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Do Supplier Perceptions of Buyer Fairness Lead

to Supplier Sales Growth?

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Abstract

Despite the growing number of studies focusing on fairness perceptions in buyer-supplier relationships, the pertinent literature mostly focuses on understanding the buyers' perceptions of fairness. In this study, we argue that sellers' perceptions of the fairness of the buyer are equally important but often overlooked. Moreover, existing research fails to provide empirical evidence for examining the long-term effects of fairness on sales growth. We address these gaps by reporting the results of a longitudinal study based on both primary data collected from automotive suppliers in 2009, and objective sales data for these suppliers from an automotive manufacturer over a three-year period after 2009. We employ a latent growth curve model, which reveals that only interactional and distributive fairness have a positive and significant effect on both trust and commitment. Our analysis further reveals that the positive effect of trust and commitment on sales growth is smaller as the supplier's level of dependency on the car manufacturer increases. When the buyer's perception of dependence is considered, these effects are reversed. Several managerial implications of these findings are provided.

Do Supplier Perceptions of Buyer Fairness Lead to Supplier Sales Growth?

1. Introduction

Today's competitive environment has increased the importance of not just building, but also preserving strong relationships with supplying companies. The fundamental underlying assumption is that long-lasting relationships between a focal firm, e.g. a manufacturer and its suppliers can provide significant opportunities for gaining joint competitive advantage as well as improving financial performance (Jap, 2001; Palmatier et al., 2008). Nevertheless, there are certain inhibitors such as unfairness and destructive conflict that could 'poison' a relationship and hence decrease relationship performance and stability in time (Samaha et al., 2011).

Although the business marketing literature has documented well the corrosive effects of factors such as destructive conflict (Gaski, 1984) and opportunism (Wathne & Heide, 2000) on relationships, the pertinent literature has paid relatively less attention to fairness/unfairness in business relationships (Samaha et al., 2011). Fairness in inter-organizational relationships refers to the organization's perception of the fairness of treatment received from other organizations, and their reactions to such perceptions (Brown et al., 2006; Homburg & Fürst, 2005). Fairness theory is related to complaint management (Yi & Gong, 2008), equity theory, and service recovery research (Patterson et al., 2006; Smith et al., 1999). However, in recent years it has emerged as critical in some relationship marketing models (Brown et al., 2006; Liu et al., 2012; Samaha et al., 2011; Yilmaz et al., 2004).

Despite the growing number of studies focusing on fairness in business relationships, a critical review of the extant literature revealed a number of shortcomings. One major gap is that with the exception of a few studies (e.g. Liu et al., 2012; Suh, 2005) fairness perceptions in the business

marketing literature are typically approached from a buyers' point of view (see Table 1). Most of the existing studies on relationship fairness have tried to model the buyer's perception of a seller's fairness, and thus inevitably, resulting outcomes (e.g. sales, performance) are solely associated with such buyer perceptions (e.g. Griffith et al., 2006; Kumar et al., 1995b; Samaha, et al., 2011; Yilmaz et al., 2004).

Nevertheless, many supplier-manufacturer relationships are highly asymmetrical, with smaller suppliers dealing with larger and much more powerful manufacturers as the main buyers of their products and services (Kumar et al., 1995b). Since business relationships are characterized as *interactions*, i.e. the confrontation of, and coping with, attitudes and activities of both suppliers and buyers (Ford et al., 2003; Håkansson & Snehota, 1995), we argue that supplier perceptions of fairness are equally important but often overlooked in this context.

We relate our arguments to two main concepts, relationship quality and the level of dependency between the business partners. Our starting point is the proposition that a supplier's perception of a buyer's unfairness may 'poison' relationship quality. In such circumstances, the supplier will have less trust in as well as commitment to the buyer, will make less specific investments in their relationship, or will be less flexible and adaptable to the buyer's specific requirements. This will mean that the offering to the buyer in the interaction will not be optimized, and as a consequence the buyer will not feel that there is increased value offered by the seller. Depending on the level of dependency, the buyer may in such circumstances decrease the proportion of a category that it will source from a particular supplier, or the supplier may actually decrease the sales to a specific buyer. In extreme cases the supplier will switch completely to sell to other potential buyers. Thus, although existing studies often highlighted the importance of the buyer's perception of seller fairness in repurchase intentions, we argue that the study of fairness from the sellers'

perspective can also shed light on our understanding of the behavioral intentions of the sellers in buyer-seller relationships.

A second limitation of the existing literature relates to how fairness is commonly conceptualized. In spite of the tripartite conceptualization of fairness perceptions in consumer research (distinguishing between distributive, procedural, and interactional justice) (for a comprehensive review see for example Cohen-Charash & Spector, 2001; or Orsingher et al., 2010), inter-organizational studies have not considered all three dimensions of justice simultaneously. For instance, Samaha et al. (2011) do not distinguish between three dimensions of fairness; Luo (2005) focuses solely on procedural justice; and Kumar et al. (1995b), Yilmaz et al. (2004), Brown et al. (2006), and Griffith et al. (2006) focus on procedural and distributive justice (see Table 1). However, a comprehensive examination of relational activities employed by supply chain members to stimulate sales growth and foster relational characteristics such as trust and commitment requires a simultaneous examination of both structural dimensions (distributive and procedural) and the social dimension (interactional) of justice and their combined effect on relationship performance (Homburg & Fürst, 2005).

Thirdly, it has been argued that the degree of dependence may lead to contradictory results in justice perception studies (Kumar, 1996). Therefore, while fairness perceptions as well as relationship quality may impact a suppliers' sales growth with a specific buyer, it is not clear whether such associations are equally relevant in situations of different degrees of dependency within the business relationship. As such, this research argues that the lack of attention regarding the issue of dependency in examining the impact of justice perceptions in buyer-supplier relationships limits our current understanding.

In the light of these gaps, this research considers a broader view of relationship fairness. The aim of this study is to investigate the direct and indirect impact of three dimensions of justice perceptions on both trust and commitment as two major determinants of relationship quality and on sales growth, *based on the seller's perspective*. The contribution of this research is fourfold: First, this study uses *seller fairness perceptions* as possible antecedents for trust and commitment in buyer-supplier relationships. As business interactions are characterized by interdependence, the attitudes of the selling entity are equally important in affecting relational outcomes. Secondly, this study examines the *simultaneous impact* of distributive, procedural, and interactional justice on relationship quality, whereas prior studies often focus on one or two dimensions of justice perceptions. This is important because the three justice dimensions represent overlapping aspects; limiting an analysis to studying the effect of one or two of the dimensions does not fully cover the phenomenon of fairness perceptions.

Thirdly, this study employs *objective longitudinal sales data* to capture time-lag issues of these direct and/or indirect effects of justice perceptions. This is important because the effects of attitudes such as fairness perceptions are unlikely to materialize instantaneously; therefore, understanding such phenomena needs to take into account dynamics in the outcome constructs (George & Jones, 2000). In addition, *sales growth* aspects are managerially critical (together with profit growth) but have been neglected in marketing studies. Thus, in this research the analyses are related to a dependent construct, which is directly linked to considerations of managerial practice (Morgan et al., 2009; Palmatier et al., 2007b).

Finally, it is argued in this research that the level of dependency can considerably influence the tested associations, an issue that has not been investigated before. Therefore, this study also contributes to the literature on business marketing by examining the moderating effects of

dependence. This is important because a considerable number of buyer-supplier relationships are characterized by a seller being dependent on a particular buying company, for example due to high proportions of sales and profitability being associated with a single customer.

In examining the mediating effect of relationship quality and the moderating effect of dependencies, this article uses a sample of 212 automotive parts suppliers (APSs) and benefits from using objective longitudinal data about sales levels for these supplier companies with a particular car manufacturer over a three-year period. Latent growth curve model (LGCM) (Duncan et al., 2006), an advanced application of structural equation modeling, examines the relationships proposed in the theoretical framework.

2. Theoretical background

2.1. Justice theory

Justice or fairness theory is derived from social exchange and equity theory (Patterson et al., 2006; Smith et al., 1999). The concept of fairness has long been the focus of organizational research. The common assumption among these studies is that fairness is the key factor for building and maintaining long-lasting relationships in any social exchange (Yilmaz et al., 2004). Extensive research on organizational justice has identified three main justice dimensions: distributive, procedural, and interactional justice.

Distributive justice deals with the perceived fairness of the outcomes received (Kumar, 1996; Patterson et al., 2006; Yi & Gong, 2008). In supply chain and relationship management, distributive justice focuses for example on how the benefits and risks are shared between the supplier and manufacturer (Brown et al., 2006; Griffith et al., 2006; Yilmaz et al., 2004). A manufacturer can positively impact the perception of its supply partner regarding the fairness of

outputs in various ways. For instance, if a manufacturer requires a change in processes or products from its supplier, it can share the costs for the resulting R&D activities, or it can share the economic benefits gained from such changes. Furthermore, the methods for price negotiations can impact on the perceived distributive fairness (Kumar et al., 1995b).

Procedural justice refers to the processes, practices and policies guiding the interactions between organizations (Rice & Huang, 2012). These processes are used to determine the exchange outcomes (Brown et al., 2006; Kumar et al., 1995b). This type of justice has its roots in legal research by Thibaut and Walker (1975) but has subsequently become a focus of research in organizational psychology (Colquitt et al., 2001) and strategy (Luo, 2007; Rice & Huang, 2012). Focusing on supplier-manufacturer relationships, procedural fairness is related to some of the following activities: the willingness of the manufacturer or supplier to engage in open two-way communication, the consistency of manufacturer's purchasing policies, the extent to which a supplier can question and challenge a manufacturer's policies, or the extent to which a manufacturer or supplier provides rational explanations for certain decisions affecting its interaction partner (Kumar, 1996; Yilmaz et al., 2004).

Finally, *interactional justice* involves the manner in which an exchange partner is treated during the exchange process (Cohen-Charash & Spector, 2001; Yi & Gong, 2008). In a buyer-supplier relationship, interactional justice refers to the behaviors and the degree of interpersonal sensitivity that supplier's employees exhibit towards buyer's representatives. This relates to the social glue of business relationships, for example honesty, empathy, courtesy, or respect (Patterson et al., 2006).

A number of studies have examined the impact of organizational justice on organizational behavior and outcomes; however, most of these studies have focused on customers' fairness

perceptions. Generally, the results of these studies indicate that higher perceived levels of organizational justice not only improve relationship quality but also impact other organizational outcomes and overall performance (Brown et al., 2006; Griffith et al., 2006; Kumar et al., 1995b; Yilmaz et al., 2004). Table 1 provides an overview of existing seminal studies using justice theory in an inter-organizational setting. In line with Suh (2005) and Liu et al. (2012), our research will focus on organizational justice perceptions from the supplier's perspective rather than that of the buyer.

Insert Table 1 around here

2.2. Relationship quality

Business relationships are multi-faceted, i.e. relationships between business partners consist of various dimensions such as trust, commitment, adaptation, satisfaction, communication, cooperation, etc. (Palmatier et al., 2007a). To address the multidimensionality of business relationship characteristics, a number of studies have focused on the concept of relationship quality (Huntley, 2006; Jap et al., 1999; Palmatier, 2008; Skarmeas et al., 2008).

Relationship quality refers to the characteristics and the quality of relational ties between two business partners (Huntley, 2006; Palmatier, 2008). Relationship quality is usually considered as consisting of distinct but interrelated components that reinforce each other (Crosby et al., 1990; Jap et al., 1999). Although relationship quality has been the focus of many studies, no consensus exists on the operationalization of the construct. Nonetheless, most studies consider relationship quality as a construct that reflects issues around trust (Morgan & Hunt, 1994), commitment (Dorsch et al., 1998; Kumar et al., 1995b; Morgan & Hunt, 1994), satisfaction (Garbarino & Johnson, 1999; Smith, 1998), conflict resolution (Jap et al., 1999; Kumar et al., 1995b), and

long-term orientation (Lages et al., 2005; Ural, 2009). For a more comprehensive overview of the relationship quality construct see Athanasopoulou (2009).

For the purpose of this research, we specifically focus on two key dimensions of the relationship quality. These are trust in, and commitment to, the business partner. We propose that trust and commitment can together represent the quality of a business relationship, since these factors sufficiently capture the essential aspects of supplier-manufacturer relationships, and are antecedents to many other relationship quality dimensions such as satisfaction and long-term orientation. Several other studies on relationship quality have also frequently highlighted the importance of these two dimensions (e.g. Crosby et al., 1990; Huntley, 2006; Kumar et al., 1995b). Moreover, Morgan and Hunt (1994) also suggest that trust and commitment are two key determinants of the relationship quality. We agree that relationship quality is not limited to trust and commitment only, however we believe that based on the extant literature both trust and commitment are two essential factors to be considered in studying relationship quality.

Trust is one of the pivotal characteristics of a business relationship (Anderson & Narus, 1990; Morgan & Hunt, 1994; Seppänen et al., 2007). It refers to the willingness of the firm to rely on its partner in whom it has confidence (De Ruyter et al., 2001). Trust in the honesty of the partner, and trust in the partner's benevolence (the belief that the partner is interested in the firm's welfare and will avoid actions that have any negative impact on the firm) are the two main sub-components of trust (De Ruyter et al., 2001; Kumar et al., 1995b). It has been shown that through decreasing the impact of more formal contracts, trust reduces the transaction costs and creates a positive working environment in business relationships (Zhang et al., 2003).

Similar to trust, *commitment* is one of the most widely accepted components of relationship quality. Commitment refers to the willingness of the exchange partners to make short-term

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sacrifices to develop and maintain long-lasting, stable, and profitable relationships (Anderson & Weitz, 1992). Commitment has been argued to have a crucial role in the structuring of business relationships (Anderson & Weitz, 1992; Jap & Ganesan, 2000; Yi & Gong, 2008). Mutual commitment in a marketing channel is seen as key to building a successful business relationship and creating competitive advantage (Jap & Ganesan, 2000; Yilmaz et al., 2004).

3. Hypotheses development

3.1. Justice and relationship quality

In the literature on organizational justice, evidence exists to suggest that perceived fairness is closely linked to different aspects of relationship quality (Aryee et al., 2002; Cohen-Charash & Spector, 2001; Griffith et al., 2006; Kumar et al., 1995b). For instance, Aryee et al. (2002) demonstrate that all three dimensions of organizational justice can considerably increase the level of trust in an organization. They also found that procedural justice has a stronger effect on trust than distributive and interactional justice. Focusing on procedural and interactional justice, Kumar et al. (1995b) show that a reseller's perception of fairness has a positive impact on relationship quality with suppliers. In common with Aryee et al. (2002), they also found that procedural fairness has a relatively stronger effect on relationship quality compared to distributive fairness.

However, these studies have focused on buyers' perception of the sellers' fairness in a buyer-seller relationship. Our study focuses on weak sellers' perceptions of the more powerful buyer's fairness, and assesses consequences for the business relationship as well as the sales performance of these suppliers. A supplier that is not treated well by its buyer (in our study, an automotive manufacturer) will develop negative attitudes such as lower trust and commitment, and a more

short-term orientation. In contrast, the existence of organizational justice can serve as a sign to a supplier that it is valued by a buyer, which in turn leads to the creation of positive attitudes. Moreover, when the supplier believes that its contributions are being sufficiently rewarded, it will respond by not only developing a stronger relationship with its partner (buyer) but also by signaling its desire to continue the partnership (Griffith et al., 2006). This should result in an increase in the relationship quality. Hence we hypothesize that:

> *$H_{1a,b,c}$: Procedural fairness(a), Interactional fairness(b), and Distributive fairness(c) have positive and significant impact on Trust.*

> *$H_{2a,b,c}$: Procedural fairness(a), Interactional fairness(b), and Distributive fairness(c) have positive and significant impact on Commitment.*

3.2. Relationship quality and sales growth

According to the findings of prior studies, by decreasing the possibility of opportunism and by resolving conflicts, relationship quality increases the supplier's confidence in the relationship (Anderson & Weitz, 1992). Consequently, it can be assumed that the suppliers' willingness and ability to do business with buyers increases when they have strong relationships (here characterized by high levels of trust and commitment). This could mean further relationship-specific investments, or adaptations on the seller's side which increase the likelihood of sales to the buyer (Palmatier et al., 2007a; 2007b). In addition, although traditionally manufacturers are seen as ultimately determining the decisions regarding sales levels, we argue in line with the relational approach to inter-organizational marketing that sales levels are based on interactions, i.e. managerial decisions on both sides, and thus partly depend on mutual agreements between a manufacturer and its suppliers. On the one hand, manufacturers often simultaneously source a particular part from several suppliers in order to avoid strong dependency on individual suppliers. On the other hand, suppliers, particularly in a turbulent market, often learn to develop

capabilities and invest in infrastructures, which allow them to work with different manufacturers where possible. Thus, what drives the sales levels, and their growth, is not solely the manufacturer's autonomous decision, rather it is the quality of the relationship with a particular supplier, and the resulting interactions between the parties, that drives sales (Palmatier et al., 2007b; Skarmeas et al., 2008). Therefore, it is expected that, *ceteris paribus*, higher levels of trust and commitment increase the sales level of a supplier within that relationship over time (Huntley, 2006). Consequently, we hypothesize that both trust and commitment as dimensions of relationship quality have a positive effect on the seller's sales growth over the time.

H₃: *Trust has a positive effect on seller's Sales Growth.*

H₄: *Commitment has a positive effect on seller's Sales Growth.*

3.3. The moderating role of dependency

Dependency in supply chains and business relationships is defined as a firm's need to maintain a relationship with a specific partner for the fulfillment of its aims. While a company may become dependent on its partner for various reasons, the inability to change partner has been recognized as one of the main signs of (inter)dependency (Heide & John, 1988; Kim & Hsieh, 2003). High specificity of the supplier's products and the existence of few customers (e.g. manufacturers) in the market are amongst the main reasons for such an inability to switch.

The concept of dependency has been shown to be of crucial importance in buyer-seller relationships (Kim & Hsieh, 2003; Kumar et al., 1995a; Van Bruggen et al., 2005). The existence of dependency will increase the possibility of opportunism and mistreatment by the more powerful partner, and therefore can impede the development of collaborative business activities between the two parties. We argue that the more a supplier depends on a buyer, the less sensitive it would be towards the quality of the relationship with the buyer. This is mainly due to the fact

that highly dependent suppliers find it very hard to replace their partner with other buyers simply because there are few other alternatives available, and/or the associated costs and risks of changing partners are very high. In such circumstances, and regardless of the underlying levels of relationship quality, the supplier may do everything possible to maintain or even improve its relationship with the manufacturer.

This situation, however, is expected to be reversed when the dependency is low: in this case, the supplier can replace the buyer as a business partner, for example if it has a number of attractive alternatives, or if a change to a new customer would not incur high costs or risks. Consequently, the supplier reacts to the quality of its relationship with the buyer. If the relationship between supplier and buyer is characterized by trust and commitment (i.e. high levels of relationship quality), then the supplier may make efforts to increase its sales levels over time, through adaptations and relationship-specific investments which would make this supplier and its offerings more attractive to the manufacturer. If not, the supplier simply switches to other buyers as customer companies. Building on the above arguments, we hypothesize that:

> H_5: *The positive association between Trust and Sales Growth is smaller as the Supplier Dependence on a manufacturer increases.*

> H_6: *The positive association between Commitment and Sales Growth is smaller as the Supplier Dependence on a manufacturer increases.*

4. Research design and analysis

4.1. Sample and data collection procedure

We employed longitudinal data for our empirical analysis. We tested our hypotheses with a sample drawn from the automotive industry in Iran, where a relatively large number of Automotive Parts Suppliers (APSs) are affiliated with half a dozen large national automotive manufacturers. Data from Iran was selected because of the unique economic conditions of the

automotive market, notably that the absence of any foreign automotive manufacturers in Iran has created a distinctive situation in which the APSs have developed the capacity and capabilities that enables them to simultaneously work with different automotive manufacturers in Iran. Moreover, the automotive industry in Iran is not based on single sourcing. For any given automobile part, there are multiple producers supplying the car manufacturers. Thus, each supplier has a share in providing a particular part in the industry. This is an important characteristic as it provides the potential for increasing or decreasing sales levels as well as enabling APSs to switch between buyers. This characteristic allows us to directly understand the reaction of these APSs to perceived unfairness or low relationship quality in business relationships.

We collected primary data using a two key-informant survey design. The original questionnaire was first designed and refined in English. Next, the original English version was translated into Persian and back translated into English to ensure translation equivalence. Differences between the original and the back-translated versions were then reconciled. We initially used face-to-face interviews to pre-test the questionnaire with four managers of APSs in Iran to ensure the comprehensibility of the translated questionnaire. After a few minor changes in the wording, we mailed the translated questionnaire to both the CEO and the chief marketing officer of 500 APSs (i.e. 1000 informants) in 2009. The common theme among these APSs is that for all of them a particular automobile manufacturer is a major buyer of their products. In the personal letter that accompanied the questionnaire, respondents were guaranteed anonymity and confidentiality of the data to reduce evaluation apprehension.

We received completed and useable questionnaires from a total of 326 informants. We evaluated each informant's knowledge of their APS's business relationship with the car manufacturers, as

well as their level of knowledgeability regarding the survey in general, using a 7-point Likert scale. We dropped three questionnaires (i.e. informants indicating levels of 4 or less for either of these questions). Therefore the final sample consists of 323 responses from 212 APSs, resulting in a 32.3% response rate, which is generally accepted as satisfactory for comparable studies. Following the approach of Anderson and Narus (1990), we then verified that random measurement errors across informants' reports are uncorrelated, suggesting that two informants in each APS independently answered the questionnaire. On average our sample APSs had been in business for 20 years. A total of 50% of APSs' reported annual sales of less than $50 million, 20% reported sales of $50-$100 million, and 30% reported sales greater than $100 million. Of these APSs, 36 were small companies, 93 were medium-sized, and 83 were categorized as large, based on the number of full-time employees. We further conducted a short telephone survey about company information with a sample of 40 non-respondents, which was then compared with the respondent data. The results of a t-test for equality of means of these two groups suggest that non-response bias is not a problem.

4.2. Longitudinal data collection

This study also benefits from a longitudinal design. George and Jones (2000) argue that the relationships between constructs in organizational behavior studies are often not instantaneous, i.e. changes in a predictor variable are not instantly accompanied by changes in the criterion variable. Instead, some level of time aggregation is involved. Since our goal is to predict the impact of fairness and relationship quality on sales growth, we felt it necessary to incorporate sales growth data for several years after our predictors (fairness perceptions and relationship quality) were measured. The chosen three-year period is expected to provide adequate time for the effects of fairness and relationship quality to manifest themselves in changes in sales growth.

Similar approaches are often practiced in comparable business marketing research (Fang et al., 2008; Palmatier et al., 2007a).

Therefore, a second round of data collection followed after three years, in 2011. We contacted the automotive manufacturer to get objective sales data for the last three years for each of the 212 APSs in our sample. This minimized the potential existence of common method bias in two related ways. First, we measured the independent predictor constructs (i.e. perception of fairness and relationship quality) in time 1, using where possible two key informants from the supplier side. Secondly, we measured the dependent construct (i.e. supplier sale growth based on sales level data) through objective data from the buyer end of the business relationship (i.e. the automobile manufacturer) at 3 different points in time (time 1, 2, and 3, relating to the years 2009, 2010, and 2011). The two key informant approach followed in our research design, and the collection of objective sales data for our dependent variable are both recommended approaches to address common method bias issues (Podsakoff et al., 2003). We also asked the automotive manufacturer to identify the extent to which they are dependent on each of the suppliers in our sample, which allowed us to analyze how far the dependency of the manufacturer on the supplier affects the examined relationships.

4.3. Measurements

We used existing multi-item measurement models with a strong psychometric test history for their validity and reliability in business marketing research. The final set of measures is presented in Table 2. All constructs in our model are measured with reflective scales, in line with their original conceptualization (Diamantopoulos & Siguaw, 2006).

Perception of fairness, following our theoretical conceptualization, is conceptualized as consisting of three dimensions of procedural, interactional, and distributive fairness. All of the

items for the three dimensions of fairness are adapted from Homburg and Fürst (2005), and are operationalized through three, five, and four items respectively.

Several different operational alternatives exist for the *relationship quality* construct (for comprehensive review of the literature see Athanasopoulou, 2009). Relationship quality in the literature is often operationalized with trust and commitment as its major dimensions (e.g. Crosby et al., 1990). Consequently, relationship quality in this study is manifested in two reflective factors, all measured via existing items: organizational trust (Zaheer et al., 1998) with five items and commitment (Kumar et al., 1995b) with three items.

The *dependence* construct is adapted from Kim and Hsieh (2003). The four items for this construct capture the extent to which an APS is dependent on the car manufacturer. Finally, to capture the dependent *sales variable*, we used objective data, i.e. absolute sales levels, collected from the automotive manufacturer for each of the APSs in our dataset over the last three years (i.e. sales in year 2009, 2010, and 2011). Given that we collected objective data for each APS in our sample, the level of analysis is represented by the APS in its relationship with the automotive manufacturer. By taking the averages[1], we combined responses for those APSs where two informants returned the completed questionnaires (n=111), leaving 101 APSs with only one informant, thus creating an overall sample size of 212. We assessed interrater reliability between the two informants by calculating the intra-class correlation coefficient (ICC) (McGraw & Wong, 1996). The ICC across scales ranged from .65 to.78 ($p<.01$).

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[1] Van Bruggen et al. (2002) have suggested two alternative approaches to the simple average approach. These are "Response Data-Based Weighted Mean" approach and "Confidence-Based Weighted Mean" approach. We have aggregated our data using both Response Data-Based Weighted Mean approach and Confidence-Based Weighted Mean approach as well. Our analysis of the unconditional model suggests that all paths that were significant in our simple average approach based model are still significant (the weightings have slightly changed). These sets of analysis provide further confidence in the robustness of our model and findings.

We took several steps to evaluate the robustness of the measures. First, we performed a confirmatory factor analysis on our sample using the maximum likelihood method in LISREL to evaluate the measurement model. We limited each of our 24 measurement items to load onto its pre-identified factor and correlated each factor with all other factors in the model (Hair et al., 2010). Our purified measurement model suggests a good fit with the data: $\chi^2_{(df=237)}$=411.95 p<.01, CFI=.98, IFI=.98, NFI=.95, NNFI=.97, SRMR=.047 and RMSEA=.058, 90% confidence interval for RMSEA = (0.048; 0.068). All item loading are significant (p<.01) and ranged between .71 and .95, thus supporting convergent validity (see Table 2). Both composite reliability (Fornell & Larcker, 1981) and Cronbach's alpha are .87 or above, indicating good internal reliability for all the constructs in our study. We provide the descriptive statistics and correlations in Table 3.

Insert Tables 2 and 3 around here

We confirmed discriminant validity by calculating average variance extracted (AVE) for each construct (see Table 3) and verified that it was higher than the squared correlations for all possible pairs of constructs (Fornell & Larcker, 1981). In addition, following Anderson's approach (1987), we analyzed all pairs of constructs in a series of two-factor CFA models (the f coefficient in model one was set as free, while it was set to unity in model two) and performed a χ^2-difference test on the paired nested models. In all pairs the critical value ($\Delta\chi^2_{(df=1)}$=3.84) was exceeded, further supporting discriminant validity.

4.4. Data analysis

We used latent growth curve modeling (LGCM) for our data analysis regarding the impact of perceived fairness and relationship quality on longitudinal sales growth trajectories. LGCM is an

advanced application of structural equation modeling that is used on repeatedly measured dependent data to model individual growth trajectories (Preacher et al., 2008). LGCM is used to reveal the trajectories for those latent constructs that are specified and observed as a function of the same item across multiple time points (Bollen & Curran, 2006; Duncan et al., 2006). It has been argued in the literature that LGCM is one of the most powerful and informative approaches for the analysis of longitudinal data (Byrne et al., 2008; Jaramillo & Grisaffe, 2009). LGCM has several advantages compared with more traditional methods of the analysis of growth curves such as autoregressive and simple difference scores. LGCM is performed using structural equation modeling approaches and therefore shares the same strengths with regard to its statistical methodology (Duncan et al., 2006; Preacher et al., 2008). It has the ability to provide within-case and between-case models of individual growth within the same study, hence LGCM can test the adequacy of the hypothesized growth form by incorporating time-varying covariates. In addition, by developing a common growth trajectory, LGCM rules out cohort effects (Duncan et al., 2006). Moreover, LGCM accounts for measurement errors and different residual structures; and has the capacity to test complex relationships including mediation and moderation tests (Bollen & Curran, 2006).

5. Model Specification

To develop and test our LGCM, we used LISREL and followed the two-step approach explained by Bollen and Curran (2006). In the first step, we built an *unconditional* LGCM (i.e. within-case model) comprising two constructs, namely *sales level* and *sales growth*. These two constructs were then fitted to the repeatedly measured sales variable to model intra-case change and simultaneously examine between-case variability (Jaramillo & Grisaffe, 2009). Once the

optimum growth model with satisfactory fit statistics and significant intercept and slope variability was identified, we developed in a second step a *conditional* LGCM (i.e. between-case model) to explain inter-individual differences by adding explanatory (i.e. independent) constructs and by testing both the hypothesized mediation effect of relationship quality and the moderation effect of dependency.

5.1. Unconditional LGCM

To develop the *unconditional* LGCM, we fitted the two constructs of *sales level* and *sales growth* to three measures of sales in three consecutive years (see Figure 1). We then compared alternative growth models for sales. These nested models vary in terms of the functional form and the residual structure of the growth curve (Eggert et al., 2011). As illustrated in Table 4, we first examined whether the change of APSs' sales to the car manufacturer over the three years was linear. A χ^2-difference test verified that estimating a free, non-linear LGCM does not significantly perform better than the linear model. This finding suggests that the change of sales over the last three years for APSs is reasonably linear. Next, we compared two nested linear LGCMs: one with different time-specific residual variances and one where they were set to be the same. Our χ^2-difference test favored the more parsimonious homoscedastic residual structure (i.e. the model with the same residual variance).

The covariance between sales level and sales growth is -.08 (*p*<.05), which suggests that APSs with low levels of sales in year 2009 are exhibiting greater rates of increase over the next years in comparison to the APSs with high levels of sales in that year. In addition, the significant variances for *sales level* (1.48) and *sales growth* (.18) confirms considerable inter-company differences in both the APSs' initial levels of sales in 2009, and their changes between 2009 and

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2011. Therefore, a more comprehensive *conditional* LGCM, which incorporates antecedent constructs, can be used to explain the *varying sales growth* trajectories.

Insert Figures 2 Table 4 around here

5.2. Conditional LGCM and hypothesis testing

Once the optimum *unconditional* LGCM was identified, we introduced both the three dimensions of *fairness* (i.e. Procedural, Interactional, and Distributive fairness) and two *relationship quality* dimensions (i.e. Trust and Commitment) into our model (see Figure 2). This enabled us to test our proposed main effects (i.e. H_1 to H_4) using structural path modeling with maximum likelihood criteria. Moreover, to examine our two moderation hypotheses (i.e. H_5 and H_6), we computed two interaction terms: 1) Trust×Dependence and 2) Commitment×Dependence (we first mean centered item values prior to multiplication). We then linked these two interaction terms to the sales grows as our dependent construct. We also controlled our model for APS size, APS age, relationship age between the APS and the car manufacturer, and macro level fairness of the automobile industry in general (Aurier & Siadou-Martin, 2007).

Insert Figures 2 and Table 5 around here

The results of our path analysis (see Table 5) indicate that Procedural justice has no significant effect on Trust and Commitment, rejecting H_{1a} and H_{2a}. However Interactional justice has a positive and significant effect on Trust (β= .39, *p*< .01) and Commitment (β= .26, *p*< .01); supporting H_{1b} and H_{2b}. Similarly, Distributive justice also has a significant effect on both Trust (β= .44, *p*< .01), and Commitment (β= .40, *p*< .01); supporting H_{1c} and H_{2c}. In addition, the path

from Trust to Sales Growth is also positive and significant (β= .13, p< .01); supporting H$_3$. The path from Commitment to Sales Growth is also significant (β= .26, p< .01); supporting H$_4$.

Note that the direct paths from the three dimensions of fairness to sales growth are not significant. We also controlled for the effect of three dimensions of fairness as well as trust and commitment on *sales levels;* all paths are not significant, and the overall explained variance of sales levels is only R^2= .11, suggesting that other explanatory variables account for sales levels. Thus, in line with our hypotheses, it can be shown that our model focuses exclusively on understanding sales growth trajectories and not sales levels in general. As for our two moderation hypotheses (i.e. H$_5$ and H$_6$), our results provide support for both. The path from the Trust×Dependence interaction term to Sales Growth is negative and significant (β= -0.09, p< .01); and the path from the Commitment×Dependence interaction term to Sales Growth is also negative and significant (β= -0.14, p< .01). These results suggest that the effect of trust and commitment on sales growth is smaller as supplier dependency increases. Overall, our model explained 38.2% of the total variance in sales growth as our primary dependent construct.

6. Implications and Limitations

6.1. Discussion

This study aimed to investigate the direct impact of three dimensions of organizational justice (namely procedural, interactional, and distributive justice) as perceived by the seller company on their trust and commitment in their relationship with a much more powerful buyer company in an automotive industry setting. In addition, the study examined the moderating effect of dependence on the effect that both trust and commitment have on sellers' sales growth.

The results of a latent growth curve model analysis using longitudinal data revealed that the seller's perceptions of interactional and distributive justice considerably enhance the levels of trust and commitment in the relationship between the APSs and the manufacturer. However, we found that procedural justice has no significant effect on either trust or commitment. This is surprising, since previous studies reported that procedural fairness had strong effects on relationship quality (Kumar et al., 1995b) and organizational trust (Aryee et al., 2002).

This result adds to the previous findings by Kumar et al. (1995b). While they demonstrated that buyer perception of the supplier fairness is positively associated with relationship quality, our analysis further revealed that, at least within our sample of the car industry in Iran, the suppliers' perceptions of the buyer's interactional and distributive fairness also have a positive impact on relationship quality, as manifested by trust and commitment. This finding is critical and indicates that in highly asymmetric relationships, such as a powerful car manufacturer's relationship with its much less powerful APSs, it is not just the former that determines relationship quality. This necessitates some further discussion of ways to initially make sense of these results: One interpretation for the non-significant effect of procedural justice is to consider the role of culture in the market that we studied. Iranian culture is typically considered as collectivist in terms of orientation, norms and values. In such collectivist societies, individuals strive for social harmony, possess a sense of mutual dependence, and adhere to norms of reciprocity (Mattila & Patterson, 2004), all of which emphasize the role of interaction between individuals in developing quality relationships even at an organizational level. Thus, central to the collectivist culture are the interactions that take place among individuals (Wong, 2004). In such a culture, the interaction between individual managers plays an important role in making business decisions. Often the managers of APSs have direct relationships with the top management of the

manufacturer, and decisions are made on the inter-personal rather than inter-organizational level. This is in contrast to Western culture in which clear processes and policies guiding the interactions between organizations (i.e. procedural fairness) are vital to enhancing relationship quality (Kumar et al., 1995b). The implication of this is that we could expect our results to show the counter-intuitive finding that interactional justice supersedes procedural justice in the context of Iranian supplier-buyer relationships. However, while such an interpretation was also suggested by subsequently interviewed top managers of the automotive manufacturer (see below), further research into such a cultural moderation of the relative effects of different justice aspects is needed.

Our results also suggest that both trust and commitment have a positive impact on suppliers' sales growth. It can be inferred that through enhancing relationship quality (i.e. elevating trust and commitment in the relationship), the suppliers' perception of the manufacturer's interactional and distributive fairness can increase suppliers' sales growth. In other words, sales growth increases when a supplier's perception of interactional justice increases and when the supplier believes that the outcome received from manufacturer is fair e.g. the benefits and risks are shared between both parties. The estimated values for the parameters of the unconditional LGCM indicate that the average initial level of sales in our APSs in 2009 is 2.97, and sales increase by .426 from 2009 to 2011 (note that sales figures are multiples of $10m). Therefore, on average, the percentage increase in sales growth for our sample ASPs is 16.67%, whereas according to publicly available data, at the same time, the number of cars produced by the specific car manufacturer increased by only 4.8%. This finding indicates that the sales growth in APSs is only marginally due to the increase in the overall number of cars produced by the car manufacturer, and that other factors are responsible for the observed sales growth. Therefore, we

conclude that the suppliers' perceptions of the manufacturer's interactional and distributive fairness play a key role for the APS in deciding to increase their sales to a particular car manufacturer.

In order to scrutinize this finding further, we conducted several in-depth interviews with the car manufacturer's top management team in 2012, including the VP for supply chain management, and the VP for procurement management, and discussed the results of our study. Their interpretation (in line with our assumptions) is that the majority of supply relationships in the Iranian automotive industry are not with single suppliers. The manufacturer (i.e. the buyer) buys each part or product category from multiple suppliers. Thus, each supplier has a share of the total number of parts required by the manufacturer. In such circumstances, any supplier that creates a better quality relationship (e.g. is seen to show high levels of trust and commitment) becomes more attractive to the buyer, and consequently captures a higher share of the quantity purchased.

In addition, due to the international trade sanctions against Iran, car manufacturers in the country often have to rely exclusively on domestic sources for the supply of parts. As a consequence, this situation has encouraged the suppliers to enhance their capability to supply different car manufacturers in Iran, thereby creating even stronger competition within specific parts or product categories, as well as increasing the APSs' flexibility and thereby lowering the dependence on a specific car manufacturer. Thus, capable suppliers can decrease their sales, or even stop selling to a particular car manufacturer when they feel that they are being unfairly treated. These findings therefore demonstrate that relying solely on the buyers' perception of fairness to assess issues of relationship quality creates 'relational myopia', i.e. introduces a certain bias and limits our understanding of the interactive characteristics of business

relationships (Håkansson and Snehota, 1995). Hence our results call for a reevaluation of some of the previous research findings.

Our results provide full support for our proposition that the level of the APSs' dependence negatively moderates the effects of trust and commitment on their sales growth. We find that both interaction terms (i.e. Trust×Dependence and Commitment×Dependence) have a negative impact on sales growth. This finding indicates that when the APSs are less dependent on the buyer, an increase in the level of trust and commitment though interactional and distributive justice amplifies sales growth. This can be due to the fact that both parties are in (perceived) equal positions. Therefore, the main factor that persuades APSs to maintain (and increase) the partnership is the existence of a relationship that is based on commitment and trust, which in turn are based on the APSs' perception of being treated fairly by the buyer.

We also performed the moderation test based on two additional perspectives: once based on the manufacturer's perception of dependence on each of the APSs (a reciprocal perspective), and once based on the relational dependence, this being an average score derived from the dependence perspectives of each of the partner (i.e. a dyadic perspective). For the reciprocal perspective, we used the *car manufacturer's level of dependency on each supplier* as a variable to compute the two interaction terms (Trust×Dependence and Commitment×Dependence). The results suggest that both interaction terms positively moderate the impact of trust on sales growth ($\beta= 0.12$, $p<.01$) and commitment on sales growth ($\beta= 0.15$, $p<.01$). This finding suggests that the impact of trust and commitment on sales growth is greater as the manufacturer's dependence on their suppliers increases. Taking the dyadic perspective, we first calculated an average dependence score for each dyad, and then used it to compute the two interaction terms. The result of testing our new structural model suggests that relational dependence has no significant

effect on sales growth. It can therefore be argued that if our focus had been restricted to the dyadic operationalization of dependency, the conclusion would have been drawn that dependency does not moderate the impact of trust and commitment on sales growth.

6.2. Implications for Theory

Several theoretical implications can be deduced from our study. First, we found that the suppliers' perception of the buyer's procedural fairness has no significant effect on the suppliers' trust and commitment in their relationship with the buyer. Both interactional and distributive justice have a significant and relatively similar impact on suppliers' trust. We also found that distributive fairness has a stronger effect on commitment relative to interactional fairness. Moreover, our findings add to the body of knowledge about why dependency matters in the study of fairness in business relationships. Previous studies have not adequately considered the effect of dependency on the link between fairness and financial outcomes in buyer-supplier relationships. We addressed this gap and found that APSs are in fact very aware of the extent to which their partners misuse their power in putting their own interests first. Such unfairness perceptions may decrease the financial and non-financial satisfaction of the APSs with the business relationship in the short run, and increase conflict in the long run.

To investigate this point further, we also examined the moderating effect of dependency on the link between the three dimensions of fairness and relationship quality, using the interaction approach. The results of our post-hoc analysis revealed that suppliers' dependence does not moderate the impact of these dimensions of fairness on trust and commitment. This finding indicates that, irrespective of their levels of dependency, APSs are highly sensitive to their perception of fair treatment by the buyer. Nevertheless, APS' dependence negatively moderates the effect of trust and commitment on the supplier's sales growth with the buyer. In essence, if a

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powerful manufacturer treats its independent APSs fairly, the latter will be more satisfied with the relationship. Hence, they are more interested in maintaining and developing the relationship, consequently leading to more successful relationships via the growth in sales. Therefore, to maintain effective relationships, large buyers need to manage carefully the fairness perceptions of their smaller suppliers, because problems in this area could decrease the quality of the exchange relationship.

Our findings also show a strong positive effect of trust and commitment on sales growth, in line with previous results (Kumar et al., 1995a). In addition, our study provides empirical support for the argument that the effects of unfairness perceived by suppliers in business relationships do not immediately affect sales levels. The non-significant effect of trust and commitment on *sales levels* (β= -0.06; 0.03 respectively, both *p*>.05) provides evidence that *sales growth*, i.e. relative changes in sales, is a more appropriate dependent variable in the study of fairness theory.

6.3. Implications for Managers

Our findings have direct implications for the managers of both APSs and the buyer. These managers should understand that interactional and distributive justice are the main drivers of trust and commitment in their business relationships, hence they should have mechanisms in place that fairly share the risks and benefits between the two parties. In addition, as the literature suggests, those involved in these relationships need training in social skills that allow them to engage in empathetic, responsive, and courteous interactions (Wuyts, 2007).

For the managers of the APSs, our results indicate that suppliers have the potential to increase their sales to a particular buyer if they believe that they are being treated fairly. This goal can be achieved for example by acquiring bigger share in providing the requested parts for a particular

buyer. However, on the flip side, a supplier can perceive that it is not being treated fairly. These suppliers can follow two different strategies depending on their individual circumstances:

First, the aggrieved suppliers can positively address the problem and invest in their relationship with the unfair buyer – despite being treated unfairly – in the hope that the buyer will recognize their efforts in making the relationship works, and thus being rewarded by the reciprocal behaviors from the buyer. The results of our analysis suggest that trust and commitment have a positive impact on sales growth, although this effect is significantly lower under high levels of dependency. When the APS is highly dependent on the buyer, it cannot easily switch to other manufacturers, since such changes are potentially costly and risky. Therefore, the APS maintains its partnership (and may even increase its collaboration activities) not because it has a reliable relationship, but because it has no other options. It is therefore crucially important for managers to understand dependency within the context of their industry. Managers of APSs need to focus on the fact that their market may be extremely limited, in that they can potentially work with only a small number of car manufacturers in a limited domestic market. As such, the context may be one in which they feel that they are highly dependent on these manufacturers. This view limits their negotiation power and hampers them to the point that despite having a propensity to switch, they have to maintain their relationship even under conditions of poor relationship quality. In such circumstance, the aggrieved supplier can continue working with the buyer and invest in the relationship hoping that the buyer will recognize their efforts and reciprocate it.

The second alternative for these aggrieved suppliers is to decrease or even stop their sales to the buyer. Those suppliers that have enhanced their capability to work with different manufacturers can decrease or even stop selling to a particular buyer when they feel that they are being unfairly treated. In other circumstances, where a supplier has not developed its capability to serve

multiple manufacturers, the aggrieved supplier can still follow this strategy because the key issue to consider here is to recognize the power of dependency. Our ad-hoc analysis based on the reciprocal perspective, i.e. the buyer's perception of dependence on each of the APSs suggests that the effect of trust and commitment on suppliers' sales growth is greater as the level of the manufacturer's dependence on the supplier increases. The direct implication of this finding for the managers of the aggrieved supplier is that they can take advantage of the unfair manufacturer's perception of dependency and lower their sales volume temporarily. This tactic will send a strategic signal to the manufacturer that should they continue treating these suppliers unfairly, they can and will decrease the volume of parts supplied to the point that the whole production line could be shut down due to insufficient supply of particular parts, leading to the buyer incurring large losses. This is a rather aggressive approach and should be considered only if other options are already exhausted.

From the buyer's perspective, treating suppliers fairly is not only associated with greater sales growth for the supplier (i.e. to the supplier's benefit), but also with benefits to the buyer. When contextualizing the industry from the buyer's perspective, one may argue that they can only buy from the domestic supply market, and for each product category there are only a few potential suppliers that can meet the requisite expectations and standards. Therefore, contrary to what APSs managers may believe, it could well be that the buyer is also in a dependent position, given that a short delay in providing a simple part can shut down the whole production line, incurring large losses. Therefore, treating their suppliers fairly not only encourages the APSs to do more business with the manufacturer, but also secures a long-lasting quality relationship, reducing suppliers' propensity to switch the entire or at least part of their business to another

manufacturer. By treating suppliers fairly, the buyer can avoid incurring costly losses due to a termination of relationships with suppliers.

Overall, our results indicate that managing exchange relationships in this market requires that both automotive manufacturers and APSs realize the importance of fairness (as an antecedent of relationship quality) and interdependency that is based on mutual understanding (and not on one-way dependency) in their dyadic relationships.

6.3. Limitations and Directions for Future Research

Despite the contributions of this study, including both managerial and theoretical implications, we acknowledge some limitations due to trade-off decisions in designing this research. These limitations provide new avenues for future research. First, this study focused exclusively on the automotive industry in Iran. Although focusing on a single industry eliminates the noise created by uncontrollable factors in cross-industry studies, the particularity of this research setting limits the external validity, given the specific economic and cultural context of Iran. Future research ought to examine this model in other industries and countries. The second limitation stems from the angle taken in our data collection. We concentrated explicitly on the APS side of the supplier-buyer relationship in measuring the perception of fairness in relationships. Although we collected objective sales data from the car manufacturer side (to avoid common method bias), measuring perceptions of fairness from the car manufacturers' sides too could add more insights to the findings of our research. Furthermore, while our research explains sales growth trajectories very well, no significant effect on sales level could be shown. Therefore, further research needs to examine additional antecedents to explain sales levels as well.

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Table 1: Marketing Research on Fairness

| Reference | Research settings | | | | Key findings |
	Sample	Buyer or Seller's perception of fairness	Fairness dimensions	Outcome variables	(Taken from the abstracts)
Liu, et al. (2012)	216 paired manufacturers (suppliers) and distributors (buyers) in China	Dyadic justice perceptions as mutually perceived by both buyer and the seller	Procedural justice Distributive justice Interactional justice Informational justice	Dyadic buyer-supplier relationship performance	Justice is not a direct determinant of buyer–supplier performance but a critical conduit that nourishes mid-range coupling behaviors, which in turn promotes a successful relationship.
Samaha et al. (2011)	A large *Fortune* 500 firm (seller) and its resellers (channel members). 984 in Year 1, 1004 in Year 2, and 1089 in Year 3	Buyer's perception of fairness	--	Channel member performance	Perceived unfairness truly acts as "relationship poison" by directly damaging relationships, aggravating the negative effects of both conflict and opportunism, and undermining the benefits of using contracts to manage channel relationships.
Ellis et al. (2009)	107 merger and acquisition	--	Procedural justice Informational justice	Value creation during integration Value creation post-integration	Informational justice and procedural justice affect different components of value creation. Procedural justice reduces the positive effects of informational justice on financial return during the integration process, while it magnifies the effects of informational justice on the combined firms' market position during integration efforts.
Luo (2007)	127 dyadic cross cultural cooperative alliances in China	--	Procedural justice Distributive justice Interactional justice	Strategic alliance performance	When goal differences between parties are high, the joint effect on alliance performance of procedural and distributive justice is significantly positive. When interactional justice is high, procedural justice exerts a stronger performance effect.
Brown, et al. (2006)	433 wholesaler–supplier relationships	Buyer's perception of fairness	Procedural justice Distributive justice	Economic satisfaction Manifest conflict	Normative contracting is associated with higher levels of channel member satisfaction and lower levels of conflict. Explicit contracting, however, is linked to higher levels of channel conflict. Distributive justice is positively associated with channel member satisfaction as is procedural justice, but only under conditions of high distributive justice
Griffith et al. (2006)	290 Supplier–distributor supply chain relationships	Buyer's perception of fairness	Procedural justice Distributive justice	Long-term orientation Relational behavior Conflict	The perceived procedural and distributive justice of a supplier's policies enhance the long-term orientation and relational behaviors of its distributor, which, in turn, are associated with decreased conflict and increased satisfaction,

				Satisfaction Performance	that influence the distributor's performance.
Suh (2005)	147 responses from 49 local suppliers and their relationship with top five hypermarket retailers in Korea.	Local suppliers' perception of fairness	Procedural justice Distributive justice	Trust and Commitment	Procedural fairness exerts most influence on the commitment level of local suppliers in a channel relationship.
Luo (2005)	124 dyadic cross cultural cooperative alliances in China	--	Procedural justice	Alliance profitability	Alliance profitability is higher when both parties perceive high rather than low procedural justice. Profitability is also higher when both parties' perceptions are high than when one party perceives high procedural justice but the other perceives low procedural justice. Shared justice perceptions become even more important for alliance profitability when the cultural distance between partners is high or when the industry of operation is uncertain.
Yilmaz, et al. (2004)	155 reseller-supplier relationships in Turkish PVC (Poly-Vinyl Chloride) doors and window-systems industry	Buyer's perception of fairness	Procedural justice Distributive justice	Reseller satisfaction	Reseller perceptions of supplier distributive fairness and procedural fairness are posited as key factors, mediating the effects of reseller assessments of supplier delivery performance, operational support, boundary personnel performance, and financial and sales performance on reseller satisfaction.
Kumar et al. (1995b)	417 dealers from the US and 289 Dutch dealers Supplier-reseller relationships in automobile industry	Buyer's perception of fairness	Procedural fairness Distributive fairness	Relationship quality	Vulnerable resellers' perceptions of both distributive and procedural fairness enhance their relationship quality, although these effects are moderated by the level of outcomes and environmental uncertainty. Furthermore, procedural fairness has relatively stronger effects on relationship quality than distributive fairness.

Table 2: Construct Overview

Constructs and reflective scales	Standardized Item Loadings
Trust (Zaheer, et al., 1998)	
IOT1: This car manufacturer has always been evenhanded in its negotiation with us.	.87
IOT2: This car manufacturer may use opportunities that arise to profit at our expense. (R)	.81
IOT3: Based on past experience, we cannot with complete confidence rely on this car manufacturer to keep promises made to us. (R)	.82
IOT4: We are hesitant to transact with this car manufacturer when the specifications are vague. (R)	.73
IOT5: This car manufacturer is trustworthy.	.87
Commitment (Kumar, et al., 1995b)	
Com1: Even if we could, we would not drop the car manufacturer because we like being associated with it.	.86
Com2: We want to remain a member of the car manufacturer's network because we genuinely enjoy our relationship with it.	.93
Com3: Our positive feelings towards the car manufacturer are a major reason we continue working with it.	.92
Procedural Fairness (Homburg & Fürst, 2005)	
PF1: The car manufacturer quickly reacts to complaints or suggestions we have.	.79
PF2: The car manufacturer gives us the opportunity to explain our point of view regarding aspects of the business relationship.	.86
PF3: Overall, the car manufacturer's procedures within our business relationship are fair.	.83
Distributive Fairness (Homburg & Fürst, 2005)	
DF1: We receive adequate benefits from the relationship with the car manufacturer.	.83
DF2: In case of complaints we receive about as much compensation from the car manufacturer as expected.	.71
DF3: In solving our problems, the car manufacturer gives us exactly what we need in the business relationship.	.80
DF4: Overall, the benefits we get from the business relationship with the car manufacturer are fair.	.82
Interactional Fairness (Homburg & Fürst, 2005)	
IF1: The employees of the car manufacturer seemed to be very interested in the business relationship with us.	.77
IF2: The employees of the car manufacturer understand exactly what we want from this business relationship.	.74
IF3: I feel treated rudely by the employees of the car manufacturer. (R)	.82
IF4: The employees of the car manufacturer are very keen to solve our problems.	.88
IF5: Overall, the car manufacturer employees' behavior as part of our business relationship is fair.	.81
Dependence (Kim & Hsieh, 2003)	
Dep1: It would be difficult for us to replace the sales that our relationship with this car manufacture generates.	.87
Dep2: There are other car manufacturers that could buy comparable amount of products/services. (R)	.91
Dep3: Our firm would suffer greatly if we lost this car manufacturer.	.95
Dep4: We would incur minimal costs in replacing this car manufacturer with another car manufacturer. (R)	.72

Note: All items were measured using seven-point Likert scales anchored by 1 = "strongly disagree", 4 = "neither agree nor disagree", and 7 = "strongly agree". (R): reverse item

Table 3: Mean, Standard Deviation, Cronbach's Alpha, AVE, Correlation Matrix and Composite reliability

	M	SD	α	AVE	Correlations								
					1	2	3	4	5	6	7	8	9
1- Procedural justice	4.37	1.12	.87	.68	**.87**								
2- Interaction justice	4.47	1.19	.90	.65	.53**	**.90**							
3- Distributive justice	4.31	1.22	.87	.63	.54**	.50**	**.87**						
4- Trust	4.50	1.25	.91	.69	.46**	.52**	.59**	**.92**					
5- Commitment	4.93	1.36	.93	.82	.59**	.56**	.65**	.56**	**.93**				
6- Dependence	4.73	1.77	.92	.75	.20**	.20**	24**	.29**	.28**	**.92**			
7- Sales t1	2.97	1.23	NA	NA	-.12	-.01	-.16*	-.18**	-.15*	-.26**	**NA**		
8- Sales t2	3.37	1.25	NA	NA	.01	.05	-.03	-.06	.01	-.24**	.82**	**NA**	
9- Sales t3	3.85	1.71	NA	NA	.22**	.27**	.20**	.19**	.24**	-.12	.58**	.71**	**NA**

Notes: **Bold** numbers on the diagonal show the composite reliability; lower diagonal represents correlation; sales figures are multiples of $10m.

M represent mean
SD refers to standard deviation
AVE refers to average variance extracted
α refers to coefficient alphas
* *P* <.05
** *P* <.01

Table 4: Model specification and comparison of the nested models.

Model specification	χ^2	df	Comparison of the nested models	$\Delta\chi^2$	Δdf	NFI	CFI	RMSEA
Model 1 (linear growth; homoscedastic residual structure)	2.8	3				.996	.999	.017
Model 2 (optimal growth; homoscedastic residual structure)	1.1	2	Model 1 v Model 2	1.7 n.s.	1	.998	1.000	.000
Model 3 (linear growth; heteroscedastic residual structure)	1.4	1	Model 1 v Model 3	1.4 n.s.	2	.997	1.000	.033

Table 5: Results of the hypothesis testings

Antecedents → Endogenous	β
Procedural fairness → Trust	0.05
Interactional fairness → Trust	0.39**
Distributive fairness → Trust	0.44**
Procedural fairness → Commitment	0.06
Interactional fairness → Commitment	0.26**
Distributive fairness → Commitment	0.40**
Trust → Sales Growth	0.13**
Commitment → Sales Growth	0.26**
Dependence → Sales Growth	0.11**
Trust → Sales Level	-0.06
Commitment → Sales Level	0.03
Dependence → Sales Level	-0.32**
Trust×Dependence → Sales Growth	-0.09**
Commitmentt×Dependence → Sales Growth	-0.14**

* $P <.05$
** $P <.01$

R^2: Trust =0.45, Commitment =0.35, Sales Level = 0.11, and Sales Growth= 0.38
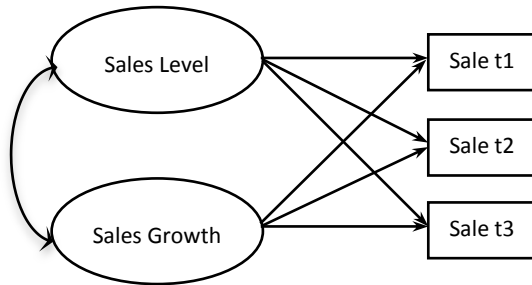
Figure1: *Unconditional* Latent Growth Curve Model

Figure2: *Conditional* Latent Growth Curve Model