DISSERTATION

Titel der Dissertation

„The Efficacy of Relational Governance and Value-creating Relational Investments in Revenue-enhancement in Supplier-Intermediate Buyer Relationships"

Verfasser

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Wien, im April 2011

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To my beloved son **Ozan Midhat Zafar**

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Vienna, April 2011   **M. Zafar Yaqub**

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DECLARATION

The work in this dissertation is based on research carried out at Chair of Organizational Planning, Centre for Business Studies, University of Vienna, Austria. No part of this dissertation has been previously submitted for any other degree and it is all my own work unless mentioned otherwise.

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TABLE OF CONTENTS

PART 2

PART 3

PART 4

LIST OF FIGURES

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LIST OF TABLES

LIST OF APPENDICES

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Part 1

Chapter 1	**Introduction and Problem Statement**
Chapter 2	**Literature review and research gaps**
Chapter 3	**Study Constructs, Hypotheses of study and The Conceptual Model**

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 The discussion relating to the conceptual model and/or its individual constructs reported in chapters 1-3 of this dissertation has (in parts) been adapted from the following publications;

1. Yaqub, M.Z., and Vetschera, R. (2011), "The efficacy of relational governance and value-creating relational investments in revenue-enhancement in supplier-buyer relationships" in Hendrikse, G., Tunnanen, M., Windsperger, J., and Cliquet, G. (Eds.) *New Developments in the Theory of Networks: Franchising, Alliances and Cooperatives*. Heidelberg: Springer-Verlag, pp. 211-38. The first version of this paper was presented in the Economics and Management of Networks (EMNET) Conference, 3-5 September 2009, Sarajevo School of Business, Sarajevo, Bosnia & Herzegovina

2. Yaqub, M. Z., Malik, M. A., and Shah, H., (2010), "The roles of satisfaction, trust and commitment in economic value-creation in strategic networks", *European Journal of Economics, Finance and Administrative Sciences,* Issue 18, pp. 133-145

3. Yaqub, M. Z. (2010), "Relational governance as an antecedent to successful inter-firm relationships", *European Journal of Economics, Finance and Administrative Sciences,* Issue 20 (May), pp. 106-115. The first version of this paper was presented in Business & Management Conference, 3-5 November 2009, University of KwaZulu-Natal, Durban, South Africa

4. Yaqub, M. Z., Hussain, D., Yaqub, R. M. S. (2009), "Making strategic networks pluralistic neighbourhoods", *International Journal of Knowledge, Culture, and Change Management,* Vol.9 No. 2, pp. 113-128. The first version of this paper was presented in 2009 Oxford Business and Economics Conference, June 24-26 2009, Oxford, United Kingdom.

5. Yaqub M. Z. (2010), "The issue of relationship performance in downstream networks", *International Journal of Knowledge, Culture, and Change Management,* Vol. 10 No. 2, pp. 49-60. The first version of this paper was presented in The Tenth International Conference on Knowledge, Culture and Change in Organizations, 26 to 28 July 2010, HEC (École des Hautes Études Commerciales / School of Commercial Studies) Montréal, Montréal, Canada.

Chapter

1

INTRODUCTION AND PROBLEM STATEMENT

Hakansson (1987) has revealed (business) relationships to be one of the most valuable resources that a firm could possess. Morgan and Hunt (1994) have grouped a (focal) firm's business relationships into four categories i.e. supplier relationships, lateral relationships, internal relationships, and buyer relationships (See Figure 1.1). A number of researchers (Grant and Schlesinger 1995; Storbacka and Nenonen 2009; Yaqub 2009a) have described a (focal) firm's ability to effectively manage (or leverage) the relationships with its buyers as a distinct dynamic capability and a source of competitive advantage.

In Storbacka and Nenonen's (2009) opinion, the role of buyer relationships in value creation gets especially vital as we move away from a production-oriented value-chain paradigm towards a knowledge-intensive, collaborative value network paradigm. According to them, previous theories do not sufficiently grasp the role of buyer-relationships as a resource, and the effective management of these relationships as a source of competitive advantage. Therefore, there exists a need for the research to focus on the dynamics of the performance enhancement of inter-firm relationships so that

efficient business models could be put in place by the focal firms to enhance the performance of their relationships especially with the (ultimate or intermediate) buyers.

Figure 1.1: Morgan & Hunt's Classification of a Focal Firm's Relationships
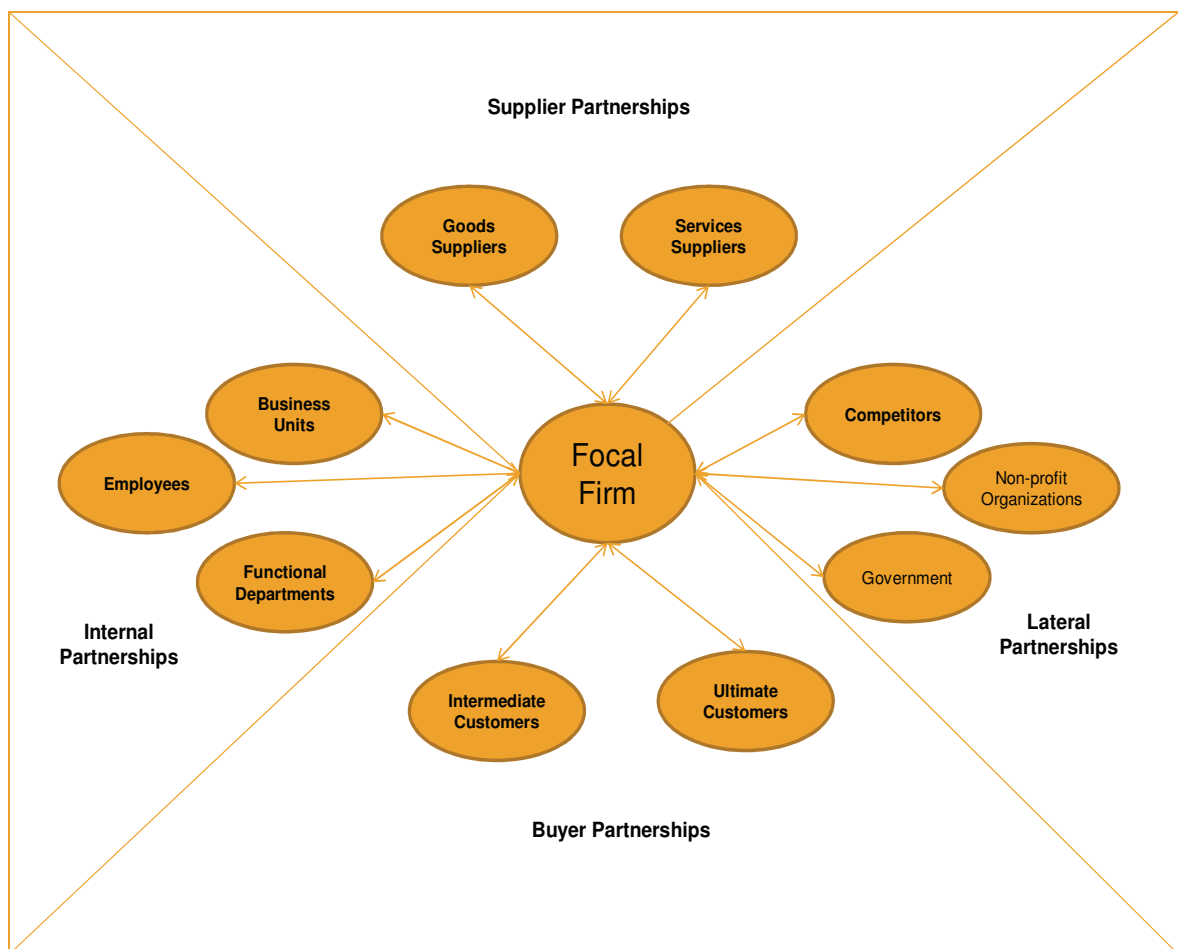
Source: Morgan, R. M. and Hunt, S. D. (1994). 'The commitment-trust theory of relationship marketing', *Journal of Marketing*, 58 (3), 20-38

Storbacka and Nenonen (2009: p.361) define *buyer relationships* as the "*longitudinal social and economic processes for the co-creation of value*", and the *relationship performance* as the "*total value created during the interaction between the supplier and the buyer(s) over time*". As such, there are two sources and two recipients of value in context of the supplier-buyer dyadic relationships. Storbacka and Nenonen (2009) have designated the value realized by the buyers as *value-creation* and that by the supplier as the *value-capture*. In their opinion, value-gains realized by the buyers (*value creation*) are a key pre-requisite for the supplier's *value-capture*. We regard *relationship quality* (RQ) as a useful reflection/indicator of the *value-creation*. More specifically, higher satisfaction and trust (the individual determinants/dimensions of relationship quality) experienced/realized by a buyer reflect superior *value-gains* from its relationship with a focal supplier. That is why enhancing the relationship quality and establishing a trust-based commitment has quite often been propounded as the key *strategic goals* for the focal firms in the relational exchange theory (Yaqub and Vetschera 2011; Zajac and Olsen 1993).

There is proliferation of research in marketing and strategic management that has endeavoured to explain the dynamics of efficient and effective management of supplier-buyer relationships so as to ensure high relationship quality. But a question which warrants significant managerial and research attention is; *do the suppliers' efforts to ensure a superior quality in the relationships with their buyers really generate any reciprocal improvements in their own (financial) performance?*

Though most of the scholars and the practitioners would assume that effective relationship management (RM) efforts from the suppliers generate stronger buyer relationships which eventually enhance their performance outcomes (Crosby, Evans and Cowels 1990; Morgan and Hunt 1994), still some business executives have embraced nothing more than sheer disappointment from their RM efforts (Colgate and Danaher 2000). Some researchers have gone even farther by suggesting that in certain situations, RM may even have a negative impact on the performance (De Wulf, Odekerken-Schröder and Iacobucci 2001; Hibbard, Brunel, Dant and Iacobucci 2001). In an empirical study involving 206 purchasers of market research information, Ivens (2004) found a positive association between certain relationship-preserving behaviours adopted by the suppliers and the relationship quality perceived by the buyers. But a concern which he voiced (in his own words) has been:

"From a supplier's vantage point, relationship quality constitutes an important objective. However, it is unclear to what extent it is directly linked to economic success (contribution margins, turnover, penetration rates etc.) of the supplier. Future research might examine this link". (Ivens 2004: p. 307).

Similar concerns have been voiced by Fink, Edelman and Hatten (2007: p. 35) in relation to the outcomes of the relational investments made by the supplier firms as:

"While the competitive market may dictate supplier relational investments to retain customer business, it should be done with the full understanding that their performance may not improve".

Similar accounts have been given by Storbacka and Nenonen (2009) while necessitating a need for efficient customer relationship performance management models.

An important concern in the relationship performance management could be: *what is meant by performance and the performance improvement?* In Palmatier, Dant and Grewal's (2007) opinion, the most important outcome for a supplier firm from its RM efforts could possibly be the enhancement in its *objective performance* i.e. performance enhancements in its sales, profits, share of business etc. Though a number of researchers found empirical support for the influence of (certain) RM strategies and relational mediators on suppliers' objective outcomes (Doney and Cannon 1997; Siguaw, simpson and Baker 1998), yet many others failed to find any significant effects, which implies that the effect of RM efforts on objective performance may be context dependent (Crosby *et al.* 1990; Gruen, Summers and Acito 2000).

In context of the downstream (supplier-buyer) relationships, profitability, perhaps, can be regarded as the most objective criterion for the supplier's (financial) performance (Yaqub and Vetschera 2011). Since profits depend on revenues and costs, there could be three possible avenues to the profit-maximization: 1) lowering costs, 2) enhancing revenues, or 3) a combination of

both. There is plethora of research geared at explaining dynamics of profit-maximization through minimizing the costs related to a relationship, in particular transaction costs. However, there has been scarcity of efforts directed at explaining the same from a revenue-enhancement stand-point (Yaqub and Vetschera 2011). With the aim of bridging this research gap, the primary objective of this study is to investigate *if or if not* any reciprocal *enhancements in a supplier's revenues* occur if it manages to secure higher perception of *relationship quality* from its buyers through RM strategies like ensuring *high relationality* in the exchange environment and/or making *value-creating relational investments (VcRIs).* The specific research problem/question is:

How efficacious are the (value-creating) relational investments and relational norms (put in place by the supplier) in inducing revenue-enhancing behaviours like longevity of relationship, increased business share and positive word-of-mouth from the intermediate buyers through positively affecting satisfaction, trust and commitment in the inter-mediate buyers?

1.1   Organization of the Dissertation

The monograph is divided in four parts. The first part discusses the theoretical aspects including literature review, hypotheses of study, the conceptual model and a detailed description of the constructs constituting the theoretical model. The second part discusses the plan of conduct of this research which includes sampling techniques, measurement scales, data collection methods and the

techniques used for analysing the data. The results are presented in the third part. The fourth and final part presents a consolidated discussion (based on the results) on the research problem at hand. It also highlights some avenues for future research over and above discussing the contributions of this research to the theory and the practice.

Figure 1.2: Organization of the Dissertation

Part 1

Chapter 1   Introduction and Problem Statement
Chapter 2   Literature Review and Research Gaps
Chapter 3   Study Constructs, Hypotheses of Study and The
                   Conceptual Model

Part 2

Chapter 4   Research Methods
                   Research Design   Measurement Instrument
                   Sampling Design   Data Collection Methods
                   Data AnalysisTechniques

Part 3

Chapter 5   Results
                   Sample Profile   Assessment of Measurement Model
                   Test of Mediating Effects Assessment of Structural Model
                   Tests of Moderating Effects

Part 4

Chapter 6   Discussion   Managerial Implications
                   Limitations   Conclusions
                   Suggestions for Future Research

Chapter

2

LITERATURE REVIEW AND RESEARCH GAPS

The managers in supplier firms can efficiently and effectively develop (and implement) the strategies to leverage their (upstream and/or downstream) relationships only when they adequately understand the precursors of the (financial) performance of these relationships (Palmatier *et al.* 2007). Therefore, an important question in the management and the marketing research in the last couple of decades have been:

What are the key drivers of the inter-organizational relationship performance?

Reinartz and Kumar (2003) hold that knowing the primary drivers of relationship performance can not only dramatically increase the return on firms' RM investments but can also provide useful insights to the researchers about how to develop more exhaustive models depicting the influence of effective relationship management on firms' superior performance. Storbacka and Nenonen (2009) have revealed that the heterogeneity in the relationship

performance plays a significant role in determining the heterogeneity of the performance among competing firms.

Researchers' efforts to explore drivers of the (inter-firm) relationship performance have received consistent attention in research in marketing and strategic management throughout the last couple of decades. Historically, a number of theoretical perspectives from a wide range of disciplines have been used to understand the dynamics of inter-firm relationship performance. According to Palmatier *et al.* (2007), most researchers investigating dynamics of inter-firm relationship performance have used one or more of the following four theoretical perspectives:

1) Transaction cost economics perspective (Williamson 1975),

2) Dependence perspective (Gundlach and Cadotte 1994).

3) Relational norms perspective (Mcneil 1980),

4) Commitment-trust perspective (Morgan and Hunt 1994).

The last two perspectives (together with the relationship quality model) are compartmentalised in the relational exchange theory (RET) in strategic management literature.

Palmatier *et al.* (2007) have elaborated the contributions of these four theoretical perspectives in explaining drivers of the inter-firm exchange performance. With its roots in neo-classical economics, transaction cost economics perspective (Williamson 1975) argues that transaction-specific

investments and opportunism influence relationship-specific decisions of the exchange partners and thus affect the performance of their exchange relationship (Anderson and Weitz, 1989 1992; Ganesan, 1994). Dependence perspective suggests that the power structure or dependence among exchange partners drives exchange performance and the level of conflict (Gundlach and Cadotte 1994; Hibbard, Kumar and Stern 2001). Using research from social psychology, sociology and law, the relational exchange theory (RET) provides foundation for the two prevalent perspectives to explain the dynamics of inter-organizational relationship performance. The first, the relational norms perspective or relationalism (Mcneil 1980) suggests that the strength of relational norms prevalent in an exchange environment affects the level of cooperative behaviour and relationship performance (Cannon, Achrol and Gundlach 2000). The second, the commitment-trust perspective (Morgan and Hunt 1994), argues that a party's commitment to and trust in its exchange partner determines relationship performance.

This research has primarily integrated and extended insights from these four theoretical perspectives to investigate the efficacy of (value-creating) relational investments and the relational norms/ governance in enhancing suppliers' (revenue) performance across different contextual configurations of the supplier-(intermediate) buyer dyadic relationships. Figure 2.1 depicts the theoretical foundations of the proposed model.

Figure 2.1: Theoretical Foundations of the Proposed Model
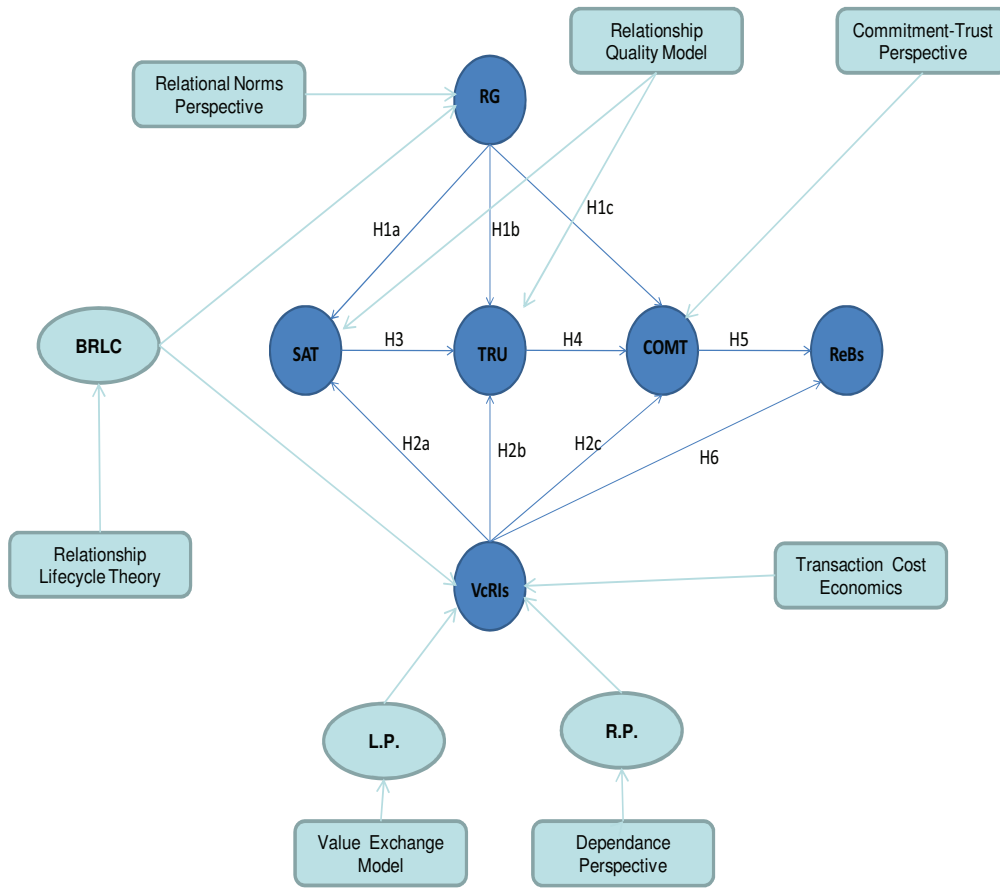
RG, Relational governance
SAT, Satisfaction
TRU, Trust
L.P., Leverage potential
R.P., Relational polygamy

VcRIs, Value-creating relational investments
COMT, Intermediate buyers' commitment
ReBs, Revenue enhancing behaviours
BRLC, Business relationship lifecycle

As can be seen in Figure 2.1, the model is theoretically grounded in the (aforementioned) four perspectives of relationship performance management (or their variants like value-exchange model (VEM) and/or relationship quality model) along with the business relationship life cycle (BRLC) theory. The rest of this chapter presents a brief discussion on the contributions from each of these theoretical frameworks.

2.1   Transaction Cost Economics

Transaction cost perspective (Williamson 1975), which centres on the role of asset specific investments and the opportunism to predict governance and exchange performance, has received consistent research attention in the last few decades (Heide and John 1990; Wathne and Heide 2000). It maintains that the governance structure and the ultimate performance of an exchange are influenced by the level of exchange-specific investments and the (unilateral and/or mutual) opportunistic behaviours displayed by the exchange partners (Anderson and Weitz 1989, 1992; Ganesan 1994).

TCE suggests that firms should vertically integrate in the face of higher TSIs and opportunistic concerns (Williamson 1979; 1985). The making of one-sided TSIs by an exchange partner though sometimes proves to be instrumental in increasing commitment in the others (Ganesan 1994) yet it also increases the investing party's vulnerability to an opportunistic exploitation by the later. It may cause (ex-post) opportunism as the dedicated investments

(unilaterally) made by an exchange partner create scope for the other to maximize its self-interest at the cost of the first one (Heide and John 1990; Yaqub 2009b). However, if these are made mutually, the concern for such an opportunistic exploitation is minimized and so is the need (and cost) to monitor performance and/or employ additional safeguards. With fewer opportunistic concerns and lower monitoring and safeguarding costs, the exchange becomes more efficient and more prone to joint action and exhibits greater expectations of continuity, all of which eventually lead to an enhancement in its performance (Heide and John 1990; Parkhe 1993).

Although, TCE is a popular framework because of its clear delineation of governance structures, yet it has been widely criticized for its over-reliance on the assumption of opportunism (Zhang, Cavusgil and Roath 2003). In Zajac and Olsen's (1993) opinion, it does not pay an adequate attention to the strategic objectives like establishing commitment, improving coordination, enhancing competitive position etc. They have proposed transaction value analysis (TVA) as an extension to the transaction cost analysis (TCA) framework for the following reasons;

Transaction cost perspective has two limitations, 1) a single party cost-minimization emphasis that neglects the interdependence between the exchange partners in the pursuit of joint value, and 2) an over emphasis on the structural features of inter-organizational exchange that neglects important process issues .... Cooperative relations are more a function of anticipated value gains, rather than anticipated losses due to the costs of constraining the

opportunism.......... It is the opportunities for value maximization, rather than simply transaction cost minimization that drive the decision to continue or reconfigure a relationship........... The pursuits of joint value-maximization sometimes require the use of less efficient (from TCE perspective) governance structure, with the expectation that joint-value gains will outweigh the transaction cost efficiency losses. (pp. 134-40)

Research in TCE has long established that the investment of idiosyncratic assets by an exchange party increases the commitment in other partner(s) (Anderson and Naurus 1990; Anderson and Weitz 1989, 1992; Ganesan 1994). However, focus in most of these studies has been on developing long-term relationships through creating dependence and "locking in" the exchange partners by getting them to invest in transaction specific assets (TSAs). Yaqub (2009a) postulates that exchange-specific investments should not be limited just to those investments made by a focal supplier to increase its asset-specificity in the relational space so as to signal a 'hostage-ship' to the buyer(s) (as propounded by the TCE). Rather, these should also include the investments aimed at enhancing the value-creation-ability of the other partner so that it contributes more surpluses to the relationship.

Value-based-management (VBM) urges the focal firms to avoid self-centric optimization. It suggests them to adequately consider the value gains and losses to the other stakeholders over and above those for themselves while formulating and executing their business strategies. In context of supplier-buyer relationships, the suppliers are being increasingly urged to make investments

into buyers through customizing their offers (products, services etc.), lowering the costs associated with serving their buyers, participating in the buyers' product designs, and/or integrating their own ordering, inventory and even the production systems with their buyers' (Fink *et al.* 2007). This research has focused on this type of relational investments, has termed them as value-creating relational investments (VcRIs), and has endeavoured to investigate the efficacy of such investments in enhancing suppliers' revenues across different contexts of supplier-intermediate buyer dyadic relationships.

2.2   Relational Exchange Theory (RET)

Granovetter (1992) argued that economic institutions are socially constructed i.e. they emerge from actions of socially situated individuals embedded in networks of personal relations with economic as well as non-economic goals. Similarly, from an in-depth case study, Larson (1992) concluded that economic transactions cannot be separated from the social context in which they take place. As such, it is highly inappropriate to view firms as atomistic entities competing (for profits) against each other in an impersonal marketplace (Gulati, Nohria and Zaheer 2000).

In Granovetter's (1992) opinion, economic action and outcomes (like all social actions and outcomes) are affected by the 1) actors' history of dyadic relations (the relational-embeddedness argument), and 2) structure of the actors' overall network of relations (the structural-embeddedness argument). According to

him, the central theme in economic sociology is the necessity of trust and trustworthy behaviour (a function of the past interactions as well as the future expectations) for even the normal functioning (let alone the superior performance) of economic action and/or the institutions.

Consonant with the (above-mentioned) economic-sociological account, Achrol (1991), in early 1990s, forecasted the rise of 'true marketing-companies' within networks of functionally specialized organizations whose norm-driven interrelationships would be held together and coordinated by 'market-driven focal organizations' by means of norms of sharing, and commitment based on trust. This conceptualization reveals two important facets along which research in the relational exchange theory (RET) progressed in subsequent years. These two facets include;

1. **Relationalism** (relational norms perspective or relational governance) which refers to the degree of relational-orientation prevalent in the exchange environment and is measured on a (Discrete – Relational) continuum based on a mix of relationship-preserving norms

2. **Commitment-Trust Theory** (CTT) which reveals the mediating role of trust and commitment between the antecedents and consequences of (successful) business relationships

By elaborating upon the central tenets of relational norms perspective and the commitment-trust theory, relational exchange theory (RET) explains the

essence of relational governance as being an *impetus to successful exchange relationship*s. Relational governance envisages the creation of a *relational environment* by putting in place a social contract based on a multitude of relationship-preserving norms (Blios and Ivens 2006). The criterion for the successful culmination of such an environment is its ability to promote trust and commitment among the exchanging parties (Ivens 2004). Therefore, RET suggests that firms should consider the development and promotion of trust-based commitment through promoting an adherence to relational norms as one of their key strategic objectives. This research has endeavoured to investigate the efficacy of relational governance/norms in enhancing supplier revenue through positively affecting satisfaction, trust (relationship quality) and/or commitment in the intermediate buyers. The following paragraphs discuss the contributions of the two prevalent perspectives grounded in the relational exchange theory (RET).

2.2.1   Relational Norms Perspective

Norms are expectations about behaviour that are partially shared by a group of decision makers and are directed toward collective goals (Jap and Ganesan 2000; Mcneil 1980). They constitute the expectations shared by exchange partners about what constitutes the "right" behaviour(s) within the environment of their (exchange) relationship (Morgan and Hunt 1994). According to Kaufman and Stern (1988), norms that govern exchange behaviours in discrete transactions are different from those in the relational exchange. According to

Blios and Ivens (2006), norms associated with discrete exchanges are more likely to create an environment where an exchange partner will give his own interests priority over those of the other party or even the cooperative gains. According to Bercovitz, Jap and Nickerson (2007: p. 725); "*……… with discrete norms, partners adjust terms of trade through bargaining before entering short-term exchange arrangements (Macneil 1978, 1980). On the other hand, at the relational end of the spectrum norms support cooperative adaptation by stressing behaviours that will preserve and continue the relationship even when pure self-interest might suggest otherwise (Macneil 1980)*".

The stability and success of an exchange relationship, to a substantial extent, is determined by conductivity of the overall atmosphere of that exchange (Roehrich, Spencer and Valette-Florence 2002). The key to the development of such an atmosphere is to put in place (as governance mechanism) a relational contract based on an adaptive mix of relationship-preserving norms (Mcneil 1978; Yaqub and Vetschera 2011). Relational exchange theory (RET) reveals relational norms as a distinct form of governance (the relational governance) that prescribes commitment and proscribes opportunism in exchange relationships (Joshi and Stump 1999; Morgan and Hunt 1994). If an adequate compliance to these relationship-preserving norms is reflected in partners' behaviours, it not only reduces transaction costs by substituting more elaborate governance, but also contributes to revenues by promoting a trust-inspired commitment. Bercovitz *et al.* (2006) observed that an adequate compliance to the relational norms leads to benefits like smoother coordination, increased adaptability within the exchange relationship, reduced opportunism and

increased efforts from transacting parties. The context of exchange, however, may influence the relative importance of each norm in ensuring the desired performance levels (Pauline, Ferguson and Salazar 1999).

While management can put in place the directives and/or incentives to develop cooperative norms, these mainly emerge from complex social processes which the management cannot fully control (Bercovitz *et al.* 2006). Even though, in early phases of the development of business relationships, the level of expected relational norms in an exchange can be the result of a calculative process facilitated by transaction attributes like joint transaction-specific investments and/or observe-ability (Bercovitz *et al.* 2006), these norms, at large, evolve over time as a consequence of partners' transacting experiences (Granovetter 1985; Gulati 1995; Gulati and Nickerson 2008; Ring and Van de Ven 1992; Zaheer and Venkatraman 1995). Relational norms mature through time and require significant investments (of time, money and personnel) from exchange partners (Frazier, Spekman and O'Neil 1988). Maintenance of such fragile constructs is even more problematic and can be best achieved through a reciprocity-based socialization process (Crosby *et al.* 1990; Gundlach and Achrol 1993).

2.2.2   Commitment-Trust Theory

Morgan and Hunt's (1994) commitment-trust theory, also known as the key mediating variable (KMV**)** model, reveals the mediating role of trust and

commitment between the antecedents and consequences of (successful) business relationships. It focuses on one party in the relational exchange and that party's trust and commitment. Trust refers to the confidence that exchange partners have for each other's reliability and integrity (Zhang *et al.* 2003), whereas commitment refers to the partners' desire to continue a valued relationship (Moorman, Zaltman and Deshpande 1992) and a willingness to make short-term sacrifices to preserve that relationship (Anderson and Weitz 1992). The mediating role of trust and commitment has been corroborated in a variety of contexts of business relationships by Bowen and Shoemaker (1998), deRuyeter, Moorman and Lemmink, (2001), Farrely and Quester (2005), Friman, Garling, Millet, Mattson and Johnston (2002), Henning-Thurau (2000), Hewett, Money and Sharma (2002), Holloway, Wang and Beatty (2009), Huntley (2006), Keith, Lee and Lee (2004), Macmillan, Money, Money and Downing (2005), Martin, Gutierrez and Camarer (2004), Mukherjee and Nath (2007), Styles and Hersch (2005) and Yang, Wang, Wong and Lai (2008).

2.2.3   Relationship Quality Model

A closer approximation or substitute of the CTT being widely used in the marketing and strategic management research is relationship quality (RQ) model. Athanasopoulou (2009) in his critical review of the relationship quality literature has treated trust and commitment to constitute a bi-dimensional relationship quality construct.

Relationship quality refers to the appropriateness of a relationship to fulfil needs of the actor(s) associated with that relationship (Henning-Thurau and Klee 1997). It has been revealed as an overall assessment of the strength of a (business) relationship by Garbarino and Johnson (1999). The relationship quality model basically assumes that an actor's perceptions of the appropriateness of a relationship influence its decision to stay in or exit from an exchange relationship.

Quite consistent with the pioneers Crossby *et al.* (1990), majority of the researchers such as Bejou, Wray and Ingram (1991), Boles, Johnson and Barksdale (2000), Choo,Jung and Chung (2009), Han, Wilson and Dant (1993), Huang and Chiu (2006), Lagace, Dahlstrom and Gassenheimer (1991), Leuthesser (1997), Lin and Ding (2006), Rajaobelina and Bergeron (2009), Selnes (1998), Sun (2010), Wray, Palmer and Bejou (1994), and Woo & Cha (2002) treated relationship quality as a two-dimensional higher order construct with satisfaction and trust being those two dimensions. Even though researchers like Henning-Thurau, Gewinner and Gremler (2002), Storbacka, Strandvik and Grönroos (1994) and Wong & Sohal (2002) also used a bi-dimensional model of relationship quality but they paired commitment (instead of trust) with the satisfaction. Some researchers like Baker, Simpson and Siguaw (1999), Garbarino and Johnson (1999), Ivens (2004), Roberts, Varki and Brodie (2003), Smith (1998 a&b), Ulga and Eggert (2006) and Walter, Muller, Helfert and Ritter (2003) used a multidimensional model of relationship quality with satisfaction, trust and commitment being the three dimensions.

According to Finn (2005), RQ model plays a critical role in the study of the maintenance of long-term relationships. According to Jap, Manolis and Weitz (1999), Rajaobelina and Bergeron (2009), and Ural (2007), it captures the essence of relationship management efforts. A number of studies like Boles *et al.* (2000), Choo *et al.* (2009), Crossby *et al.* (1990), Garbarino and Johnson (1999), Han *et al.* (1993), Henning-Thurau *et al.* (2002), Huang and Chiu (2006), Leuthesser (1997), Lin and Ding (2006), Rajaobelina and Bergeron (2009), Roberts *et al.* (2003), Selnes (1998), Storbacka *et al.* (1994), Sun (2010), Ulga and Eggert (2006), Woo and Cha (2002) and Wong and Sohal (2002) have shown how relationship quality effectively mediates the relationship among a number of antecedents and consequences characterising successful relationships in various business contexts.

2.3   Relationship life cycle Theory

Unlike personal relationships, business relationships cannot be expected to endure indefinitely (Anderson and Jap 2005). Mcneil (1978) reveals that the dynamics of a relational exchange change over time and each transaction is viewed (or must be viewed) in context of its history and the anticipated future. Consequently, the appraisal of the outcomes realized from business relationships fluctuates since their respective (external and internal) environments exert variable influences on the exchanging parties over time (Dwyer, Schurr and Oh 1987). The exchange partners continuously assess and compare the (overall) costs and benefits from an association with those of the

alternatives outsides that association, and the moment it starts looking like a zero or a negative sum affair with no expectations of reversal, the quality/strength of association begins to deteriorate.

Dwyer *et al.* (1987) were the first to present an explanation of the dynamics of business relationships over time. They described business relationship lifecycle (BRLC) as a discrete linear process spread over five distinct phases of relationship evolution i.e. awareness, exploration, expansion, commitment and dissolution. According to them:

Awareness refers to the realization to Party A that it is beneficial to exchange with Party B. In this phase, situational proximity plays a key role in achieving a possible collaboration as the likelihood of collaboration between the parties physically close to each other is always higher. The initiation of any bilateral interaction(s) between the exchange partners marks the commencement of the next phase i.e. *exploration* phase. Here, each party assesses and tests the goal compatibility, integrity and performance of the other to determine if it is feasible to collaborate. The relationship usually is quite fragile as it could easily be terminated in the face of minimal investment and interdependence. *Expansion*, however, characterises an increased interdependence which could primarily be attributed to a continual increase in benefits realized by the cooperating exchange partners. This phase usually characterises an increased risk-taking which can be attributed (to a great extent) to the mutual satisfaction and/or trust earned in the exploration stage. The *commitment* (phase) refers to a promise of continuing the exchange

relationship. This phase characterises relatively higher levels of inputs from the exchange partners as they stop vigorously seeking alternatives due to increased commitment. Finally, *dissolution* of relationship is more likely if at least one exchange partner perceives that the cost of continuing (or reviving) the relationship outweighs the benefits, not only at present but the same is more likely to continue in the future. Although the possibility of withdrawal is always implicit in all phases of the life cycle of any business relationship, yet it can prove to be highly consequential if it takes place after expansion and commitment phases characterizing high interdependence. Sometimes, the decline/dissolution phase can escalate surprisingly long, with no parties terminating, possibly due to inertia, others'-orientation, compassion etc.

According to Dwyer *et al.* (1987) model, an array of properties follows the same path during various phases of a (business) relationship lifecycle because many (if not all of them) are related over time. According to Jap and Anderson (2007), these properties are low in the exploration phase, rise during the build-up phase, reach their climax during the maturity phase and then fall during the dissolution phase. Researchers like Chattopadhyay (2001), Heffman (2004), Hsieh, Chie and Hsu (2008), Jap (2001a), Jap and Ganesan (2000), Jap and Anderson (2007), Redendo and Fiero (2006) have made an appeal to the Dwyer *et al.* (1987) framework and have used a similar typology (with little adaptations) in their respective research endeavours.

According to Jap and Anderson (2007), (business) relationships lifecycle is a powerful theoretical mechanism which captures and reflects transitions in

the exchange relationships over time. It reveals that business relationships develop over time via distinct phases which exhibit systematic differences in behaviours, orientations and processes (Dwyer *et al*. 1987; Ring and Van de Ven 1994). It facilitates an explicit understanding of how the interaction history forms a context that differentially influences the orientations, perceptions, and attitudes of the exchange partners (Boyle, Dwyer, Robicheaux and Simpson 1992; Dyer and Singh 1998). According to Jap and Ganesan (2000), firms need to select, use and adapt their RM strategies with respect to the changes occurring in different phases of the relationship lifecycle. While taking relationship phase as an important moderating contingency, this research takes into account how the relationship life cycle moderates the effects of relational norms and the value-creating relational investments (VcRIs) on certain relational mediators and/or the supplier's objective performance.

2.4   Value Exchange Model (VEM)

Even though a number of studies (especially in marketing channels relationships) have attested to the efficacy of transaction specific investments (TSIs) in creating and nurturing long-term relationships (Anderson and Naurus 1990; Anderson and Weitz 1989, 1992; Ganesan 1994), there still exists some criticism and a counter opinion (Fink *et al*. 2007; Yaqub and Vetschera 2011). Yaqub and Vetschera (2011) maintain that not all the relational investments prove to be (equally) efficient. They suggest that the suppliers can improve the returns on their relational investments by appropriating more of these

investments to those segments which exhibit the possibilities of superior pay-offs. Value exchange model (VEM), advanced originally in the context of customer relations management (CRM) by Grant and Schlesinger (1995), offers useful insights/propositions in this regard. Whereas TCE centres on the hostage-taking effects of TSIs, the value-exchange model (VEM) elaborates upon the role/efficacy of relational investments in effectively leveraging the potential of individual exchange relationships.

VEM centres on second of the following three ways to maximize profits from customer relationships;

1. by acquiring new customers,

2. by leveraging the profitability of existing customers,

3. by extending the duration of customer relationships

Grant and Schlesinger (1995) suggested that reaping the fullest profit potential of each (customer) relationship should be the fundamental goal of every business. As the means to achieve this end, they prescribed the focal firms to follow a value-based segmentation and positioning strategy, commit value-based relational investments, align business processes with customer needs, and foster an organization-wide value-orientation in the exchange partners.

In VEM, *value exchange* is regarded as the relationship between a company's financial investments in a customer relationship and the returns

generated by such investments. The VEM, in principle, bases itself upon the *logic of leverage* rather than the *logic of opportunity*. When applied to the supplier-buyer dyadic relationships, it suggests the suppliers to concentrate more on the high-value buyers in their relationship portfolios while appropriating relational investments. The leverage-potential, which refers to the difference between current and the maximum revenue/profit/value that a buyer relationship could generate, can serve as a useful criterion to differentiate high-value buyers from the low- value buyers. This research has employed leverage-potential as a critical moderating contingency while investigating the efficacy of value-creating relational investments (VcRIs) for the revenue-enhancement across different contexts of supplier-intermediate buyer relationships.

2.5   Dependence Perspective

Dependence perspective suggests that the power structure or dependence among exchange partners drives exchange performance and the level of conflict (Gundlach and Cadotte 1994; Hibbard *et al.* 2001). Dependence refers to the expectation that considerable costs would be involved in replacing an incumbent partner in case considerable transaction-specific investments (TSIs) have been committed (Morgan and Hunt 1994). Besides committing one-sided TSIs, a number of other factors like asymmetric resource contributions, lack of attractiveness, lack of social support, difference in absorptive capacity, size etc can also increase/escalate the (unilateral or mutual) dependence of the actors involved in an exchange relationship.

In the supplier-buyer dyadic relationships, asymmetric dependence creates power disequilibrium which (sometimes) provokes the dominant actor(s) (who could be either supplier or the buyer) to expect and appropriate a greater share in the pie which though is co-created. Such actors (especially when they are not inequity-averse) quite often times manage to grab a portion of the pie beyond their equitable share which creates a state of discomfort in the power-recessive exchange partner(s) (Yaqub, Hussain and Yaqub 2009). In the absence of distributive justice, the dependant (or disadvantaged) actor is left with no option other than to re-negotiate contractual terms to maintain a favourable position, escalate the conflict or exit the relationship all together (Lazzirini, Miller and Zenger 2006; Yaqub *et al.* 2009). A reciprocal interdependence, however, ensures that recurrent exchange will take place akin to a game (Axelrod, 1984; Yaqub *et al.* 2009). In ongoing games, (pro-active) opportunism is avoided because of the possibility of a tit-for-tat response (Axelrod 1984). If one party (proactively) acts opportunistically, the other would reciprocate through (reactive) opportunism which would eventually adversely affect performance of the exchange relationship especially if the conflict escalates too much. A desire to avoid the same results in a tit-for-tat game-theoretic control especially against (ex-post) opportunism.

The exchange partners are perceived to be in a conflict when they exhibit predispositions to undermine each other's goal-seeking capability due to (actual or perceived) incompatibility of goals. As *recurring conflict is inevitable*, a clash of interests, values, directions and/or actions often sparks conflict(s) among exchange partners while a host of structural, process, cultural and/or situational

factors increase the intensity of this conflict (Yaqub 2009a). Conflict-aversion could not be considered a good predisposition as good relationships often survive *functional crises* - potential conflicts that are ultimately constructive because the partners come together and work out their issues (Anderson and Jap 2005). But in order for this to happen, there need to exist a strong resolve to turn problematic incidents into opportunities for improvement geared to nurture the relationship and remind the parties of what is good for and among them.

Samouel (2007) found that establishing supportive norms can serve as an effective protective device against deviant and opportunistic behaviour in bilateral exchange featuring asymmetry both in economic and relational power. According to Zajac and Olsen (1993), if exchange partners establish and adhere to relational norms for joint value maximization, they pursue joint searches for satisfactory outcomes to conflicting situations and can easily escape the dis-instrumental effects of such conflicts. Therefore, instead to *win the conflict*, it is better for the parties in exchange relationship to resolve it by finding some win-win solution through collaborative conflict resolution (Yaqub *et al.* 2009). All this is quite possible if relationships feature power-symmetry, as in the (asymmetrical) power relations, there is always a strong temptation to *win the conflict* in order to maximize one's own interests even at the cost of other's which eventually leads to a wear-out in the relationship quality. While using relational polygamy- which refers to the number of elements in the supplier portfolio of an (intermediate) buyer- as a proxy for dependence, this research has investigated the moderating effect of dependence on the efficacy of the

value-creating relational investments (VcRIs) in enhancing revenues of a supplier firm.

2.6   Research Gaps

1. Relational norms perspective suggests that the strength of relational norms prevalent in an exchange environment affects the level of cooperative behaviour and relationship performance (Cannon *et al.* 2000). Research in RET has debated a lot on the efficacy of relational norms as antecedents and trust and/or commitment (or relationship quality) as the mediators for successful inter-firm relationships (Mcneil 1980; Kaufmann and Stern 1988; Morgan and Hunt 1994). However, Palmatier *et al.* (2007) have espoused that relational norms may be a necessary but not a sufficient condition for superior performance in business exchanges. In other words, violating norms results in underperformance, but following norms does not necessarily guarantee a superior performance. Therefore, the act of creating a highly relational environment needs to be complemented (or itself compliment) some other driver(s) of relationship performance. This research endeavors to investigate: *how does the relational governance complements (or is itself complemented by) the value-creating relational investments (VcRIs) in enhancing supplier s' revenues in supplier-intermediate buyer dyadic relationships?*

2. In an empirical study involving 206 purchasers of market research information, Ivens (2004) found the relational behaviours such as role integrity, mutuality, flexibility, solidarity, and long-term-orientation to be positively associated with the individuals determinants (i.e. satisfaction, trust, and commitment) of relationship quality as perceived by the customer. One of the limitations of this study (in his words) has been:

"From a supplier's vantage point, relationship quality constitutes an important objective. However, it is unclear to what extent it is directly linked to economic success (contribution margins, turnover, penetration rates etc.). Future research might examine this link". (Ivens 2004: p. 307)

This research addresses this limitation by investigating the outcomes for a supplier when it manages to secure higher perception of relationship quality and/or commitment in the intermediate buyers.

3. Morgan and Hunt (1994) in their classification of business relationships sub-divided the buyer relationships into relationships with: 1) the ultimate buyers, and/or 2) the intermediate buyers. Even though there is proliferation of relationship performance research on the first type, the latter has received lesser attention so far. This research makes up for this deficiency as the framework advanced here has, primarily, been intended at explaining dynamics of the relationship performance in the supplier-intermediate buyer dyadic exchange relationships.

4. Palmatier *et al.* (2006) have revealed that the effectiveness of relationship management efforts may vary depending on the specific RM strategy and the exchange context. After a comparative longitudinal analysis of theoretical perspectives of inter-organizational relationship performance, they suggested:

"after nearly two decades of RM research, marketers' efforts need to shift from significant testing to identifying which, and in what conditions, RM strategies generate the highest return on RM investments" (2006; p.152).

Consequently, this study focuses more on *what types* and *how* issues, rather than *if or if not* issues. More specifically, it endeavours to explain: *when does each of the RM instruments have the greatest impact on the revenue-enhancement?* Three contingencies - relationship lifecycle (or relationship phase), leverage potential and relational polygamy- have been employed to create different relationship contexts so as to assess differences in the efficacies of the two RM instruments across different relationship contexts.

5. By its content, dyadic business relationships consist of series of episodes that take place over a period of time with each episode comprising of specific interactions among the exchange partners. Relationship life cycle (or relationship phase) is an important moderating condition which allows an explicit understanding of how the interaction history between

the exchange partners forms a context that differently influences the perceptions, attitudes, and orientations of the parties in an exchange (Boyle *et al.* 1992; Dwyer *et al.* 1987). Despite a profound recognition that relationship phase is an important moderating condition in business relationships, very little has been done to empirically demonstrate this reality (Jap 2001a). This research takes into account how the relationship life cycle moderates the effects of a couple of RM instruments on certain relational mediators and/or the supplier's objective performance. As such, it bridges a significant gap in previous research where not much effort has been expended to explain the time-dependent effects of relational governance and relational investments on critical performance outcomes.

6. This research on the whole addresses the agenda set forth (for the future research) by Palmatier *et al.* (2007; p. 191) after a comparative longitudinal analysis of theoretical perspectives of inter-organizational relationship performance:

    "The interaction between the governance variables and investments should be better understood......   many different forms of exchange specific investments must be evaluated with regard to their productivity enhancement effect or overall ability to generate value........ efforts need to shift from significant testing to identifying which, and in what conditions, RM strategies generate the highest return on RM investments".

Chapter

3

STUDY CONSTRUCTS, HYPOTHESES OF STUDY AND

THE CONCEPTUAL MODEL

Figure 3.1 presents the conceptual model of this study. The model depicts the effects of value-creating relational investments (VcRIs) and relational governance on certain revenue-enhancing (relational) behaviours in context of supplier-intermediate buyer dyadic relationships. It has been hypothesized that value-creating relational investments (VcRIs) made by a focal supplier together with creating a highly relational environment by adhering to a mix of relationship-preserving norms engender high relationship quality (manifested through satisfaction and trust) which increases commitment of the intermediate buyers with the (focal) supplier. This commitment ultimately translates into an enhancement of revenues of the supplier since the intermediate buyer(s) exhibit certain desirable behaviours like prolonging the relationship, generating positive word-of-mouth and increasing their share of business to the focal supplier. It is further hypothesized that the efficacies of relational norms and value-creating relational investments (VcRIs) in enhancing the suppliers' revenues vary across different phases of relationship life cycle. Finally, it is hypothesized that the

effect of value-creating relational investments (VcRIs) on revenue-enhancement is moderated by the leverage potential of intermediate buyers and the relational polygamy exhibited by the intermediate buyers in their respective supplier portfolios. As such, there are two antecedent constructs (i.e. relational governance and the value-creating relational investments); three mediating constructs (i.e. satisfaction, trust and intermediate buyers' commitment), one outcome construct (revenue-enhancing behaviours) and three moderating conditions (i.e. relationship phase, leverage potential and relational polygamy).

The rest of this chapter discusses the nature, scope, role(s) and the hypothesized relationships among the constructs constituting this model.

Figure 3.1: The Conceptual Model
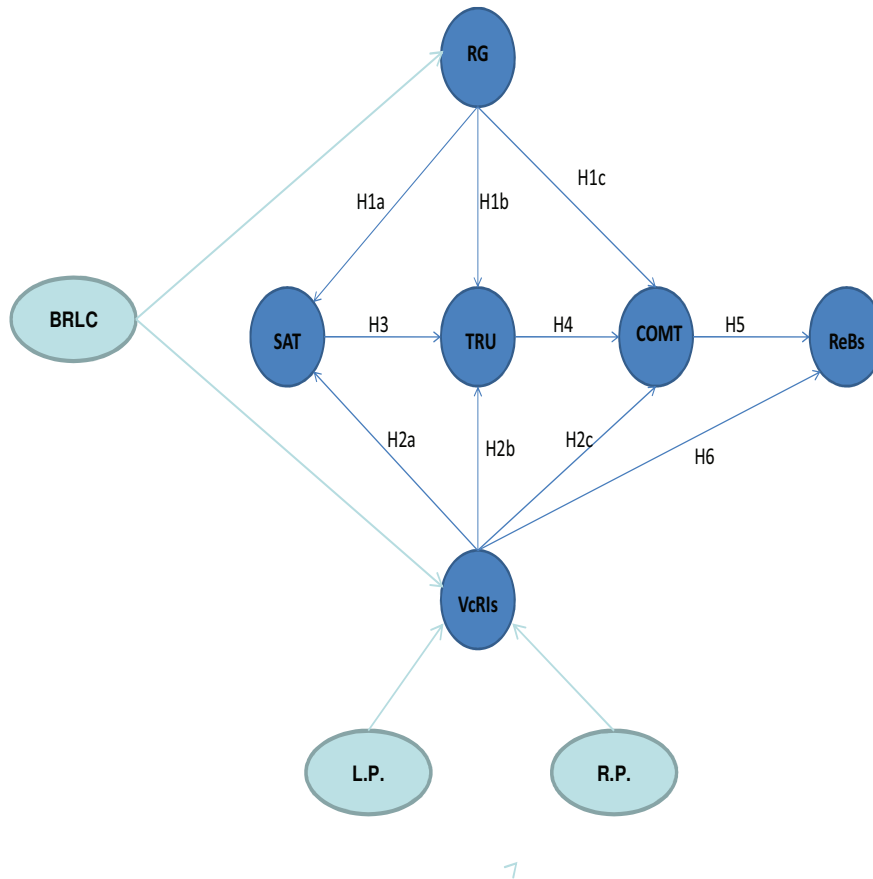
RG, Relational governance   VcRIs, Value-creating relational investments
SAT, Satisfaction   COMT, Intermediate buyers' commitment
TRU, Trust   ReBs, Revenue enhancing behaviours
L.P., Leverage potential   BRLC, Business relationship lifecycle
R.P., Relational polygamy

3.1   The Antecedents

3.1.1   Relational Governance (RG)

Relational governance refers to a state-of-affairs where the exchange relationships are governed by a social contract based on relationship-preserving norms of behaviour (Mcneil 1978). The extent of relational governance is gauged through the strength of relational norms prevalent in the exchange environment (Noordewier, John and Nevin 1990) where strength refers to the rigour of the norms-mix along with the degree of 'normative compliance' exhibited by the exchange partners (Yaqub 2010a). Low levels of rigour and compliance with relational norms are equated with transactional or contractual governance (Ferguson, Paulin, Möslein and Müller 2005). In an operational sense, relational governance is usually regarded as a higher order construct in a second-order factor model where the first-order factors are a number of correlated (relational) norms (Noordewier *et al.* 1990).

A number of relational norms have been discussed in the RET literature. Mcneil (1983) argued that various levels of 'relationality' can be tracked or attained along a discrete-relational continuum, where each level characterises a different mix of relational norms like role integrity, contractual solidarity, harmonisation of relational conflict, supra-contractual relations, and proprietary of means. Kaufman and Stern (1988) reduced Mcneil's list to three norms which included solidarity, role integrity and mutuality. However, later studies added a number of relational norms such as information exchange, participation,

fairness and flexibility (Blios and Ivens 2006; Heide and John 1992; Jap and Ganesan 2000) to this list and revealed them to be positively associated with superior performance of exchange relationships in a variety of business contexts (Kaufman and Stern 1988; Macneil 1980).

Table 3.1 presents the list of (five) relational norms along with their definitions which constituted the relational governance construct in this research.

Table 3.1: Aspects of Focal Suppliers' Relational Behaviour

Norms	Description
Solidarity	Preservation of the relationship, particularly in the situations in which one partner is in predicament (Kaufman 1987)
Mutuality	The actor's attitude that the realization of one's own success passes through the partner's common success (Dant and Schule 1992)
Role Integrity	Maintenance of complex multidimensional roles forming a network of relationships (Kaufman 1987)
Flexibility	The actor's readiness to adapt an existing implicit or explicit agreement on new environmental conditions (Noordwier *et al.* 1990)
Conflict Resolution	Application of flexible, informal and personal mechanisms to the resolution of conflicts (Kaufman 1987)

Source: Ivens, B.S. (2006), "Norms-based relational behaviours: Is there an underlying dimensional structure", Journal of Business & Industrial Marketing, 21/2, 94-105

The rationale behind selecting these five relational norms has been their (perceived) higher efficacy in affecting the relational outcomes as hypothesized in this research context. This is quite consistent with Cochet, Dormann and Ehrmann (2008) who revealed that the relational governance becomes more intense when the specific norms considered/adhered by the focal firm are perceived by other partner to be increasingly relevant for its behaviour.

Relational governance becomes more effective when the relationship-specific norms are perceived by the exchange partners to be increasingly instrumental for the attainment of their individual as well as collective goals. However, it is important to note that the perceived level of relational norms can deviate from the expected level as the development of such norms is the result of complex social processes which management in focal firm(s) cannot directly and/or fully control (Bercovitz *et al.* 2006). From a survey of 182 R&D collaborative alliances, Bercovitz *et al.* (2006: p. 724) concluded: *"exchange performance suffers when the realized level of cooperative exchange norms falls below the expected level, but overshooting expectations lays a critical groundwork for repeat transactions"*.

A number of studies such as Artz and Brush (2000); Aulakh, Kotabe and Sahay (1996); Ivens (2004); Joshi and Stump (1999); Kaufman and Stern (1988); Vazquez, Iglesias and Rodríguez-del-Bosque (2007) and Zhang *et al.* (2003) have, in a variety of business contexts, shown a positive association between adherence to relational norms and the superior performance while employing relationship quality or its individual determinants (satisfaction and

inter-organizational trust) as the mediating constructs. Ivens (2004) found the relational behaviours like role integrity, flexibility and mutuality to be positively associated with both the economic and the social satisfaction in supplier-buyer relationships. Aulakh *et al.* (1996) revealed that trust mediates the relationship between relational norms such as continuity, flexibility and information exchange on one hand, and the performance of export partnerships on the other hand. Zhang *et al.* (2003) concluded that incorporating bilateral solidarity, maintaining flexibility and fostering information exchange with channel partners could have positive effects on trust in the context of international channels. Similarly, Ivens (2004) reported a positive association between relational norms such as role integrity and mutuality, and the inter-firm trust. Ryu, Park and Min (2007), in the context of manufacturer-supplier relationship, have revealed relational norms and satisfaction with supplier performance as antecedents of trust, which has further been described as an essential precursor of the manufacturer's long-term orientation (LTO). In consonance with the aforementioned research findings, it is hypothesized that:

H1 (a)*: Greater the relationality perceived by an intermediate buyer, greater is its satisfaction experienced about the dyadic relationship.*

H1 (b)*: Greater the relationality perceived by an intermediate buyer, greater is its (perceived) trust in the supplier.*

H1(c)*: Greater the relationality perceived by an intermediate buyer, greater is its (perceived) commitment with the supplier.*

3.1.2   Value-creating relational investments (VcRIs)

Relational investment refers to the time, effort and resources which a supplier expends in building stronger relationships with the (intermediate or the ultimate) buyers. Hwang (2006) argue that firms can get greater productivity gains from cooperation when they are willing to commit relationship-specific investments and combine resources in unique ways. Palmatier *et al.* (2007; p. 191) have suggested that "*the focus on investments and asset specificity should shift from a transaction cost perspective of safeguarding and monitoring to a focus on improving the effectiveness and efficacy of relationship value creation*". This research has focused on this type of relational investments and has termed them as the value-creating relational investments (VcRIs). As an example for VcRIs, consider the context of a pharmaceutical company-clinic dyadic relationship context, where they would include renovating and/or upgrading the customer's clinic, facilitating training and/or learning endeavours, upgrading the knowledge of medical staff, facilitating automation, providing social networking opportunities etc. Palmateir *et al.* (2007) found that relational investments improve financial and relational outcomes by improving the ability of an exchange relationship to create value by either increasing benefits or reducing costs. For example, when suppliers invest in training, customized procedures, or specialized interfaces for the buyers, they improve the functional capabilities of the exchange relationship which eventually improve its performance.

A number of studies in channels relationships have revealed the efficacy of relationship specific investments (TSIs) in determining long-term relationships

(Anderson and Weitz 1989, 1992; Ganesan 1994). Delano (1984) found significant evidence for the benefits/rewards to the manufacturers who supported their (downstream) channel members. Anderson and Weitz (1992) found that offering better sales support to the resellers increased mutual trust between the exchanging parties (i.e. the manufacturers and the resellers). In context of the manufacturer and distributor relationships, they argued that mutual investments positively affect the actors' commitment to the relationship by acting as "potent pledges". Ganesan (1994) found that a vendor's TSIs increase its credibility in the eyes of retailer(s) by signalling that the vendor cares for the relationship and is willing to make sacrifices for its continuation. Anderson and Weitz (1989), Ganesan (1994), Palmatier *et al.* (2007) and Yaqub & Vetschera (2011) have asserted that relational investments help in maintaining and/or strengthening exchange relationship(s) by positively influencing relational mediators primarily through creating expectations of reciprocation, a positive affect and/or fear of losing the subsequent appropriations of such investments. Quite consistent with these research findings, it is hypothesized that:

H2 (a): Greater the value-creating investments by the supplier, greater the satisfaction experienced by an intermediate buyer about the dyadic relationship.

H2 (b): Greater the value-creating investments by the supplier, greater the (perceived) trust in the supplier

H2 (c): Greater the value-creating investments by the supplier, greater the commitment perceived by an intermediate buyer with the supplier

3.2   The Mediators

According to De Wulf *et al.* (2001) and Sirdeshmukh, Singh and Sabol (2002), efficient and effective RM efforts improve relationship performance through the creation of strong relational bonds. However, the literature offers mixed evidence and insights on which relational constructs actually mediate the effects of RM strategies/instruments on the performance-related outcomes (Palmatier *et al.* 2006). Most research has conceptualized these cause and effect relationships as fully mediated by one or more of the relational constructs like satisfaction, trust, commitment and/or relationship quality (Palmatier *et al.* 2006). However, there is still a little agreement among scholars as to which relational construct (individual or composite) is the most efficacious in depicting the real essence of this cause and effect relationship. According to Jap *et al.* (1999), Rajaobelina and Bergeron (2009) and Ural (2007), relationship quality captures the essence of relationship management efforts. Morgan and Hunt (1994) propose both trust and commitment to be the keys to predicting exchange performance. Other scholars suggest either trust (Doney and Cannon 1997; Sirdeshmukh *et al.* 2002; Spekman 1988) or commitment (Anderson and Weitz 1992; Gruen *et al.,* 2000; Gundlach, Achrol and Mentzer 1995; Jap and Ganesan 2000) alone to be the critical relational mediator. The following paragraphs discuss the nature and (mediating) roles of these (relational) constructs.

3.2.1   Relationship Quality (RQ)

According to Henning-Thurau and Klee (1997) relationship quality refers to the appropriateness of a relationship to fulfil needs of the actor(s) associated with that relationship. They have described relationship quality as the degree of appropriateness of a relationship to fulfil the individual and collective needs of the partners associated with that exchange relationship. Quite consistent with the pioneers Crossby *et al.* (1990), the researchers such as Bejou *et al.* (1991), Boles *et al.* (2000), Choo *et al.* (2009), Han *et al.* (1993), Huang and Chiu (2006), Lagace *et al.* (1991), Leuthesser (1997), Lin and Ding (2006), Rajaobelina and Bergeron (2009), Selnes (1998), Sun (2010), Wray *et al.* (1994) and Woo & Cha (2002) have treated relationship quality as a two-dimensional higher order construct with satisfaction and trust being those two dimensions. Even though researchers like Henning-Thurau *et al.* (2002), Storbacka *et al.* (1994) and Wong & Sohal (2002) also used a bi-dimensional model of relationship quality but they paired commitment (instead of trust) with the satisfaction. However, some researchers like Baker *et al.* (1999), Garbarino and Johnson (1999), Ivens (2004), Roberts *et al.* (2003), Smith (1998 a&b), Ulga and Eggert (2006) and Walter *et al.* (2003) have used a multidimensional model of relationship quality with satisfaction, trust and commitment being the three dimensions.

Considerable conceptual and empirical evidence in marketing channels research concludes that commitment is the ultimate outcome whereas satisfaction and trust are its causal precedents (Anderson and Weitz 1992;

Bloemer, Odekerken-Schroeder and Kestens 2003; Hess and Story 2005; Morgan and Hunt 1994). Geyskens, Steenkamp and Kumar (1999) propounded a sequential link among the three relational constructs by saying that over the time, satisfaction develops first, trust develops in the medium term and commitment emerges only in the long-term. A significant body of empirical research has also espoused satisfaction and trust to be the drivers of commitment (Morgan and Hunt 1994). Therefore, this research has incorporated a bi-dimensional view of relationship quality i.e. satisfaction and trust has been considered to be the two dimensions of relationship quality while commitment has been treated as its natural consequence. Moreover, as Geyskens *et al.* (1999) demonstrated that satisfaction is both conceptually and empirically separable from related constructs like trust, therefore, in order not to lose information on the internal structure of relationship quality, satisfaction and trust have also been treated as separable constructs in our conceptual model. The following sections discuss the nature, roles and hypothesized relationships among these relational mediators as espoused by the commitment-trust theory and/or the relationship quality model.

3.2.2   Satisfaction (SAT)

Satisfaction is generally referred to as a positive (affective) state which results from the appraisal of all aspects of the working relationship of an exchange partner with the other(s) (Geyskens *et al.* 1999). Schul, Taylor and William (1985) argue that satisfaction positively affects the morale of exchanging parties

and induces them to actively participate in collective activities. Hunt and Nevin (1979) conclude that satisfied (channel) members are less predisposed to exit the relationship and are less inclined to go for litigation against each other.

In a supplier-buyer dyadic relationship context, satisfaction can be viewed as the degree to which a supplier rises up to or exceeds expectations of the buyer in relation to its motives behind entering into an exchange relationship (Yaqub, Malik and Haider, 2010). Supplier-buyer relationships, like all other business relationships, are formed with the expectations of complementary benefits (Anderson and Jap 2005). According to Palmatier *et al.* (2006), buyers perceive *value* in such relationships only when they receive these (desired) benefits, which increase their willingness to continue, maintain and/or strengthen relational bonds with the focal supplier. Relational benefits have also been shown to positively affect the relational mediators by Morgan and Hunt (1994) and Reynolds & Betty (1999).

Anderson and Jap (2005) reveal that the relationship benefits fuel the future of an exchange relationship and give the partners an incentive to continue their exchange relationship. As the scope of such benefits can be quite wide, including economic, social, informational, political and other dimensions, therefore, satisfaction has quite often been regarded as a multi-faceted construct in the RET literature. In context of B2B relationships, Geyskens and Steenkamp (2000) have revealed satisfaction as a two dimensional construct consisting of two dimensions i.e. economic satisfaction and social satisfaction. Economic satisfaction refers to the evaluation of

economic outcomes that flow from the relationship whereas social satisfaction refers to the psychological aspects of the relationship which consists of an exchange partners' evaluation of the personal contacts and interactions with the other partner (Geyskens and Steenkamp 2000).

Business relationships evolve in successive collaboration cycles through a process of negotiations-commitment-execution contingent upon partners' evaluations of complementarities of contributions, benefits and/or changed priorities in strategic interests across different phases of the life cycles of these relationships (Ring and Van de Van 1994). Each stage provides a receptive context for the initiation and continuation of economic and social exchanges in the subsequent stages (Park and Ungson 2001). Therefore, single-shot satisfaction, i.e. satisfaction in a single instance or cooperation cycle becomes insufficient as it fails to engender a process-based trust (Yaqub *et al.* 2010). Totality needs to be ensured which, in our case, refers to the 1) satisfaction experienced in all exchange episodes, and the 2) satisfaction experienced in both the economic and the social constituents of exchange relationship.

3.2.3   Trust (TRU)

Trust is a multifaceted construct that has been viewed differently from a variety of theoretical perspectives. According to Dicky, McKnight and George (2007), trust has generally been defined in one of the two possible ways; 1) as a confident belief or expectation (i.e. a trusting belief), and/or 2) as a willingness

or intention to depend on the trustee (i.e. a trusting intention). *Trusting belief* refers to the perception that the other party (trustee) will act in ways favourable to the trusting party (Boone and Holmes 1991), or that the trustee has ethical, efficacious or favourable characteristics (Hagen and Choe 1998). Some of these beliefs, as revealed in the RET literature, include: continuity of natural order, competence and fiduciarity (Barbar 1983); dependability (Kumar 1996); ability, benevolence and integrity (Mayer, Davis and Schoorman 1995); competence, judgement and openness (Mishra 1996); reliability and predictability (Rempel, Holmes and Zanna 1985). By contrast, *trusting intention* refers to a willingness to become vulnerable or dependent on the trustee (Baier 1986; Currall and Judge 1995) based on the expectation that it will not exploit this situation (Mayer *et al.* 1995).

Whereas trust has been treated as redundant or even misleading in transaction cost economics (Nooteboom, Berger and Noorderhaven 1997), the central tenant of economic sociology is the necessity of trust and trustworthy behaviour for even the normal functioning of economic action and institutions (Granovetter 1992). From an economic-sociological stand point, actors behave in trustworthy ways because: 1) they think it is in their best social and economic self-interest (the under-socialized account), 2) they think it to be morally right, whatever the incentives (the over-socialized account), and/or 3) they aspire to rise up to the regularised expectations that characterise their relationships with their partners. As per the relational-embeddedness argument, an actor A may deal fairly with B not because it is in his best interest, or because he has assimilated B's interest to his own (the approach of interdependent utility

functions), but because they have been close for so long that they expect this of each other, and A will be mortified and distressed to having cheated on B even if B did not find out (Granovetter 1992).

Organizational theorists tend to think about trust at either a micro (i.e. interpersonal) or a meso level (i.e. inter-organizational) (Hosmer 1995). In Mouzas, Henneberg and Naudé's (2007) opinion, trust as a concept, appears to be more applicable at the level of inter-personal relationships than the inter-organizational relationships. Zaheer, McEvily and Perrone (1998) have described these two types/levels of trust as related but distinct constructs which play different roles in affecting B2B exchange performance. Based on the premise that it is individuals as members of organizations rather than the organizations themselves who trust, they have defined inter-organizational trust as the extent of trust placed in a focal organization by members of the partner organization.

From a relational perspective, inter-organizational trust has been defined as the expectation that an actor 1) can be relied on to fulfil obligations (Anderson and Weitz 1989), 2) will behave in a predictable manner, and 3) will act and negotiate fairly when the possibility for opportunism is present (Anderson and Narus 1990). Whereas communication and fairness are crucial for the culmination of trust in the early phases of relationship development (Ferguson *et al.* 2005), relational trust, largely, emerges out of the quality of experience or interaction among the exchange partners (Ring and Van de Ven 1992). More specifically, relational trust emerges from mutually beneficent

successive collaboration cycles among the exchanging parties. By transacting repeatedly, partners become familiar with one another and develop social attachments (Gulati 1995; Ring and Van de Ven 1994) which foster stronger forms of trust (e.g. process-based trust and familiarity-based trust) as a consequence of opportunities to share information and learn about each partner's proclivities toward trustworthy behaviour (Gulati 1995; 1998). However, on a futuristic account, Granovetter (1992; p. 42) asserted that; *".... the fact of a continuing relation with certain partners offers incentives to be trustworthy so as to ensure future transactions. But continuing economic relations become overlaid with social content that, apart from economic self-interest, carries strong expectations of trust and abstention from opportunism*". Fiol and Lyles (1985), however, maintained that it is the history of past transactions which sets precedence for future exchanges and provides information thorough which the focal firms establish expectations about the future behaviour of their partner(s).

For relational exchange, trust is so crucial that Spekman (1988) has postulated it to be the *cornerstone of strategic partnerships*. Croonen (2008; p. 201) concluded that "*franchisees' perceptions of distrust and unfairness result in destructive responses like aggressive voice, neglect, or even exit, towards the franchisor*". The *principle of generalized reciprocity* in social exchange theory holds that *mistrust breeds mistrust* and as such not only decreases commitment in the relationship but also shifts the transaction to one of more short-term exchanges (McDonald 1981). However, the presence of trust in interfirm exchanges is beneficial and can be a source of competitive advantage (Barney

and Hansen 1994). It is central to almost every relationship (Mishra 1996) and becomes particularly important in situations of risk, uncertainty or high likelihood of opportunism (Cummings and Bromiley 1996). As trust constitutes the basis of socially embedded exchanges (Granovetter 1985; Uzzi 1997) and relational patterns of governance (Macneil 1978), the focal actors in exchange relationships need to continuously earn and/or re-earn trust of the other exchange partner(s) so as to fuel the longevity of their exchange relationships.

3.2.4   Intermediate buyers' Commitment (COMT)

Defined as an attitude that reflects the desire to continue a valued relationship (Moorman *et al.* 1992) and a willingness to make short-term sacrifices to maintain that relationship (Anderson and Weitz 1992), commitment has been examined quite extensively in consumer contexts (Verhoef, Franses and Hoekstra 2002), work-place contexts (Allen and Meyer 1990; Luthans 2006) and business-to business contexts (Gruen *et al.* 2000; Morgan and Hunt 1994). Extending Luthans's (2006) view of workplace commitment to an exchange relationship context, we define commitment as a predisposition which comprises of an exchange partner's willingness to 1) stay long in the relationship, 2) accept the norms and values that govern the relationship, and 3) contribute maximally for the welfare of the exchange relationship.

Whereas organizational researchers like Garbarino and Johnson (1999) and Morgan & Hunt (1994) viewed commitment as a unidimensional construct,

a vast majority of researchers has regarded it as a multidimensional construct in a variety of business contexts (Allen and Meyer 1990, Geyskens, Steenkamp, Scheer and Kumar 1996; Gundlach *et al.* 1995). Moreover, if Geyskens *et al.* (1996) differentiated between affective commitment and calculative commitment, Allen and Meyer (1990), on the other hand, have revealed three dimensions of commitment which include: continuance commitment (cost-based attachment), affective commitment (desire-based attachment) and normative commitment (obligation-based attachment). In this research, Allen and Meyer's (1990) multidimensional view of workplace commitment has been extended to the supplier-intermediate buyer dyadic relationship context.

Considerable conceptual and empirical evidence concludes that commitment is preceded by satisfaction and trust (Anderson and Weitz 1992; Hess and Story 2005; Morgan and Hunt 1994). Achrol (1991) has posited relational trust to be the major determinant of relationship commitment. In Morgan and Hunt's (1994) opinion, commitment entails vulnerability especially when perceived risk is high; therefore parties in such exchange relationships seek only trustworthy partners. Geyskens *et al.* (1999) concluded that over the time, satisfaction develops first, trust develops in the medium term and commitment emerges only in the long-term as a result of the two. Consequently, we have hypothesized a sequential link between satisfaction, trust and commitment as;

H3:   *Greater the satisfaction experienced by an intermediate buyer about its relationship with a focal supplier, greater is its trust in the supplier.*

H4:   *Greater the trust in the focal supplier, greater is the commitment exhibited by an intermediate buyer toward that supplier.*

3.3   Outcome(s)

3.3.1   Revenue-enhancing Behaviours (ReBs)

Up to now, transaction cost perspective, which elaborates upon cost-minimization as a means to increased profitability seems to have dominated the relationship performance research, although the ultimate relational outcome is increased profitability, not just reduced costs (Yaqub 2010b; Yaqub and Vetschera 2011). Previous empirical research in business-to-business relationship contexts has reported a number of benefits from increased satisfaction, trust and commitment such as an increase in acquiescence and cooperation, and a decrease in the propensity to leave, functional conflicts, social uncertainty, and opportunism (Crosby *et al.* 1990; Morgan and Hunt 1994). However, most of these benefits could be attributed to the performance enhancement (from a cost minimization stand-point) in the upstream relationships.

In context of performance enhancement (from a revenue-enhancement stand-point) in downstream relationships, more explicit relational outcomes of having a loyal customer base have been documented in the service-provider context. Having a loyal customer-base can lead to: consistent and/or

predictable sales and profit streams (Aaker 1992); increased revenues for the focal firm (Reichheld 1993; 1996); more purchases of additional services i.e. upselling, and cross-selling (Reichheld 1996); generation of new business due to the positive word of mouth (Reichheld 1996; Reichheld and Sasser 1990); lower customer churn (Reichheld and Sasser 1990); and decreased cost as loyal customers are less demanding (Reichheld 1996). Extending some of these outcomes to the supplier-(intermediate) buyer dyadic relationship context, we have theorized that in addition to reducing transaction cost, value-creating relational investments (VcRIs) augmented with relational governance engender a number of revenue-enhancing relational behaviours from the intermediate buyers such as prolonging their relationship, generating positive word-of-mouth and/or increasing their share of business to the focal firm. These relational outcomes are aggregated in a higher order (formative) construct which has been termed as *revenue-enhancing behaviours* (ReBs). A display of such behaviours from its intermediate buyers ultimately translates into increased profitability of a supplier through positively affecting its revenues.

3.3.2   **Commitment and revenue-enhancing behaviors**

Previous research has revealed a number of positive effects of commitment on effectiveness or performance related outcomes (Jap 2001b; Palmatier *et al*. 2007; Skarmeas, Katsikeas and Schlegelmilch 2002; Voss, Johnson, Culln, Sakano and Takenouchi 2006). Morgan and Hunt (1994) have argued that commitment is the critical precursor to improving financial performance in

buyer-seller relationships. They hold that both the commitment and the trust are important for building strong relationships because buyers act positively toward and in the best interest of sellers with whom they share a trust-based commitment. As it signifies the highest form of relational bonding between firms (Dwyer *et al.* 1987), commitment has been regarded as the focal construct in our conceptual model. It is postulated that strong relational bonding (i.e. commitment) (stemming from the perceptions of higher relationality and value-creating relational investments (VcRIs)) leads to the exhibition of revenue-enhancing behaviours like prolonging their relationship, increasing the focal supplier's share in their business and the generation of positive word-of-mouth from the intermediate buyers.

H5: *Greater the commitment perceived by an intermediate buyer, greater is its exhibition of the revenue-enhancing behaviours*

3.3.3   VcRIs and the Revenue-enhancing Behaviours

Even though most of the research has postulated an indirect effect of relational investments on performance, still some researchers suggest that transaction-specific investments may also directly affect the relationship performance (Heide and John 1990; Parkhe 1993). A meta-analysis by Palmatier *et al.* (2006; p. 150) also concluded: "*relational investment has a large, direct effect on seller objective performance, in addition to its frequently hypothesized mediating effect*". Consequently it is hypothesized that;

H6:   *Greater the value-creating investments by the supplier, greater is the*
         exhibition of revenue-enhancing behaviours from its intermediate buyers

3.4   The Moderators

Larson (1992) suggests that firms involved in an exchange relationship should
be able to (re)configure freely and/or to easily "forgive and forget" according to
the changing circumstances and/or the calculations of advantage. From a
managerial stand-point, it is very crucial to identify the contextual
differences/effects and adapt the business strategies accordingly. After a meta-
analysis of the factors that influence the success of relationship marketing,
Palmatier *et al.* (2006; p. 152) suggested; "*after nearly two decades of RM*
research, marketers' efforts need to shift from significant testing to identifying
which, and in what conditions, RM strategies generate the highest return on RM
investments". Therefore, an important question which this research has
endeavoured to address is: *when do the relational norms and the value-creating*
relational investments (VcRIs) have the greatest impact on the revenue-
enhancement? The following moderators have been employed to create various
(relationship) contexts so as to examine differences in the efficacies of the two
RM instruments:

1. Business relationships lifecycle/relationship phase
2. Leverage-potential
3. Relational polygamy

3.4.1   Business Relationships Lifecycle (BRLC) /

Relationship Phase

The term *relationship phase* refers to the major transitions in how parties in an exchange view each other (Dwyer *et. al.* 1987). Four such phases as described by Jap and Ganesan (2000) include: exploration, build-up, maturity, and decline. As the *exploration* phase is usually characterised by high levels of risk and uncertainty (Jap and Ganesan 2000), therefore, value-creating relational investments (VcRIs) from the focal suppliers can prove to be more instrumental in inducing commitment in the intermediate buyers (much lower though) than relational norms which are not well-established yet (Jap and Ganesan 2000). During the *build-up* phase, the intermediate buyers begin to experience a continuous increase in benefits (Dwyer *et al.* 1987). A display of relational behaviours by the focal suppliers could promote greater trust and commitment in the intermediate buyers during this phase. During the *maturity* phase, as the exchange partners have already made implicit or explicit pledges to continue their exchange relationships on regular basis due to consistently embracing relational benefits (Jap and Ganesan 2000), tangible assurances like value-creating relational investments (VcRIs) may not prove to be as instrumental in fostering commitment and/or revenue-enhancing behaviours (ReBSs) as in the other phases. During the *decline* phase, the parties begin to signal their intentions to terminate the exchange relationship. They become quite short-term oriented, therefore, it is not considered optimal to make value-creating relational investments (VcRIs) at this stage. Here, relational norms can prove to be quite

useful in making the relationship termination smoother and less consequential (Jap and Ganesan 2000). Hence, it is hypothesized:

H7 (a): The efficacy of the value creating relational investments in inducing revenue-enhancing behaviours (directly or indirectly) is higher (compared to the relational norms) during the exploration and build-up phases of supplier-buyer relationship lifecycle.

H7 (b): The efficacy of the relational norms in affecting the relational mediators (satisfaction, trust and commitment) is higher (compared to the value creating relational investments) during the maturity and decline phases of supplier-buyer relationship lifecycle.

3.4.2   Leverage-potential (L.P.)

Leverage-potential refers to the difference between current and the maximum revenue that the relationship with a specific exchange partner could generate. The relationships of different buyers with a focal supplier differ in their potential to contribute to the enhancement in that supplier's (financial) performance. Let us look at the following example;

*The total monthly prescriptions made by clinic **A** are 200, out of which 150 feature the medicines being supplied by the pharmaceutical firm **X**. The leverage potential of Clinic **A** (for supplier **X**) is 50 prescriptions (200 – 150)*

*which means that there is a possibility of generating 50 more prescriptions from clinic **A** through effective RM efforts. Let us consider another clinic **B**. Its total monthly prescriptions are 200 out of which 50 feature the medicines being supplied by Firm **X**. The leverage potential of Clinic **B** for Firm **X** is 150 (200 – 50).*

As per the conventional (retention-oriented) marketing theory and practice, Clinic **A** will be considered more valuable (compared to Clinic **B**) by the Firm **X** as it is generating more sales/prescriptions for its products. Consequently, more of the RM efforts (more specifically, relational investments) will be appropriated to Clinic **A** compared to Clinic **B**. A paradox exists here with respect to the propositions extended by the value-exchange model i.e. though Clinic **B** is presently generating fewer prescriptions but has the potential to generate three times more prescriptions compared to Clinic **A**. Therefore, the (potential) pay-offs of RM investments from Clinic **B** are more compared to the same from clinic **A**. The supplier firms need to balance their investment management processes with respect to the propositions extended by these two apparently divergent philosophies.

Quite consistent with the value-exchange model (VEM) which suggests that the suppliers can improve the returns on their relational investments by ensuring a flow of such investments towards segments with the potential to generate superior pay-offs (in other words, leverage potential), it is hypothesized;

H8: The efficacy of the value creating relational investments in inducing revenue-enhancing behaviours (directly or indirectly) is higher in the intermediate buyers exhibiting a higher leverage-potential and vice versa.

3.4.3   Relational Polygamy (R.P.)

Business terrain lacks monogamous relationships. It mostly characterises polygamous relationships. In dyadic supplier-buyer relationships it is not just the suppliers but also the buyers who quite often maintain relationships with more than one supplier. A number of factors may prompt a (business) buyer to resort to alternative sources of supply i.e. the lack of an exhaustive evoked-set offered by a single supplier, perceived attractiveness of alternative suppliers, to reduce dependence and/or increase bargaining power, lack of supplier's adaptability to change in requirements, demand, tastes and/or technologies etc. The extent of a buyer's relational polygamy, which is reflected by the number of rival elements in its supplier portfolio, may significantly differ across different relationship contexts. Though the RM efforts become more crucial as the extent of relational polygamy increases, yet the same (relational polygamy) may also pose significant challenges in maintaining and/or leveraging such (buyer) relationships as it neutralizes the effectiveness of suppliers' RM efforts especially when the alternative sources of supply are at least equally (if not more) attractive. Whereas a lack in the number and/or perceived attractiveness of alternatives may foster a 'constraint-based' continuance commitment (Bendapudi and Berry 1997), the opposite reduces the 'locked-in' feeling in the

buyers, and consequently, increases the likelihood of either a full defection (losing the buyer altogether) or a partial defection (losing some share of a buyer's business) (Bansal, Irving and Taylor 2004), which implies that more of the VcRIs need to be appropriated in order to avoid such adversarial consequences.

As discussed earlier, the relational investment management process needs to be moderated by the leverage-potential of the intermediate buyers i.e. the higher the leverage potential, the greater the value, and consequently the greater should be the appropriation of relational investments. However, an important consideration here must be the target node's ethical proficiency since increasing its stake in an intermediate buyer could make a focal supplier more vulnerable to ex-post opportunism (Williamson 1985; Anderson and Weitz 1992; Gulati, Tarun and Nohria 1994). The likelihood of such an opportunistic exploitation increases if the intermediate buyer features high relational polygamy in its supplier portfolio. As such, the significance of relational investments increases with an increase in the number of competing elements in an intermediate buyer's supplier portfolio as an abundance of equally competing alternatives may infuse a transactional-orientation in that buyer. Therefore, it is hypothesized;

H9: The efficacy of the value creating relational investments (VcRIs) in inducing revenue-enhancing behaviours (directly or indirectly) is higher in the intermediate buyers exhibiting high number of elements in their suppliers' portfolios and vice versa.

Part 2

Research Methodology

Research Design
Measurement Instrument (Questionnaire)
Unit of Analysis and Sample
Data Collection (Field Work)
Data Analysis

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Chapter

4

RESEARCH METHODOLOGY

Research is a scientific process of obtaining generalizeable and replicable information about the nature and/or structure of a problem so that effective solutions could be suggested, devised and implemented in order to effectively manage/control that problem (Sekaran 2002). Research design refers to the plan of conduct of research (Davis and Cosenza 1993) and consists of the following elements:

1. Problem development

2. Choice of the type of research design

3. Devising measurement instrument(s)

4. Selection of the informants (sampling issues)

5. Collection of (primary and/or secondary) data

6. Analysis of data

7. Interpretation and the reporting of results/information

In chapters 1-3, the research problem was defined, developed and/or elaborated. The (problem development) process led to the specification of nine research hypotheses. In this chapter, we would elaborate other elements of the research design employed to conduct this study.

4.1 Type of Research Design

This research is an explanatory endeavour with a theory-testing objective. It has employed an ex-post facto research design since the independent variable(s) have not been manipulated like that in the experimental studies (Davis and Cosenza 1993). The data were gathered from supplier-intermediate buyer dyadic relationships in the pharmaceutical industry through a quasi-longitudinal *survey* conducted with the help of a structured questionnaire. The reason for selecting this relationship/research context was its higher relevance with the issues and/or the latent constructs constituting the hypothetical model (Figure 3.1) of this research.

4.1.1 Quasi Longitudinal Design

By employing relationship lifecycle as a key moderating condition, this research has endeavoured to explain the time-dependent effects of relational governance and value-creating relational investments (VcRIs) on critical performance outcomes which require that a longitudinal study should be conducted.

However, According to Anderson (1995), gathering longitudinal data on business relationships is quite difficult since one has to collect data about the same set of relationships with identical elements over several periods of time. In many situations, it becomes a very difficult (if not impossible) task mainly due to the time and cost constraints. This partly explains why longitudinal research design is rarely used when dealing with dynamic phenomenon like relationship phase. In order to overcome this problem, a quasi-longitudinal design has been suggested by Anderson (1995). Under a quasi longitudinal design, data are collected at one point in time, the relationships are then classified stage-wise, and finally a multi-sample modelling approach is used to assess the different sets of relationships empirically. The quasi longitudinal design has been used in the situations similar to this study by researchers like Eggert, Ulga and Schultz (2006), Jap and Ganesan (2000) and Jap (2001a).

4.2   **Measurement Model**

A measurement model specifies the relationships between latent constructs and their measures (items and/or indicators). According to Diamantopoulos, Riefler and Roth (2008), latent variables are phenomena of theoretical interest which cannot be directly observed and have to be assessed through manifest measures/variables which are observable. The latent constructs can be uni-dimensional or multidimensional. When dealing with multidimensional constructs, it is necessary to distinguish between (at least) two levels of analysis i.e. one level relating manifest indicators to the first-order dimensions, and the second level relating the individual dimensions/factors to the second-order latent construct(s) (Jarvis, MacKenzie and Podsakoff 2003; MacKenzie, Podsakoff and Jarvis 2005). According to Law, Wong and Mobley (1998; p. 741), "*in contrast to uni-dimensional constructs, the dimensions of a multidimensional construct can be conceptualized under an overall abstraction, and it is theoretically meaningful and parsimonious to use this overall abstraction as a representation of the dimensions*". Figure 4.1 (a&b) shows the two levels of analysis of multidimensional constructs.

Figure 4.1: Types of Measurement Scales and Models

Figure 4.1(a): Formative verus Reflective Scales

Formative Scale　　　　　　　　　　　　**Reflective Scale**
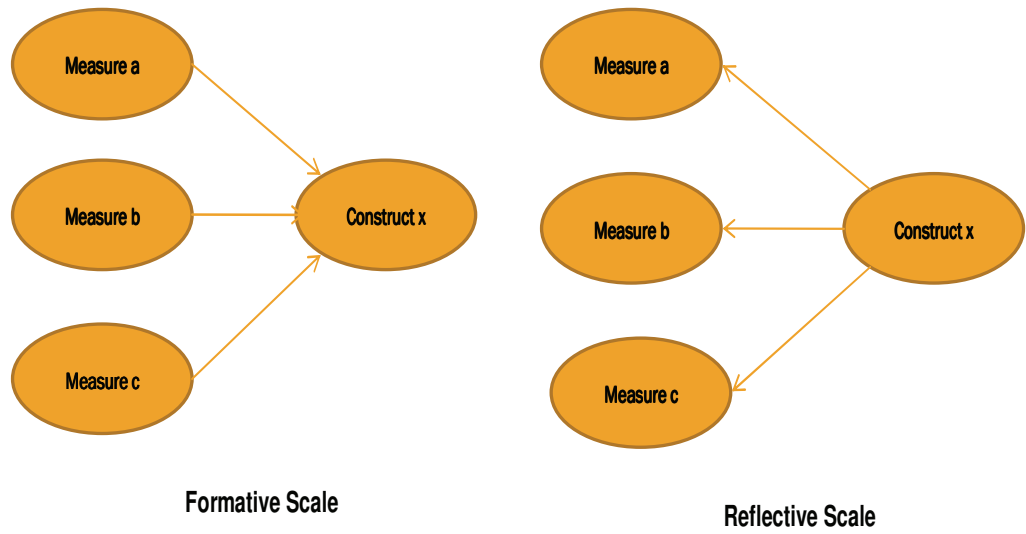
Figure 4.1(b): Formative verus Reflective Models

Formative Model　　　　　　　　　　　　**Reflective Model**
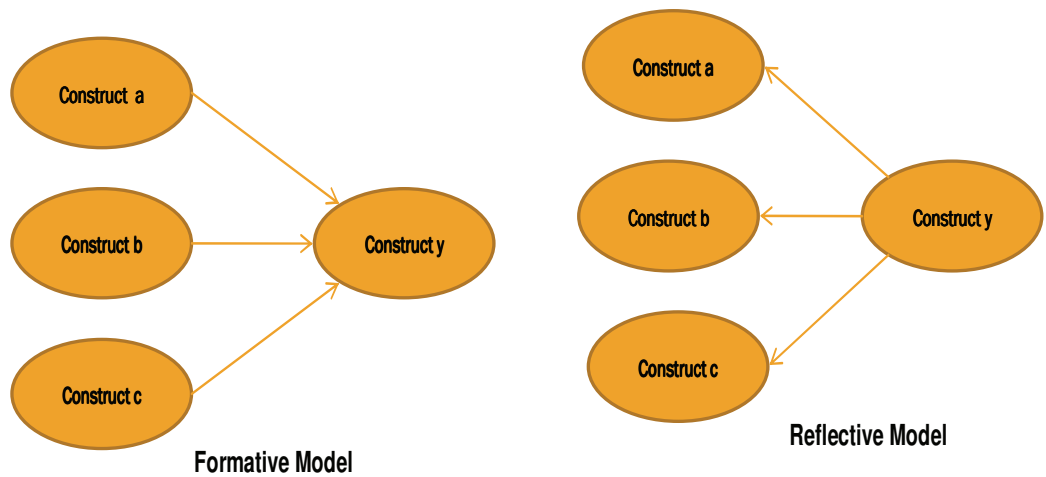
According to Diamantopoulos *et al*. (2008), the direction of relationship between a latent constructs and its measures can either be from construct to the measures (reflective measurement) or from the measures to the construct (formative measurement). In reflective specifications (Lord and Novick 1968), (higher-order) constructs are supposed to cause their dimensions rather than being caused by them. Consequently, dimensions are seen as strongly correlated and interchangeable facets of the focal constructs (Bollen and Lennox 1991). On the contrary, formative specifications (Curtis and Jackson 1962) view a higher order construct as being caused by its dimensions/factors/items. The dimensions which define the higher-order construct do not need to be highly correlated with each other.

4.2.1   Misspecification of the Measurement Model

Diamantopoulos and Winklhofer (2001) argue that reflective specifications of latent variables often mistakenly prevail in marketing literature. Bollen (1989: p. 65) states;

"*Most researchers in the social sciences assume that indicators are effect indicators. Cause indicators are neglected despite their appropriateness in many instances*".

Baxter (2009) notes;

"Many published studies specify reflective measures and models in error, probably building on mistaken applications of classical measurement theory (e.g. Nunnally and Bernstein 1994) to situations where that theory is inappropriate. Another possible reason for mis-specification is that when structural equation modelling is the analysis technique, formative indicators are rather more difficult to model in the commonly used packages such as LISREL and AMOS than they are using the generally less well-known partial least square technique."

According to Baxter (2009), spurious analysis and/or results based on incorrect specification of measurement models lead to incorrect theory building which adversely affects the development of the *body of knowledge*. Diamantopoulos *et al.* (2008) summarized six studies (Alberts and Hildebrandt 2006; Diamantopoulos and Siguaw 2006; Edwards 2001; Jarvis *et al.* 2003; Law and Wong 1999; MacKenzie *et al.* 2005) which have revealed consequences of misspecification of measurement models.

4.2.2   Appropriateness of Formative Measurements

Researchers in a variety of disciplines have undertaken considerable efforts to demonstrate the appropriateness of formative measurement models for a large number of latent constructs (Diamantopoulos 1999; Jarvis *et al.* 2003).

Formative indicators are more appropriate when the indicators (items and/or dimensions) determine the latent variable (Diamantopoulos *et al.* 2008). In formative models, the indicators characterise a set of distinct causes which are not interchangeable (though substitutable) as each indicator captures a specific aspect of the domain of the latent construct (Diamantopoulos *et al*. 2008; Jarvis *et al.* 2003). Consequently, omitting an indicator may change the nature of that construct (Bollen and Lennox 1991). Finally, there are no specific expectations about the patterns and/or magnitude of inter-correlations among the indicators as they might correlate positively or negatively or feature no correlation at all (Bollen 1984).

According to Diamantopoulos and Winklhofer (2001), the choice between the reflective or the formative specification and/or measurement of latent constructs should primarily be based on theoretical considerations such as purpose of study, (perceived or hypothesized) cause-and-effect relationship between the higher-order latent constructs and their lower-order indictors/dimensions etc. Since the purpose of this study has been theory-testing instead of theory building, therefore, we mostly preferred to use reflective indicators as advised by Chin (1998). However, two constructs (VcRIs and ReBs) were specified and measured as formative constructs based on the premise that 1) their respective dimensions caused these latent constructs instead of being caused by them, 2) their indicators/dimensions characterised a set of distinct causes which were not interchangeable, and 3) their indicators were not required to feature any positive or negative correlations.

4.3   The Measurement Instrument (Questionnaire)

A structured non-disguised questionnaire containing adapted versions of the measurement scales already established/used in the previous research was used for collecting the primary data. Guided by the previous research, we explicitly (a priori) defined the measurement models i.e. it has been pre-specified which item(s) would load on which specific dimensions of which latent constructs. We reviewed relevant literature so as to specify construct domains, develop constitutive and operational definitions, generate pools of items and assemble them to device a preliminary tool. The pre-established measurement scales for satisfaction, trust, intermediate buyers' commitment, relational governance and two dimensions of revenue-enhancing behaviours (ReBs) were adapted according to the nature, requirements and settings of this research. The scales to measure value-creating relational investments (VcRIs), leverage-potential, relational polygamy and the *increase in business share* dimension of revenue-enhancing behaviours (ReBs) were originally developed for this study.

In order to ensure content/face validity, the (adapted) measurement scales were subjected to a review from a panel of five experts, two from pharmaceutical companies and three doctors (the intermediate buyers/informants). Since we aggregated the items/indicators of various dimensions of latent constructs used/reported in some of the previous studies, a principal-component analysis (PCA) was carried out to purify the measurement scales and ascertain uni-dimensionality of the first-order factors/dimension of the higher-order latent constructs. However, a confirmatory factor analysis

(CFA) was conducted in order to ascertain the measurement quality (validity and reliability) of the higher-order (multidimensional) constructs.

Table 4.1 has summarized the scales that constituted the preliminary measurement instrument for this study. The following section discusses each of these constructs in detail.

_____
Table 4.1: Measurement Scales

Perceived relationality/relational governance (R.G.)
Nature: reflective
Factors: solidarity, role integrity, mutuality, flexibility, conflict resolution
Items: 20
Source: Fink *et al.,* (2007); Ivens (2006)

Satisfaction (SAT)
Nature: reflective
Factors: economic satisfaction, and social satisfaction
Items: 08
Sources: Ivens (2006)

Trust (TRU)
Nature: reflective
Factors: competence trust, integrity trust
Items: 11
Sources: Bansal *et al.*, (2004): Dickey *et al.,* (2007); Hess and Story, (2005); Voss *et al.,* (2006)

Intermediate buyers' commitment (COMT.)
Nature: reflective
Factors: continuance commitment, affective commitment, normative commitment
Items: 18
Sources: Allen and Meyer (1990); Bansal *et al.* (2004); Bagraim and Sader (2007); Blömer and
                     Odekerken-Schröder (2006); Suliman and Iles (2000); Voss *et al.*, (2006)

Value-creating relational investments (VcRIs)
Nature: formative
Items: 06
Sources: self-developed

Revenue-enhancing behaviours (ReBs)
Nature: formative
Factors: relational longevity, word-of-mouth effect, increase in business share,
Items: 08
Sources: Santonen (2007); Zeithaml, Berry and Parasuraman (1996), self-developed

Relationship phase
Nature: nominal
Phase: exploratory, build-up, maturity, decline
Items: 05
Source: Jap and Ganesan (2000)

Relational polygamy (R.P.)
Nature: Dichotomous (quantitative open-ended responses were median-splitted)
Levels: High, low

Leverage-potential (L.P.)
Nature: Dichotomous (quantitative open-ended responses were median-splitted)
Levels: High, low

4.3.1   Measurement of Reflective Constructs

4.3.1.1   Relational governance (R.G.)

In order to operationalize the relational governance construct, the scales used by Fink *et al.* (2007) and Ivens (2006) in order to measure five dimensions of relational governance (i.e. mutuality, flexibility, role integrity, solidarity and conflict resolution) were adapted according to the context of this study. As such, relational governance is a second-order construct with five first-order factors/dimensions each measured through four items. The responses on all 20 items were recorded on a 5-point (Strongly disagree .... Strongly agree) Likert scale format where lower numbers represented varying levels of disagreement and vice versa. The disagreement was equated with low levels of relationality in the exchange environment and vice versa.

Table 4.2 outlines the individual items measuring each of the first-order factors.

_____
Table 4.2: Measurement Scale Items For Relational Governance

Mutuality

1. The supplier wants both parties to benefit from the relationship
2. We do more to benefit the supplier than he does for us
3. The supplier is convinced that he will be compensated for the favours he makes
4. In negotiations with us, the supplier is always fair

Flexibility

5. If something unforeseen happens, we can easily adjust 'terms of engagement' with the supplier
6. The supplier quite often accommodates us out of way
7. The supplier is difficult to negotiate with
8. The supplier shows a high degree of flexibility when we ask him to modify the 'terms of engagement'

Role Integrity

9. All we are concerned with is that the supplier meets our requirements/expectations
10. Our roles are simple- we are buyers and they are sellers
11. The supplier routinely discuss issues that go beyond buying/selling
12. What we expect from each other is quite complex, because it covers both business and non-business issues

Solidarity

13. The supplier only cares about the business, and not the relationship
14. The supplier is committed to improvements that may benefit our relationship as a whole and not just him
15. When we encounter problems, this supplier tries to help us
16. The supplier does not mind if we owe him a favour

Conflict resolution

17. The supplier approaches all disputes with an open mind
18. The supplier has formal procedures to resolve disputes
19. The supplier carefully examines the reasons why disputes arise in our relationship
20. In case we have disputes, the supplier tries to find solutions that preserve and enhance our relationship
----

4.3.1.2   Satisfaction (SAT)

In order to measure satisfaction, the scale used by Ivens (2006) was adapted according to the context of this study. It was measured as a second-order latent construct with economic satisfaction and social satisfaction as its first-order dimensions. These first-order factors were measured through seven (7) items used by Ivens (2006). However, keeping in view the significance of complaints and service-requests in determining the success of supplier-intermediate buyer relationships in our research context, the suppliers' *ability to effectively handle the complaints and/or service requests'* was added to the original list of items. The responses on all these eight (8) items were recorded on a 7-point (Strongly disagree .... Strongly agree) Likert scale format where the lower numbers reflected varying levels of dissatisfaction and vice versa.

Table 4.3 outlines the individual scale items.

Table 4.3: Measurement Scale Items For Satisfaction

1. The quality/effectiveness of supplier's products

2. The price-quality-ratio of supplier's products

3. The supplier's service orientation

4. The supplier's handling of complaints/requests

5. The performance of supplier's sales force

6. The supplier's friendliness

7. The supplier's interest in you as a person

8. The supplier's respect for your work

4.3.1.3   Trust (TRU)

Trust perhaps is the most abstract construct of this study as it has been conceptualised, defined and measured quite differently in various research contexts. We measured trust as a confident belief or expectation (Dicky *et al.* 2007) that the trustee will act in ways favourable to the trusting party (Boone and Holmes 1991), or that the trustee has ethical, efficacious, or favourable characteristics (Hagen and Choe 1998). In view of the nature and dynamics of relationships investigated in this research, trust was measured as a second-order construct with two first-order factors i.e. competence-trust and the integrity trust. This view of conceptualizing the inter-firm trust is quite consistent with Barbar (1983), Mayer *et al.* (1995) and Mishra (1996). In order to operationalize trust, the scales used by Bansal *et al.* (2004), Dickey *et al.* (2007), Hess and Story (2005) and Voss *et al.* (2006) were adapted according to the context of this research. The first-order dimensions i.e. competence-belief and integrity-belief were measured through five (5) and six (6) items respectively. The responses on all the eleven (11) items were recorded on a 5-point (Strongly disagree .... Strongly agree) Likert scale format where lower numbers represented varying levels of disagreement and vice versa. A disagreement was equated with a lack of trust in the focal supplier.

Table 4.4 presents the individual items used to measure each of these first order factors.

Table 4.4: Measurement Scale Items For Trust

Trusting belief- Competence

1. Our supplier is skilful and effective

2. Our supplier is knowledgeable

3. The supplier makes every effort to resolve our problems

4. The supplier is very responsive

5. The supplier does what it takes to please us

Trusting belief- integrity

6. We could expect our supplier to tell the truth

7. Our supplier will go out of way to protect our interests

8. We place a great amount of faith in our supplier

9. Our supplier is fair and just in his dealings

10. We feel that the supplier can be counted on to help us when we need it

11. The supplier always fulfils his promises

4.3.1.4   Intermediate buyers' commitment (COMT)

Given that it has been the focal mediating construct of this study, intermediate buyers' commitment was the second most rigorously measured construct after relational governance. It was measured as a second-order latent construct with three first-order factors namely continuance commitment, affective commitment and the normative commitment. Each of these first-order factors were measured on six (6) items while adapting the measurement scales used by Allen and Meyer (1990); Bansal *et al.* (2004); Bagraim and Sader (2007), Blömer and Odekerken-Schröder (2006), Suliman and Iles (2000) and Voss *et al.* (2006). The responses on all these eighteen (18) items were recorded on a 5-point (Strongly disagree .... Strongly agree) Likert scale format where lower numbers represented varying levels of disagreement and vice versa. The disagreement was equated with a lack of intermediate-buyers' commitment with their respective focal supplier(s).

Table 4.4 presents the individual items used to measure each of these first order factors.

Table 4.5: Measurement Scale Items For Intermediate Buyers' Commitment

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Continuance Commitment

1. We stay in this relationship because it provides us with many rewards and benefits
2. We think that we have too few alternative options to consider leaving this supplier
3. We would not leave this supplier right now because of what we stand to lose
4. We get more rewards and benefits from this supplier than we could from any other supplier
5. We will stay in this relationship until something better comes along from some other suppliers
6. It will be unfavourable for us to leave this supplier

Affective Commitment

7. We consider this supplier our first choice
8. We feel a strong sense of belongingness with this supplier
9. The relationship with our supplier really means a lot to us
10. We feel that the supplier's problems are our own problems
11. We feel "emotionally attached" to this supplier
12. We feel pleasure in discussing our supplier with the people

Normative Commitment

13. The relationship with this supplier deserve our maximum efforts to maintain
14. We would feel guilty if we leave our supplier now
15. It would not be right to leave our supplier in case we get a better offer from some other supplier
16. We would not leave our supplier because we have 'a sense of obligation' to the people in it
17. Our supplier deserves our loyalty
18. Jumping from supplier to supplier seems unethical to us

4.3.2   Measurement of Formative Constructs

4.3.2.1   Value-creating relational investments (VcRIs)

Even though it would have been more appropriate to measure the (level or magnitude of) value-creating relational investments (VcRIs) in monetary terms, yet due to the (perceived) non-responsiveness owing to secrecy concerns, it was measured as a first-order (formative) construct employing six proxy indicators as its items. The intermediate-buyers were asked to report the extent of support being received from their focal suppliers in the areas which might have had enhanced their ability to efficiently and effectively serve their clients (the ultimate consumers). The responses on these items/indicators were recorded on a 7-point (to some extent .... to a higher extent) Likert scale response format where higher numbers were equated with higher extent/magnitude of the value-creating relational investments (VcRIs) being made by the focal suppliers (pharmaceutical companies) into the intermediate buyers (clinics/doctors) and vice versa.

Table 4.6 outlines the individual items used as proxy indicators for this formative construct.

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Table 4.6: Measurement Scale Items for VcRIs
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1. Up gradation or renovation of clinic

2. Subsidy for foreign trips (conferences)

3. Promotional assistance

4. Socialization opportunities

5. Product demonstrations

6. Workshops

4.3.2.2   Revenue-enhancing behaviours (ReBs)

Even though it would have been more appropriate to measure the enhancement in suppliers' revenues (resulting from the two RM instruments) in monetary terms, yet due to the (perceived) unavailability of (monetary) data owing to secrecy concerns, it was approximated as a second-order latent construct with three first-order proxy factors i.e. relationship longevity (RL), increase in business share (iBS) and the word-of-mouth effects (WoM). The scales used by Santonen (2007) and Zeithaml *et al.* (1996) were adapted to measure the word of mouth effects (WoM) and the relational longevity (RL) respectively. Each of these two dimensions was measured through three (3) items. However, a two-item scale was originally developed in order to measure the *increased business share* (first-order) factor/construct. The responses on these eight (8) items were recorded on a 5-point (Highly Disagree ..... Highly Agree) Likert scale format where lower numbers represented varying levels of disagreement and vice versa. The disagreement was equated with a poor display of the revenue-enhancing behaviour(s) by the intermediate buyer(s) and vice versa.

Table 4.7 outlines the individual items used to measure this formative construct.

Table 4.7: Measurement Scale Items For ReBs

Relational longevity

1. The relationship with this supplier is something that we would like to maintain indefinitely
2. We will continue to prescribe this supplier's products in future years
3. There is no chance of discontinuing business with this supplier at least in the nearer future

Increase in Business Share

4. In the last couple of years, our share of prescription to this supplier has increased
5. We think that we will shift some prescription share from other suppliers to this one in the coming years

Word-of-mouth effect

6. We recommend the supplier to someone who seeks our advice
7. We encourage other professionals in our contact to prescribe this supplier's products
8. We always say positive things about the supplier to other people

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4.3.3   Relationship phase

In Jap and Anderson's (2007) opinion, informants can realize the concurrent phase of their relationship lifecycle and can indicate it accordingly. Following Jap and Anderson (2007) and Jap & Ganesan (2000), a self-designation scheme was devised to classify respondents' relationships with their respective focal suppliers. The following statement was presented to the respondents;

"Relationships typically evolve through a number of phases over time. Which of the following best describes your relationship with the lead supplier?"

Respondents tick marked one of the five statements each reflecting a specific relationship phase. This measure was placed at the end of the questionnaire so that it could not affect their responses to other phenomena of interest. After obtaining the data, we observed that very few relationships fell in the deterioration phase perhaps because the deterioration occurs swiftly. Therefore, following Jap and Anderson (2007), we pooled responses in deterioration phase with those in the abandonment phase and termed it as the *decline phase*.

Table 4.8 outlines the (five) statements each of which represents a distinct relationship phase.

_____
Table 4.8: Measurement Scale Items For Relationship Phase
_____

1. Both of us are discovering and testing goal compatibility, integrity, and performance of the other, as well as potential obligations, benefits, and burdens involved with working together on a long term basis.

2. Both of us are receiving increasing benefits from the relationship, and a level of trust and satisfaction has been developed such that they are more willing to become committed to the relationship on a long-term basis.

3. Both of us have an on-going long-term relationship in which both are receiving acceptable levels of satisfaction and benefits from the relationship.

4. One or both of us have begun to experience dissatisfaction and are contemplating relationship termination, considering alternative suppliers.

5. We have begun to negotiate terms for ending the relationship and/or are currently in the process of dissolving the relationship.

4.3.4   Leverage potential (L.P.)

In order to measure the leverage-potential of intermediate buyers, the respondents were asked an open-ended question i.e.

How much is your current share of prescription to your lead supplier?

                                                            ……………………..

After obtaining the required data, the respondents were sub-divided into two groups with respect to their respective median values of the leverage-potential as;

1. intermediate buyer's with high leverage potential (≥ the median)
2. intermediate buyer's with low leverage potential (< the median)

4.3.5   Relational Polygamy (R.P.)

In order to measure the extent of relational polygamy, the respondents were asked the following open-ended question;

How many suppliers (including the lead supplier) are you doing business with?

                                                                                        …………..

After obtaining the required data, the respondents were sub-divided into two groups with respect to their respective median values of the extent of relational polygamy as;

1. intermediate buyer's exhibiting high relational polygamy (≥ the median)
2. intermediate buyer's exhibiting low relational polygamy (< the median)

4.4   Unit of Analysis and Sample

The sampled population designated for this study was all the private medical clinics operating in two cities (i.e. Bahawalpur and Rahimyar Khan) of Bahawalpur division of the Punjab province of Pakistan in the duration from March 2009 to April 2009. A convenient and efficient access to the relevant resources (information, personnel etc.), as the researcher is a native, has been the major consideration behind choosing this area for the purpose of collecting the primary data for this research. Usually the medical clinics are identified, by the suppliers (the pharmaceutical companies) and the ultimate customers (the patients), with the owning/managing doctors of these clinics. Therefore, the same were selected as the informants and/or the unit of analysis. Table 4.9 shows the relevant statistics.

As the vast majority (71%) of the total number of doctors were associated with the central hospitals (Bahawal Victoria Hospital Bahawalpur and Sheikh Zayed Hospital Rahimyar Khan) and many of them resided in the neighbourhoods known as *medical colonies* of these two cities, therefore, *area sampling* was used as the technique to select respondents. The sampling frames were obtained from the Medical Superintendents (M.S.) of these hospitals. As the total number of elements in the sampling frames was small enough to allow an inclusion of all of them in the sample, therefore, the same was done which resulted in a sample size of 1098 doctors. However, only 803 of them could be reached at their wards and/or private clinics. 295 doctors could

not be reached because they were on leave, their addresses were incorrect, or they simply were not willing to cooperate.

_____

Table 4.9: Sampling Statistics

Description	Bahawalpur	Rahimyar Khan	Total
No. of total doctors serving the whole city	934	618	1552
No. of doctors associated with central hospital	629	469	1098
% of total in the whole city	67%	76%	71%
No. of doctors who could be approached	497	306	803
No. of filled-in questionnaire returned	215	147	362
Response rate	43%	48%	45%
No. of questionnaires rejected	46	32	78
No. of questionnaires retained	169	115	284

(Source: District Health Departments of Bahawalpur and Rahimyar Khan)

4.5   Field Work

As mail and/or telephone surveys are not customary data collection techniques in this area, therefore, students from the local business education institutions were engaged to conduct a *personal investigation* in both cities. Five teams each consisting of four under-graduate students coordinated by a course instructor from the local business education institution were set up. The questionnaires were personally delivered to 803 doctors at their wards or clinics in the medical colonies of the two cities. In order to ensure efficiency and control against field workers' cheating, the questionnaires were collected back on daily basis after two weeks of the date of their disbursement. Follow-up calls were randomly made to the doctors to confirm authenticity of their response. The process lasted for about three weeks and resulted in the return of 362 filled-in questionnaires yielding a 45 % response rate. After performing necessary data-checks, 284 (usable) questionnaires were retained for further analysis.

4.6   Data Analysis

4.6.1   Principal Component Analysis

In view of the nature and context of relationships investigated in this study, we adapted and/or aggregated items of the lower-order factors of the higher-order latent constructs used/reported in some of the previous studies. In order to purify the measurement scales pertaining to the individual items of the first-order factors/dimension of the higher-order latent constructs, a principal-component analysis was carried out following the procedure suggested by Field (2009). The procedural details along with relevant results are reported in section 5.2 of the next chapter.

4.6.2   Structural Equation Modelling (SEM)

SEM is a second generation statistical technique which allows the simultaneous analysis of a series of equations (Haenlein and Kaplan 2004). It is especially useful in circumstances where a dependent variable in one equation becomes an independent variable in another equation(s) (Hair, Anderson, Tatham and Black 1995). As such, it allows a simultaneous modelling of relationships among multiple independent and dependent construct(s) (Gefen, Straub and Boudreau 2000).

4.6.2.1   CBSEM vs. PLS

In general, there are two approaches to estimating the parameters of a structural equation model i.e. covariance based approach vs. the variance-based (or components-based) approach (Haenlein and Kaplan 2004). According to (Chin and Nestwood 1999: p. 309), covariance-based structural equation modelling (CBSEM) "*attempts to minimize the difference between the sample co-variances and those predicted by the theoretical model.....therefore, the parameter estimation process attempts to reproduce the covariance matrix of the observed measures*". However, unlike CBSEM, PLS focuses on maximizing the variance of the dependent variables explained by the independent variables instead of reproducing the empirical covariance matrix (Haenlein and Kaplan 2004). According to Gefen *et al.* (2000), the choice of the appropriate SEM technique should depend upon the research objectives and/or the limitations imposed by the sample size and/or the distributional assumptions.

According to Gefen *et al.* (2000), when a research model has a sound theoretical-base, its overall objective is (or should be) theory-testing. CBSEM is more appropriate for this type of (confirmatory) research as it tests the *a priori* specified models against population estimates derived from a sample. PLS, on the other hand, is more appropriate for the causal-predictive analysis (Henseler, Ringle and Sinkovics 2009).

CBSEM requires a large sample size (at least 100) to avoid problematic solutions and to obtain an acceptable fit (Nasser and Wisenbaker 2003). Some researchers have even recommended a minimum sample size of 200 to avoid results that cannot be interpreted such as negative variance estimates or correlations greater than 1 (Dillon, Kumar and Mulani 1987; Marsh, Hau, Balla and Grayson 1998). On the contrary, PLS is least affected by small sample sizes and any deviations from multivariate normality. According to Cassel *et al.* (1999), PLS is quite robust in the face of missing values, model misspecification and violation of the usual statistical assumptions (relating to the normality, independence, sample size and/or multicollinearity) of latent variable modelling. Qureshi and Compeau (2009) found that PLS performed better than CBSEM when data were normally distributed with a small size and correlated exogenous variables. They also found that for smaller samples at moderate effect sizes, PLS outperformed CBSEM in detecting intergroup differences.

Finally, MacCallum and Browne (1993) revealed that the predominance of formative indicators may lead to severe (identification) problems, implied co-variances of zero among some indicators, and/or the existence of equivalent models in CBSEM. In contrast, PLS does not create any problems with respect to analyzing formative indicators and can therefore be used for models with reflective, formative, or both types of indicators (Fornell and Bookstein 1982).

In this research, variance-based structural equation modelling (using PLS-logic) has been preferred over covariance-based SEM based on the properties of the data and/or the model at hand (lack of multivariate normality, use of

formative indicators, and small sample size in some cells while making intergroup comparisons for testing the moderating effects). The PLS path modelling was done using SmartPLS Version 2.0 M3 (Ringle, Wende and Will 2006).

The analysis of the structural equation model was done in two parts i.e.

1. Analysis of the measurement model
2. Analysis of the structural model

Table 4.10 shows the instruments/techniques used to assess the (aforementioned) components of the structural equation modelling. The details of these techniques/instruments have been discussed along with the relevant results in sections 5.3.

Table 4. 10: PLS Structural Model Analysis (adapted from Henseler *et al.* 2009)

Assessment of Reflective Indicators

Criterion	Description
Composite reliability	CR is a measure of internal consistency and must not be lower than 0.8 for the research at an advanced stage Nunnally and Bernstein (1994).
Indicator reliability	Absolute standardized outer (component) loading should be higher than 0.6, ideally 0.7 (Chin, 1998).
Convergent validity	The Average variance extracted (AVE) should be higher than 0.5 (Götz, Liehr-Gobbers and Kraft, 2009).
Discriminant validity	
a. Fornel-Larcker criterion	The AVE of each latent variable should be higher than the squared correlations with all other latent variables (Fornell –Larcker, 1981).
b. Cross-loadings	If an indicator has a higher correlation with another latent variable than with its respective latent variable, the appropriateness of the model should be reconsidered Chin, 1988)

Assessment of Formative Constructs

Nomological validity	The relationships between the formative index and other constructs in the path model, which are successfully well known through prior research, should be strong and significant.
External validity	The formative index should explain a big part of the variance of an alternative measure of the focal construct.
Significance of weights	The estimated weights of the formative measurement models should be significant.
Multicollinearity	A variance inflation factor (VIF) greater than 10 indicates the presence of harmful collinearity. However, any VIF substantially greater than 1 indicates multicollinearity.

Assessment of Structural Model

R^2 of endogenous latent variables	R^2 values of 0.67, 0.33, or 0.19 for endogenous latent variables in the inner path model are described as substantial, moderate or weak respectively by Chin (1998)
Structural path Co-efficient(s)	The estimated values for path relationships in the structural model should be evaluated in term of signs, magnitude and significance (the latter via bootstrapping).

Test for Mediation Effects

Baron and Kenny's Test (1986)	A variable functions as a mediator when it meets the following conditions; 1. The independent variable significantly influences the mediating variable (path a); 2. The mediating variable significantly influences the dependant variable (path 3. When path 'a' and path 'b' are controlled, a previously significant relationship between the independent and dependant variables is no longer significant.

Test for Moderating Effects

PLS-MGA	If the parameter estimates of two subsamples from bootstrapping are known, one can verify how probable a difference in parameters between two subpopulations is, by using the following formula:

$$P(b_1 > b_2 \mid \beta_1 \le \beta_2) = 1 - \sum_{\forall j,i} \frac{\Theta(2\bar{b}_1 - b_{1,j} - 2\bar{b}_2 + b_{2,i})}{J^2}$$

P must be below a specified α-level to conclude that β1 is greater than β2.

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Part 3

Results

Sample Profile
Assessment of Measurement Model
Assessment of Structural Model
Tests of Mediating Effects
Tests of Moderation Effects

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Chapter

5

RESULTS

5.1   Sample Profile

Table 5.1 shows profile of the respondents from whom the data were collected during the survey. It shows that majority of the respondents were males (54%), aged between 30-40 years (39%), and had Medicinae Baccalaureus, Baccalaureus Chirurgiae (MBBS) i.e. Bachelor of Medicine (53%) as their highest level of education. Majority of the clinics (64%) had been established within last ten years. The clinics on the average employed 4 workers. The average (weekly) number of visitors in these clinics was 179. .

TABLE 5.1: Sample Profile

	Category	Frequency	%	Average
Doctors				
Gender	Male	152	54	
	Female	132	46	
Age (Years)	< 30	44	15	
	30-40	110	39	41 years
	40-50	79	28	
	>50	51	18	
Education	MBBS	150	53	
	FRCS/FCPS /MRCP	134	47	
Clinics				
Years of establishment (Years)	N.R.*	9	3	
	< 10	172	61	10 years
	10-20	61	21	
	>20	42	15	
No. of employees	N.R.	15	5	
	< 3	87	31	04 employees
	3-7	117	41	
	> 7	65	23	
Average weekly turnover of patients	N.R.	11	04	
	< 100	106	37	
	101-200	76	27	179 visitors
	201-300	51	18	
	> 300	40	14	

* NR = No response

5.2   **Principal Component Analysis (PCA)**

Principal components analyses (PCA) were conducted on the individual items of all the first order constructs/factors using the OBLIMIN extraction (except for VcRIs where VARIMAX extraction was used) with Kaiser Normalization. Even though Chin (1998) suggested the outer loadings of individual items above 0.60 and 0.70 to be acceptable and ideal respectively, yet he maintained that the outer loadings above 0.50 "*may still be acceptable if there exist additional indicators in the block*" (p. 328) of items for a particular construct. Therefore, all the items with outer loadings less than 0.50 were dropped. The outer loadings of each item on its respective construct are shown in Table 5.2.

Table 5.2: outer-loadings of the items constituting various factors

Relational Governance

		Outer **Loadings**
Solidarity		
1.	The supplier is committed to improvements that may benefit our relationship as a whole and not just him	0.70
2.	When we encounter problems, this supplier tries to help us	0.77
3.	The supplier does not mind if we owe him a favour	0.67
Flexibility		
1.	If something unforeseen happens, we can easily adjust 'terms of engagement' with the supplier	0.62
2.	The supplier quite often accommodates us out of way	0.72
3.	The supplier shows a high degree of flexibility when we ask him to modify the 'terms of engagement'	0.72
Mutuality		
1.	The supplier wants both parties to benefit from the relationship	0.75
2.	The supplier is convinced that he will be compensated for the favours he makes	0.57
3.	In negotiations with us, the supplier is always fair	0.51
Role Integrity		
1.	All we are concerned with is that the supplier meets our requirements/expectations	0.74
2.	The supplier routinely discuss issues that go beyond buying/selling	0.74
Conflict resolution		
1.	The supplier approaches all disputes with an open mind	0.66
2.	The supplier has formal procedures to resolve disputes	0.51
3.	The supplier carefully examines the reasons why disputes arise in our relationship	0.69
4.	In case we have disputes, the supplier tries to find solutions that preserve and enhance our relationship	0.67
Value-creating Relational Investments		
1.	Up gradation or renovation of clinic	0.69
2.	Promotional assistance	0.77
3.	Socialization opportunities	0.81
4.	Product demonstrations	0.79
5.	Workshops	0.71

Satisfaction

Economic Satisfaction		
1.	The quality/effectiveness of supplier's products	0.80
2.	The price-quality-ratio of supplier's products	0.79
3.	The supplier's service orientation	0.78
4.	The supplier's friendliness	0.70
Social Satisfaction		
1.	The supplier's handling of complaints/requests	0.82
2.	The performance of supplier's sales force	0.74
3.	The supplier's interest in you as a person	0.72
4.	The supplier's respect for your work	0.70

Table 5.2: outer-loadings of the items constituting various factors (Contd…)

<u>Trust</u>	Outer Loadings

<u>Trusting belief- Competence</u>

1. Our supplier is skilful and effective	0.78
2. Our supplier is knowledgeable	0.72
3. The supplier makes every effort to resolve our problems	0.69
4. The supplier is very responsive	0.71

<u>Trusting belief- integrity</u>

1. We could expect our supplier to tell the truth	0.75
2. We place a great amount of faith in our supplier	0.73
3. Our supplier is fair and just in his dealings	0.76
4. The supplier always fulfils his promises	0.62

<u>Intermediate Buyers' Commitment</u>

<u>Continuance Commitment</u>

1. We stay in this relationship because it provides us with many rewards and benefits	0.70
2. We would not leave this supplier right now because of what we stand to lose	0.69
3. We get more rewards and benefits from this supplier than we could from any other supplier	0.72
4. It will be unfavourable for us to leave this supplier	0.73

<u>Affective Commitment</u>

1. We feel a strong sense of belongingness with this supplier	0.75
2. The relationship with our supplier really means a lot to us	0.67
3. We feel that the supplier's problems are our own problems	0.73
4. We feel "emotionally attached" to this supplier	0.65

<u>Normative Commitment</u>

1. We would feel guilty if we leave our supplier now	0.74
2. We would not leave our supplier because we have 'a sense of obligation' to the people in it	0.72
3. Our supplier deserves our loyalty	0.75
4. Jumping from supplier to supplier seems unethical to us	0.69

<u>Revenue-enhancing Behaviours (ReBs)</u>

<u>Relational longevity</u>

1. The relationship with this supplier is something that we would like to maintain indefinitely	0.76
2. We will continue to prescribe this supplier's products in future years	0.76

<u>Increase in Business Share</u>

1. In the last couple of years, our share of prescription to this supplier has increased	0.79
2. We think that we will shift some prescription share from other suppliers to this one in the coming years	0.79

<u>Word-of-mouth</u>

1. We encourage other professionals in our contact to prescribe this supplier's products	0.76
2. We always say positive things about the supplier to other people	0.76

5.3   Analysis of the Structural Equation Model

PLS-based SEM analysis was done in two stages;

1. The analysis of the measurement models

2. The analysis of the structural model

The measurement model describes relationships between latent constructs and their measures (indicators/dimensions) whereas the structural model specifies relationships among various latent constructs (Edwards and Bagozzi 2000).

5.3.1   Analysis of the Measurement Model

According to Hair *et al.* (1995) a latent variable is an unobserved concept that is approximated by observable or measurable variables. These observable variables are also known as the manifest variables and can be either of the reflective or the formative type, thereby, classifying the latent constructs into two types i.e. reflective versus formative constructs. The measurement model specifies relationship between the latent constructs and their respective manifest (observed) variables (Medesker, Williams and Holahan 1994). The analysis of the measurement models involves the use of *confirmatory factor analysis* to find the loadings of each observed variable on its respective latent construct, and to establish quality of the measurement of every latent construct

(Smith and Langfield 2004). Both the reflective and the formative models have different schema for the assessment of their reliability and/or validity.

5.3.1.1 Assessment of the Reflective Constructs

Reflective measurement models are generally assessed with respect to their reliability and validity Henseler *et al.* (2009). Validity refers to the accuracy of a measurement scale, whereas the reliability refers to the extent to which a measurement scale yields consistent results (Davis and Cozensa 1993).

5.3.1.1.1 Reliability

According to Henseler *et al.* (2009), *internal consistency* is the most pronounced type of reliability. The measure most commonly used in the past research in order to measure the *internal consistency* reliability has been Cronbach's α (Cronbach, 1951) which provides an estimate for the reliability based on the inter-correlations among the indicators of a latent construct. However, it has been criticized for a severe underestimation of the *internal consistency* reliability in the path models (Henseler *et al.* 2009). Therefore, in this research, the *internal consistency* reliability at the construct level was assessed on the basis of composite reliability (CR) measure developed by Werts, Linn and Jöreskog (1974), using the 0.8 threshold suggested by Nunnally and Bernstein (1994) for the advanced stages of research. At the

indicator level, the reliability of (significant) individual dimensions was judged on the basis of strength of the outer-loadings, meaning at least > 0.6 and ideally 0.7 (Chin 1998).

The four reflective constructs (relational governance, satisfaction, trust and the intermediate buyer's commitment) were found reliable both at the construct level (Composite Reliability ≥ 0.8) and the indicators' level (b ≥ 0.6, and t ≥1.96). Table 5.2 and Table 5.3 present relevant statistics.

Table 5.2: Composite Reliability of Reflective Constructs

_____

Criterion: CR ≥ 0.8

Construct	CR
Relational Governance	0.83
Satisfaction	0.92
Trust	0.92
Commitment	0.91

_____

Table: 5.3: Reliability of Reflective Constructs (at first order Indicators' Level)

The outer loadings of the indicators of reflective constructs

_____

Criterion: (t ≥ 1.96)

Indicators/Factors	b	SE	t-value
Mutuality <- R.G.	0.7121	0.0356	20.0278
Flexibility <- R.G.	0.7073	0.0378	18.6873
Solidarity <- R.G.	0.6818	0.0396	17.2153
Role Integrity <- R.G.	0.6448	0.0454	14.1940
Conflict resolution <- R.G.	0.7492	0.0318	23.5638
Economic Sat. <- SAT	0.9231	0.0086	107.8554
Social Sat. <- SAT	0.9174	0.0122	75.1471
Competence Trust <- TRU	0.9177	0.0137	67.2107
Integrity Trust <- TRU	0.9148	0.0117	78.2841
Continuance Commitment <- COMT.	0.8825	0.0144	61.4307
Affective Commitment <- COMT.	0.8833	0.0162	54.6705
Normative Commitment <- COMT.	0.8628	0.0191	45.0970

_____

5.3.1.1.2   Validity

For the assessment of validity, two of its sub-types are usually examined i.e. convergent validity and the discriminant validity.

5.3.1.1.2.1   Convergent Validity

Convergent validity reflects that a set of indicators represents one and the same underlying construct, which can be demonstrated through their uni-dimensionality. We used average variance extracted (AVE) as a criterion to assess the convergent validity as suggested by Fornell and Lacker (1981). According to Götz, Liehr-Gobbers and Kraft (2009), a value of at least 0.5 of average variance extracted (AVE) indicates sufficient convergent validity as it reveals that the latent variable explains (on the average) more than half of the variance of its indicators.

As can be seen in Table 5.4, the three relational mediators (satisfaction, trust and intermediate buyer's commitment) featured high convergent validity whereas relational governance fell slightly short of the acceptable threshold value.

Table 5.4: Convergent Validity of Reflective Constructs

_____

        Criterion: **AVE ≥ 0.5**

Construct	AVE
Relational governance	0.49
Satisfaction	0.85
Trust	0.84
Intermediate-buyers' commitment	0.77

_____

5.3.1.1.2.2   Discriminant validity

Discriminant validity requires that two conceptually different concepts should exhibit sufficient difference. It is usually assessed through 1) the Fornell – Larcker criterion (1981) and 2) the analysis of cross loadings. According to the first criterion, the variance shared between a construct and its measures should be greater than the variance shared with other constructs. This is demonstrated by the square-root of the respective construct's average variance extracted (AVE) being significantly greater than the correlation with other constructs (alternatively, AVE ≥ R^2). As per the second criterion, the loading of each indicator on its respective construct must be higher than its cross-loadings (Chin 1988; Götz _et al._ 2009). Whereas the Fornell and Larker criterion (1981) assesses discriminant validity at the construct level, the cross-loadings ascertain the same at the indicators' level.

All four constructs exhibited discriminant validity with respect to the Fornel-Larker criterion (1981) (i.e. AVE ≥ R^2 of the relevant construct with all other latent constructs) and through an examination of the cross loadings (the indicators' loadings were highest on the relevant construct viz-a-viz the cross loading). The relevant statistics are reported in Table 5.4 and Table 5.5.

Table 5.4: Discriminant Validity of the Reflective Constructs

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Fornell –Larcker criterion

Criterion: AVE ≥ R²

	COMT	RG	SAT	TRUST
COMT	*0.7678*			
RG	0.2490	*0.4898*		
SAT	0.1649	0.2292	*0.8468*	
TRU	0.2683	0.2462	0.3721	*0.8395*

The diagonal values are AVE, the rest are R²

Table 5.5: Analysis of Cross Loadings

Criterion: outer loading has to be maximum/higher on the relevant construct

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	Intermediate Buyer's Commitment	Relational Governance	Satisfaction	Trust
Mutuality	0.2984	*0.7121*	0.3147	0.3255
Flexibility	0.3494	*0.7073*	0.3260	0.3338
Solidarity	0.3009	*0.6818*	0.3129	0.3982
Role Integrity	0.4461	*0.6448*	0.3127	0.3031
Conflict resolution	0.3420	*0.7492*	0.4005	0.3724
Economic Satisfaction	0.3485	0.4359	*0.9231*	0.5919
Social Satisfaction	0.3999	0.4454	*0.9174*	0.5306
Competence Trust	0.4685	0.4470	0.5807	*0.9177*
Integrity Trust	0.4808	0.4624	0.5376	*0.9148*
Continuance Commitment	*0.8825*	0.5058	0.3486	0.4337
Affective Commitment	*0.8833*	0.4299	0.3466	0.4819
Normative Commitment	*0.8628*	0.3692	0.3736	0.4478

5.3.1.2   Assessment of the Formative Constructs

Researchers like Bagozzi (1994), Bollen (1984), Bollen and Lennox (1991), Diamantopoulos (2006), Diamantopoulos and Winklehofer (2001) and Hulland (1999) have regarded reliability as an irrelevant criterion for assessing measurement quality of the formative constructs. According to Bagozzi (1994) Bollen, (1984), Diamantopoulos and Winklehofer (2001) and Hulland (1999), *internal consistency* reliability is not meaningful for formative models as the correlations among the formative indicators may be positive, negative or even zero. Nunally and Bernstein (1994) also dismissed the appropriateness of *internal consistency* for formative measures on the ground that two formative indicators that might be negatively correlated can still serve as meaningful indicators of a latent construct. In Henseler *et al.* (2009) opinion, it is the assumption of error-free measures that makes the issue of indicator reliability irrelevant for the formative models. Anyhow, according to Diamantopoulos (2006), it becomes more crucial to secure validity in case the reliability gets irrelevant.

5.3.1.2.1   Validity of Formative Constructs

Bagozzi (1994: p.338) states that "*construct validity in terms of convergent and discriminant validity is not meaningful when indexes are formed as linear sums of measurement*". Alternatively, two types of validity are generally assessed for

the formative models i.e. nomological validity (Jarvis *et al*. 2003; KacKenzie *et al*. 2005) and the external validity (Henseler *et al.* 2009).

5.3.1.2.1.1   Nomological Validity

According to Henseler *et al.* (2009), nomological validity requires that the relationships between a formative index and other latent constructs in a path model should be significant, strong and consistent with the previous research. Figure 5.1 (section 5.3.2.1) shows significant positive relationships of the first formative construct (i.e. value-creating relational investment (VcRIs)) with satisfaction and commitment. Similarly, the second formative construct (i.e. revenue-enhancing behaviours (ReBs)) which is an outcome construct in our model is featuring significant positive relationships with value-creating relational investments (VcRIs) and intermediate buyer's commitment. All these associations are quite consistent with what previous research has reported in relation to the constructs quite similar to these two formative constructs.

5.3.1.2.1.2   External Validity

5.3.1.2.1.2.1   External Validity at the Construct Level

According to Henseler *et al.* (2009), external validity requires that the formative index should explain a substantial part of the variance of an alternative measure

of the same latent construct. Following Henseler *et al.* (2009), in order to assess external validity at the construct level, first the formative index score was regressed on the score of the same latent construct measured through reflective indicators. Second, the error term was calculated to account for the variance not captured by any of the formative indicators by using the following formula;

$$\text{Var} (\upsilon) = 1 - \upsilon^2/\text{rel} (\xi)$$

Here, ξ stands for the reflective measure of the focal construct whereas υ stands for the correlation between the formative and the reflective measure of the same construct, which is equal to the standardized regression coefficient. Finally, the external validity was calculated as 1-Var (υ). The threshold value of 0.8 suggested by Henseler *et al.* (2009) was used. Both the formative constructs showed high external validity (at the construct level). Table 5.6 shows the calculations of external validity scores for the two formative constructs.

Table 5.6: Calculation of Error Term and External Validity

1. **Revenue enhancing behaviours (ReBs)**

   $\text{Var} (\upsilon) = 1 - r^2/\text{rel} (\xi) = 1 - (0.993)^2/1.0018 = 0.0160$

   External validity $= 1 - \text{Var} (\upsilon) = 1 - 0.0160 = 0. 98 > 0.80$

2. **Value-creating relational investments (VcRIs)**

   $\text{Var} (\upsilon) = 1 - r^2/\text{rel} (\xi) = 1 - (1)^2/1.0018 = 0.0018$

   External validity $= 1 - \text{Var} (\upsilon) = 1 - 0.0018 = 0.998 > 0.80$

5.3.1.2.1.2.2 External Validity at the Indicators' level

The face and/or content validity of individual items were ascertained by subjecting both the formative scales to an expert review. Two representatives from pharmaceutical companies and three doctors were engaged in this review process. At statistical level, according to Chin (1988) and Diamantopoulos & Winklhofer (2001), an indicator could be considered irrelevant (not featuring external validity) for a formative index if it is not statistically significant and/or it exhibits high multicollinearity with other indicators, which could mean that the information contributed by this indicator is redundant. Following this criteria, the statistical significance of the outer-weights was checked at 5% level of significance ($t \geq 1.96$). The multicollinearity of the individual indicators was assessed using variance inflation factor (VIF) while using VIF >10 as the criterion (the general rule of thumb). The outer weights of one item measuring value-creating relational investments (VcRIs) and two items measuring revenue-enhancing behaviours (ReBs) were not significant ($t < 1.96$). Consequently, these three items were dropped from their relevant scales. The outer weights of all other items were significant ($t \geq 1.96$) and none of them featured high multicollinearity (VIF < 10). Table 5.7 and Table 5.8 summarize the relevant statistics.

Table 5.7: Outer Weights of the Formative Constructs

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Criterion: (t ≥ 1.96)

Indicators/Factors	b	S.E.	t-values
Up gradation of clinics (RI1)	0.2711	0.1199	2.26
Promotional assistance (RI3)	0.2435	0.1259	1.97
Socialization opportunities (RI4)	0.2621	0.1276	2.05
Product demonstrations (RI5)	0.2706	0.1274	2.12
Workshops (RI6)	0.2799	0.1284	2.17
Relational longevity -> ReBs	0.6240	0.0689	9.05
Word of mouth effect-> ReBs	0.4321	0.0676	6.39
Increase in Bus. share -> ReBs	0.2381	0.0726	3.28

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Table: 5.8: The Multicollinearities among Formative Indicators

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Criterion: VIF < 10

VcRIs		ReBs		
Items	VIF	First order indicators	Items	VIF
RI1	1.418	Relational Longevity (RL)	ReB1	1.198
RI3	1.672		ReB2	1.158
RI4	1.430	Word of mouth (WOM)	ReB4	1.167
RI5	1.692		ReB5	1.096
RI6	1.495	Increase in B. Share (iBS)	ReB7	1.264
			ReB8	1.103

5.3.2   Assessment of the Structural Model

5.3.2 .1   Main Effects

A structural model shows relationships among various latent constructs. The individual path coefficients of a PLS structural model reflect direction and strength of these relationships. These can be interpreted like standardized β coefficients of the OLS regression. Structural paths, whose sign is consistent with the *a priori* hypothesized direction of the relationship, provide a partial support to the hypothesized relationships among the latent variables and vice versa. Chin (1998) revealed the coefficient of determination (R^2) of the endogenous latent variables as the essential criterion for the overall assessment of the structural model. According to him, R^2 values of 0.67, 0.33 or 0.19 for the endogenous latent constructs could be regarded as substantial, moderate or weak respectively.

The structural model (Figure 5.1) featured moderate value of R^2 for the four endogenous latent constructs as per the Chin (1998) criteria (See Table 5.9). However, Heneseler *et al.* (2009, p. 303) have noted: *"if certain inner path model structures explain an endogenous latent variable by only a few exogenous latent variables, 'moderate' R^2 may be acceptable".* The commendable fact is the $R^2 = 0.50$ value for ReBs which is quite acceptable given the fact that it is one of the pioneer attempts to explain the dynamics of revenue-enhancement in downstream relationships and that too with only two exogenous latent constructs.

FIGURE 5.1: The Structural Equation Model
# (Main Effects)
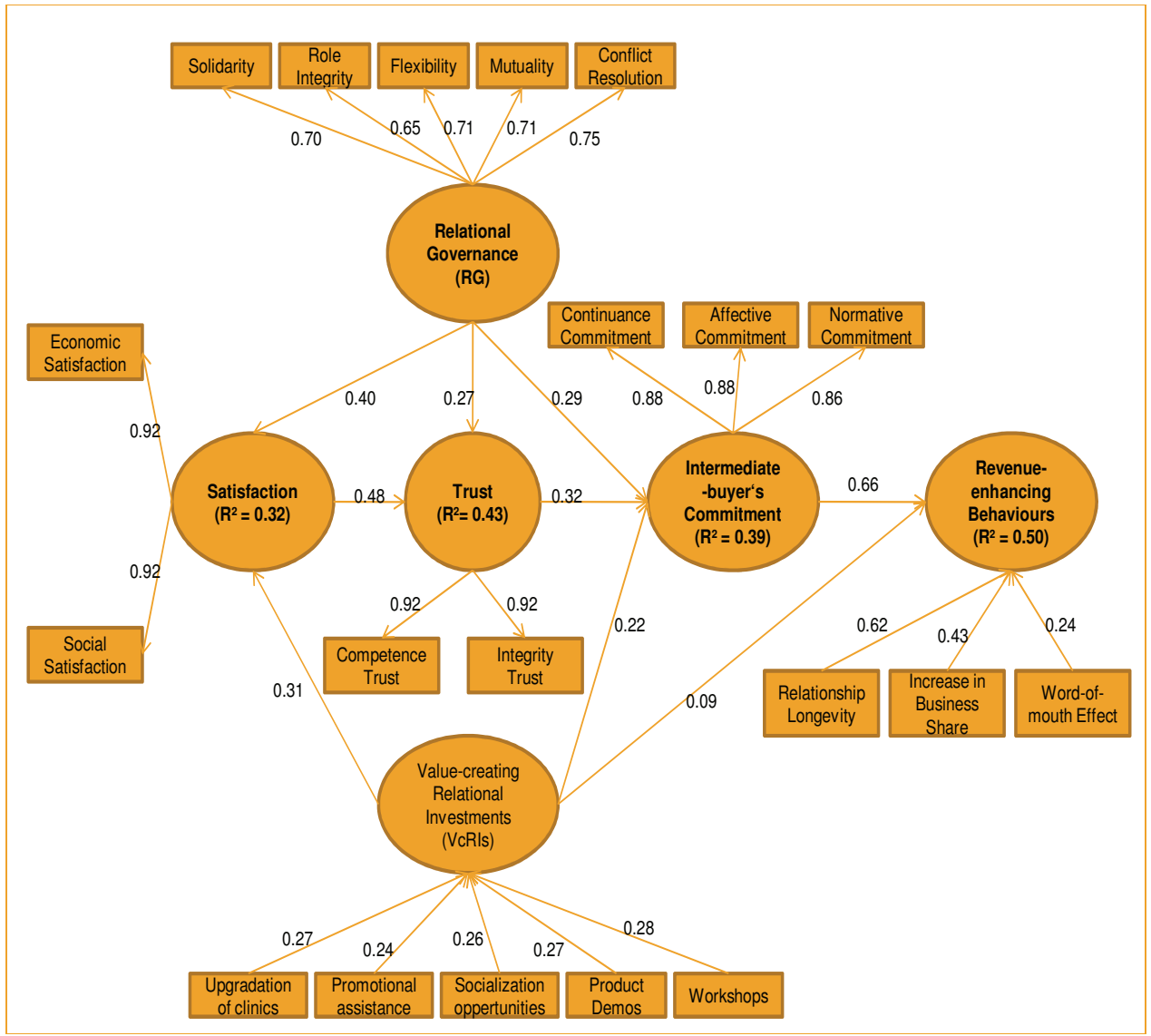
Table 5.10 lists all the structural path coefficients along with their respective t-values obtained through the process of bootstrapping. The inner loadings of all the structural paths except (VcRIs → trust) were found to be significant (t ≥ 1.96) thus confirming the entire set of hypotheses except H2 (b). One possible explanation for the non-significance of the relationship between VcRIs and trust could be the conceptualization and operationalization of the trust construct through the competence and integrity dimensions as value-creating relational investments (VcRIs) may have a little impact especially on the beliefs about the focal suppliers' competence. . Another reason could be the multicollinear correlation of trust with the satisfaction.

Table 5.9: R² of Latent Constructs in Structural Model

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Criterion (R² values of 0.19, 0.33 and 0.67 reflect low, medium and high explanatory power.

LV	R²
Satisfaction	0.32
Trust	0.43
Intermediate buyers' commitment	0.39
Revenue-enhancing behaviours (ReBs)	0.50

_____

Table 5.10: Inner Loadings of the Latent Constructs in the Structural Model

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            Criterion: *(t ≥ 1.96)*

Paths	b	t	Result
R.G. → SAT	0.40	7.90	H1 (a) is accepted
R.G. → TRU	0.27	4.98	H1 (b) is accepted
R.G. →COMT	0.29	4.22	H1 (c) is accepted
VcRIs → SAT	0.31	5.69	H2 (a) is accepted
VcRIs → TRUST	*N/S*		H2 (b) is rejected
VcRIs → COMT.	0.22	4.59	H2 (c) is accepted
SAT → TRU	0.48	9.42	H3 is accepted
TRU → COMT.	0.32	4.54	H4 is accepted
COMT. → ReBs	0.66	15.11	H5 is accepted
VcRIs → ReBs	0.09	1.96	H6 is accepted

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5.3.2 .2   Mediating and the Moderating Effects

Henseler *et al.* (2009: p. 304) suggested that "*researchers and practitioners using PLS path modelling should first assess their hypothesized path model of direct effects and then conduct additional analysis involving mediating and moderating effects to learn, for instance, more about possible spurious effects or suppressor effects*". Following their advice, we carried out tests for the mediating (Baron and Kenny, 1986) and the moderating effects (Henseler *et al.* 2009).

5.3.2 .2.1   Test for the Mediating Effects

The overall mediating role of the three relational constructs (satisfaction, trust and commitment) was tested using Baron and Kenny's (1986) logic, which holds that a construct functions as a mediator when it meets the following conditions;

1. The independent variable(s) significantly affect the mediating construct (path a);

2. The mediating construct significantly affects the dependant variable (s) (path b);

3. When path 'a' and path 'b' are controlled, the previously significant relationship between the independent and dependant variables does not remain significant any more.

As can be seen in Figure 5.2, the structural paths (a1 and a2) between the two exogenous (independent) variables (RG and VcRIs) and the endogenous (dependant) outcome variable (ReBs) are significant at $p < 0.01$ with coefficients $\beta_{a1}=0.35$, and $\beta_{a2} = 0.26$ respectively.

Figure 5.2: The Direct Effects Model

*, significant at $p \leq 0.01$
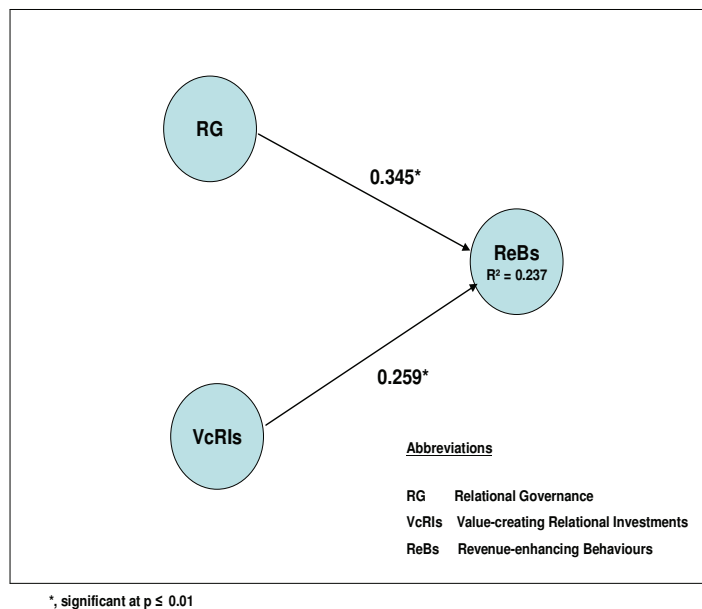
Even though the introduction of three relational mediators increases the R^2 from 0.24 to 0.50 (See Figure 5.1, Section 5.3.2.1), yet it makes the path 'a1' insignificant ($p > 0.05$) thus highlighting full mediation between relational governance and the ReBs. Path 'a2' though does not lose significance ($p < 0.05$), yet there is a decrease in β_{a2} from 0.26 to 0.11 which reveals some partial mediation effect. This is somewhat consistent with Palmatier *et al.* (2006;

p. 150) who found that: "*relational investment has a large, direct effect on seller objective performance, in addition to its frequently hypothesized mediating effect*". However, in our case, the direct effect was significant but not large.

5.3.2 .2.2   Test for the Moderating Effects

As discussed in section 4.1.1, in a quasi longitudinal design, data is collected at one point in time, the relationships are then grouped stage-wise, and finally a multi-sample modelling approach is used to empirically assess the differences in the behaviours of latent constructs across these groups. In PLS path modelling analysis, the most traditional approach used for making group comparisons has been suggested by Keil *et al. (*2000). According to this approach: after having subjected the sub-samples to separate bootstrap analyses and having made parametric assumptions about distributions of the standard errors of parameters, we can calculate the t-statistic for the difference in paths coefficients of the two groups as:

$$t = \frac{b_1 - b_2}{\sqrt{\frac{(n_1-1)^2}{n_1+n_2-2} se(b_1)^2 + \frac{(n_2-1)^2}{n_1+n_2-2} se(b_2)^2} \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

The statistic is asymptotically t-distributed with (n1+n2-2) degrees of freedom. However, Chin and Dibbern (2009) are sceptical about whether this approach with its inherent distributional assumptions is consistent with PLS path modelling which generally is regarded as distribution free. An alternative

method has been suggested by Henseler *et al.* (2009) which they have termed as PLS-MGA (PLS-Multi Group Analysis). It can be seen as a Mann–Whitney– Wilcoxon test (Wilcoxon 1947; Mann and Whitney 1947) applied to the bootstrap-values corrected for the original parameter values. PLS-MGA does not require any distributional assumptions to be met. It is quite easy to apply by using the bootstrap values that could be generated by the PLS path modelling applications like SmartPLS (Ringle *et al.* 2005). If the bootstrap parameter estimates of two subsamples are known, one can check that how probable a difference in parameters of two subpopulations is, by using the following formula:

$$P(b_1 > b_2 \mid \beta_1 \le \beta_2) = 1 - \sum_{\forall j,i} \frac{\Theta(2\bar{b}_1 - b_{1j} - 2\bar{b}_2 + b_{2i})}{J^2}$$

In this equation, *J* is the number of bootstrap samples, b_{1j} and b_{2i} are the parameter estimates of bootstrap values, b_1 and b_2 are the means of the two parameters over the bootstrap samples and Θ is the unit step function, which has a value of 1if its argument exceeds 0, otherwise 0. The value of P has to be below a specified α-level in order to conclude that β1 is greater than β2.

We employed the PLS-MGA to test the moderating role of relationship phase(s), leverage potential and relational polygamy by using the MS Excel spreadsheet application developed by Henseler *et al.* (2009).

5.3.2.2.2.1   Test of Moderating effects (Relationship phase)

A total of 273 intermediate buyers responded to the question intended to measure the relevant phase(s) of the relationships of intermediate buyers with their respective focal suppliers. Table 5.11 shows the break-up of the respondents according to the Jap and Ganesan (2000) classification of relationship phases;

Table 5.11: Respondents Classified with respect to Relationship Phase(s)

No.	Relationship Phase	F	%
1.	Exploration	42	15
2.	Build-up	78	28
3.	Maturity	134	49
4.	Decline	21	08
Total		**273**	**100**

We first performed the structural equation analysis for each of these sub-samples and then carried out PLS-MGA (Henseler *et al.* 2009) to assess differences in the (direct and/or indirect) effects of relational governance and value-creating relational investments (VcRIs) on revenue-enhancing behaviours (ReBs) across the four sub-samples. Table 5.12 summarizes the results of this PLS-MGA.

Table 5.12: PLS-MGA for the Relationship Phase

Paths \ Phases	Path Coefficients (β)				P-Values					
	Exploration (E)	Build-up (B)	Maturity (M)	Decline (D)	EB	EM	ED	BM	BD	MD
n	42	78	134	21						
RG --> SAT	N.S.	0.45	0.40	N.S.	N.C.	N.C.	N.C.	0.31	N.C.	N.C.
RG --> TRU	0.35	0.33	N.S.	0.51	0.45	N.C.	0.21	X	0.16	X
RG --> COMT	0.32	0.40	N.S.	N.S.	0.35	N.C.	N.C.	N.C.	N.C.	N.C.
VcRls --> SAT	0.41	N.S.	0.31	N.S.	N.C.	0.30	N.C.	N.C.	N.C.	N.C.
VcRls --> COMT	N.S.	0.21	0.21	N.S.	N.C.	N.C.	N.C.	0.5	N.C.	N.C.
VcRls --> ReBs	N.S.	N.S.	0.19	N.S.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.

N.S., Non-significant (p ≥ 0.05)

N.C., Not calculated if at least one of the two path co-efficients was non-significant

Table 5.12 shows substantial differences in the patterns of interaction of the two antecedents with the mediators (satisfaction, trust and commitment) and/or the ultimate outcome(s) across the four groups representing different phases of relationship lifecycle. However, these (observed) differences stand in contrast to the hypothesized patterns of interaction, except in the case of the group representing the decline phase.

In the group representing the exploration phase, the relational governance positively affected both trust (β=0.35) and commitment (β=0.32) of the intermediate buyers. On the contrary, value-creating relational investments (VcRIs) only (positively) affected satisfaction (β=0.41) and showed no significant effects on the intermediate buyers' commitment and/or the revenue-enhancing behaviours. Hence, the (indirect) effect of relational governance on revenue-enhancing behaviours (ReBS) was found to be stronger than that of the value-creating relational investment (VcRIs), which is quite inconsistent with H7 (a) which states that the effect of value-creating relational investments (VcRIs) is stronger compared to that of the relational governance in the early stages of relationship lifecycle.

In the group representing the build-up phase, relational governance showed significant positive effects on all the three mediators i.e. satisfaction (β=0.45), trust (β=0.33) and intermediate buyers' commitment (β=0.40), whereas value-creating relational investments only exhibited a positive effect on intermediate buyers' commitment (β=0.21). The strength of this relationship was also weaker compared to the impact of relational governance. It did not show

any significant effect on satisfaction and/or the revenue-enhancing behaviours (ReBs). Hence, the (indirect) effect of relational governance was found to be stronger than the effect of value-creating relational investments (VcRIs) which is again quite inconsistent with H7 (a).

In the group representing the maturity phase, the patterns of interactions of the two RM instruments got reversed. Here, the (direct and/or indirect) effect of values creating relational investments (VcRIs) on the revenue-enhancing behaviours was found to be far stronger then that of the relational governance. Whereas values creating relational investments (VcRIs) positively affected satisfaction ($\beta=0.31$), intermediate buyers' commitment ($\beta=0.21$) and revenue-enhancing behaviours ($\beta=0.19$), the relational governance, on the other hand, positively affected the satisfaction ($\beta=0.40$) only. It did not show any significant effects on trust and/or commitment of the intermediate buyers. This is quite inconsistent with H7 (b) which states that the efficacy of relational governance is stronger than that of the value-creating relational investments (VcRIs) in (directly and/or indirectly) affecting the revenue-enhancing behaviours (ReBs) during the maturity stage.

In the group representing the decline phase, the value-creating relational investments (VcRIs) did not show any significant effects on any of the mediators and/or the ultimate outcomes whereas the relational governance positively affected the trust ($\beta=0.51$). This is consistent with H7 (b) which states that the efficacy of relational governance is greater than that of the value-creating

relational investments (VcRIs) in affecting the relational outcomes during the decline phase.

5.3.2.2.2   Test of Moderating effects (Leverage Potential)

A total of 205 (out of 284) intermediate buyers reported their share of business (prescriptions) to their respective focal supplier(s).

We calculated the leverage-potential as:

Leverage-potential = 1 – business share (to the focal supplier)

The median value of leverage potential turned out to be 50%. We sub-divided the 205 respondents on the basis of this median value such that the respondents featuring leverage potential less than 50% (the median) represented the *low leverage-potential* group and the rest constituted the *high leverage-potential* group. The sample sizes for the high and the low leverage-potential groups turned out to be 88 and 117 respectively. The unequal sample size is due to the fact that we did not split the median class and included the respondents with leverage potential of 50% (the median value) in the high leverage potential group. We firstly estimated the structural equation models for both the groups and then performed the PLS-MGA analysis (Henseler *et al.* 2009) to assess the difference in the (direct and/or) indirect) effects of the

value-creating relational investments (VcRIs) on revenue-enhancing behaviours (ReBs) across the two sub-samples. Table 5.13 shows the relevant statistics.

Table 5.13: PLS-MGA for the Moderating Effect of Leverage Potential

Paths	Baseline	Low L.P.		High L.P.		Diff.	(p)	Result
				Path Co-efficient(s)				
VcRIs → SAT	0.31**	0.25**	(.078)	0.26*	(.110)	(.01)	(0.46)	Not significant
VcRIs → COMTT	0.22**	0.16*	(.085)	**n/s**		**n/c**	**n/c**	
VcRIs → ReBs	0.09*	**n/s**		**n/s**		**n/c**	**n/c**	

*	Significant at 5% (two-tailed)
**	Significant at 1% (two-tailed)
n/s	Not-significant
n/c	Not-calculated

As can be seen in Table 5.13, the value-creating relational investments (VcRIs) positively affected satisfaction (β=0.25) and the commitment (β=0.16) in the intermediate buyers featuring low-leverage potentials. On the other hand, it significantly affected satisfaction (β=0.26) only in the group representing intermediate buyers with high-leverage potential. This is quite inconsistent with H8 which states that the efficacy of value-creating relational investments (VcRIs) in (directly and/or indirectly) affecting the revenue-enhancing behaviours (ReBs) is stronger in the intermediate buyers exhibiting high potential for leveraging additional revenues compared to those exhibiting lower potential for the same.

5.3.2.2.2.3 Test of Moderating effects (Relational Polygamy)

A total of 219 (out of 284) intermediate buyers reported the extent of relational polygamy in their respective supplier portfolios. The median value was seven (7) elements in an intermediate buyer's supplier portfolio. We sub-divided the 219 respondents on the basis of this median value such that the respondents featuring less than seven (7) elements in their respective supplier portfolios (the median) constituted the *low relational polygamy* group and the rest constituted the *high relational polygamy* group. The sample sizes for high and low relational polygamy groups turned out to be 101 and 118 respectively. The unequal sample size is due to the fact that we could not split the median class and included the respondents with the extent of relational polygamy equal to 7 (the median value) in the *high relational polygamy* group. We firstly estimated the structural equation models for both the groups and then performed the PLS-MGA analysis (Henseler *et al.* 2009) to assess the differences in the (direct and/or) indirect effects of the value-creating relational investments (VcRIs) on revenue-enhancing behaviours (ReBs) across the two sub-samples. Table 5.14 shows the relevant statistics.

Table 5.14: PLS-MGA for the Moderating Effect of Relational Polygamy

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Paths	Baseline	Path Co-efficient(s)				Diff.	(p)	Result
		Low R.P.		High R.P.				
VcRIs → SAT	0.31**	0.22*	(.094)	0.32**	(.101)	(0.1)	(0.23)	Not Significant
VcRIs → COMT.	0.22**	n/s		0.24**	(.062)	n/c	n/c	
VcRIs → ReBs	0.09*	n/s		n/s		n/c	n/c	

_____

*	Significant at 5% (two-tailed)
**	Significant at 1% (two-tailed)
n/s	Not-significant
n/c	Not-calculated

As can been seen in Table 5.14, the value-creating relational investments (VcRIs) positively affected both the satisfaction (β=0.32) and the commitment (β=0.24) in the intermediate buyers featuring higher extent of relational polygamy in their respective supplier portfolios. In the second group which represented the intermediate buyers featuring low extent of relational polygamy in their respective supplier portfolios, the value creating relational investments (VcRIs) showed a significant positive effect on satisfaction (β=0.22) only. This is quite consistent with H9 which states that the efficacy of value-creating relational investments (VcRIs) in positively affecting the revenue-enhancing behaviours (ReBs) is higher in intermediate buyers featuring high relational polygamy in their supplier portfolios and vice versa.

Part 4

Discussion

Main Effects, Mediating Effects and Moderating Effects
Implications for Theory and Practice
Limitations
Avenues for Future Research
Conclusion

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Chapter

6

DISCUSSION

There can be two options for a supplier to increase its revenues from its (intermediate) buyer relationships:

1. **Static**; following the *logic of opportunism*, the supplier sets out to capture more share in an (intermediate) buyer's appropriations of value/business (in this case, prescriptions) among the elements constituting its supplier portfolio. In other words it aspires to grab bigger slice of the pie created by the intermediate buyer largely on its own

2. **Dynamic**; following the *logic of cooperation*, the supplier invests into an (intermediate) buyer's efficiency and/or the ability to generate/create more surplus/value (in this case, prescriptions/sales). By increasing size of the pie, this approach eventually results in an increased economic value for both the parties

As it leads to a win-win situation through joint value-creation, we would favour the dynamic approach over the former. The making of value-creating relational

investments (VcRIs) together with creating a highly relational exchange environment can prove to be quite instrumental in successfully achieving the revenue-enhancement objective under a dynamic approach. The following sections would elaborate more on this cause-and-effect relationship.

6.1   Value-creating Relational Investments (VcRIs) as an antecedent

(Value-creating) relational investments catalyze an intermediate buyer's efficiency in carrying out its normal functioning. For example, when a pharmaceutical company 1) upgrades the capacity of a clinic by supplying latest operational equipments and/or by facilitating it in improving its design, layout and climate 2) enhances its learning (both the doctor and/or the support staff) about the diagnostics and/or treatment through arranging public tests, workshops and/or product demonstrations; and/or 3) creates socialization opportunities (for the doctors) to facilitate a knowledge sharing among doctors, pharmaceutical companies, eminent researchers or practitioners and various other stakeholders – it augments that clinic's efforts of generating a satisfied, trusting and loyal pool of clients through efficiently and effectively curing/serving them. This trust-based loyalty eventually leads to higher sales/revenue for that particular clinic by increasing its customer traffic due to repeat visits and/or positive word-of-mouth effects. Owing to the norms of reciprocity, the clinic is expected to generate a similar (patronizing) response towards the focal supplier.

Kaufman (1987) has differentiated between value-creating and value-claiming types of relational behaviours of focal actors. In context of the dynamics of relationships investigated in this research, we maintain that it is the former type which leads to an enhancement in the focal suppliers' revenues through enhancing the relationship quality (in other words, satisfaction and trust) and commitment in the intermediate buyers. Value-creating relational investments (VcRIs) can be regarded as a manifestation of the focal suppliers' value-creating relational behaviours which (directly and/or indirectly) affect enhancement in their revenue. For example, when a pharmaceutical supplier helps a doctor in upgrading his clinic, enhancing his knowledge and/or social networks by participating in events held at the local, regional, national and international levels, facilitating it in promoting itself, administering free tests and demonstration at his clinic etc., it enhances the clinic's (the intermediate buyer) capacity to maximize its revenues/profits by attracting and serving more patients (the ultimate buyers).

The value-creating relational investments (VcRIs) create (economic) satisfaction by positively affecting the economic outcomes (like sales, revenue, profits) for the intermediate buyers. Moreover, the supplier's benevolence not only induces a (normative) commitment attributable to the *norms of reciprocity* but also inspires a positive state-of-affect about that supplier (i.e. affective commitment). Finally, most of the suppliers make such investments sequentially which also spurs a (continuance) commitment by making it imperative for an intermediate buyer to reciprocate equitably if it wishes that such investments continue to be appropriated in future. Disregard of its type(s)/origin, the increase

in commitment of the intermediate buyers eventually enhances the supplier's revenues by inducing certain pro-revenue behaviours in the intermediate buyers. The cause-and-effect relationship between intermediate buyers' commitment and revenue-enhancing behaviours is further elaborated in section 6.3.

6.2   Relational Norms (Governance) as an antecedent

Like most of the business relationships, the perceptions about the realization of desired benefits affect an (intermediate) buyer's decision to enter, remain or make an exit from its relationships with a focal supplier. By increasing the likelihood of distributive injustice, the existence of asymmetry in economic and/or relational power adversely affects an intermediate buyer's perceptions about the realization of (individual and/or collective) benefits desired from an exchange relationship. However, an exhibition of relational behaviours like mutuality and collaborative conflict resolution from a focal supplier mitigates such concerns of an intermediate buyer and, consequently, creates (economic) satisfaction. Moreover, an adequate compliance with the relational norms like solidarity, role integrity and flexibility positively increases (social) satisfaction by signalling (to the intermediate buyer) the presence of a *sense of comradeship* in the focal supplier.

        An adherence to the relational norms like mutuality, solidarity and role integrity by the focal supplier promotes trust. Mutuality breeds trust through

increased fiduciarity (alternatively, equity and distributive justice) as it prevents the focal supplier from optimizing at the cost of an intermediate buyer. Similarly, when an intermediate buyer witnesses a display of solidarity from its focal supplier especially when it was highly vulnerable to an opportunistic exploitation, it strengthens its (integrity-based) trust in that supplier. Finally, role integrity urges a supplier to adequately dispel its roles, rights and obligations in consonance with its *charter of engagement* with an intermediate buyer. A conformance here infuses trust through strengthening beliefs both about the integrity and competence of the focal supplier in dispelling its roles and responsibilities.

Lastly, an adequate compliance with relational norms like mutuality, solidarity and conflict resolution from a focal supplier strengthens an intermediate buyer's belief that not only the relationship will prevail amidst crisis but is also efficacious enough to successfully achieve the desired goals and would eventually result in the materialization of individual and collective benefits. Such perceptions (or beliefs) foster higher economic and social satisfaction and an integrity-based trust in the intermediate buyers which eventually translates in a positive state-of-affect about continuing this exchange relationship (affective commitment). Moreover, as these relational norms evolve with the passage of time, these are also gotten internalized by the intermediate buyers. They begin to serve as moral controls and promote normative commitment. Finally, they also promote continuance commitment by proscribing (detrimental) unilateral behaviours like opportunism, free-riding, distributive injustice etc. and thereby assuring the intermediate buyers that they will

equitably share the co-created value. Disregard of its type(s)/origin, the increase in commitment of the intermediate buyers eventually enhances the supplier's revenues by inducing certain pro-revenue behaviours in the intermediate buyers. The cause-and-effect relationship between intermediate buyers' commitment and revenue-enhancing behaviours is further elaborated in the following section.

6.3   Intermediate buyers' Commitment and the Revenue-enhancing Behaviours (ReBs)

As already discussed, relational behaviours like mutuality, solidarity, role integrity, flexibility and (collaborative) conflict resolution create (economic and social) satisfaction and (competence and integrity based) trust which eventually strengthen the commitment of intermediate buyers with the focal supplier(s). VcRIs complement (or itself get complemented by) these relational behaviours in positively affecting (economic) satisfaction, (integrity-based) trust and all three forms of commitment.

No matter whatever is the impetus to commitment, it leads to an increase in the duration of exchange relationship, which has been revealed by the value-exchange model (VEM) as one of the three possible ways to maximize relationship profitability from dyadic relationships. It is human nature that they patronize those social ties with whom they share strong emotional bonds. Consonant with this (natural) phenomenon, the intermediate buyers too

patronize those suppliers (who manage to secure strong trust-based commitment with them) by staying long with them and/or by sharing more of their incremental surplus with them especially when this increase has (at least partly) been a consequence of the support from these focal supplier(s) in the form of value-creating relational investments (VcRIs). An ethical polygamous intermediate buyer would share its incremental surplus equitably (i.e. proportional to each supplier's contributions in terms of VcRIs). Finally, the committed intermediate buyers act as *part-time marketers* by spreading positive word-of-mouth about the suppliers with whom they share strong relational bonds. This word-of-mouth establishes and/or improves the supplier's reputation as a trustworthy and/or ideal exchange partner. The reputation effects help the supplier(s) not only in attracting new buyers but also in leveraging revenue-potentials of the elements in its existing portfolios of buyer relationships.

6.4   The Moderating Role of Relationship Phase

The relational norms and the value-creating relational investments (VcRIs) were not found to be equally efficacious across the four phases of business relationship lifecycle (BRLC). However, the difference in the efficacy of both these constructs was quite opposite to what was hypothesized in consonance with the patterns observed in most of the previous BRLC research. Relational norms were found to be more efficacious in affecting the revenue-enhancement through positively affecting the relational mediators during the early (exploration

and build-up) stages. The value-creating relational investments (VcRIs) were found to be more instrumental in promoting satisfaction and commitment during the maturity stage only. However, in the decline stage, value-creating relational investments (VcRIs) did not show any significant (direct or indirect) impact on the ultimate outcomes.

This deviation from the commonly observed patterns could be attributed to a preference for tangible rewards (culture-specific), high perceived vulnerability due to the lack of general trust (culture-specific) and a small sample size of the group of respondents representing the decline stage. The actors in downstream business relationships in Pakistan market mostly prefer tangible rewards (like incentive-plans, commissions, push money, discounts and allowances, financial support etc.) over the intangible factors like increased relationality. That is why the tangible value-creating relational investments (VcRIs) were found to be more instrumental in sustaining exchange relationships especially during the maturity phase. Secondly, owing to a lack of general trust, the prospective intermediate buyers are usually sceptical about the competence, integrity and the fulfilment of desired benefits from new suppliers. Owing to the high vulnerability perceived by the intermediate buyers in the early stages of relationship development, the exchange becomes more dependent upon the (perceived) relational-orientation of the supplier rather than any material instruments like value-creating relational investments (VcRIs). Finally, a small sample size (n=21) could be another possible explanation for the failure of PLS in detecting any direct and/or indirect effects of the value-creating relational investments (VcRIs) during the decline stage.

6.5   The Moderating Role of Leverage Potential

The moderating effect of leverage-potential demonstrated by this research was also quite opposite to what was hypothesized. The value-creating relational investments (VcRIs) were found to be more efficacious in the intermediate buyers featuring low leverage potential (in other words those who were already giving the major share of their business to the focal supplier). The general (retention-oriented) marketing theory can better explain the falsification of our hypothesized patterns of relationships.

According to the traditional marketing theory and practice, an intermediate buyer who is already giving a focal supplier the major share of its business (in this case, the share of prescription) is considered more valuable and is allocated more of the relational investments and vice versa. The same reality was also empirically demonstrated during this research where the average level of VcRIs in *low leverage-potential group* (3.71) was found to be higher than the level of VcRIs in the *high leverage-potential group* (3.44).

Even though the relationships with the buyers exhibiting low leverage potential are more valuable according to the general marketing theory and practice, yet, from a leverage-potential stand-point, they feature low potential for being leveraged for additional revenues. Without challenging the truth value of the propositions extended by general marketing theory and practice, we would argue that the importance of the relationships with low business share at present but with a higher potential to leverage them for additional revenues in

the future can also not be neglected / undermined especially in the face of an ever intensifying competition resulting in saturated concurrent relationships. Therefore, the supplier firms need to balance the appropriation of relational investments between these two segments of buyer relationships.

6.6   The Moderating Role of Relational Polygamy

While examining the moderating effects of relational polygamy, the results were quite consistent with our hypothesis and a higher efficacy of value-creating relational investments (VcRIs) for the relationships featuring high relational polygamy was empirically demonstrated. It shows that the relational investments become more crucial when there are a number of attractive alternative elements in the supplier portfolio of an intermediate buyer. It is because of the fact that a proliferation in the number and the extent of attractiveness of rival suppliers neutralizes the impact of relational investments. The suppliers need to create substantial differentials in the extent of their relational investments vis-à-vis their rivals in order to escape this neutralization effect.

6.7   Implications for Theory and Practice

6.7.1   Contributions to the Research

1. Even though there is proliferation of research geared at explaining the dynamics of relationship performance in (networks of) upstream relationships, the downstream relationships of focal firms (especially those with the intermediate buyers) have received lesser attention in the literature. This research makes up for this deficiency as it explains the effects of a couple of RM instruments on the revenue-enhancement of focal actors in the supplier-intermediate buyer dyadic relationships.

2. Similarly, there is a plethora of research which has endeavoured to explain the dynamics of (inter-firm) relationship performance through minimizing the costs related to these relationships, in particular the transaction costs. However, there has been scarcity of efforts directed at explaining the same from a revenue-enhancement stand-point. This research bridges this gap in the literature as it explains the dynamics of enhancement of focal suppliers' revenues in context of the supplier-intermediate buyer dyadic relationships.

3. After a comparative longitudinal analysis of theoretical perspectives of inter-organizational relationship performance, Palmatier *et al.* (2006; p.152) suggested:

"After nearly two decades of RM research, marketers' efforts need to shift from significant testing to identifying which, and in what conditions, RM strategies generate the highest return on RM investments".

This study has addressed this agenda by focusing more on *what types* and *how* issues instead of the *if or if not* issues. More specifically, it explains the relative difference(s) in the efficacies of two RM instruments in enhancing suppliers' revenue across different contexts of supplier-intermediate buyer dyadic relationships. Three contingencies-relationship lifecycle (or relationship phase), leverage potential and relational polygamy- were employed to create different relationship contexts and then the relative difference(s) in the efficacies of two RM instruments were assessed across these contexts.

4. Palmatier *et al.* (2007; p. 191) maintained that *"..... the focus on investments and asset specificity should shift from a transaction cost perspective of safeguarding and monitoring to a focus on improving the effectiveness and efficacy of relationship value creation".* Consequently, they suggested that the future research should focus on evaluating the productivity enhancement effects (or overall ability to generate value) of many different forms of exchange specific investments. This research has focused on one such type of relational investments, has termed it as the value-creating relational investments (VcRIs), and has investigated

its effects on the revenue-enhancement of focal suppliers in downstream dyadic relationships.

5. Palmatier *et al.* (2007) also suggested that the future research should investigate the interaction between the governance variables and investments. By empirically substantiating the fact that the relational governance complements (or is itself complemented by) the value-creating relational investments (VcRIs) in enhancing focal suppliers' revenues in supplier-intermediate buyer dyadic relationships, this research not only bridges this research gap but also contributes to the complimentarity research (Poppo and Zenger 2002).

6. By elaborating upon the consequences for the focal supplier(s) when they manage to secure higher perceptions of relationship quality and/or commitment in the intermediate buyers by creating a highly relational environment through an adherence to relationship-preserving norms and making value-creating relational investments (VcRis), this research addresses the following research gap pointed out by Ivens (2004: *p. 307*);

> *"From a supplier's vantage point, relationship quality constitutes an important objective. However, it is unclear to what extent it is directly linked to economic success (contribution margins, turnover, penetration rates etc.). Future research might examine this link".*

7. Jap (2001a: p. 96) noted; "*Despite* a *general recognition that relationship phases represent a critical moderating condition in channel relationship management, there have been limited empirical demonstrations of this reality*". This research explains how the relationship phase moderates the effects of two RM instruments on certain relational mediators and/or the supplier's performance. As such, it bridges a significant gap in previous research where not much effort has been expended to explain the time-dependent effects of relational governance and relational investments on critical performance outcomes.

6.7.2   Contributions to the Practice (Managerial

Implications)

6.7.2.1   Value-creating Relational Investments (VcRIs)

The empirical support to the propositions made during the earlier phase(s) of this research offers important managerial implications not only about the type(s) of relational investments but also about how these should be appropriated among/across different relationship segments/contexts so that the return on these investments is maximized.

While assessing (intermediate) buyers' portfolios, the focal suppliers need to decide when to invest in specific buyer relationships; when to maintain develop and/or leverage existing relationships; and/or when to divest from under-performing relationships. It was empirically demonstrated that the value-creating relational investments (VcRIs) in the buyer relationships are not equally rewarding. Therefore, the focal suppliers need to be much more precise in appropriating VcRIs so as to minimize the waste.

Following Pareto's 20/80 rule, we can presume that 80% of a supplier's relational value (or revenue) comes from 20% of the relationships in its buyer portfolio. Consequently, it is quite rational to appropriate these (value-creating) relational investments according to the revenue-enhancing potential of the (intermediate) buyer relationships. Leverage-potential of the individual

relationships should be an important consideration in the investment management process.

According to the traditional marketing theory and/or practice, an intermediate buyer who is already giving a focal supplier the major share of its business is considered to be more valuable and is allocated more of the relational investments and vice versa. However, from a leverage-potential stand-point, such relationships feature low potential to be leveraged for additional revenues in future. The suppliers need to balance the appropriation of relational investments between the relationships featuring high value concurrently and those which exhibit a high leverage-potential for future.

In order to increase precision of the appropriation of VcRIs in the (potential) high-value-generating segments, leverage-potential can prove to be a useful criterion. The higher the leverage-potential of an intermediate-buyer relationship (in high leverage-potential segments), the greater should be the appropriation of value-creating relational investments (VcRIs). However, if the intermediate buyers feature high relational polygamy, basing the investment decisions solely upon the leverage-potential could be misleading. The focal suppliers may make the investment management process more rigorous by incorporating the extent of relational polygamy (in addition to the leverage-potential) as a criterion for appropriating VcRIs. Based on the two criteria, Figure 6.1 presents a classification of the intermediate buyer relationships in view of increasing precision of the investment management process.

Figure 6.1: A typology of the Intermediate Buyer Relationships With Respect to Leverage-Potential and Relational Polygamy

Relational Polygamy / Leverage-Potential		Relational Polygamy	
		Low	High
Leverage-Potential	High	1 Value-Busters	2 Real Candidates
	Low	3 Investment Over-kills	4 Investment Gobblers

Value busters feature high leverage potential which is bit easy to harness as a focal supplier has to compete with few rival elements in an intermediate buyer's portfolio of suppliers. Every supplier needs to maintain a handsome number of such elements in its buyer portfolios since larger (incremental) value streams flow from such relationships. *Real candidates* are equally attractive but they prove to be relatively tough targets for leveraging them for additional value as they share their business/value with a relatively higher number of alternative suppliers. The suppliers need to commit considerable investments in *real candidates* to turn them into the *value-busters*.

Investment Over-kills are the buyer relationships with low leverage-potential (as they already are giving a supplier the major share of their business) and the supplier firm is already one of those *few* elements in their supplier portfolio with whom they share their business. These are the high-value

relationships according to the traditional marketing theory and practice, and are being already appropriated the greater share of relational investments which however is intended at maintain/preserving these relationships. An important consideration here should be not to invest beyond the thresholds where such relational investments produce negligible incremental returns which may become negative when the opportunity cost of not appropriating these investments to the value-busters and/or the real candidates is taken into account. In other words, the focal supplier needs to escape what Uzi (1997) calls the *paradox of embeddedness* and should avoid investment over-kills i.e. investing beyond optimal levels. *Investment gobblers* are the real challenge for a focal supplier as it is already enjoying the major share of their business but since they maintain a relatively higher number of elements in their respective supplier portfolios, it is always vulnerable to lose some of its business share to its rivals. Even though It is crucial to continuously pour-in significant investments in such relationships but it should be done with the fullest understanding that it may not yield significant incremental returns.

We suggest that the relational investments should be re-appropriated from quadrants 3&4 to quadrants 1&2 as and when possible. In other words, the suppliers needs to re-appropriate investments from *investment gobblers* and the *investment over-kills* to *real candidates* and *value busters* in order to ensure a balance in the investment appropriations between the current and the potential high-value intermediate buyer.

6.7.2.2   Relational Norms (Governance)

The success of supplier-intermediate buyer relationships depends to a great extent upon quality of the ecosystem in which transactions take place. An ideal ecosystem provides higher levels of social, economic and political egalitarianism. In such an environment, the exchange partners equitably benefit from their efforts for arriving at win-win solutions for their economic and social problems, and ultimately end-up in attaining a state which leaves everyone at least as well-off (in social, economic, and political sense) as they were before becoming a part of that exchange relationship (Yaqub and Vetschera 2011).

The relational norms such as mutuality, solidarity, flexibility, role integrity and (collaborative) conflict resolution significantly affect the (perceived) quality of supplier-buyer relationships and the intermediate buyers' commitment which implicate the focal suppliers to ensure an adequate adherence to these relational norms. While management in the focal firms can put in place directives and incentives to develop and/or promote these relational norms, they mainly evolve over time as a consequence of the exchange partners' transacting experiences.

The maintenance of relational norms requires substantial up-front investments of time, money and personnel from the focal supplier and it is important to ensure a precision here as well.   As relational governance becomes more effective when the relationship-specific norms are perceived by the exchange partners to be increasingly relevant and instrumental for the

attainment of individual as well as collective goals, therefore it is better to focus only on the most relevant norms. Rather than following a 'more-is-better' approach, it is advisable to follow the standard economic logic for achieving adequate levels of 'relationality' as the benefits from relational behaviours accrue at diminishing rate while the cost of ensuring such behaviours accrues at increasing rates (Bercovitz *et al.* 2006).

6.7.2.3   Mass Customization of the Strategy

In the face of growing/escalated financial crunch, there is a pressure on the managers to make it sure that their efforts are precisely targeted especially when making appropriations (of investments, incentives, decision rights etc.) to various relationship portfolios. Akin to the concept of *mass-customization* in consumer marketing, we would suggest *mass-strategization* where the firms create a number of contextual configurations (using highly pertinent moderators), observe the differences in the efficacies of various tools and/or strategies across these contexts and then adapt their tools and/or strategies accordingly. Even though segmenting business relationships with respect to an enormous number of contextual configurations may increase the complexity (both for the research and the practice), yet it would not only increase the effectiveness of this precisely targeted effort but would also make it more cost-effective by minimizing its wastage.

6.8   Limitations

As in any empirical research, the results of the present study cannot be interpreted without taking into account the following limitations;

1. In order to assess the moderating effect of relationship phase, we employed a quasi-longitudinal design to investigate an inherently dynamic process. We adopted a static view of revenue-enhancement in downstream relationships capturing a snapshot of intermediate buyers' perceptions of relationships with their focal suppliers at a given point in time. The quasi-longitudinal design has to be used in order to overcome the time and cost constraints inherent in undertaking a longitudinal study. Consequently, the quality of the research information could not be as high as it would have been if a longitudinal design would have been employed.

2. The antecedents of revenue-enhancing behaviours were studied only in the context of supplier-intermediate buyer dyadic relationships. The antecedents within the larger networks of relationships were not addressed. Therefore, the generalizeability of the results may be limited only to the downstream relationships.

3. Another limitation could be the number of exogenous latent variables in the model. We used only two latent variables to explain a novel and complex phenomenon. It is due to this fact that the co-efficient of

determination of all the endogenous latent variables were in the moderate range.

4. Even though it would have been more appropriate to measure the outcome variable i.e. revenue-enhancement in monetary terms, it was not done due to the perceived difficulty of obtaining the financial data. It was approximated with three proxy behaviours i.e. increase in length of the relationship, increase in business share, and the generation of positive word of mouth from the intermediate buyers. The same applies to the value-creating relational investments (VcRIs) as well.

5. Since the purpose of this study was theory-testing, it would have been more appropriate to use the co-variance based structural equation modelling (CBSEM). But since our sample size was too small (especially for the multisampling analysis for group comparisons to study the moderating effects) to allow us to use software applications like LISREL, we have to use the variance-based SEM using PLS path modelling which has its own limitations when used for a theory-testing purpose.

6. The limited ability of PLS path modelling to conduct the tests for moderating effect can be regarded as yet another limitation of this study. We used PLS-MGA which is a new technique for making group comparisons in PLS path modelling. It compares only two groups at a time. Moreover, being a new technique its efficacy has not been well-established as yet.

6.9   **Future Research**

1. Even though the model advanced through this research quite exhaustively explains how the relational norms and value-creating relational investments (VcRIs) affect the intermediate buyers' commitment, however, its exhaustiveness is not the same in explaining how this commitment translates into the revenue-enhancing behaviours. Future research should bridge this research gap by focusing on the constructs which could adequately mediate the cause-and-effect relationship between commitment and the revenue-enhancement.

2. Future research should also focus on explaining the interrelationships of the value-creating relational investments (VcRIs) and various types of relational norms with different facets of satisfaction (economic vs. non-economic), trust (fiduciary vs. fiability) and commitment (affective vs. normative). The insights developed through such research may help in increasing the precision of relational effort by suggesting which specific norms and/relational investments could entail which effects and/or behaviours.

3. As discussed earlier, it would have been more appropriate to measure the outcome variable i.e. revenue-enhancement in monetary terms which was not done due to the perceived difficulty of obtaining the financial data. Future research could increase the quality of research information by 1) obtaining revenue data in monetary term by identifying and setting-

up the study in a context where such data are relatively easy to obtain, or 2) by increasing rigour of the outcome construct by including more pro-revenue-enhancement behaviours as its dimensions.

4. It was found during the tests for mediation effects that the effect of relational governance on the revenue-enhancing behaviours is fully mediated through the three relational mediators. However, the effect of value-creating relational investments (VcRIs) on the revenue-enhancing behaviours was found to be only partially mediated through the three relational mediators. This implies that more mediators should be included in the model in future research in order to fully grasp the mediating effects of value-creating relational investments (VcRIs).

5. In order to theoretically substantiate the 'mass-customization' argument, we suggest that future research should investigate the moderating effects of BRLC in conjunction with other relevant contingencies as discussed in the past researches. One problem which such research endeavours could encounter is the limited ability of research (especially the techniques, tools and applications pertaining to structural equation modelling) to handle the complexity resulting from such an array of multiple moderating conditions. Therefore, we suggest that future methodological research must address the agenda of finding ways to enhance the efficacy of such research methods and/or applications so as to facilitate an effective investigation and implementation of "mass-strategization" while managing the relationship portfolio.

6. Though our framework has, primarily, been intended at explaining dynamics of relationship performance in the supplier-intermediate buyer dyad exchange relationships, yet with little adaptation it can be generalized not only across upstream partnerships but also across other (more) elaborate forms of strategic structural arrangements like virtual organizations, strategic alliances etc. Future research might investigate the generalizeability and applications of this model in these structural contexts.

6.10   Conclusions

Scientific research concerning the performance of inter-firm relationships has received consistent attention in the last couple of decades in marketing and strategic management theory. A number of researchers while making an appeal to a variety of theoretical perspectives from diverse disciplines have revealed a number of antecedents which (directly and/or indirectly) affect the performance of inter-firm relationships. The relationship performance in these studies has been reflected either through some financial (objective) outcomes like profits, costs, market share etc. realized at the individual (supplier, buyer) or dyadic levels or through certain relational/behavioural (subjective) outcomes like satisfaction, trust, commitment, cooperation, conflicts resolution etc.

Researchers have mostly used one or more of the four frameworks while investigating the antecedents of inter-firm relationship performance, which include: 1) transaction cost perspective, 2) dependence perspective, 3) relational norms perspective, and 4) commitment-trust perspective. In the strategic management research, the last two perspectives together with the relationship quality model have been compartmentalized in the relational exchange theory. This research has primarily integrated and extended insights from these four theoretical perspectives to investigate the efficacy of (value-creating) relational investments and the relational norms/governance in enhancing suppliers' (revenue) performance across different contextual configurations of the supplier-(intermediate) buyer dyadic relationships

Relational exchange theory (RET) elaborates upon the roles of relational norms as antecedents and either relationship quality (manifested through satisfaction and trust) or trust and/or commitment as mediators of success (high performance) in the inter-firm relationships. A number of studies have documented empirical evidence supporting the roles of various relational norms in enhancing relationship performance in a variety of contexts of business relationships at dyadic levels or in more elaborate structural arrangements like strategic alliances, virtual organizations etc. Some researchers, however, have postulated that the relational norms are necessary but not sufficient conditions for performance enhancement which means that only the absence of these norms negatively affects the inter-firm relationship performance, the presence does not guarantee a superior performance. Consequently, these norms need to be complemented or itself complement some other instruments/antecedents of superior performance in inter-firm relationships.

Transaction cost economics (TCE) elaborates upon the role of transaction specific investments (TSIs) as a key determinant of the performance enhancement especially when inter-firm relationships characterise high relationship-uncertainty. A number of studies, especially in the channel research, have reported empirical evidence on the efficacy of TSIs to affect a variety of performance-related outcomes (both subjective as well as objective) in the last three decades. However, most of these studies have focused on the locking-in effects, switching-cost effects and/or the hostage-taking roles of such investments until recently when a few studies have focused on some specialized forms of relational investments and their roles in positively affecting

the relationship performance through enhancing cooperation and/or value-creation. In this research we have focused on one such type of investments, have termed it as the value-creating relational investments (VcRIs) and have studied its efficacy (together with the relational norms) in enhancing relationship performance in supplier-intermediate buyer dyadic relationships.

The model advanced through this research goes beyond a purely cost-based perspective of relationship management (as exemplified in transaction cost economics) and complements this view by considering the revenue side of inter-firm relationships. Building on relational exchange theory (RET) and transaction cost economics (TCE), we investigated the efficacy of value-creating relational investments (VcRIs) and relational norms (governance) in affecting revenue-enhancing behaviours in the inter-firm relationships. The relevant context of the study was the supplier-intermediate buyer dyadic relationships as there is scarcity of research in this area compared to the research directed at the upstream dyadic relationships.

The empirical evidence from 284 relationships revealed that both the making of value-creating relational investments (VcRIs) and an adherence to the relational norms by a focal supplier lead to certain desirable (revenue-enhancing) behaviours from the intermediate buyers like prolonging their relationships, increasing their business share and generating positive word-of-mouth about the focal supplier. The positive effect of the relational governance is fully mediated through three relational constructs i.e. satisfaction, trust and the intermediate-buyers' commitment. However, value-creating relational

investments (VcRIs) affect the revenue-enhancing behaviours (ReBs) directly as well indirectly, suggesting that more mediating constructs should be employed in the model in order to fully grasp the mediating effects of this type of relational investments.

As some studies have reported that the effects of both the relational norms and the relational investments are context -specific, we investigated the moderating effects of relationship phase, leverage-potential and relational polygamy of the intermediate buyers in order to assess the differences in the efficacies of the two RM instruments across different contexts of the supplier-intermediate buyer relationships. The efficacies of the two instruments varied across different relationship phases. Relational norms were found to be more efficacious in revenue-enhancement during the exploration, build-up and the decline phases of relationship lifecycle whereas the value-creating relational investments (VcRIs) exhibited a higher efficacy only during the maturity stage. The value-creating relational investments (VcRIs) were found to be more efficacious in promoting revenue-enhancing behaviours in the intermediate buyers featuring low leverage-potentials compared to those featuring high leverage-potentials. Finally, the value-creating relational investments (VcRIs) were found to be more efficacious in promoting revenue-enhancing behaviours in the intermediate buyers featuring a higher number of elements in their respective supplier portfolios. Using leverage-potential and the relational polygamy as classification criteria, we have proposed a typology of (intermediate) buyer relationships in order to facilitate the focal suppliers in

increasing the return on their relational investments by increasing the precision

in the making of such investments so as to minimize the wastage of RM effort.

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APPENDICES

Appendix 1   **Abstract in English**
Appendix 2   **Abstract in German**
Appendix 3   **Abbreviations**
Appendix 4   **Final Scales of Measurement**
Appendix 5   **Curriculum Vitae**

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Appendix 1: Abstract (in English)

The research integrates and extends insights from transaction cost economics, relational exchange theory, dependence perspective, value-exchange model and business relationship lifecycle theory to discuss the efficacy of value-creating relational investments and relational governance to affect certain revenue-enhancing (relational) behaviours in different contexts of supplier-intermediate buyer dyadic relationships. After performing an analysis of structural equation model, it has been found that value-creating relational investments made into the (intermediate) buyers together with creating a highly relational environment successful enough to engender high relationship quality (manifested through satisfaction and trust) increase intermediate buyers' commitment with their focal supplier(s). This commitment ultimately translates into an enhancement of revenues of the supplier firm since the (intermediate) buyers exhibit certain pro-revenue behaviours like prolonging the relationship, increasing the business share and generating positive word-of-mouth about the focal supplier. It has also been found that the effect of relational governance on revenue-enhancing behaviours is fully mediated through satisfaction, trust and intermediate buyers' commitment whereas value-creating relational investments have both the direct and an indirect significant effect on the outcome construct. Tests of moderating effects reveal that the efficacy of both the instruments varies across different stages of relationship lifecycle, and different levels of leverage-potential and/or the extent of relational polygamy exhibited by the intermediate buyers in their respective supplier portfolios. Some practical

implications have been made for enhancing precision of the relationship management efforts especially in terms of appropriating value-creating relational investments.

Appendix 2: Abstract (in German)

Die Forschung integriert und erweitert Erkenntnisse aus der Transaktionskostenökonomik, der relationalen Austausch-Theorie, der Abhängigkeits-Perspektive, dem ‚Value-Exchange'-Modell und der Geschäftsbeziehungs-Lebenszyklustheorie, um die Effektivität von relationalen Investitionen und relationalem Governance zur Beeinflussung bestimmter gewinn- bzw. werterhöhender (relationaler) Verhaltensweisen in verschiedenen Situationen von dyadischen Zulieferbeziehungen zu diskutieren.

Basierend auf der Analyse eines Strukturgleichungsmodells wurde festgestellt, dass werterhöhende relationale Investitionen in die (Zwischen-) Käufer ein hoch relationales Umfeld schaffen und in Verbindung mit der Verbesserung der Qualität der Beziehungen (manifestiert durch Zufriedenheit und Vertrauen) die Bindung der Zwischenkäufer zum Hauptlieferanten stärken.

Weiters führt die verstärkte Bindung zu höheren Erträgen für die Zulieferfirmen, da die (Zwischen-) Käufer dann bestimmte ertrags-erhöhenden Verhaltensweisen zeigen, wie zum Bespiel die Verlängerung der Kooperationsbeziehung, Intensivierung der Geschäftstätigkeit mit dem Lieferanten und positive Mundpropaganda für den Lieferanten.

Es wurde auch festgestellt, dass der werterhöhende relationale Governance-Effekt sehr stark durch Mediatoreffekte der Zufriedenheit,

Vertrauen und Bindung zu den Transaktionspartnern beeinflusst wird, wohingegen werterhöhende relationale Investitionen sowohl einen starken direkten wie auch indirekten Einfluss auf das Ergebnis bzw. Erfolg haben.

Eine Überprüfung der moderierenden Effekte zeigt, dass die Effektivität beider Instrumente mit den Stufen des Geschäftsbeziehungs-Lebenszyklus und des Leverage-Potentials und/oder mit dem Ausmaß an relationaler Polygamie variiert. Abschließend wurden praktische Handlungsempfehlungen für das Beziehungsmanagement abgeleitet, insbesondere zum effektiveren Einsatz von relationalen Investitionen.

Appendix 3: Abbreviations

AMOS	Advanced Mortar System (a software application)
AVE	Average Variance Extracted
B2B	Business to Business
BRLC	Business Relationship Lifecycle
CBSEM	Co-variance Based Structural Equation Model(ing)
CFA	Confirmatory Factor Analysis
COMT	Intermediate Buyer's Commitment
CR	Composite Reliability
CRM	Customer Relations Management
CTT	Commitment-Trust Theory
F.C.P.S.	Fellowship of the College of Physicians and Surgeons
F.R.C.S.	Fellowship of the Royal College of Surgeons
iBS	Increase in Business Share
KMV	Key Mediating Variable
L.P.	Leverage Potential
LISREL	Linear Structural Relations (a software application)
LTO	Long Term Orientation
LV	Latent Variable
M.B.B.S.	Medicinae Baccalaureus, Baccalaureus Chirurgiae
M.R.C.P.	Magnetic Resonance Cholangiopancreatography
MS	Microsoft
M.S.	Medical Superintendent

OLS	Ordinary Least Squares
PCA	Principal Component Analysis
PLS	Partial Least Squares
PLS-MGA	Partial Least Squares (based) Multi-group Analysis
R&D	Research and Development
R.P.	Relational Polygamy
ReBs	Revenue-enhancing Behaviours
RET	Relational Exchange Theory
RG	Relational Governance
RL	Relationship Longevity
RM	Relationship Management/Marketing
RQ	Relationship Quality
SAT	Satisfaction
SE	Slandered Error (of estimate)
SEM	Structural Equation Model(ing)
TCA	Transaction Cost Analysis
TRU	Trust
TSIs	Transaction Specific Investments
TSAs	Transaction specific assets
TVA	Transaction Value Analysis
VBM	Value-based Management
VcRIs	Value-creating Relational Investments
VEM	Value Exchange Model
VIF	Variance Inflation Factor
WoM	Word-of-Mouth

Appendix 4: Final Scales of Measurement

<u>Relational Governance</u>

Please 'encircle 'on a (1-5) scale the extent to which you agree or disagree with the following statements:

<u>Mutuality</u>

1. The supplier wants both parties to benefit from the relationship
2. The supplier is convinced that he will be compensated for the favours he makes
3. In negotiations with us, the supplier is always fair

<u>Flexibility</u>

1. If something unforeseen happens, we can easily adjust 'terms of engagement' with the supplier
2. The supplier quite often accommodates us out of way
3. The supplier shows a high degree of flexibility when we ask him to modify the 'terms of engagement'

<u>Role Integrity</u>

1. All we are concerned with is that the supplier meets our requirements/expectations
2. The supplier routinely discuss issues that go beyond buying/selling

<u>Solidarity</u>

1. The supplier is committed to improvements that may benefit our relationship as a whole and not just him
2. When we encounter problems, this supplier tries to help us
3. The supplier does not mind if we owe him a favour

Conflict resolution
1. The supplier approaches all disputes with an open mind
2. The supplier has formal procedures to resolve disputes
3. The supplier carefully examines the reasons why disputes arise in our relationship
4. In case we have disputes, the supplier tries to find solutions that preserve and enhance our relationship

Value-creating relational investments (VcRIs)

Please 'encircle# on a (1-7) scales the extent to which you receive the following benefits from your supplier:

1. Up gradation or renovation of clinic
2. Promotional assistance
3. Socialization opportunities
4. Product demonstrations
5. Workshops

Satisfaction (SAT)

Please mark on a (1-7) scale the extent to which you are satisfied with the following:

Economic Satisfaction
1. The quality/effectiveness of supplier's products
2. The price-quality-ratio of supplier's products
1. The supplier's service orientation
2. The supplier's friendliness

Social Satisfaction

1. The supplier's handling of complaints/requests
2. The performance of supplier's sales force
3. The supplier's interest in you as a person
4. The supplier's respect for your work

Trust (TRU)

Please 'encircle 'on a (1-5) scale the extent to which you agree or disagree with the following statements:

Trusting belief- Competence

1. Our supplier is skilful and effective
2. Our supplier is knowledgeable
3. The supplier makes every effort to resolve our problems
4. The supplier is very responsive

Trusting belief- integrity

1. We could expect our supplier to tell the truth
2. We place a great amount of faith in our supplier
3. Our supplier is fair and just in his dealings
4. The supplier always fulfils his promises

Intermediate buyers' commitment (COMT)

Please 'encircle 'on a (1-5) scale the extent to which you agree or disagree with the following statements:

Continuance Commitment

1. We stay in this relationship because it provides us with many rewards and benefits
2. We would not leave this supplier right now because of what we stand to lose
3. We get more rewards and benefits from this supplier than we could from any other supplier
4. It will be unfavourable for us to leave this supplier

Affective Commitment

1. We feel a strong sense of belongingness with this supplier
2. The relationship with our supplier really means a lot to us
3. We feel that the supplier's problems are our own problems
4. We feel "emotionally attached" to this supplier

Normative Commitment

1. We would feel guilty if we leave our supplier now
2. We would not leave our supplier because we have 'a sense of obligation' to the people in it
3. Our supplier deserves our loyalty
4. Jumping from supplier to supplier seems unethical to us

Revenue-enhancing behaviours (ReBs)

Please 'encircle 'on a (1-5) scale the extent to which you agree or disagree with the following statements:

Relational longevity

1. The relationship with this supplier is something that we would like to maintain indefinitely
2. We will continue to prescribe this supplier's products in future years

Increase in Business Share

1. In the last couple of years, our share of prescription to this supplier has increased

2. We think that we will shift some prescription share from other suppliers to this one in the coming years

Word-of-mouth effect

1. We encourage other professionals in our contact to prescribe this supplier's products

2. We always say positive things about the supplier to other people

Relationship phase

Relationships typically evolve through a number of phases over time. Which of the following best describes your firm's current relationship with the lead supplier (Please tick mark);

1. Both of us are discovering and testing goal compatibility, integrity, and performance of the other, as well as potential obligations, benefits, and burdens involved with working together on a long term basis.

2. Both of us are receiving increasing benefits from the relationship, and a level of trust and satisfaction has been developed such that they are more willing to become committed to the relationship on a long-term basis.

3. Both of us have an on-going long-term relationship in which both are receiving acceptable levels of satisfaction and benefits from the relationship.

4. One or both of us have begun to experience dissatisfaction and are contemplating relationship termination, considering alternative suppliers

5. We have begun to negotiate terms for ending the relationship and/or are currently in the process of dissolving the relationship.

Leverage potential (L.P.)

How much is your share of prescription to your lead supplier?

....

Relational Polygamy (R.P.)

How many suppliers (including the lead supplier) are you doing business with?

....

Appendix 5: C.V.

Curriculum Vitae
Muhammad Zafar Yaqub

Career
Objective   To become a scholar of international repute in the field of marketing management in particular and the business in general by exploring and delivering to the world with which they are unaware

Education   **Doctor of Philosophy (PhD-Management),**
University of Vienna- Austria.
In progress since March 2007

Master of Political Science (M.A), 2005
The Islamia University of Bahawalpur- Pakistan

Master of Economics (M.A), 1999
The Islamia University of Bahawalpur- Pakistan

Master of Business Administration (M.B.A), 1995
Bahauddin Zakariya University, Multan- Pakistan
CGPA: 3.51 (75%), 1st position (Gold Medal) in the session

Bachelor of Arts (B.A), 1993

Bahauddin Zakariya University, Multan- Pakistan

Marks: 590/800 (74%)   Majors: Statistics, Economics

Higher Secondary School Certificate (H.S.S.C), 1991

Board of Intermediate & Secondary Education, Multan- Pakistan

Marks: 662/1100 (60%)   Group: Pre-medical

Secondary School Certificate (S.S.C), 1988

Board of Intermediate & Secondary Education, Multan- Pakistan

Marks: 660/850 (78%)   Group: Science

Experience   10.5 years experience of teaching various subjects relating to the areas of Marketing, Business Research, Human Resource Management and Global Business at the Graduate and Post Graduate levels at the Islamia University of Bahawalpur, Pakistan (01.06.1996 till 31.01.2007)

Worked as head of the department of management sciences for a period of seven months i.e. from 1.3.1999 to 9.10.1999; and Program Coordinator of (BBA (Hons.), MBA and MBA (IT)) for seven years i.e. from 1.3.1999 till 31.01.2007

Remained a visiting scholar at Marketing and Supply Chain Division of Price College of Business, University of Oklahoma, USA for the duration from July 2010 till October 2010

Taught courses entitled *Organizational behaviour,* and *International Strategy & Organisation* (2010-11) at the University of Vienna, Austria

Publications[1]

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[1] The discussion in the various parts/chapters of this dissertation has partly been adapted from the publications marked with asterisk (*).

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Conferences

24th Australian and New Zealand Academy of Management Conference, 8-10 December 2011, University of Southern Australia, Adelaide, Australia*

The Tenth International Conference on Knowledge, Culture and Change in Organizations**,** 26 to 28 July 2010, HEC (École des Hautes Études Commerciales / School of Commercial Studies) Montréal, Montréal, Canada*

54th Meeting of the Academy of International Business (AIB), 27-29 June, Rio de Janeiro, Brazil

Academic and Business Research Institute Conference*,* 4-7 March 2010, Las Vegas, Nevada, United States of America

Business & Management Conference, 3-5 November 2009, University of KwaZulu-Natal, Durban, South Africa*

Global Conference on Business and Economics, 16-17 October 2009, Cambridge University, United Kingdom

Economics and Management of Networks (EMNET) Conference, 3-5 September 2009, Sarajevo School of Business, Sarajevo, Bosnia & Herzegovina*

The Ninth International Conference on Knowledge, Culture and Change in Organisations, 24-27 June 2009, North-eastern University, Boston, Massachusetts, United States of America*

2009 Oxford Business and Economics Conference, June 24-26 2009, Oxford, United Kingdom*

2009 Applied Business Research Conference, 5-8 January, Hawaii, United States of America

2008 International Business and Economics Research Conference, September 28- 2 October 2008, Las Vegas, Nevada, United States of America

The Eight International Conference on Knowledge, Culture and Change in Organisations, 5-8 August 2008, Cambridge University, Cambridge, United Kingdom*

Teaching and Learning Conference, 23-26 June 2008, Salzburg, Austria

European Association of Business Research Conference, 23-26 June 2008, Salzburg, Austria

The Seventh International Conference on Knowledge, Culture and Change in Organisations, 24-27 July 2007, Singapore Management University, Singapore

Journals Reviewer of Management Science **(MS)**
Reviewer of Economics Bulletin **(EB)**
Associate Editor of International Journal of Knowledge, Culture, and Change Management **(IJKC&CM)**
Referee of Asian Journal of Business Research **(AJBR)**

Memberships

Academy of International Business
Australian and New Zealand Academy of Management
Marketing in Asia Group (MAG)

Countries Visited United States of America (USA), Canada, Brazil, Australia, United Kingdom (UK), Germany, France, China, Switzerland, Italy, South Africa, Austria, Denmark, Norway, Sweden, Finland, Netherlands,

Luxembourg, , Belgium, Spain, Croatia, Turkey, Slovakia, Bosnia & Herzegovina, Hungry, Slovenia, , Czech Republic

Skills   Possess a great deal command on LISREL, SmartPLS, SPSS, AMOS and R

Possess a fair to excellent command over six languages i.e. English, German, Arabic, Urdu, Punjabi and Saraiki

Honours/   secured HEC-ÖAD research scholarship for higher studies

Awards

1st position (Gold Medal) in M.B.A. session 1993-95

(Former) Vice President of the Alumni of Business Graduates of Bahauddin Zakariya University, Multan-Pakistan

(Former) Elected member of Senate of The Islamia University of Bahawalpur- Pakistan

(Former) Elected Executive member of Academic Staff Association of The Islamia University of Bahawalpur- Pakistan

Personal   Son of Muhammad Yaqub, born on 05.10.1975 in Multan

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