The Effects of Trust Dimensions on Relationship Commitment: the Relative Efficacy and Effect Symmetry

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ABSTRACT

This study investigates the effects of three trust dimensions on relationship commitment. The results of a survey of 989 customers subscribing to a media service indicate that integrity has the strongest influence on relationship commitment, followed by competence and benevolence. The effect of integrity on relationship commitment is negatively asymmetric both in the early and later stage of the relationship. The effect of competence on relationship commitment is negatively asymmetric in the mature stage of the relationship, while the effect of benevolence on relationship commitment is positively asymmetric in the mature stage of the relationship. That is, benevolence becomes more important in the mature stage of the relationship. Managerial implications are discussed.

INTRODUCTION

Long term relationships between a firm and its customers provide many benefits for both the firm and the customers. Studies have found that firms practicing relationship marketing indeed enjoy increased competitiveness (e.g., Morgan and Hunt, 1999), reduced transaction costs (e.g., Aulakh et al., 1996), reduced uncertainty (e.g., Johnston et al., 1999), improved financial performance (e.g., Kalwani and Narayandas, 1995; Jap, 1999; Johnston et al., 1999), and increased marketing productivity (e.g., Naidu et al., 1999).

With the introduction of trust-commitment theory (Morgan and Hunt, 1994), many studies have focused on the development of trust and its consequences (e.g., Doney and Cannon, 1997). Researchers have found that trust complements and solidifies the relationship between the firm and the customer (Rousseau et al., 1998). Studies also have identified three dimensions of trust: competency, benevolence, and integrity (Mayer et al., 1995; Ganesan, 1994; Sako, 1992).

While these studies have provided managers with some understanding on the role of each dimension to ensure relationship performance (Sirdeshmukh et al., 2002), we still have a limited understanding of under what conditions each trust dimension has a significant influence on relationship commitment. Furthermore, we still do not know whether the enhancement of trust dimensions has a symmetric effect on relationship commitment as compared to the depletion of trust dimensions (Gefen, 2002).

The main objectives of this study are twofold. First, the study will examine the relative efficacy of trust dimensions on relationship commitment. Second, the study will examine whether the enhancement of a trust dimension has an impact equal to the depletion of the trust dimension in forming relationship commitment. Understanding of relative efficacy and effect symmetry will help managers set priorities to enhance each of the trust dimensions for further developing a committed relationship.

Figure 1 describes the conceptual model of this paper. The model posits that integrity, competence, and benevolence are antecedents to relationship commitment. The model also depicts the symmetry effects of trust dimensions on relationship commitment, moderated by relationship duration.

The paper proceeds as follows. We first discuss the three trust dimensions and follow with the hypotheses to test the relative efficacy and symmetry of their effects on relationship commitment. We then discuss the method and study results. Managerial implications are discussed last.

CONCEPTUAL DEVELOPMENT

Dimensions of Trust

In the literature, trust has been conceptualized in many different ways (e.g., Barney and Hansen, 1994; Lane, 1998; Shapiro et al., 1992; Zacker, 1986). Following the work by Mayer et al. (1995), this study conceptualizes trust as having three key dimensions: integrity, competency, and benevolence. That is, we treat the key dimensions of trust as antecedents to commitment (Butler and Cantrell, 1984; Butler, 1991).

Integrity: Integrity refers to the trustee’s perception that the trustee adheres to a common set of principles that the trustee finds acceptable (Mayer et al., 1995). In other words, the trustor’s perception of the trustee’s integrity is related to a set of common principles between trustee and trustor (McFall, 1987). These common principles include consistency of past actions, credible communications, a strong sense of justice, and congruent actions with the trustee’s words (Mayer et al., 1995).

Integrity influences overall trust since it allows prediction of future events, especially under high uncertainty (Doney and Cannon, 1997). Studies have identified integrity as having a meaning similar to such concepts as value congruence (Sitkin and Roth, 1993), consistency (Butler, 1991; Butler and Cantrell, 1984), character (Gabarro, 1978), and openness/congruity (Hart et al., 1986).

Competence: Competence is defined as a group of skills and characteristics that enable a party to have influence within some specific domain (Mayer et al., 1995). Some researchers have argued that the trustee’s perception of the trustee’s competence is a prerequisite for the viability of repeated transactions (Sako, 1992). The concept of competence is task and issue-specific; competence is not an overall characteristic of a trustee. Rather, competence comes from knowledge (Butler, 1991; Butler and Cantrell, 1984; Lieberman, 1981; Rosen and Jerdee, 1977), capability (Cook and Wall, 1980; Jones et al., 1975; Sitkin and Roth, 1993), and expertise (Giffin, 1967; Bartol and Srinivastava, 2002).

Benevolence: Benevolence refers to the extent to which one party believes that a second party has intentions and motives beneficial to the first party (Ganesan 1994). At the center of benevolence is one firm’s willingness to help the other (Gao and Brown, 1997). Examples of benevolence include provision of support, expression of consideration for the exchange partner’s welfare, restraint of self-serving opportunism, and willingness to assume fiduciary responsibilities (cf. Atuahene-Gima and Li, 2002; Sirdeshmukh et al., 2002). A benevolent trustee shows consideration and sensitivity to the needs and interests of the trustor, acting in a way that protects these interests, and refrains from opportunistic

1Jin Yan Park is a corresponding author. The study is supported by the faculty research fund of Yonsei University and Konkuk University in 2007.
behaviors (Atuahene-Gima and Li, 2002). In this study, we define a trustee’s benevolence toward a trustor as the trustee’s extra-contractual helping behavior that enhances the well-being of the trustor.

THE CONCEPTUAL MODEL

The conceptual model of our study, Figure 1, posits the effects of trust dimensions on relationship commitment, the symmetry between the enhancement effects vs. the depletion effects on relationship commitment, and the moderation effect of relationship duration.

The Effects of Trust Dimensions on Commitment

Studies have confirmed a positive relationship between trust and commitment (e.g., Morgan and Hunt, 1994). Although several studies have identified the relative effects of trust dimensions on overall trust (Bigley and Pearce, 1998; Mayer et al., 1995; Sirdeshmukh et al., 2002), we still have a limited understanding of the relative efficacy of each trust dimension on relationship commitment.

Relationship commitment is defined as a belief that an ongoing relationship with a partner is so important as to warrant maximum efforts to maintain it (Morgan and Hunt, 1994). That is, commitment to a relationship is defined as one firm’s intention to continue its relationship with another (Anderson and Weitz, 1989).

Integrity and Commitment: Firms develop trust to gain commitment from customers (Doney and Cannon, 1997; Morgan and Hunt, 1994). Integrity is an essential dimension of trust, and it reflects fulfillment of written and spoken promises (Ganesan, 1994). Integrity fosters overall trust since it allows exchange partners to predict future behaviors under uncertain environments (Doney and Cannon, 1997).

Integrity allows exchange partners to predict future events and to protect one another from the dangers of opportunistic behavior. By reducing future uncertainties through ethical and honest behaviors, integrity fosters commitment among exchange partners (Iven, 2004; Kaufmann and Stern, 1988). Studies have found that integrity of an exchange partner fosters the other party’s commitment to the relationship (Coote et al., 2003; Simon, 1999; Sonnenberg, 1994).

Competence and Commitment: The second dimension of trust is competence. Competence is based on the expertise and reliability of the transaction partner (Moorman et al., 1992; Lindskold, 1978). Competence allows exchange partners to expect consistent levels of performance. Competence of an exchange partner enhances the other party’s commitment to the relationship since it reduces variability in output and reduces transactional costs (e.g., Doney and Cannon, 1997; Ganesan, 1994).

Studies have determined that competence leads to a customer’s willingness to repurchase and to be loyal (Wetzels et al., 1998; Sako, 1992). In addition, competence-based trust increases long-term orientation of exchange partners because it reduces transaction costs and the risk of poor performance in the future (Ganesan 1994).

Benevolence and Commitment: Benevolence refers to helping behaviors beyond the call of duty for the well-being of exchange partners (Lee et al., 2004). This study posits that benevolence increases commitment because benevolence communicates caring motives and goodwill to exchange partners by providing care and favors (Doney and Cannon, 1997), reducing transaction costs (Green, 2003), and enhancing relationship performance (Lee et al., 2004). Based on the discussion above, we propose the following:

H1: An exchange partner’s perception of integrity, competence, and benevolence has a positive influence on relationship commitment.

Relative Efficacy of Trust Dimensions on Commitment

Which trust dimension has the strongest effect in forming relationship commitment? This study posits that integrity has the strongest impact on relationship commitment, followed by
competence and benevolence. This is because integrity allows exchange partners to predict future behaviors that facilitate ongoing transactions (Sako, 1992; Mayer et al., 1995). Exchange partners with integrity keep their promises and maintain high levels of ethical standards. Ethical behavior is a necessary condition for any successful business relationship. Integrity allows a firm to predict future actions of exchange partners, especially under high uncertainty (Doney and Cannon, 1997).

Competence affects relationship commitment because high performance resulting from competence motivates a firm to continue the relationship. Competence also increases relationship commitment by providing benefits to the exchange partners. Competence-based commitment is largely based on a calculative process in that it is based on the costs and benefits of remaining in the relationship. Competence provides high performance while reducing transaction costs.

Competence without integrity, however, can have detrimental effects on the relationship, such as introducing opportunistic behaviors. One can argue that losing integrity can have a devastating blow on relationship commitment regardless of past performance. Thus, we posit that integrity has a more direct and immediate impact on commitment than competence does.

Benevolence has the weakest impact on relationship commitment as it increases commitment by communicating the benevolent party’s underlying intentions. Benevolence is a helping behavior and it motivates firms to work closely, thereby increasing relationship performance (Lee et al., 2004). Yet, one can argue that benevolence is voluntary in nature and plays a supplementary role for a long-term relationship. With integrity and high performance, benevolence has only a marginal effect on relationship commitment. Benevolence is not a required condition for a long-term relationship, and the influence of benevolence on commitment is situation specific (Sako, 1992). Based on this discussion, we propose the following:

H2: An exchange partner’s integrity has the strongest influence on relationship commitment, followed by competence and benevolence.

The Effects of Commitment on Positive Word of Mouth and Constructive Complaints

Commitment to a relationship reflects a customer’s intention to continue the relationship with a firm (Gilliland and Bello, 2002). Affective commitment reflects a commitment based on identification and involvement with the exchange partner, while calculative commitment refers to commitment based on the costs and benefits of remaining committed (Gilliland and Bello, 2002; Lee et al., 2004). When exchange partners are committed to one another, they are willing to cooperate, proactively share information, be flexible, and engage in referral behaviors (Mangold et al., 1999). Commitment will lead exchange partners to improved efficiency and profitability.

This study posits that a customer’s commitment has a positive influence on his or her positive word of mouth. When customers are committed to a relationship, they tend to have a favorable attitude toward the firm, which facilitates positive word of mouth (Brown et al., 2005; Verhoef et al., 2002). Positive word of mouth is motivated by the need for self-consistency and self-esteem. Creating negative word of mouth when one has a positive attitude toward a firm represents self-denial, which results in cognitive dissonance within the individual. Studies have found that a customer’s commitment indeed has a positive influence on that customer’s positive word of mouth (Bettencourt, 1997; Harrison-Walker, 2001).

Based on the above discussion, we propose the following:

H3a: Customer’s commitment has a positive influence on the customer’s positive word of mouth.

Customers who are unsatisfied with products or services can quit their relationships with the unsatisfactory firms. Alternatively, customers can express their dissatisfaction to the firms (Kirpalani, 2004; Hirschman, 1970). Receiving constructive complaints, defined as customers’ expressions of dissatisfaction, is important for a firm’s service recovery strategies.

This study posits that when customers are committed to a relationship with a firm, they tend to express constructive complaints. If customers are not committed to a relationship, they simply quit the relationship over dissatisfying incidents. However, when customers are committed to a relationship, they provide constructive complaints to the firm because they share the feeling of identification with the firm and are involved with the firm (Bhattacharya et al., 1995; Schappe, 1998). Based on this discussion, we propose the following:

H3b: Customer’s commitment has a positive influence on the customer’s expression of constructive complaints.

Symmetry of the Effects of Trust Dimensions on Commitment

Several studies have proposed that trust and distrust may have independent and asymmetric influences on commitment (Singh and Sirdeshmukh, 2000; Sirdeshmukh et al., 2002). That is, distrust does not necessarily mean a low level of trust (Sitkin and Roth, 1993). One can have a high level of trust and a high level of distrust at the same time.

Regarding the effects of trust dimensions on commitment, researchers have not determined whether they are symmetric or asymmetric. That is, will a particular amount of increase of trust dimensions have the same effect on relationship commitment as an identical amount of decrease in trust dimensions? We argue that the effects of trust dimensions on commitment will be asymmetric in that one unit increase in trust and one unit decrease in trust may have different effects on commitment.

According to Herzberg’s two factor theory (1966), the three trust dimensions can be interpreted as hygiene factors and motivator factors. Hygiene factors are considered to be more basic and extrinsic; they are “must have” factors. Customers are very sensitive to hygiene factors when a firm underperforms them. One can argue that a hygiene factor has an asymmetric effect for poor performance since customers are more sensitive to negative performances.

Motivating factors are considered to be more situation-specific and intrinsic; they are “good to have” factors (Rattanawicha and Esichaikul, 2005). Since motivating factors are considered as good to have, one can argue that customers are less likely to be sensitive to motivating factors when the firm underperforms on them. A motivating factor tends to generate an asymmetrically positive effect for good performance since it is more sensitive to positive performance.

We argue that integrity is a hygiene factor since it is a basic, must have factor for any business relationship (Agustin and Singh, 2005). We posit that a decrease in integrity has a greatly negative influence on commitment, while an increase in integrity does not necessarily increase commitment significantly. That is, we posit that as integrity increases, commitment also increases, but at a decreasing rate. The effect of integrity on commitment increases to a certain threshold and the effect curve becomes flat after that threshold.
We argue that benevolence is a motivating factor, which provides customers with additional positive feelings toward the firm. An increase in benevolence allows exchange partners to better understand each other’s caring intentions. Firms appreciate benevolence of their exchange partners increasingly as benevolence is reciprocally exchanged. Therefore, we argue that as benevolence in a relationship increases, relationship commitment also increases, but at an increasing rate. This is because understanding of an exchange partner’s caring intention enhances the level of benevolence.

Competence, we argue, is both a motivating factor and a hygiene factor. An increase in competence reflects an increase in relational benefits, while a decrease in competence reflects a decrease in relational benefits or an increase in costs. Therefore, we postulate the effect of competence on relationship commitment to be linear and symmetric.

Based on this discussion, we propose the following:

H4: Trust dimensions have different effect symmetry on commitment.
H4a: An exchange partner’s integrity will have a negatively asymmetric effect on commitment.
H4b: An exchange partner’s competence will have a symmetric effect on commitment.
H4c: An exchange partner’s benevolence will have a positively asymmetric effect on commitment.

The Moderation Effect of Duration

We posit that the symmetry effects of the relationship between trust dimensions and commitment are moderated by relationship duration. As stated previously, integrity is a hygiene factor and it is negatively asymmetric. The importance of integrity remains the same regardless of the relationship duration since it is considered as a “must have” factor. Thus one can argue that integrity’s effect on commitment is negatively asymmetric regardless of the relationship duration.

Competence, as discussed previously, has the characteristics of both a motivator factor and a hygiene factor. As a relationship evolves over time, however, competence tends to be taken for granted and becomes a hygiene factor. Exchange partners come to expect a certain level of performance and competency becomes a necessary condition for a long-term relationship. Thus, one can argue that as the relationship duration increases, competency’s effect on commitment becomes negatively asymmetric. That is, competency becomes a hygiene factor as the relationship matures (cf. Tang, 1993).

Benevolence, we argue, is a motivating factor regardless of the relationship duration. This is because voluntary helping behavior beyond the call of duty is highly appreciated as a motivating factor regardless of the length of the relationship.

Based on this discussion, we propose the following:

H5: The effect symmetry of trust dimensions on commitment is moderated by the relationship duration.
H5a: An exchange partner’s integrity will have a negatively asymmetric effect on commitment regardless of the relationship duration.
H5b: An exchange partner’s competence will have a symmetric effect on commitment in a new relationship. Competence will have a negatively asymmetric effect on commitment in a mature relationship.
H5c: An exchange partner’s benevolence will have a positively asymmetric effect on commitment regardless of the relationship duration.

Sample

In order to test the model in this study, we conducted a survey with customers of a media services firm. We selected this research context because development of customer trust and commitment is crucial for long-term success in the media services industry. Data were gathered from the respondents who were subscribing to a major newspaper. The sample consisted of 989 respondents after random sampling and phone survey. In order to examine the non-response bias, we compared demographic characteristics of respondents with the population, and found no significant differences between the two groups. The respondents were aged 39.73 years, on average; 504 were men and 485 were women. On average, respondents had been receiving the media services for 36.6 months. Thirty-nine percent of the respondents were college graduates, and the average monthly income of respondents was $3,045.

Measurement Model

We measured our constructs using a structured questionnaire. To ensure content validity of the measures, we first reviewed the relevant academic literature. The measurement items were based on previous measures of trust (Mayer et al., 1995; Moorman et al., 1992; Leik and Leik, 1977; Verhoef et al., 2002; Kolarska and Aldrich, 1980). We then conducted in-depth interviews with eight industry experts and managers to better understand the meaning and dimensions of consumers’ trust toward the media services firm.

Integrity is the belief that the firm adheres to a set of principles acceptable to readers, such as honesty and keeping promises (Mayer et al., 1995). Competence is the set of skills, competencies, and characteristics of the firm (Mayer et al., 1995). Benevolence reflects the extent to which the firm is believed to do good to customers (Mayer et al., 1995).

Commitment is defined as an enduring desire to maintain a valued relationship (Moorman et al., 1992) and a customer’s unwillingness to consider partners other than those in the current relationship (Leik and Leik, 1977). Positive word of mouth reflects the extent to which customers advise other customers to do business with the focal newspaper (Verhoef et al., 2002). Constructive complaint refers to consumers’ behavioral intentions to express their dissatisfaction to authorities, either directly or indirectly, without termination of subscription (Kolarska and Aldrich, 1980).

The results of the reliability and validity tests are summarized in Table 1. We purified items based on item-to-total correlations. We then ran a cross construct confirmatory factor analysis with the variables in a model. Eight items were eliminated based on an analysis of standardized residuals and modification indices. The results of the CFA indicated a good fit to the data ($\chi^2(120) = 419.23$, RMSEA = .049, NFI = .93, CFI = .95, RMR = .03, GFI = .96) (See Table 1). The CFA results indicate that all items are significantly loaded to their hypothesized factors without high cross loadings, indicating the convergent validity of measurement items.

Discriminant validity was tested in the following ways. First, we examined the confidence interval of latent factor correlations and found that none of the 95 percent confidence intervals of the latent factor correlation matrix contained a value of 1.0. Second, we conducted a series of Chi-square difference tests for each pair of constructs between the constrained model and the unconstrained model. In all cases, the unconstrained model provided a significantly better fit to the data than did the constrained model ($p<.01$). Third, the phi matrix indicated that the variance of underlying constructs was higher than the correlations between constructs. Furthermore, the construct reliability was above the .60 cutoff for all measures, and the composite reliability was above the .50 cutoff for all
measures. All these results support the convergent and discriminant validity of the measures used in the study.

**Hypothesis Testing**

In order to test the hypotheses, we first estimated the direct effects of three dimensions of trust on commitment. Then, we examined the asymmetric effects of these trust dimensions on commitment. We also identified the consequences of commitment. As we needed to estimate the multiple regression equations simultaneously, we performed the following path analyses.

\[
\begin{align*}
\text{CMT} &= \beta_0 + \beta_1 \text{INT} + \beta_2 \text{COMP} + \beta_3 \text{BENE} + \beta_4 \text{D-INT} + \beta_5 \text{D-COMP} + \beta_6 \text{D-BENE} + \varepsilon_1 \\
\text{WOM} &= \beta_{0w} + \beta_{1w} \text{CMT} + \varepsilon_2
\end{align*}
\]

**Table 1**

Reliability and Validity Assessment of the Theoretical Construct Measures

<table>
<thead>
<tr>
<th>Construct</th>
<th>Lambda Range</th>
<th>Alpha</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrity</td>
<td>.63-.73</td>
<td>.70</td>
<td>.70</td>
<td>.44</td>
</tr>
<tr>
<td>Competence</td>
<td>.59-.77</td>
<td>.64</td>
<td>.66</td>
<td>.40</td>
</tr>
<tr>
<td>Benevolence</td>
<td>.54-.71</td>
<td>.70</td>
<td>.71</td>
<td>.46</td>
</tr>
<tr>
<td>Commitment</td>
<td>.57-.78</td>
<td>.72</td>
<td>.72</td>
<td>.47</td>
</tr>
<tr>
<td>Positive WOM</td>
<td>.79-.90</td>
<td>.87</td>
<td>.87</td>
<td>.70</td>
</tr>
<tr>
<td>Constructive Complaint</td>
<td>.56-.82</td>
<td>.74</td>
<td>.75</td>
<td>.51</td>
</tr>
</tbody>
</table>

The reports of this paper are balanced.
The articles of this paper reflect various viewpoints.
In spite of changing the situation, the paper maintains consistent voice.

The paper’s contents are professional.
The articles of this paper are well-written and contain deep analysis.
The paper often contains in-depth reporting on social issues.

The paper provides me a lot of useful information for daily life.
The paper provides me interesting articles.
The paper provides me with abundant reading materials.

I will continue to subscribe to this newspaper.
Even if other newspaper companies give premiums for subscription, I will not switch to another newspaper.
I am proud of being a reader of this newspaper.

When people ask me to recommend a daily newspaper, I usually recommend this one.
I recommend this newspaper to others whenever I can.
I usually recommend this newspaper to people who are subscribed to other newspapers.

Even if I am unsatisfied I keep subscribing to the newspaper. However, I make suggestions to the newspaper.
Although I do not quit subscribing to the newspaper, I complain about the newspaper to people around me.
Although I keep subscribing to the newspaper, I express my complaints on the Internet.

\[\chi^2 (120)=419.23, \ RMSEA=.049, \ NFI=.93, \ CFI=.95, \ RMR=.03, \ GFI=.96\]

**Table 2**

Correlation Matrix

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Integrity</td>
<td>3.58</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Competence</td>
<td>3.71</td>
<td>.65</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Benevolence</td>
<td>3.58</td>
<td>.64</td>
<td>.62</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Commitment</td>
<td>3.32</td>
<td>.48</td>
<td>.56</td>
<td>.42</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Positive WOM</td>
<td>2.56</td>
<td>.24</td>
<td>.33</td>
<td>.28</td>
<td>.51</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>6. Constructive complaints</td>
<td>2.57</td>
<td>.11</td>
<td>.14</td>
<td>.18</td>
<td>.19</td>
<td>.40</td>
<td>1.00</td>
</tr>
</tbody>
</table>
The Effects of Trust Dimensions on Relationship Commitment: The Relative Efficacy and Effect Symmetry

CPN = β_0c + β_1CMT + ε_3

CMT = commitment; INT = integrity; COMP = competence; BENE = benevolence; D = dummy variable; WOM = positive word of mouth; CPN = constructive complaint

We then estimated the asymmetric effects of trust dimensions on commitment. Following Sirdeshmukh et al. (2002), we introduced dummy variables in the equations. The dummy variable for each trust dimension was coded 1 when the trust dimension score was above the mean score. The dummy variable for each trust dimension was coded 0 when the score was below the mean score. In this way, the estimated coefficients for dummy variables indicated the incremental effect of the corresponding trust dimension on commitment at a positive performance phase. When trust dimensions had asymmetric effects on commitment, the corresponding coefficient of the dummy variable was statistically significant (Cohen and Cohen, 1983; Sirdeshmukh et al., 2002).

Table 3 shows the results of coefficients and fit statistics. The results indicate a good fit to the data (χ^2 (13) = 123.97, p-value = .00; GFI = .97; CFI = .90; NFI = .90; RMR = .07).

H1 posits that the trust dimensions have a positive influence on commitment. We found that all three dimensions of trust indeed have significant effects on commitment. That is, customer commitment is influenced significantly by integrity (β_1 = .43, p < .05), competence (β_2 = .21, p < .05), and benevolence (β_3 = .09, p < .05). The results provide support for H1.

H2 deals with the relative efficacy of trust dimensions on relationship commitment. We posit that integrity has the strongest influence on commitment, followed by competence, and then benevolence. In order to find the relative efficacy of trust dimensions on commitment, a series of Chi-square difference tests were conducted. In a constrained model, the beta coefficient from integrity to commitment was set to be equal to the beta coefficient from competence to commitment. The results indicate that the Chi-square of the constrained model (χ^2 (13) = 128.48) is significantly greater than that of the unconstrained model (χ^2 (14) = 123.97). The results indicate that integrity has a stronger effect on commitment than competence does (Δχ^2 = 4.51, p < .01).

The results of a series of Chi-square difference tests summarized in Table 4 indicate that integrity has the strongest effect on commitment, followed by competence and benevolence, respectively. The results provide support for H2.

H3 states that commitment has a significant influence on positive word of mouth and constructive complaints. The results indicate that commitment indeed has a significant influence on positive word of mouth (β_1w = .44, p < .05) and on constructive complaints (β_1c = .13, p < .05), providing support for H3a and H3b.

H4 presents hypotheses on the symmetry effect that each trust dimension has on commitment. A trust dimension is considered symmetric when the dummy variable for the dimension is not significant. When the dummy variable for a trust dimension is not significant, the slope representing the effect of the trust dimension on commitment is equal, indicating a symmetric effect.

A trust dimension is asymmetric when the dummy variable for the dimension is significant. This significant dummy variable will adjust the slope representing the effect of the trust dimension on relationship commitment. That is, the effect of the trust dimension on relationship commitment when the trust dimension is above its mean score is different from the effect of the trust on relationship commitment when the trust dimension score is below the mean.

We found that integrity is the only dimension that has a negatively asymmetric effect (β_4 = -.21, p < .05). We found a symmetric effect for the relationship between competence and commitment (β_4 = .02, p > .05) and for the relationship between benevolence and commitment (β_4 = .05, p > .05). These results provide support for H4a and H4b, but not for H4c.

In order to test the moderation effect of relationship duration on the effect symmetry, we divided the respondents into two groups based on relationship duration. The long-term relationship (over two years) group was comprised of 558 respondents, and 431 respondents were included in the short-term relationship (less than two years) group. The results of two group path analysis indicate that the paths are significantly different (Δχ^2 = 12.2, p < .05, df = 5).

Table 5 shows that although integrity and benevolence have nearly the same impact on commitment in both groups, the path coefficient of competence in the long-term relationship group (β = .40, p < .05) is stronger than that of the short-term relationship group (β = .24, p < .05).

H5a posits that an exchange partner’s integrity will have a negatively asymmetric effect on commitment regardless of the relationship duration. The results indicate that the effect of integrity on commitment was negatively asymmetric (hygiene factor) both in short-term and long-term relationships. Therefore, relationship
TABLE 4
Relative Effect Power of Trust Dimensions on Commitment

<table>
<thead>
<tr>
<th>Model</th>
<th>Constraint</th>
<th>$\chi^2 (df)$</th>
<th>$\Delta \chi^2 (df)$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free Model</td>
<td>Free</td>
<td>$\chi^2(13)=123.97$</td>
<td></td>
</tr>
<tr>
<td>Constraint Models</td>
<td>Integrity=Competence</td>
<td>$\chi^2(14)=128.48$</td>
<td>$\Delta \chi^2(1)=4.51, p&lt;.01$</td>
</tr>
<tr>
<td></td>
<td>Competence=Benevolence</td>
<td>$\chi^2(14)=129.69$</td>
<td>$\Delta \chi^2(1)=5.69, p&lt;.05$</td>
</tr>
<tr>
<td></td>
<td>Benevolence=Integrity</td>
<td>$\chi^2(14)=150.00$</td>
<td>$\Delta \chi^2(1)=26.03, p&lt;.01$</td>
</tr>
</tbody>
</table>

TABLE 5
Estimated Coefficients for Research Model: Group Analysis

<table>
<thead>
<tr>
<th>Path</th>
<th>Short-term Duration</th>
<th>Long-term Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient ($t$-value)</td>
<td>$\Delta$ for Positive Performance ($t$-value)</td>
</tr>
<tr>
<td>Integrity → Commitment</td>
<td>.40 (6.74)</td>
<td>-.06 (-3.21)</td>
</tr>
<tr>
<td>Competence → Commitment</td>
<td>.24 (2.45)</td>
<td>.00 (-.09)</td>
</tr>
<tr>
<td>Benevolence → Commitment</td>
<td>.09 (2.42)</td>
<td>.02 (-.97)</td>
</tr>
<tr>
<td>Commitment → Positive Word of Mouth</td>
<td>.50 (13.32)</td>
<td></td>
</tr>
<tr>
<td>Commitment → Constructive Complain</td>
<td>.17 (4.30)</td>
<td></td>
</tr>
</tbody>
</table>

$\Delta \chi^2 (p$-value$)=184.30 (.00), df=31, GFI=.97, CFI=.96, NFI=.96, RMR=.06$

aSignificant coefficients ($t$>2) are in bold. Significant differences between groups ($p$.05) are in italic.

duration does not moderate the relationship between integrity and commitment. These results provide support for H5a.

H5b states that an exchange partner’s competence will have a symmetric effect on commitment in the younger relationship and a negatively asymmetric effect on commitment in the mature relationship. The results indicate that the effect of competence on commitment is symmetric in the short-term relationship, but it becomes negatively asymmetric in the long-term relationship. This implies that as the relationship evolves over time, competence is considered a given and treated as a hygiene factor. These results provide support for H5b. H5c states that an exchange partner’s benevolence will have a positively asymmetric effect on commitment regardless of the relationship duration. The results indicate that the effect of benevolence on commitment is symmetric in the short-term relationship, but it becomes positively asymmetric in the long-term relationship. Therefore, the results fail to support H5c.

DISCUSSION
In this paper, we tested the effects of trust dimensions on commitment. Previous researchers have found that all three trust dimensions have a positive influence on commitment. Among them, integrity has the strongest influence on commitment, followed by competence and benevolence, respectively. We also found that integrity has a negatively asymmetric effect on commitment regardless of the relationship duration. Competence has a symmetric effect on commitment in the early stage of a relationship, but its effect on commitment becomes negatively asymmetric in the later stage of the relationship. Benevolence has a symmetric effect in the early stage of a relationship, but its effect becomes positively asymmetric in the later stage of the relationship. Commitment is found to have a positive influence on positive word of mouth and on constructive complaints.

Managerial Implications
The findings of this study provide managers with the following managerial implications. First, while all three dimensions of trust have a significant influence on commitment, this study’s findings suggest that managers need to put a higher priority on maintaining and enhancing integrity because this trust dimension has the strongest influence on commitment. The resulting commitment will lead to positive word of mouth and constructive complaints.

Second, this study’s findings indicate that integrity is a hygiene factor regardless of the relationship duration, another reason for managers to focus on this trust dimension. Customers tend to be more sensitive to integrity as a hygiene factor than to motivating factors. It means that managers should put higher priorities on integrity to enhance relationship commitment.

Third, the study’s findings suggest that competence has a symmetric effect on commitment in the early stage of a relationship, while its effect becomes negatively asymmetric in the later stage of a relationship. This implies that as the relationship evolves, competence is considered a given and regarded as a hygiene factor. Competence is a necessary, but not a sufficient, condition for commitment in the later stage of the relationship.
**TABLE 6**

Hygiene and Motivator Factors of Trust Dimensions on Commitment: Total and Two Different Duration Groups\(^a\)

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Short-term Duration</th>
<th>Long-term Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrity</td>
<td>.43/.22(hygiene)</td>
<td>.40/.36(hygiene)</td>
<td>.40/.34(hygiene)</td>
</tr>
<tr>
<td>Competence</td>
<td>.21/.21(hygiene/motivator)</td>
<td>.24/.24(hygiene/motivator)</td>
<td>.40/.36(hygiene)</td>
</tr>
<tr>
<td>Benevolence</td>
<td>.09/.09(hygiene/motivator)</td>
<td>.09/.09(hygiene/motivator)</td>
<td>.09/.13(motivator)</td>
</tr>
</tbody>
</table>

\(^a\)The former numbers are coefficients of negative performance and the latter numbers are calculated coefficients of positive performance.

**FIGURE 2**

The Asymmetric Effect of Trust Dimensions on Commitment

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*Fourth*, benevolence has a symmetric effect on commitment in the early stage of the relationship, but its impact becomes positively asymmetric in the mature stage of the relationship. This implies that the role of benevolence on commitment grows to be more important as it becomes a motivating factor in the later stage of the relationship. We suggest managers focus on benevolence to improve customer commitment in the later stage of a relationship.

**Limitations and Future Research Directions**

Despite its merits, this study has several limitations. *First*, the study has focused on customers who subscribe to a media service. To generalize this study’s findings, it is necessary to examine a thorough set of replications in different samples and product contexts.

*Second*, this study treated trust dimensions as exogenous variables. Future studies should identify the antecedents to each trust dimension. While many studies have focused on the antecedents of overall trust, antecedents of individual trust dimensions in a business-to-customer context are yet to be determined (Morgan and Hunt, 1994; Ganesan, 1994; Doney and Cannon, 1997).

*Third*, this study focused on overall commitment as a consequence of trust dimensions. Previous studies have identified different types of commitment. For example, Allen and Meyer (1990) presented the affective, continuous, and normative components of organizational commitment. Geyskens et al. (1996) classified commitment into affective commitment and calculative commitment. Future studies can extend the conceptual model of this study by incorporating these various types of commitments.

*Fourth*, the findings of this study are based on cross-sectional data with a survey method. Future studies using longitudinal data will provide a deeper level of understanding on the changes in the roles among the three trust dimensions (cf. Mowday et al., 1982). Future studies using multiple methods can add confidence on the findings of this study.

*Fifth*, the development of proper tools for measurement is one of the essential tasks of relationship marketing (Sirdeshmukh et al., 2002). Developing valid measurement items of trust dimensions in various product and industry contexts may provide a comprehensive measurement adoptable in various contexts. The measurement items of trust need further refinements in the contexts of various product and services.

Despite the above limitations, this study represents an important step in the identification of the relationship between trust dimensions and commitment. It is hoped that future studies will be directed toward identifying the conditions in which specific trust dimensions become more important than other trust dimensions.
REFERENCES


