merit. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Forgiveness: being forgiving and understanding when errors occur. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Initiative: seizing opportunity and taking responsibility without hesitation. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Logic: being rational and thinking in terms of facts and figures. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Moral Integrity: being honorable and following ethical principles. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q1 Continued (iii) In your opinion, how important is each of the following values as a guiding principle **in your personal life**? Rate on a seven point scale from 1 Extremely Unimportant to 7 Extremely Important. Please read each value description carefully before selecting your choice.

	Extremely Unimportant (1)	Moderately Unimportant (2)	Slightly Unimportant (3)	Neutral (4)	Slightly Important (5)	Moderately Important (6)	Extremely Important (7)
Obedience: complying with directions and conforming to rules. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Openness: being straightforward, sincere and candid in discussions. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Orderliness: being neat, tidy and well-organized. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Responsibility : being dependable and reliable. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social Equality: being equal to others and avoiding status differences. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q2 In Q1 earlier, we asked you the importance of values in your personal life. In this question, delve on the importance of values from the perspective of your organization. In your opinion, how important is each of the following values as a guiding principle **within your organization**? Rate on a seven point scale from 1 Extremely Unimportant to 7 Extremely Important. Please read each value description carefully before selecting your choice.

	Extremely Unimportant (1)	Moderately Unimportant (2)	Slightly Unimportant (3)	Neutral (4)	Slightly Important (5)	Moderately Important (6)	Extremely Important (7)
Adaptability: being flexible and changing in response to new circumstances. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Aggressiveness: being aggressive and pursuing goals vigorously. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Autonomy: being independent and free to act. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Broad-Mindedness: accepting different viewpoints and opinions. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cautiousness: being cautious and minimizing exposure to risk. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Consideration: being caring, kind and considerate. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q2 Continued (i) In your opinion, how important is each of the following values as a guiding principle for your organization? Rate on a seven point scale from 1 Extremely Unimportant to 7 Extremely Important. Please read each value description carefully before selecting your choice.

	Extremely Unimportant (1)	Moderately Unimportant (2)	Slightly Unimportant (3)	Neutral (4)	Slightly Important (5)	Moderately Important (6)	Extremely Important (7)
Cooperation: being cooperative, working well with others and building relationships. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Courtesy: being polite and having respect for individual dignity. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Creativity: developing new ideas and applying innovative approaches. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Development: achieving personal growth, learning and development. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Diligence: working long and hard to achieve results. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Economy: being careful in spending and considering total cost of ownership/lifecycle costs. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q2 Continued (ii) In your opinion, how important is each of the following values as a guiding principle **within your organization**? Rate on a seven point scale from 1 Extremely Unimportant to 7 Extremely Important. Please read each value description carefully before selecting your choice.

	Extremely Unimportant (1)	Moderately Unimportant (2)	Slightly Unimportant (3)	Neutral (4)	Slightly Important (5)	Moderately Important (6)	Extremely Important (7)
Experimentation: taking a trial and error approach to problem solving. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fairness: being fair and providing just recognition based on merit. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Forgiveness: being forgiving and understanding when errors occur. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Initiative: seizing opportunity and taking responsibility without hesitation. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Logic: being rational and thinking in terms of facts and figures. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Moral Integrity: being honorable and following ethical principles. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q2 Continued (iii) In your opinion, how important is each of the following values as a guiding principle **within your organization**? Rate on a seven point scale from 1 Extremely Unimportant to 7 Extremely Important. Please read each value description carefully before selecting your choice.

	Extremely Unimportant (1)	Moderately Unimportant (2)	Slightly Unimportant (3)	Neutral (4)	Slightly Important (5)	Moderately Important (6)	Extremely Important (7)
Obedience: complying with directions and conforming to rules. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Openness: being straightforward, sincere and candid in discussions. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Orderliness: being neat, tidy and well-organized. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Responsibility : being dependable and reliable. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social Equality: being equal to others and avoiding status differences. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q3 Please rate the statements below on a seven point agreement scale from 1 Strongly Disagree to 7 Strongly Agree.

	Extremely Unimportant (1)	Moderately Unimportant (2)	Slightly Unimportant (3)	Neutral (4)	Slightly Important (5)	Moderately Important (6)	Extremely Important (7)
My personal values are generally compatible with the values of the organization. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I find that sometimes I have to compromise my personal principles to conform to the organizational expectations. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I find that sometimes I have to compromise the organizational expectations to conform to my personal principles. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Purchase Situation Recall the last purchase situation in your organization that you were part of. Answer the following questions as best as you can around this particular purchase situation.

Q4 Reflect on the specific purchasing decision, regardless whether it was made by you alone or by a group of people in the organization. **How high a role** did each of the following values play

or have in the business purchase decision? Rate on a seven point scale from 1 Extremely Low to 7 Extremely High. Please read each value description carefully before selecting your choice.

	Extremely Unimportant (1)	Moderately Unimportant (2)	Slightly Unimportant (3)	Neutral (4)	Slightly Important (5)	Moderately Important (6)	Extremely Important (7)
Adaptability: being flexible and changing in response to new circumstances. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Aggressiveness: being aggressive and pursuing goals vigorously. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Autonomy: being independent and free to act. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Broad-Mindedness: accepting different viewpoints and opinions. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cautiousness: being cautious and minimizing exposure to risk. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Consideration: being caring, kind and considerate. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q4 Continued (i) Reflect on the specific purchasing decision, regardless whether it was made by you alone or by a group of people in the organization. **How high a role** did each of the following values play or have in the business purchase decision? Rate on a seven point scale from

1 Extremely Low to 7 Extremely High. Please read each value description carefully before selecting your choice.

	Extremely Unimportant (1)	Moderately Unimportant (2)	Slightly Unimportant (3)	Neutral (4)	Slightly Important (5)	Moderately Important (6)	Extremely Important (7)
Cooperation: being cooperative, working well with others and building relationships. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Courtesy: being polite and having respect for individual dignity. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Creativity: developing new ideas and applying innovative approaches. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Development: achieving personal growth, learning and development. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Diligence: working long and hard to achieve results. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Economy: being careful in spending and considering total cost of ownership/lifecycle costs. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q4 Continued (ii) Reflect on the specific purchasing decision, regardless whether it was made by you alone or by a group of people in the organization. **How high a role** did each of the following values play or have in the business purchase decision? Rate on a seven point scale from 1 Extremely Low to 7 Extremely High. Please read each value description carefully before selecting your choice.

	Extremely Unimportant (1)	Moderately Unimportant (2)	Slightly Unimportant (3)	Neutral (4)	Slightly Important (5)	Moderately Important (6)	Extremely Important (7)
Experimentation: taking a trial and error approach to problem solving. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fairness: being fair and providing just recognition based on merit. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Forgiveness: being forgiving and understanding when errors occur. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Initiative: seizing opportunity and taking responsibility without hesitation. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Logic: being rational and thinking in terms of facts and figures. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Moral Integrity: being honorable and following ethical principles. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q4 Continued (iii) Reflect on the specific purchasing decision, regardless whether it was made by you alone or by a group of people in the organization. **How high a role** did each of the following values play or have in the business purchase decision? Rate on a seven point scale from 1 Extremely Low to 7 Extremely High. Please read each value description carefully before selecting your choice.

	Extremely Unimportant (1)	Moderately Unimportant (2)	Slightly Unimportant (3)	Neutral (4)	Slightly Important (5)	Moderately Important (6)	Extremely Important (7)
Obedience: complying with directions and conforming to rules. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Openness: being straightforward, sincere and candid in discussions . (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Orderliness : being neat, tidy and well-organized. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Responsibility: being dependable and reliable. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social Equality: being equal to others and avoiding status differences. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q5 Approximately how many days ago did this purchase situation occur (include weekends and statutory holidays)?

Q6 Approximately how many days did the business purchasing decision take (from initiation to award, include weekends and statutory holidays)?

Q7 How important was this purchase decision to the organization? Rate on a seven point scale from 1 Extremely Unimportant to 7 Extremely Important.

- Extremely Unimportant (1)
- Moderately Unimportant (2)
- Slightly Unimportant (3)
- Neutral (4)
- Slightly Important (5)
- Moderately Important (6)
- Extremely Important (7)

Q8 What role(s) did you primarily play in the business purchase situation/ decision? Select all that apply.

- Observer (person observing the business purchase decisions but not taking an active part in it).
- Influencer (person who influences the purchase decisions).
- User (the actual user of product or service being purchased).
- Purchasing/ Buying Agent (person who facilitates business purchasing function and acts as a gatekeeper, evaluator, and recommender).
- Decision Maker (person who has the final approving authority for purchase decisions).
- Other. Please specify: _____

Q9 How many people were involved in the business purchase decision?

Q10 Which category below best describes the novelty/ newness of the purchase situation?

- New Task (first time purchase)
- Modified Rebuy (repurchase with modified needs)
- Straight Rebuy (repurchase without any changes)
- Other. Please specify: _____

Q11 Which purchase class did the situation fall under?

- Capital Equipment (e.g. plant, machinery, ERP-Enterprise Resource Planning system)
- Industrial/ Professional Service (e.g. engineering, consulting, insurance)
- Consumables (e.g. office supplies, shop supplies)
- Non-Industrial/ Non-Professional Service (e.g. cleaning, janitorial services, data entry/ clerical work)
- Other. Please specify: _____

Q12 Earlier in the survey you were asked about the "**Importance**" of values in your personal life and in your organization in a general sense. In the questions above, you indicated the "**Role**" respective values played or had in a specific business purchase situation. In your opinion how different are the concepts of the "Importance of Values" in the general sense and the "Role of Values" in specific business purchase decisions? Rate the level of differentiation on a seven point scale from 1 not distinct at all to 7 distinctly different. For example, a purchasing manager may ascribe "High Importance" to "Economy" value (being careful in spending) in business purchase decisions in a general sense, but this value may not play a "Significant Role" in a specific business purchase decision involving a high risk product or service where the manager may want to minimize the exposure.

- Not distinct at all (1)
- Moderately distinct (2)
- Slightly similar (3)
- Neutral (4)
- Slightly different (5)
- Moderately different (6)
- Distinctly different (7)

Please provide the reasons for your answer above. Feel free to include any comments on the question as well.

Organizational Demographics Please provide below demographic info about your organization. Note that this data will only be used in aggregate and your organization's identity will not be disclosed.

Q13 What is estimated annual sales revenue for your organization in millions of dollars (Canadian dollars)? Please include Canadian operations only if you work for a global organization with operations outside Canada.

- Less than \$ 5M
- \$5M to less than \$50M
- \$50M to less than \$100M
- \$100M to less than \$500M
- \$500M to less than \$1B
- \$1B to \$5B
- Greater than \$5B

Q14 What is the business ownership type of your organization?

- Private Sector
- Public Sector
- Joint Sector
- Other. Please specify: _____

Q15 Which of the following industries most closely matches the one in which you are employed?

- Accommodation or food services
- Admin, support
- Arts, entertainment or recreation
- Construction
- Educational services
- Finance or insurance
- Forestry, fishing, hunting or agriculture support
- Health care or social assistance
- Information
- Management of companies or enterprises
- Manufacturing
- Mining
- Professional, scientific or technical services
- Real estate or rental and leasing
- Retail trade
- Transportation or warehousing
- Utilities
- Unclassified establishments
- Waste management or remediation services
- Wholesale trade
- Other. Please specify: _____

Q16 Approximately how many years has your organization been in business?

- Less than 1 year
- 1 year to less than 5 years
- 5 years to less than 15 years
- 15 years to less than 30 years
- 30 years to less than 50 years
- Greater than 50 years

Q17 Which category below best describes the way the purchasing function operates at your organization?

- Centralized (majority of the purchase decisions are made centrally/ corporately)
- Decentralized (majority of the purchase decisions are made by operational units/ regions)
- Combination/ hybrid (purchase decisions are equally shared between corporate/ head office and operational units/ regions)
- Other. Please specify: _____

Q18 What level of formalization exists around business purchasing in your organization?

- High level of formalization exists as there are clearly defined processes and systems around business purchasing
- Medium level of formalization exists as there are some defined/ required processes and systems around business purchasing
- Low level of formalization exists as there is a lack of defined/ required processes and systems around business purchasing
- Other. Please specify: _____

Personal Demographics Please provide below demographic info about yourself. Note that this data will only be used in aggregate and your personal identity will not be disclosed.

Q19 What is your gender?

- Male
- Female
- Other or prefer not to say

Q20 What is your age?

- 18 - 24
- 25 - 34
- 35 - 44
- 45 - 54
- 55 - 64
- 65 - 74
- 75 - 84
- 85 or older

Q21 Indicate your total gross annual income in Canadian dollars:

- Under \$40,000
- \$40,000 - \$59,999
- \$60,000 - \$79,999
- \$80,000 - \$99,999
- \$100,000 - \$119,999
- \$120,000 - \$149,999
- \$150,000 - \$200,000
- Over \$200,000

Q22 What is your level of affiliation/ association with the Supply Chain Management Association of Canada?

- Regular Member
- Retired Member
- Student Affiliate
- International Member
- Employee
- Follower/ Observer
- Other. Please specify: _____

Q23 Indicate your total full-time work experience in years.

- Less than 1 year
- 1 year to less than 3 years
- 3 years to less than 5 years
- 5 years to less than 10 years
- 10 years to 20 years
- Greater than 20 years

Q24 Indicate your education.

- Less than high school
- High school graduate
- Some college
- 2 year degree
- 4 year degree
- Professional degree
- Doctorate
- Other. Please specify: _____

Q25 How many years have you been with your current employer?

- Less than 1 year
- 1 year to less than 3 years
- 3 years to less than 5 years
- 5 years to less than 10 years
- 10 years to 20 years
- More than 20 years

Q26 How frequently are you involved in business purchase situations/ decisions in your organization?

- Never
- 1-2 times per year
- 1-2 times per quarter
- 1-2 times per month
- 1-2 times per week
- More than 2 times per week
- Other. Please specify: _____

Q27 What role(s) do you primarily play in the business purchase situations/ decisions that you are involved with in your organization (select all that apply)?

- Observer (person observing the business purchase decisions but not taking an active part in it).
- Influencer (person who influences the purchase decisions).
- User (the actual user of product or service being purchased).
- Purchasing/ Buying Agent (person who facilitates business purchasing function and acts as a gatekeeper, evaluator, and recommender).
- Decision Maker (person who has the final approving authority for purchase decisions).
- Other. Please specify: _____

Debrief

Thank you for filling out the survey. The objective of this study is to understand the influence of personal and organizational values, and their alignment/ similarity, on business purchase decisions. This study is being conducted in collaboration with the Supply Chain Association of Canada (SCMA) as part of the Masters of Science in Management program at the University of Lethbridge.

You may email the researcher at anwer@uleth.ca if you would like to receive the results of the study or require any further information about the study. You may also contact the researcher's supervisors Sameer Deshpande at sameer.deshpande@uleth.ca and/or Robbin Derry at robbin.derry@uleth.ca respectively if you have any further questions or concerns about the study.

Appendix C

Survey Questionnaire - Pilot Study

Consent Form

You are invited to participate in a pilot study to assist with a research study on business purchasing behavior. This research is conducted as part of a Master's thesis at the University of Lethbridge, Alberta in collaboration with the Supply Chain Management Association of Canada (SCMA). This survey will take about fifteen minutes to complete and is composed of two sections. The first section asks questions on the values related to business purchase decisions. The second section asks demographic questions about yourself. Further details on the purpose of the study will be provided in the survey debrief towards the end of the study.

There are no anticipated risks or discomforts related to this research. You may benefit by reading the results of this research, which you can receive by contacting the researcher Ehtisham Anwer at anwer@uleth.ca. You may also learn about business purchasing decisions. By participating in this research, you may also benefit others to better understand business purchasing behavior.

Several steps will be taken to protect your anonymity and identity. The study data will not capture names or any other identifying information. The data will be stored on a password protected computer and will only be used in aggregate. Data will be destroyed after three years unless the publishing journal requires data archiving, in which case, anonymous data will be archived. Data will be stored on a server housed in the USA and would fall under the U.S. Patriot Act, which gives the Federal Bureau of Investigation (FBI) the authority to access any database without a court order, and the Act prohibits the owner of a database from telling others about any access by the FBI. However, access to data due to the Patriot Act is highly unlikely.

Your participation in this research is completely voluntary. You may withdraw from the study at any time for any reason without any adverse consequences. You may skip questions if you wish, though we hope you will answer all questions as they are important to the research results. You may exit any time during the survey by closing your internet browser window.

The results from this study may be presented in writing in journals read by academics, and purchasing, supply chain and marketing professionals, to help them better understand firms' purchasing behavior. The results may also be presented at academic conferences. At no time, however, will your name be used or any identifying information revealed about you or your organization. If you require any further information about the study, you may contact the researcher Ehtisham Anwer at anwer@uleth.ca. If you have any other questions regarding your rights as a participant in this research, you may also contact the researcher's supervisors Sameer Deshpande at sameer.deshpande@uleth.ca and/or Robbin Derry at robbin.derry@uleth.ca respectively.

I have read the above information regarding this research study and agree to participate in the survey (please check one of the boxes below).

- I agree to participate in this survey
- I do not agree to participate in this survey

Introduction

You have been chosen to participate in this research study on business purchasing behavior based on your professional position. Please read the questions carefully before choosing your response. Further details around the purpose of the study will be provided in the survey debrief.

Thank you,

Ehtisham Anwer
Graduate Student, Masters of Science in Management at the University of Lethbridge, Alberta,
Canada

Values Relevant to Business Purchasing

Values are beliefs that define conduct and help direct, justify and assess actions and decisions. Please answer the questions below to help validate and identify values relevant for business purchase decisions either at a personal or an organizational level.

Q1 In your opinion, how important is each of the following value as a guiding principle for business purchase decision making? Rate on a seven point scale from 1 not at all important to 7 extremely important. Please read each value description carefully before selecting your choice.

	Not at all Important (1)	Less Important (2)	Slightly important (3)	Neutra l (4)	Moderatel y Important (5)	Very Important (6)	Extremel y Important (7)
Adaptability: being flexible and changing in response to new circumstances. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Aggressiveness: being aggressive and pursuing goals vigorously. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Autonomy: being independent and free to act. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Broad- Mindedness: accepting different viewpoints and opinions. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cautiousness: being cautious and minimizing exposure to risk. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Consideration: being caring, kind and considerate. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cooperation: being cooperative and working well with others. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Courtesy: being polite and having respect for individual dignity. (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Creativity: developing new ideas and applying innovative approaches. (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Development: achieving personal growth, learning and development. (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Diligence: working long and hard to achieve results. (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Economy: being thrifty and careful in spending. (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Experimentation : taking a trial and error approach to problem solving. (13)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fairness: being fair and providing just recognition based on merit. (14)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Forgiveness: being forgiving and understanding when errors occur. (15)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Formality: upholding proper ceremony and maintaining tradition. (16)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Humor: creating fun and being lighthearted. (17)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Initiative: seizing opportunity and taking responsibility without hesitation. (18)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Logic: being rational and thinking in terms of facts and figures. (19)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Moral Integrity: being honorable and following ethical principles. (20)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Obedience: complying with directions and conforming to rules. (21)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Openness: being straightforward, sincere and candid in discussions. (22)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Orderliness: being neat, tidy and well- organized. (23)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social Equality: being equal to others and avoiding status differences (24)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q2 Please mention and briefly explain any other values respectively that in your opinion are also important as a guiding principle to the business purchase decision.

- Other Value 1 _____
- Other Value 2 _____
- Other Value 3 _____
- Other Value 4 _____
- Other Value 5 _____

Q3 Please rate these other values in terms of importance to the purchase decision on a seven point scale from 1 not at all important to 7 extremely important. Follow the same order in which you entered them in the question above.

	Not at all Important (1)	Less Important (2)	Slightly important (3)	Neutral (4)	Moderately Important (5)	Very Important (6)	Extremely Important (7)
Other Value 1 (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other Value 2 (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other Value 3 (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other Value 4 (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other Value 5 (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q4 In the questions above, you indicated the "Importance" of values in business purchase decisions in a general sense. If asked about the "role" these values play in specific business purchase situations, would you be able to differentiate between the "importance" of values in this general sense and the "role" of values in the specific business purchase decisions? Rate the level of differentiation on a seven point scale from 1 not distinct at all to 7 distinctly different. For example, a purchasing manager may ascribe "high importance" to "Economy" value (being

thrifty and careful in spending) in business purchase decisions in a general sense, but this value may not play a "significant role" in a specific business purchase decision involving a high risk product or service ***where the manager may want to*** minimize the exposure.

- Not distinct at all (1)
- Moderately distinct (2)
- Slightly similar (3)
- Neutral (4)
- Slightly different (5)
- Moderately different (6)
- Distinctly different (7)

Briefly explain the reasons for your answer above.

Demographics

Please provide below demographic info about yourself. Note that this data will only be used in aggregate and your personal and organizational identity will not be disclosed.

Q5 What is your gender?

- Male
- Female

Q6 What is your age?

- Under 18
- 18 - 24
- 25 - 34
- 35 - 44
- 45 - 54
- 55 - 64
- 65 - 74
- 75 - 84
- 85 or older

Q7 In which country do you currently reside?

- Afghanistan
- Albania
- Algeria
- Andorra
- Angola
- Antigua and Barbuda
- Argentina
- Armenia
- Australia
- Austria
- Azerbaijan
- Bahamas
- Bahrain
- Bangladesh
- Barbados
- Belarus
- Belgium
- Belize
- Benin
- Bhutan
- Bolivia
- Bosnia and Herzegovina
- Botswana
- Brazil
- Brunei Darussalam
- Bulgaria
- Burkina Faso
- Burundi
- Cambodia
- Cameroon
- Canada
- Cape Verde
- Central African Republic

- Chad
- Chile
- China
- Colombia
- Comoros
- Congo, Republic of the...
- Costa Rica
- Côte d'Ivoire
- Croatia
- Cuba
- Cyprus
- Czech Republic
- Democratic People's Republic of Korea
- Democratic Republic of the Congo
- Denmark
- Djibouti
- Dominica
- Dominican Republic
- Ecuador
- Egypt
- El Salvador
- Equatorial Guinea
- Eritrea
- Estonia
- Ethiopia
- Fiji
- Finland
- France
- Gabon
- Gambia
- Georgia
- Germany
- Ghana
- Greece
- Grenada

- Guatemala
- Guinea
- Guinea-Bissau
- Guyana
- Haiti
- Honduras
- Hong Kong (S.A.R.)
- Hungary
- Iceland
- India
- Indonesia
- Iran, Islamic Republic of...
- Iraq
- Ireland
- Israel
- Italy
- Jamaica
- Japan
- Jordan
- Kazakhstan
- Kenya
- Kiribati
- Kuwait
- Kyrgyzstan
- Lao People's Democratic Republic
- Latvia
- Lebanon
- Lesotho
- Liberia
- Libyan Arab Jamahiriya
- Liechtenstein
- Lithuania
- Luxembourg
- Madagascar
- Malawi

- Malaysia
- Maldives
- Mali
- Malta
- Marshall Islands
- Mauritania
- Mauritius
- Mexico
- Micronesia, Federated States of...
- Monaco
- Mongolia
- Montenegro
- Morocco
- Mozambique
- Myanmar
- Namibia
- Nauru
- Nepal
- Netherlands
- New Zealand
- Nicaragua
- Niger
- Nigeria
- North Korea
- Norway
- Oman
- Pakistan
- Palau
- Panama
- Papua New Guinea
- Paraguay
- Peru
- Philippines
- Poland
- Portugal

- Qatar
- Republic of Korea
- Republic of Moldova
- Romania
- Russian Federation
- Rwanda
- Saint Kitts and Nevis
- Saint Lucia
- Saint Vincent and the Grenadines
- Samoa
- San Marino
- Sao Tome and Principe
- Saudi Arabia
- Senegal
- Serbia
- Seychelles
- Sierra Leone
- Singapore
- Slovakia
- Slovenia
- Solomon Islands
- Somalia
- South Africa
- South Korea
- Spain
- Sri Lanka
- Sudan
- Suriname
- Swaziland
- Sweden
- Switzerland
- Syrian Arab Republic
- Tajikistan
- Thailand
- The former Yugoslav Republic of Macedonia

- Timor-Leste
- Togo
- Tonga
- Trinidad and Tobago
- Tunisia
- Turkey
- Turkmenistan
- Tuvalu
- Uganda
- Ukraine
- United Arab Emirates
- United Kingdom of Great Britain and Northern Ireland
- United Republic of Tanzania
- United States of America
- Uruguay
- Uzbekistan
- Vanuatu
- Venezuela, Bolivarian Republic of...
- Viet Nam
- Yemen
- Zambia
- Zimbabwe

Q8 Indicate your total gross household income in Canadian dollars:

- Under \$40,000
- \$40,000 - \$59,999
- \$60,000 - \$79,999
- \$80,000 - \$99,999
- \$100,000 - \$119,999
- \$120,000 - \$149,999
- \$150,000 - \$200,000
- Over \$200,000

Q9 Indicate your total full-time work experience in years.

Q10 Indicate your education.

- Less than high school
- High school graduate
- Some college
- 2 year degree
- 4 year degree
- Professional degree
- Doctorate

Q11 Please indicate your occupation:

- Management, professional, and related
- Service
- Sales and office
- Farming, fishing, and forestry
- Construction, extraction, and maintenance
- Production, transportation, and material moving
- Government
- Retired
- Unemployed
- Other. Please specify: _____

Q12 How many years have you been with your current employer?

Q13 How frequently are you involved in business purchase situations/ decisions in your organization?

- Never
- 1-2 times per year
- 1-2 times per quarter
- 1-2 times per month
- 1-2 times per week
- More than 2 times per week
- Other. Please specify: _____

Q14 What role(s) do you primarily play in the business purchase situations/ decisions that you are involved with in your organization (select all that apply)?

- Observer (person observing the business purchase decisions but not taking an active part in it).
 - Influencer (person who influences the purchase decisions).
 - User (the actual user of product or service being purchased).
 - Purchasing/ Buying Agent (person who facilitates business purchasing function and acts as a gatekeeper, evaluator, and recommender).
 - Decision Maker (person who has the final approving authority for purchase decisions).
 - Other. Please specify: _____
-

Q15 What is your current job title?

Q16 Which of the following industries most closely matches the one in which you are employed?

- Accommodation or food services
- Admin, support, waste management or remediation services
- Arts, entertainment or recreation
- Construction
- Educational services
- Finance or insurance
- Forestry, fishing, hunting or agriculture support
- Health care or social assistance
- Information
- Management of companies or enterprises
- Manufacturing
- Mining
- Professional, scientific or technical services
- Real estate or rental and leasing
- Retail trade
- Transportation or warehousing
- Utilities
- Unclassified establishments
- Wholesale trade
- Other. Please specify: _____

Debrief

Thank you for filling out the survey. The objective of this study is to understand the influence of personal and organizational values, and their alignment/ similarity, on business purchase decisions. This study is being conducted in collaboration with the Supply Chain Association of Canada (SCMA) as part of the Masters of Science in Management program at the University of Lethbridge.

You may email the researcher at anwer@uleth.ca if you would like to receive the results of the study or require any further information about the study. You may also contact the researcher's supervisors Sameer Deshpande at sameer.deshpande@uleth.ca and/or Robbin Derry at robbin.derry@uleth.ca respectively if you have any further questions or concerns about the study.

Appendix D

Review Summary and Decisions for the Additional Values (pilot study).

S. #	Other Values	Importance Score	Review Comments	Decision
1	Bigger Picture: Considering the needs of others	6	Same as "Consideration" Value	Covered by "Consideration" Value
2	Reciprocal value - customers who are suppliers	5	Same as "Cooperation" Value	Covered by "Cooperation" Value
3	Accountability	6	Gap in the list of Values	Include "Responsibility" Value from Rokeach's list of Values
4	Relationship building - Working as a team with your suppliers	6	Same as "Cooperation" Value. Need to enhance "Cooperation" Value explanation to clarify.	Add "building relationships" to explanation of "Cooperation" Value
5	Accountability - it's important to "own" our affairs in everyday business. Passing on responsibility or blaming others for our mistakes creates misleading perceptions.	7	Gap in the list of Values	Include "Responsibility" Value from Rokeach's list of Values
6	Value added - additional benefits besides initial product	5	Same as "Economy" Value. Need to enhance "Economy" value explanation to clarify.	Add "total cost of ownership/ life cycle costs" to "Economy" Value explanation
7	Commitment	6	Gap in the list of Values	Include "Responsibility"

				Value from Rokeach's list of Values
8	Total cost of ownership	7	Same as "Economy" Value. Need to enhance value explanation to clarify.	Covered by "Economy" Value
9	Responsibility - being responsible for one's own role and resisting unnecessary delegating.	7	Gap in the list of Values	Include "Responsibility" Value from Rokeach's list of Values
10	Confidence	5	Same as "Diligence" and "Cautiousness" values	Covered by "Diligence" and "Cautiousness" values
11	Customer service	7	Same as "Consideration" and "Courtesy" Values	Covered by "Consideration" and "Courtesy" Values
12	Consistency	7	Same as "Diligence" value	Covered by "Diligence" Value
13	Partnership	7	Same as "Cooperation" value. Need to enhance "Cooperation" Value explanation to clarify.	Add "building relationships" to explanation of "Cooperation" Value
14	Patience is required	5	Same as "Diligence" Value	Covered by "Diligence" Value
15	Willingness to help others	5	Same as "Cooperation" Value	Covered by "Cooperation" Value

Appendix E

Response Surface Analysis Calculations for Figure 2 (role of values Convention as predicted by personal and organizational values Convention)

Data Entry Area					
Variable Name	Unstandardized Betas	Standard Errors	Covariances		
	Constant	3.32741		b1b2	0.01697
PV	X (b1)	-0.64846	-0.6017	b3b4	-0.0005
OV	Y (b2)	0.41633	0.33294	b3b5	-0.0005
	X ² (b3)	0.0853	0.19099	b4b5	-0.0009
	XY (b4)	0.22216	0.55249		
	Y ² (b5)	-0.07365	-0.1807		
	Sample Size	119			

Effect (as related to Z)	Coefficient	Standard Error	Test Stat (t)	p-value
a ₁ : Slope along x = y	-0.23	0.71	-0.326	0.745
a ₂ : Curvature on x = y	0.23	0.61	0.384	0.702
a ₃ : Slope along x = -y	-1.06	0.66	-1.607	0.111
a ₄ : Curvature on x = -y	-0.21	0.61	-0.343	0.732

Points to Plot						
		X				
		-4	-2	0	2	4
Y	4	4.22	3.68	3.81	4.64	6.14
	2	6.05	4.62	3.87	3.80	4.41
	0	7.29	4.97	3.33	2.37	2.10
	-2	7.94	4.73	2.20	0.36	-0.81
	-4	8.00	3.90	0.48	-2.25	-4.30

Note: Diagonal is line of congruence (x = y); Below the diagonal X > Y; Above the diagonal X < Y