The Roles of Perceived Value, Perceived Equity and Relational Commitment in a Disconfirmation Paradigm Framework: An Initial Assessment in a ‘Relationship-Rich’ Consumption Environment

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ABSTRACT
Investigations to unravel the determinants of customer satisfaction are crucial to elucidating the role and significance of the construct and advancing management practice. Accordingly, our study investigates the drivers of customer satisfaction and its impact on behavioral intentions in the direct sales channel context. A conceptual model was developed and tested, which integrates perceived value, perceived equity and relational commitment into the disconfirmation framework. The findings suggest performance is the key driver of customer satisfaction at the subsystem level, while perceived value plays the leading role in influencing customers’ overall satisfaction. Further, two new paths—perceived value to relational commitment and perceived value to perceived equity—neglected in prior research were established. The discussion of our findings reveals important implications for future research and management practice.

INTRODUCTION
Not only is customer satisfaction regarded as a valued outcome of good marketing management (Mathouse et al. 2004), its maximization has emerged as a top priority strategy for most business organizations (Fournier and Mick 1999; Woodruff 1993). This tenet of customer-orientation philosophy has become a fundamental basis for continuous improvement of mainstream business practice (Grigoroudis and Siskos 2002; Mittal and Kamakura 2001). Research evidence has discovered customer satisfaction is essential in realizing desired outcomes such as customer loyalty, customer retention, and ultimately profitability (e.g., Burnham 2003; Kassim 2001). It comes as no surprise that there has been resurgent interest in understanding the impact of customer satisfaction on customer loyalty and firm performance. However, the pragmatic and theoretical value of customer satisfaction is limited by the fact that our understanding of what makes customers satisfied remains equivocal (Bloemer and Odekerken-Schröder 2002). Hence the primary goal, and main contribution, of our study concerns highlighting drivers of customer satisfaction.

A second contribution of our work is that we identify determinants, and explore the role, of customer satisfaction in the context of direct sales channels. Despite being the ‘bread and butter’ of several well-known companies (e.g., Avon and Tupperware) and a vibrant and increasingly prevalent mode of distribution (Laggos 1998) with significant socio-economic implications for the firm (Berry 1998; Crossens 1999; Endut 1999), direct selling has been undervalued in the retailing literature. Indeed, it was reported recently that in several countries the direct sales industry is growing at a faster rate than conventional shop-based retailing (Berry 1998).

Yet even though empirical research on customer satisfaction is abundant, satisfaction in the direct sales channel has not been subjected to marked conceptual and empirical scrutiny. Crucially, direct selling is a ‘people’ business that involves significant personal touch, which implies interaction between the direct seller and customer is paramount (and undoubtedly its strength) (Bartlett 1994). Hence, unlike in prior research, not only do we attempt to predict overall customer satisfaction, but also we investigate two satisfaction subsystems: the product and the direct seller.

The third contribution of the study concerns the integration of perceived value, perceived equity, and relational commitment with insights from the Expectancy Disconfirmation Paradigm (EDP). Our theoretical approach is novel as it attempts to explain customers’ overall satisfaction and behavioral intentions by considering the ‘traditional’ disconfirmation approach within a broader post-consumption behavior framework. On this basis, two paths—perceived value–relational commitment and perceived value–perceived equity—overlooked in prior research were established.

THEORETICAL PERSPECTIVE
The Expectancy Disconfirmation Paradigm
The EDP has dominated consumer satisfaction research since its emergence as a stream of study in the early 1970s (Erevelles and Leavitt 1992). According to this perspective, consumers’ satisfaction judgments stem from a discrepancy between prior expectations concerning the performance of the product/service and actual performance post-consumption (Oliver 1980; Yi 1990). If performance falls short of expectations, this will yield negative disconfirmation; on the other hand, if performance exceeds expectations, positive disconfirmation transpires. Positive disconfirmation will be realized as satisfaction, while negative disconfirmation translates into dissatisfaction (Oliver 1980). Though EDP has for many years been the dominant theoretical framework for assessing customer satisfaction, as yet no consensus has been reached pertaining to the impact of disconfirmation on satisfaction formation (Erevelles and Leavitt 1992). Spreng and colleagues (1996) suggest it does not provide a complete picture of satisfaction formation.

The Consumption System Approach
Duhaime (1988) observed that existing consumer satisfaction research has focused predominantly on goods and services, and overlooked the importance of the consumption or distribution system in influencing the satisfaction evaluation process. A few exceptions notwithstanding (e.g., Crosby and Stephens 1987; Mittal et al. 1999), the system perspective remains neglected. This lack of emphasis may provide an incomplete understanding of the reality of the consumption of goods or services, since consumption is a process that comprises the evaluation not only of the products consumed but also of the different enterprises which produce, distribute, and service these products (Duhaime 1988, p.53). Considerable research advocates that product satisfaction is affected not only through product evaluation and information, but also through the indirect peripheral influences route, such as interaction

1Direct selling is a method of distribution of the consumer product through personal, face-to-face (direct seller-to-customer) sales away from fixed business locations such as retail stores. Major modes of direct selling are one-to-one selling at home or the workplace and sales parties at the consumer’s home, workplace, or another location.
with salespeople (Humphreys and Williams 1996). Crucially, direct selling not only concerns the distribution of consumer products, but also is a high touch approach to which interacting and establishing relationships with consumers is paramount (Bartlett 1994). Therefore, our study of this ‘relationship rich’ consumption environment adopts the more comprehensive system approach, with the EDP framework as a theoretical foundation. Specifically, unlike tangible products or pure services, consumption experiences within the direct selling distribution channel are an amalgamation of two significant subsystems: the product itself and the direct salesperson or seller\(^2\) who provides the product together with a service component.

The Post-consumption Perspective

Many studies of customer satisfaction imply that satisfaction is a sufficiently important and independent phenomenon to merit examination as a single area of study (Olsen 2002; Woodruff 1993). However, emerging evidence suggests that satisfaction may be an integral part of a larger phenomenon, which is the post-purchase evaluation process (Woodruff 1993). Several scholars (e.g., Anderson and Mittal 2000; Day and Crask 2000) have suggested that germane theoretical concepts such as equity, value, and the relational paradigm should be used to cross-fertilize and augment the traditional customer satisfaction framework. In response to this, the current investigation included perceived value, perceived equity, and relational commitment in an attempt to advance our understanding of the antecedents and outcomes of customer satisfaction within a broader post-consumption behavior framework.

THE CONCEPTUAL MODEL

Our conceptual model and hypotheses are depicted in Figure 1. The main elements of the EDP framework are expectation, performance, disconfirmation, and satisfaction (Oliver 1980); however, performance and disconfirmation, but not expectancy, are emphasized as drivers of satisfaction in the model. Performance and disconfirmation alone have emerged as the key predictors of customer satisfaction in extant research (Bolton and Drew 1991). Contrastingly, several studies have unveiled that expectancy itself has no substantive influence on customer satisfaction (Churchill and Suprenant 1982; Kristensen et al. 1999; Yuskel and Rimmington 1998). Moreover, obtaining pre-consumption expectation evaluations would be difficult for any study based on post-consumption assessment (Halstead et al. 1994). This is not to suggest that customers’ expectations are unimportant, but rather the current conceptual approach has proven sufficient in previous empirical research (De Wulf 1999; Halstead et al. 1994). There have been various attempts to extend Oliver’s (1980) classical EDP framework (e.g., Oliver and Swan 1989), in order to impart more comprehensive insights into customer satisfaction. We contribute to this stream of research by investigating the role of perceived value, perceived equity, and relational commitment in the focal EDP process.

CONCEPTUALIZATION OF CONSTRUCTS AND HYPOTHESES

Conceptualization of the EDP

Perceived performance is the customer’s evaluation of product or service performance following the consumption experience. This is consistent with Czepiel’s (1990) conceptualization of performance as functional and performance-delivery elements in the customer satisfaction process. Thus, this study defines product performance as subjective evaluation of the core product (i.e., attributes of the focal product), comprising both intrinsic (effectiveness) and extrinsic (packaging) characteristics. Direct seller performance refers to performance-delivery elements including the direct salesperson’s characteristics and services offered (Engel 1999; Raymond and Tanner 1994).

Disconfirmation is viewed as a distinct psychological construct resulting from direct subjective evaluation of the disparity between product performance and expectations, in a summary-judgment manner (i.e., we used a scale from “better than expected” to “worse than expected”) (Hong and Rucker 1995; Oliver 1980; Tse and Wilton 1988).

Satisfaction denotes the consumer’s post-consumption evaluation and affective response to the consumption experience. This concept was conceptualized and assessed at the subsystem and overall abstraction levels (Mittal and Kamakura 2001). At the subsystem level, satisfaction judgments comprise two main aspects: evaluation of product attributes transpires as product satisfaction, and evaluation of the direct seller is realized as direct seller satisfaction. Overall satisfaction concerns the consumer’s evaluation of the total consumption experience.

Following Mittal and Kamakura (2001), both performance and disconfirmation were measured at the attribute level and then aggregated to represent the subsystem level (e.g., product performance and direct seller performance). By contrast, satisfaction at subsystem level (i.e., product satisfaction and direct seller satisfaction) is derived from summary judgments of overall product/direct seller performance. Consequently, overall satisfaction is a summary of two satisfaction concepts at subsystem abstractions (i.e., product satisfaction and direct seller) (Mittal and Kamakura 2001).

Crossover Effects

There is evidence within the consumption system approach that product and service subsystems could influence each other; a phenomenon known as ‘crossover effects’ (Mittal et al. 1999). For example, Oliver and Swan (1989) found that product satisfaction positively influences satisfaction evaluations concerning car dealers, while Crosby and Stephens (1987) revealed that satisfaction with insurance products develops not only through product judgment and information, but also through interaction with the salesperson. However, Crosby and Stephens (1987) go on to illustrate that satisfaction with the core service is not driven by satisfaction with the service provider. Tellingly, for fast moving consumer goods, Westbrook (1981) found a significant positive path from satisfaction with the merchandise purchased from the retailer to satisfaction with the specific retailer. Although no prior research has examined this phenomenon for disconfirmation, we would expect a comparable crossover effect. Hence, the present research empirically examines crossover effects from product to direct seller for both disconfirmation and subsystem satisfaction.\(^3\) We advance the following hypotheses:

\(^2\)Direct sellers sometimes referred to as distributors or direct salespeople, are independent representatives of a direct selling company who have the right to sell and facilitate the distribution of the product to the end consumers.

\(^3\)We tested the alternative perspective that crossover effects transpire from direct seller to product for both disconfirmation and satisfaction. These paths proved nonsignificant.
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**H1**: In the direct sales consumption system, product disconfirmation is positively related to direct seller disconfirmation.

**H2**: In the direct sales consumption system, product satisfaction is positively related to direct seller satisfaction.

**Disconfirmation–Subsystem Satisfaction**

Adequate empirical evidence demonstrates that disconfirmation plays a significant role in the customer satisfaction process (Spreng et al. 1996; Tse and Wilton 1988). For example, Patterson et al. (1997) found that the influence of disconfirmation on satisfaction is greater than the influence of performance on satisfaction. Drawing from this evidence, we predict that the disconfirmation–satisfaction relationship exists at the subsystem (product and direct seller) level:

**H3**: In the direct sales consumption system, direct seller disconfirmation is positively related to direct seller satisfaction.

**H4**: In the direct sales consumption system, direct sales product disconfirmation is positively related to direct sales product satisfaction.

**Performance–Subsystem Satisfaction**

That performance is positively associated with customer satisfaction has been established (Halstead et al. 1994; Yuskel and Rimmington 1998). Recent studies strongly argue that performance effects should be modeled directly, rather than through a disconfirmation route (Brady et al. 2002). Referring to these arguments, direct relationships between performance and satisfaction at the subsystem level are hypothesized. Hence:

**H5**: In the direct sales consumption system, the higher the performance of the direct seller, as perceived by the customer, the more satisfied he/she will be with the direct seller.

**H6**: In the direct sales consumption system, the higher the performance of the product, as perceived by the customer, the more satisfied he/she will be with the product.

**Performance–Disconfirmation**

It is generally conjectured that, all things being equal, the higher the level of perceived performance, the greater the possibility that expectations will be exceeded. Thus there is a positive relationship between performance and disconfirmation (Oliver and Bearden 1985). Accordingly:

**H7**: In the direct sales consumption system, the direct seller’s performance, as perceived by the customer, is positively related to direct seller disconfirmation.

**H8**: In the direct sales consumption system, the product’s performance, as perceived by the customer, is positively related to product disconfirmation.

**Subsystem Satisfaction–Overall Satisfaction**

Overall or global satisfaction is viewed as ‘composite satisfaction’, which is specifically derived from satisfaction with facets of the goods or service (e.g., Mittal et al. 1999; Spreng et al. 1996). Crosby and Stephens (1987) posit that overall satisfaction is a function of satisfaction with the core service, contact person, and institution, whereas Rust and Oliver (1994) conceptualize overall satisfaction from the standpoint that product and service elements jointly shape satisfaction. In sum, it appears that evaluations for different aspects of the consumption experience (e.g., product and service) may be summarized together to produce an overall assessment of satisfaction. Consistent with this, we posit that overall satisfaction in the direct sales consumption setting is derived from direct seller satisfaction and direct sales product satisfaction, that is,
two separate yet integrated evaluation processes. We thus hypothesize that:

**H9:** In the direct sales consumption system, satisfaction with the direct seller experienced by the customer will positively influence his/her overall consumption satisfaction.

**H10:** In the direct sales consumption system, satisfaction with the direct sales product experienced by the customer will positively influence his/her overall consumption satisfaction.

**Performance–Perceived Value**

While several authors have presented definitions and conceptual models of value perceptions (e.g., Day 2002; Woodall 2003), minimal empirical research has explored their role within the satisfaction process generally, and the EDP framework specifically. This study attempts to fill this gap by positioning ‘perceived value’ from tangible product and services aspects in a comprehensive customer satisfaction model. It is anticipated that the formation of value by the consumer in the direct sales situation is influenced by the comparative approach (for discussion, see Holbrook 1996). We thus view perceived value as being encapsulated in ‘benefit gains’ from the purchase transaction, psychologically compared to ‘perceived sacrifice’; these take into account both economical and non-economical aspects. In essence, perceived value is framed as a positive assessment of this trade-off in the consumption experience within the direct sales channel, in comparison to making the same purchase from a conventional retail store. This theorizing of perceived value is based on existing findings which suggest that purchasing from the direct sales channel offers specific qualities and attributes and interpersonal processes yield value (Humpreys and Locksin 1997; Reynolds and Arnold 2000). Hence, we assert that perceived value is the main driver of customer satisfaction and its impact on loyalty works entirely through customer satisfaction. Based on this empirical evidence, it is possible to suggest that perceived value is positively associated with overall satisfaction. Thus:

**H11:** In the direct sales consumption system, the direct seller’s performance is positively related to the perception of value made by the customer.

**H12:** In the direct sales consumption system, the product’s performance is positively related to the perception of value made by the customer.

**Perceived Value–Overall Satisfaction**

Several scholars have suggested a close relationship between perceived value and satisfaction. For example, Fornell and colleagues (1996) posit that perceived value is the main driver of overall customer satisfaction, while McDougall and Levesque (2000) concluded that perceived value is a significant determinant of customer satisfaction and its impact on loyalty works entirely through customer satisfaction. Based on this empirical evidence, it is possible to suggest that perceived value is positively associated with overall satisfaction. Thus:

**H13:** The perception of value derived from the direct sales consumption experience has a positive effect on overall satisfaction. That is, the higher the perceived value, the higher the level of overall satisfaction.

**Perceived Value–Relational Commitment**

Consistent with Morgan and Hunt (1994), this study conceptualizes commitment as the direct sales customer’s enduring desire to continue a relationship with the direct seller, accompanied by the willingness to make efforts to maintain it. Patterson and Spreng (1997) noted that, ‘only recently managers and marketing scientists have begun focusing on the hitherto ignored role of consumer value as a key strategic variable to help explain repeat purchase behavior, brand loyalty, and relationship commitment’. However, to our knowledge, no prior research has examined empirically the perceived value–relational commitment link. We firmly believe that when a customer experiences exceptional value in his or her consumption experiences via the direct sales channel, he or she will seek to maintain the relationship with the direct seller. Correspondingly, Johnson et al. (2001) suggested that future research should examine how salespeople create value for customers within the exchange relationship to minimize defections. Direct sellers may enrich customers’ value experiences through the provision of quality products coupled with personalized product services in order to create enduring relational interactions (cf. Crosby et al. 2002). We thus propose that:

**H14:** The perception of value derived from the direct sales consumption experience has a positive effect on relational commitment. That is, the higher the perceived value, the higher the level of relational commitment with the direct seller.

**Perceived Value–Perceived Equity**

Equity is a key component in signifying whether or not an exchange is fair (Gassenheimer et al. 1998). We conceptualize perceived equity as the fair treatment received by customers from the direct sellers they bought their products from. It is intuitively reasonable to believe that consumers who perceive that they have received great value from their direct sales channel consumption experiences will also feel they have been treated equitably by the direct seller (Oliver and Swan 1989). We would thus expect a positive association between perceived value and perceived equity; although prior research has not tested this proposition empirically. Hence:

**H15:** The perception of value derived from the direct sales consumption experience has a positive effect on perceived equity. That is, the higher the perceived value, the higher the perceived equity.

**Perceived Equity–Relational Commitment**

A customer is less likely to be strongly attached to the exchange relationship if he or she believes the seller’s procedures are unfair (cf. Anderson and Weitz 1992). Given the importance of these concepts for building positive emotions among customers pertaining to their encounters with sellers, it is surprising that only Johnson et al. (2001) have examined and confirmed the positive perceived equity–relational commitment association. Still, empirical research has advanced a positive association between perceived equity and repatronage behavior (Blodgett et al. 1997), which could be viewed as a form of commitment. Undoubtedly, the salesperson plays a key role in the formation of even-handed buyer-seller relationships and the development of customer loyalty (Macintosh and Locksin 1997; Reynolds and Arnold 2000). Hence, we assert that a customer’s relational commitment is a consequence of his/her perception of equity in the direct sales channel:
H16: In the direct sales consumption system, perceived equity is positively associated with relational commitment.

Relational Commitment–Behavioral Intentions

In line with Zeithaml et al. (1996), we posit that the behavioral intentions construct is comprised of favorable intentions (i.e., repeat purchases, making recommendations, acts of price insensitivity, and cross-buying) and unfavorable intentions (i.e., making complaints and product switching). We posit that customers committed to an exchange relationship will engage in behaviors favorable to the firm. For instance, they may continue to shop through the same consumption channel and make multiple purchases over time. Consistent with this assertion, De Wulf and Odekerken-Schröder (2003) found that commitment has a positive significant effect on customer loyalty toward the retailer, while Morgan and Hunt (1994) and Johnson et al. (2001) unveiled that relational commitment has a direct and negative effect on buyer defection intentions. As such:

H17: In the direct sales consumption system, relational commitment is positively associated with behavioral intentions.

Overall Satisfaction–Behavioral Intentions

Prior research (e.g., Bei and Chiao 2001; Cronin et al. 2000; Söderlund 2002) has consistently and continually confirmed a significant positive relationship between satisfaction and behavioral intentions. Indeed, overall satisfaction is popularly viewed as the principal driver of favorable behavioral outcomes. Thus:

H18: In the direct sales consumption system, overall satisfaction is positively associated with behavioral intentions.

RESEARCH METHODOLOGY

The data for this study were collected in Malaysia using self-administered questionnaires distributed via the ’drop off and collect’ technique. The target population consists of adult consumers (over 16 years of age) who have purchased beauty or healthcare products from the direct seller within the twelve months immediately prior to the data collection period (May–June 2002), and who live or work within the three designated districts: Petaling, Kelang, and the Federal Territory of Kuala Lumpur. A sample of 400 survey respondents was obtained via a quota sampling technique. The ratio of men to women in the sample was set at 1:3, based on extant empirical work conducted in Malaysia and many other countries that suggested women make up a significantly larger percentage of purchasers through the direct sales channel than men (Endut 1999; Sargeant and Msweli 1999). Further, the specific product categories under study (beauty care and healthcare) have a more direct appeal to women.

RESULTS

The measures employed in this study4 initially were purified via item-to-total correlation and exploratory factor analyses. The pool of items was further refined using confirmatory factor analysis (via AMOS 4 and the maximum likelihood estimation technique). To achieve an acceptable ratio of observations to estimate parameters, it proved necessary to run two separate measurement models; the fit indices suggest that these models fit the data well.5 Items load heavily on their posited constructs and have t-values greater than 7.09. As a rigorous test of discriminant validity (see Fornell and Larcker 1981), the average variance extracted (AVE) for each construct was computed and found to be greater than the squared correlation between that construct and any other construct in the model. Table 1 presents the correlation matrix, descriptive statistics, Cronbach’s alpha reliability coefficients, and average variance extracted for the measures. It is reasonable to claim that the measures possess adequate psychometric properties.

Structural equation modeling was utilized to test the 18 hypothesized relationships among the constructs postulated in the conceptual model. Due to sample size constraints, composite means were constructed for all the scales and these indices were used as new variables in the structural model evaluation (Settoon, Bennett, and Liden 1996). The structural model has a significant $\chi^2$ value ($\chi^2=206.94$, $df=66$, $p<0.001$), indicating inadequate fit of the data with the hypothesized model. But this is to be expected as in practice this statistic is very sensitive to sample size (MacCallum et al. 1996). All the other fit indices employed (GFI=.93; CFI=.95; IFI=.95; RMSEA=.07) suggest that the model fits the data satisfactorily. Ultimately, the study’s attempt to establish a plausible model that has statistical and explanatory power, which could permit interpretation of results confidently, was successful. Results for the hypothesized structural paths are reported in Table 2.

DISCUSSIONS AND CONCLUSIONS

Contributions and Implications

Investigations to unravel the determinants of customer satisfaction are crucial to elucidating the role and significance of the construct and advancing management practice (Bloemer and Odekerken-Schröder 2002). In light of this, our study investigated the drivers of customer satisfaction and its impact on behavioral intentions, with the view to enhancing managerial applications of this important concept. We propose a new model of the development and influence of customer satisfaction judgments at the subsystem and overall abstraction levels within direct sales channels. This relationship rich consumption setting has largely been neglected in extant customer satisfaction research. And, unlike in prior study, the present investigation used pertinent theoretical concepts including perceived equity, perceived value, and relational commitment to cross-fertilize and augment the traditional disconfirmation framework.

4Multi-item scales were used to capture every construct, bar product satisfaction and direct seller satisfaction, which were both assessed using a single item (Mittal et al. 1999). Our scales were modified from those used in other studies: product performance and disconfirmation items from Chen et al. (1998) and Endut (1999); direct seller performance and disconfirmation items from Peterson et al. (1989) and Raymond and Tanner (1994); overall satisfaction items from Crosby and Stephens (1987); perceived value items from VanScoyoc (2000) and Chen et al. (1998); perceived equity items from Oliver and Swan (1989); relational commitment items from Macintosh and Lockshin (1997); and behavioral intentions items from Zeithaml et al. (1996).

5The first measurement model contained product performance, direct seller performance, perceived equity, perceived value, and relational commitment. The fit statistics were $\chi^2=696.40$, $df=338$, $p<0.001$; GFI=0.90; IFI=0.92; CFI=0.92; and RMSEA=0.05. The second measurement model contained product disconfirmation, direct seller disconfirmation, product satisfaction, direct seller satisfaction, overall satisfaction, and behavioral intentions ($\chi^2=611.52$, $df=282$, $p<0.001$; GFI=0.90; IFI=0.94; CFI=0.94; and RMSEA=0.05).
### TABLE 1
**Correlation Matrix**

<table>
<thead>
<tr>
<th></th>
<th>Mean *</th>
<th>SD</th>
<th>α</th>
<th>X1</th>
<th>X2</th>
<th>X3</th>
<th>X4</th>
<th>X5</th>
<th>X6</th>
<th>X7</th>
<th>X8</th>
<th>X9</th>
<th>X10</th>
<th>X11</th>
</tr>
</thead>
<tbody>
<tr>
<td>ProPer (X1)</td>
<td>3.78</td>
<td>0.47</td>
<td>0.70</td>
<td>0.59</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>DsPer (X2)</td>
<td>3.67</td>
<td>0.55</td>
<td>0.90</td>
<td>0.56***</td>
<td>0.61</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>ProDis (X3)</td>
<td>3.44</td>
<td>0.54</td>
<td>0.84</td>
<td>0.53***</td>
<td>0.403**</td>
<td>0.73</td>
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<tr>
<td>DsDis (X4)</td>
<td>3.43</td>
<td>0.54</td>
<td>0.91</td>
<td>0.405**</td>
<td>0.451**</td>
<td>0.604**</td>
<td>0.70</td>
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<td>PerEq (X5)</td>
<td>3.87</td>
<td>0.58</td>
<td>0.78</td>
<td>0.310**</td>
<td>0.399**</td>
<td>0.163**</td>
<td>0.252**</td>
<td>0.67</td>
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<tr>
<td>RelCom (X6)</td>
<td>3.49</td>
<td>0.76</td>
<td>0.86</td>
<td>0.466**</td>
<td>0.456**</td>
<td>0.307**</td>
<td>0.296**</td>
<td>0.459**</td>
<td>0.74</td>
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<tr>
<td>PerVal (X7)</td>
<td>3.82</td>
<td>0.55</td>
<td>0.82</td>
<td>0.564**</td>
<td>0.562**</td>
<td>0.459**</td>
<td>0.424**</td>
<td>0.432**</td>
<td>0.481**</td>
<td>0.48</td>
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<tr>
<td>ProSat (X8) b</td>
<td>3.89</td>
<td>0.68</td>
<td>0.90</td>
<td>0.557**</td>
<td>0.368**</td>
<td>0.402**</td>
<td>0.263**</td>
<td>0.242**</td>
<td>0.284**</td>
<td>0.435**</td>
<td>-</td>
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<tr>
<td>DsSat (X9) b</td>
<td>3.71</td>
<td>0.73</td>
<td>0.90</td>
<td>0.473**</td>
<td>0.695**</td>
<td>0.347**</td>
<td>0.375**</td>
<td>0.351**</td>
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<td>0.475**</td>
<td>0.391**</td>
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<tr>
<td>OvSat (X10)</td>
<td>3.67</td>
<td>0.69</td>
<td>0.84</td>
<td>0.407**</td>
<td>0.433**</td>
<td>0.416**</td>
<td>0.339**</td>
<td>0.367**</td>
<td>0.417**</td>
<td>0.548**</td>
<td>0.430**</td>
<td>0.354**</td>
<td>0.74</td>
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<td>BehInt (X11)</td>
<td>3.87</td>
<td>0.58</td>
<td>0.89</td>
<td>0.431**</td>
<td>0.377**</td>
<td>0.376**</td>
<td>0.280**</td>
<td>0.374**</td>
<td>0.423**</td>
<td>0.461**</td>
<td>0.351**</td>
<td>0.326**</td>
<td>0.485**</td>
<td>0.55</td>
</tr>
</tbody>
</table>

X1 (Product Performance), X2 (Direct seller Performance), X3 (Product Disconfirmation), X4 (Direct seller Disconfirmation), X5 (Perceived Equity), X6 (Relational Commitment), X7 (Perceived Value), X8 (Product Satisfaction), X9 (Direct seller Satisfaction), X10 (Overall Satisfaction), X11 (Behavioral Intentions)

AVE is represented on the diagonal

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

*Represents a minimum value of 1 and maximum value of 5 (on the basis of five-point scale for each variable)

bRepresents a single item construct; Crobach's alpha and AVE are not relevant

### TABLE 2
**Results of the Hypotheses Tested**

<table>
<thead>
<tr>
<th>Hypothesized Path</th>
<th>Standardized Coefficient</th>
<th>Critical Ratio (t-value)</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 Product Disconfirmation → Direct seller Disconfirmation</td>
<td>0.70</td>
<td>10.59 ***</td>
<td>Supported</td>
</tr>
<tr>
<td>H2 Product Satisfaction → Direct Seller Satisfaction</td>
<td>0.19</td>
<td>3.54 ***</td>
<td>Supported</td>
</tr>
<tr>
<td>H3 Direct Seller Disconfirmation → Direct Seller Satisfaction</td>
<td>0.05</td>
<td>0.93</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H4 Product Disconfirmation → Product Satisfaction</td>
<td>0.07</td>
<td>0.74</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H5 Direct Seller Performance → Direct Seller Satisfaction</td>
<td>0.66</td>
<td>12.60 ***</td>
<td>Supported</td>
</tr>
<tr>
<td>H6 Product Performance → Product Satisfaction</td>
<td>0.79</td>
<td>7.36 ***</td>
<td>Supported</td>
</tr>
<tr>
<td>H7 Direct seller Performance → Direct seller Disconfirmation</td>
<td>0.23</td>
<td>4.09 ***</td>
<td>Supported</td>
</tr>
<tr>
<td>H8 Product Performance → Product Disconfirmation</td>
<td>0.73</td>
<td>11.24 ***</td>
<td>Supported</td>
</tr>
<tr>
<td>H9 Direct Seller Satisfaction → Overall Satisfaction</td>
<td>0.13</td>
<td>1.72*</td>
<td>Supported</td>
</tr>
<tr>
<td>H10 Product Satisfaction → Overall Satisfaction</td>
<td>0.20</td>
<td>2.63 ***</td>
<td>Supported</td>
</tr>
<tr>
<td>H11 Direct Seller Performance → Perceived Value</td>
<td>0.32</td>
<td>4.83 ***</td>
<td>Supported</td>
</tr>
<tr>
<td>H12 Product Performance → Perceived Value</td>
<td>0.64</td>
<td>7.76 ***</td>
<td>Supported</td>
</tr>
<tr>
<td>H13 Perceived Value → Overall satisfaction</td>
<td>0.80</td>
<td>7.57 ****</td>
<td>Supported</td>
</tr>
<tr>
<td>H14 Perceived Value → Relational Commitment</td>
<td>0.53</td>
<td>6.61 ****</td>
<td>Supported</td>
</tr>
<tr>
<td>H15 Perceived Value → Perceived Equity</td>
<td>0.61</td>
<td>9.18 ****</td>
<td>Supported</td>
</tr>
<tr>
<td>H16 Perceived Equity → Relational Commitment</td>
<td>0.31</td>
<td>3.82 ****</td>
<td>Supported</td>
</tr>
<tr>
<td>H17 Relational Commitment → Behavioral Intentions</td>
<td>0.20</td>
<td>2.94 ***</td>
<td>Supported</td>
</tr>
<tr>
<td>H18 Overall Satisfaction → Behavioral Intentions</td>
<td>0.79</td>
<td>10.38 ****</td>
<td>Supported</td>
</tr>
</tbody>
</table>

****Significant at p<0.001 (t>± 3.29)  ***Significant at p<0.01 (t>± 2.57)

**Significant at p<0.05(t>± 1.96)  *Significant at p<0.10 (t>±1.65)
The results of the current study contravened basic EDP theory, that is, the disconfirmation–satisfaction links in the product and direct seller subsystems were not supported. These findings are rather surprising, given the substantial empirical evidence demonstrating that disconfirmation plays a significant role in the customer satisfaction process (Churchill and Suprenant 1982; Spreng et al. 1996). However, the performance–disconfirmation link for both subsystems was significant and thus congruent with the EDP. Further, our findings provide empirical evidence that performance (not disconfirmation) holds the pre-eminent role in the formation of subsystem satisfaction in the direct sales environment. Several scholars have recognized that the nature of the relationships among variables in satisfaction models hinges on product characteristics (Churchill and Suprenant 1982; Oliver 1997). To this point, Hong and Rucker (1995) demonstrated that performance alone drives satisfaction in the case of high involvement products. Thus, as our healthcare and beauty care products setting is similarly high involvement, perhaps it is to be expected that performance is the most influential predictor of customer satisfaction at the subsystem level.

A second speculative interpretation of these results is that upon closer examination of the respondents’ purchasing patterns it could be that the majority of respondents were experienced buyers with this direct sales channel. It is conceivable that the specific purchase transaction examined by this study might constitute a repeat purchase. As such, evaluations of the product and direct seller were based on performance rather than disconfirmation (i.e., discrepancy between perception and expectation). For experienced customers to base their satisfaction judgments on expectations would imply that they were unable to learn from prior consumption experiences (McQuitty et al. 2000).

Another reason for business practice in the direct sales industry to focus their efforts on achieving direct seller and product performance lies in that these constructs are antecedents of perceived value, which appears to be the most important driver of overall customer satisfaction. Notably, the relationships of direct seller satisfaction and product satisfaction with overall satisfaction were significant, but not as strong. To shed further light on these effects, we ran an alternative theoretical model which excluded completely perceived value. We found that the disconfirmation–subsystem satisfaction relationships remained insignificant, and also that the subsystem satisfaction–overall satisfaction relationships did not strengthen. Hence, perceived value did not detract from the explanatory power of the EDP in the present study.

Our results also establish (for the first time to our knowledge) that perceived value is a strong positive predictor of both perceived equity and relational commitment. Further, perceived equity proves positively related to relational commitment. And we ultimately find that relational commitment and overall satisfaction are predictors of behavioral intentions. As expected, the overall satisfaction–behavioral intentions path is especially strong. Yet it would appear that relational commitment in direct sales settings may provide managers with an alternative to overall satisfaction in terms of stimulating consumers’ behavioral intentions. This finding is perhaps unsurprising, given that the direct sales approach for beauty and healthcare products patently emphasizes the development of personalized product services and strong interactions and relations between the seller and customer. It is imperative that direct sales companies understand what customers look for in their consumption experiences and are able to offer them a mutually committed relationship if they desire one. Overall, the findings of the study imply that business practice in the direct sales industry stands to gain from placing extra emphasis on developing and maintaining subsystem performance and perceived value as the substructure of their customer satisfaction management efforts.

Research Limitations and Future Directions

A major criticism of the study concerns external validity, as the respondents were not selected randomly, and may not be an accurate representation of the population of direct sales customers. However, it should be noted that aspects of the respondents’ consumption patterns and demographic profiles are consistent with the existing literature (e.g., Endut 1999; Peterson et al. 1989). On this basis, the results and interpretations may be generalizable, specifically with regard to the direct sales consumption context in Malaysia and other South-East Asian countries. In fact, Ferber (1977) suggested there is no place for probability samples in basic or applied consumer research, and quota samples are advantageous as they offer the researcher better insights into the background variables that are suitable for quota characteristics. This specific knowledge acquired by the researcher is essential in assessing the generalizability of one’s research findings (Lynch 1999). A second pertinent weakness concerns the cross-sectional research design used. Longitudinal research is required to capture fully the dynamic nature of customer post-consumption. Still, efforts to test the present model through sagacious longitudinal research would require an enormous amount of sustained cooperation by consumers serving as key informants over time. Sample attrition through time could be considerable.

It may be fruitful for future research to replicate and validate all or parts of the current model, in order to determine the robustness of the findings in other consumption contexts. First and foremost, comparative cross-national studies are essential in order to examine the generalizability of the model. This research direction appears to be potentially fertile because direct selling is considered a ‘universal’ phenomenon; apparently, most top direct selling companies, such as Tupperware, Avon, Amway, and Mary Kay, have global business operations. In addition, our evidence of the plausibility of the two new links—perceived value to relational commitment and perceived value to perceived equity—would require validation in other consumer industries, not least conventional in-store retailing and financial services. It is also deemed particularly important that future study assesses whether the focal high touch context was predictive of the role of relational commitment as an alternative to overall satisfaction in increasing consumers’ behavioral intentions. And the allied issue of whether the concept of relational commitment, rather than direct seller satisfaction, reflects the nature of relationship rich consumption environments generally, could be fruitfully investigated in future study. On the other hand, the current model might be extended usefully in further research work through the inclusion of behavioral loyalty as a consequence of behavioral intentions (Mittal et al. 1999).

REFERENCES


