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## The Impact of Inequity, Relationship-Technology Fit, and Trust on Conflict

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## **Introduction**

Technology deployment in channels of distributions is continuing in the accelerated pace in order to make distribution systems more efficient and flexible to respond to evolving needs of customers. Managers understand that as customers are becoming more comfortable with new technologies and striving to be even more competitive, technological innovation and skillful deployment of technology are powerful levers to use to achieve their objectives. However, managers need to understand not only the new technologies but also the behavioral aspects of technology deployment, as technology in isolation from the behavioral aspect of managing buyer-seller relationships may prove to be insufficient to reach the desired result.

Previous research has examined either antecedents (O'Callaghan et al 1992; Srinivasan et al 2002; Osmonbekov 2010) or consequences (Konsynksi 1993; Mirani et al 2001; Bello et al 2002; Osmonbekov et al 2009; Lee et al 2011) of technology adoption in the channels of distribution. A couple of studies examined both antecedents and consequences of technology adoption (Theodosiou and Katsikea 2012; Wu et al 2003). For example, O'Callaghan et al (1992) found that expected efficiency gain and service gain had a significant impact on the adoption of technology in distribution channels. Similarly, Osmonbekov (2010) found significant impacts of reseller efficiency benefits on usage of technology, and relationship technology fit and manufacturer social influence on usage of e-business tools by resellers. Srinivasan et al (2003) found that technological opportunism, institutional pressures and perceived usefulness of e-business technology significantly influenced adoption decision. Additionally, Wu et al (2003) found that top management emphasis and customer power significantly affected technology use. On the outcomes side, Wu et al (2003) found significant relationships between technology use and efficiency, sales performance and relationship strength and length.

This study attempts to contribute to existing literature by focusing on the behavioral aspects of the relationship that has already deployed e-business technology in the relationship. Specifically, this research examines how relationship-technology fit may impact perceived reseller inequity and how inequity may affect interorganizational conflict. The important construct of trust and its relationship with both inequity and conflict are also examined. These relationships have not been examined in previous research, especially in the context of e-business technology deployment in the manufacturer-reseller relationships.

The rest of the paper is organized as follows. First, I review the related previous research by examining equity theory, e-business literature and trust and conflict studies. Then, the theoretical model and hypotheses are developed. The methodology, data collection and data analysis are described next. Finally, the findings of the study are discussed.

## **Equity Theory**

Equity theory deals with the norm of distributive justice in dyadic relationships and reflects the desire of members of a dyad to have a fair distribution of benefits in a dyadic relationship (Adams 1963; Huppertz et al. 1978). First introduced by Adams (1963), the theory explores conditions for the existence of equitable versus inequitable dyadic exchanges. An equitable relationship is conceptualized as one where both parties perceive that each receives the benefits that are commensurate with the investments made by each party into the relationship. On the other hand, if either party views that the other party receiving benefits that are not commensurate with the investments made, an inequitable relationship is in place. In the latter case, as Adams (1963) suggests, the party that perceives the relationship as inequitable (or unjust) is likely to act to restore the equity by: (1) lowering investments into the relationship, (2) trying to extract more benefits from the relationship, (3) trying to lower the benefits of the other party, or (4) withdrawing from the relationship altogether. Among them, lowering investments into the relationship is probably the easiest way to deal with inequity. Psychological experiments showed that workers in a

company that perceived their relationship with the company as inequitable would become less efficient (Adams 1963). As suggest by Adams (1963), “the need to establish equity was a more potent motivation than the motivation to maximize monetary gains” (p.286).

Equity theory has been applied by Huppertz et al. (1978) in the context of retail exchange to examine inequity perceptions and consumers’ intention to resolve inequity. Consistent with predictions of equity theory, the study found that in situations of high inequity consumers would try to restore the balance by increasing benefits (such as complaining to the manager or even shoplifting items) or withdrawing from the relationship (such as leaving the store without buying and shopping elsewhere) (Huppertz et al. 1978). In the context of business-to-business relationships, previous research suggested that high inequity had a negative impact on satisfaction, and a higher level of equity concerns could be found in situations where a firm had more alternative partners to choose from (Frazier 1983). Firms in business relationships that were perceived equitable tended to have more trust among each other, with less conflicts and higher commitment to their relationships (Kumar, Scheer and Steenkamp 1995). In addition, those firms would be more willing to invest in the relationships with the expectation to continue the relationship (Scheer, Kumar and Steenkamp 2003).

Prior research has examined inequity in two levels, including the perceived overall inequity in a business relationship and the perceived issue-specific inequity about certain arrangements and programs in the relationship (Kumar, Scheer, and Steenkamp 1995). In this study, we focus on the issue-specific inequity. Specifically, resellers’ perceptions on the issue-specific inequity about e-business linkages with a manufacturer are examined.

In the context of e-business arrangements, it is important to study perceptions of inequity since changes in business processes usually force channel members to reevaluate their existing relationships. Both parties (i.e., the manufacturer and the reseller) will then provide inputs into the arrangement and expect to gain certain benefits that will be equitably distributed. Therefore, we define *reseller perceived inequity* as the degree to which the reseller perceives that the benefits it has gained from the e-business arrangement between it and the manufacturer are not fairly shared. In other words, it means the degree to which benefits are unfairly appropriated by the manufacturer in the relationships of the e-business arrangements as perceived by the reseller.

### **Technology Use in Distribution Channels**

The bond between manufacturers and their resellers in e-business has become closer in modern distribution channels. One important type of usage of e-business tools in the channel context is to provide shared resources that are owned and maintained by the manufacturer and also can be used by the downstream channel members (Boyd and Spekman 2004). Those resources can provide benefits to both parties in the dyad, such as increased efficiency. For instance, increased efficiency of tracking shipments and reduced handling of paper documents through their digitization improves overall efficiency of both manufacturer and reseller (Bello et al. 2002). However, benefits brought by those resources may also lead to potential disproportionate distribution of benefits toward one party in the relationship (Bello et al 2002). This may happen due to the ability of one party to appropriate a larger share of benefits through greater negotiating power (Gaski 1984) or through specific design of the technology (O’Callaghan et al 1992).

### **Trust and Conflict**

Most interorganizational studies define trust as “the extent to which a firm believes that its exchange partner is honest and/or benevolent” (Geyskens et al 1998). These beliefs include belief in the partner’s reliability, partner’s ability to fulfill its promises and stand by its word (Anderson and Narus 1990; Dwyer and Oh 1987). Most of studies combine the two dimensions of trust into a unidimensional construct where honesty, benevolence and reliability are intertwined and combined into a concept most people would identify as trust.

Trust by definition is a relational norm established during the relationship between a manufacturer and a reseller. Trust is an enabler of many other positive processes that occur in relationships such as open and free information exchange, assisting each other, joint actions to solve business problems etc. (Noordewier et al 1990). Trust is a central construct in the research of long term business relationships (Anderson and Weitz 1989; Morgan and Hunt 1994) because of its importance to establishing and maintaining of healthy business relationships. Any business relationship transformation is aided by trust and hurt by the absence of trust (Morgan and Hunt 1994) and e-business technology is one of those relationship transformations (Osmonbekov 2010). Parties in a trusting relationship tend to do everything possible to not hurt each other's interests and exchange that information freely (Noordewier et al 1990). Conflict refers to disagreements and animosity leading to divisive working relationships (Gundlach & Cadotte, 1994). Conflict has also been defined as the extent of disagreements experienced between channel members that arise from incompatibility of actual and desired responses regarding these tasks (Fisher, et al. 1996).

### **Relationship–technology fit**

Manufacturer–reseller relationships may take various forms based on a variety of factors. For instance, Cannon and Perreault (1999) identify eight different types of business-to-business relationships based on six different relationship connectors. The universe of business-to-business relationships is diverse and complex with varying degrees of information exchange, operational linkages, legal bonds, cooperative norms and adaptations by the parties (Cannon and Perreault, 1999). In addition to Cannon and Perreault's (1999) classification, there are other classifications of business relationships (Heide, 1994; Dwyer et al., 1987). It would be too simplistic to assume that e-business tools in each of the different business relationships would operate similarly. Therefore, it is important to know how e-business tools fit into the existing manufacturer–reseller relationship. Relationship–technology fit is defined as the extent to which the e-business tools are consistent with the current interactions between the organizations. Adapted from the concept of job fit (Speier and Venkatesh, 2002) and the compatibility factor in innovation diffusion literature (Rogers, 1995), this construct is designed to capture the interorganizational dynamics of using e-business tools by a reseller in its interactions with a manufacturer. Specifically, it is designed to measure the extent to which e-business tools fit into the existing pattern of interaction between the manufacturer and reseller. In the depth interviews, a high variance in the type of reseller-manufacturer interactions was observed. One manager described his relationship as very personal, where he interacts only with a certain person on the manufacturer's side, they share family news, jokes, and do business as well. Another manager's interactions are not as personal; when he calls, he always gets different people with differing levels of expertise, knowledge about his business, etc. The latter relationship has a better technology–relationship fit, as their existing interactions are as impersonal as interacting through e-business tools.

### **Theoretical Model and Hypotheses**

The model is developed by combining insights from our depth interviews and examination of channels, information technology and equity research. The model reflects the idea that relationship-technology fit is an important construct to study in channels of distributions context, as it impacts reseller perceptions of inequity, and inequity in turn a key construct of conflict. Trust also plays an important role, as it affects both inequity and conflict.

As described in the relationship-technology fit section, business relationships vary from very friendly and personal to very business-like and impersonal. As the technology is introduced into the business relationships, the former may not be well emulated by the technology interface as the latter type of relationships. As a result, personal relationships may weaken and more impersonal, technology-mediated relationship takes their place. To the extent that resellers had any perceptions of inequity with the introduction of e-business tools into the relationship, these may exacerbated by the impersonal nature

of new interactions. On the other hand, if the relationship has always been impersonal, the technology makes it more efficient and any perceptions of inequity are mitigated by this efficiency. In the language of the equity theory, the efficiency of technology is the output received by the reseller that may serve to balance the scales of relationship equity. Therefore, I advance the following hypothesis:

### **H1. Relationship fit decreases reseller perceptions of inequity.**

As described in the inequity section, a persistent perception of inequity in a relationship can have severe consequences for the parties in the relationship. The aggrieved party has several ways to try to cure the inequitable situation and its actions may lead to tit-for-tat type of retaliations leading to a vicious cycle, detrimental to the relationship stability and strength. One possible indication of the deteriorating relationship is interorganizational conflict. Conflict refers to disagreements and animosity leading to divisive working relationships (Gundlach & Cadotte, 1994). Previous research suggests that inequity tends to increase interorganizational conflict (Kumar, Scheer and Steenkamp 1995) and it is understandable and logical as to why this may happen. Therefore, I propose the following hypothesis:

### **H2. Reseller perceptions of inequity increases conflict.**

As described in the trust and conflict section, trust is a key ingredient in a strong interorganizational relationship. More trusting relationships tend to have more open, collaborative communication, more helping each other, joint action on problems and other collaborative activities (Mohr et al 1990). As the parties engage in open communication, both parties inputs and outputs are better communicated to each other, perceptions of inequity are not suppressed and therefore don't grow in the shadows of resentment. With open communication, there is also an increased chance for the inequities to be worked out in way that may satisfy both parties. More trusting relationships tend to engage in many joint actions, such as joint sales calls, joint advertising campaigns, colocation activities etc. Such activities blur the lines between the inputs and outputs of one party versus the inputs and outputs of the other party. This may further decrease perceptions of inequity, as the reseller may perceive that the manufacturer and reseller are a part of the same team, being in the "same boat", and sharing the wins and losses, challenges and victories together. Therefore, I propose the following hypothesis:

### **H3. Trust decreases reseller perceptions of inequity.**

The presence of trust tends to promote positive processes in a relationship and mitigate the negative, as described in the trust and conflict section above. Morgan and Hunt (1994) note that parties in a trusting relationship will do everything to improve the relationship, and not to hurt the other party in the relationship. Much of previous research suggests that trusting relationships tend to exhibit lower levels of disagreements that lead to animosity, or conflict, than less trusting relationships (Morgan and Hunt 1994; Gaski 1984). In our context, trust decreases inequity and indirectly decreases conflict, as suggested by the previous hypothesis, but also directly impacts conflict in a negative way. Therefore, we propose the following hypothesis:

### **H4. Trust decreases conflict.**

## **Methodology**

### *Measures*

The measures (see Table 1) for relationship-technology fit and reseller perceived inequity were developed following guidelines suggested by Churchill (1979). The items for relationship-technology fit were developed based on concept of job fit (Speier and Venkatesh, 2002) and reseller perceived inequity

items were adapted from Oliver and Swan (1989). Wording changes were made to fit the context of manufacturer-reseller e-business relationships in this study. A pretest was then conducted using a sample of 29 reseller representatives, mostly sales and purchasing managers. Measures of conflict were adapted from Fisher et al. (1996) and trust measures were adapted from Morgan and Hunt (1994). All measures used in the study are listed in Table 1.

Table 1. Measurement Scales and Reliabilities

All items are 1 to 7 anchored by “Strongly Agree” and “Strongly Disagree”.

<b>Scale (Cronbach's Alpha)</b>
<p><b>Trust (.98)</b>            This manufacturer...            Can be trusted at all times            Is perfectly honest and truthful            Can be trusted completely            Can always be counted on to do what is right</p>
<p><b>Inequity (.83)</b>            The manufacturer gains the most from the transition to online operations            The benefits of the online operations unfairly favor the manufacturer            The manufacturer does not share the benefits of online operations equitably</p>
<p><b>Relationship-Technology Fit (.94)</b>            Online tools fit well with our existing relationship with this manufacturer.            Online tools match the type of activities we are engaged in with this manufacturer.            Online tools complement our existing modes of interaction with this manufacturer.</p>
<p><b>Conflict (.88)</b>            Regarding day-to-day activities...            We have disagreements with this manufacturer in our working relationship.            We frequently clash with the manufacturer on issues related to how we conduct business.            We differ in opinions about overall manufacturer's strategies.</p>

### *Data Collection*

The sampling frame was 2 lists purchased from publishers of trade journals and other business information. From the lists, computer and computer network components resellers were selected for this study because this industry is more likely to employ and understand e-business tools than other industries and it has a large impact on the economy. A total of 4,342 executives from computer integrator and VAR companies (SIC 7373) were targeted. After clearing this list (including the removal of duplicates, firms that had gone out of business, merged companies, and misclassified companies) there were approximately 1,700 usable executive candidates. We contacted them by phone to ensure that their companies were in computer and network components resell business and were using e-business tools with their manufacturers. The respondent's e-mail address was obtained and each was sent a link to the web survey with the appropriate instructions and a respondent password. 614 executives qualified for the study and agreed to participate in the survey. In total, 224 responses were received constituting a response rate of a little over 36%. The respondents had a fairly long relationship with the manufacturers, with an average of 9.2 years. The share of the focal manufacturers in their businesses averaged 36% of sales. The share of

the overall manufacturer-reseller interactions accounted for by the Web was about 36% among all kinds of interactions, indicating the importance of Web-based tools in their manufacturer-reseller relationships.

Using a method proposed by Armstrong and Overton (1977), we assessed the impact of non-response bias. We considered the first 25 percent of respondents as early ones and the last 25 percent as late respondents. The means of all six constructs of the study were compared between the two groups and no statistically significant differences were found, suggesting that nonresponse bias was not significantly affecting the results of the study.

### *Data Analysis and Results*

The measures for 4 constructs were put through confirmatory factor analysis to assess convergent reliability and discriminant validity. As a result of this analysis, one item from the inequity scale and one item from conflict scale were eliminated due low factor loadings. One item from the relationship-technology fit scale was eliminated due to a large cross-loading with the inequity scale. The scales, items and their reliabilities are shown in Table 1. As shown in the table, the scale reliabilities represented by Cronbach's Alpha range from .83 to .98, that is higher than the acceptable threshold of .70 suggesting good reliability.

After the purification of the scales, linear regressions were run to test the hypotheses. The results of the multiple regression analysis are reported in Table 2.

Table 2. Regression Results

	<b>Regression1 (DV- Inequity)</b>	<b>Regression2 (DV- Conflict)</b>
Relationship Fit	-.20***	
Trust	-.30***	-.46***
Inequity		.24***
R-Square	.15	.35
Adjusted R-square	.14	.34
F-Value	17.84	51.82
Significance	.000	.000

\* Standardized regression coefficient is significant at .1 level

\*\* Standardized regression coefficient is significant at .05 level

\*\*\* Standardized regression coefficient is significant at .01 level

Ordinary least squares regression analysis was used to test the hypotheses. Two different regressions were performed. In the first regression, trust and relationship-technology fit were independent variables and inequity was the dependent variable. In the second regression, trust and inequity were independent variables and conflict was the dependent variable.

The results of the regression analysis provide support for H1 and H2, stating that trust and relationship-technology fit reduce perceived reseller inequity. The regression coefficients are -.30 and -.20 for linkages between trust and inequity and relationship-technology fit and inequity respectively. Both paths are significant at .01 level. H3 received good empirical support. It stated that trust has a negative impact on conflict. The regression coefficient for the path between trust and conflict is -.46 and it is significant at .01 level. H4, proposing a positive impact of inequity on conflict received good support, since the path is statistically significant at .01 level and the standardized coefficient is .24. Both regression models are significant at .001 level.

After checking the appropriate metrics and performing additional analysis per Hair et al. (2006), it is concluded that multicollinearity is not a concern in the data. The standard errors are fairly small (not inflated), estimates did not change radically when some variables are excluded, and simple correlations are not greater than .7. Additionally, none of the eigenvalues approach zero and Variance Inflation Factors (VIFs) are within appropriate range.

## **Discussion and Implications for Managers**

The main purpose of this study was to focus on the behavioral aspects of e-business technology deployment in manufacturer-reseller relationships. The findings suggest that distribution channel managers ought to pay attention to relationship variables such as trust, relationship-technology fit and perceived inequity. These variables were found to have significant impact, directly and indirectly, on the key relationship variable of conflict. Conflict is in turn important, because it may determine whether the relationship itself survives in the long-run, thus jeopardizing the very investments made into the e-business technology.

It was found that relationship-technology fit significantly and strongly impacts perceived inequity. Therefore, managers need to examine their existing relationships to see if they are amenable to the infusion of e-business technology. This finding suggests that if there is a good fit between the technology employed and the relationship, this will result in lower level of inequity perceived on the reseller side. On the other hand, if the relationship-technology fit were not there the level of inequity would increase. This is important because perceived inequity was found to impact, significantly and strongly, the key relationship variable of conflict. Perceived inequity significantly increases the level of conflict in a relationship, something most managers would like to avoid.

Findings related to trust also suggest some implications for practicing managers. Trust was found to have a significant influence on conflict, both directly and indirectly. The existence of trust tends to lower conflict, presumably because any disagreements are resolved and never lead to animosity, as suggested by previous research. Additionally, this study's findings suggest an alternative, indirect mechanism of lowering conflict by building trust. The study finds a significant linkage between trust and inequity, where higher levels of trust reduce perceptions of inequity that in turn lowers conflict. Although the mechanisms of open communication and blurring of inputs and outputs of the parties suggested as explanations for this linkage needs to be studied further, this research provides solid evidence for managers to redouble their efforts to build trust with their partners to mitigate any lingering perceptions of inequity.



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