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# The Use of Technology in Direct-Selling Marketing Channels: Digital Avenues for Dynamic Growth

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Technology is transforming industries, challenging traditional marketing channels, and providing digital avenues for dynamic growth. The popularity of digital platforms has disrupted traditional distribution channels, increased reach of social networks, and changed the way people interact. This research examines how advanced technology is enabling direct sellers to create and maintain relationships. It investigates the multidimensional aspect of technology use and advances the proposition that it acts as a strategic success factor for customer relationship performance specifically within the peer-guided marketplace of direct selling. Using a survey of 114 direct sellers, findings suggest that, in general, technology use does enhance direct sellers' ability to create and maintain consumer relationships, especially among less-experienced salespeople.

*Keywords:* *customer relationship management, digital business model, digital platform, direct selling, technology use, United States*

Technology is transforming industries, challenging traditional marketing channels, and providing digital avenues for dynamic growth (Crittenden et al., 2017). Companies are seizing the opportunity to share resources and increase profits from convenient transactions among digitally connected marketplaces. Evident in high-growth industries often associated with the sharing economy, digital-matching firms, or access-based business models, digitally connected marketplaces are becoming a prime example of the modern economic distribution method where underutilized resources (e.g., networks and skills) have been "patched together for various jobs and skills" (Roush, 2016) as well as economic advantage.

For example, the *sharing economy*, consisting of companies such as Craigslist or Freecycle (Telles, 2016), can be defined as communities of people sharing products or services through peer-to-peer digitally connected marketplaces. *Digital-matching firms* include companies such as Airbnb or Uber and are defined as companies that provide a digital platform to facilitate the matching of peer service providers, using their personal assets, with consumers (Telles, 2016).

The fervent use of technology or digital platforms is not unique to the sharing economy or digital-matching firms. The use of technology is similarly fueling an evolution in the direct-selling model to maintain pace with the times.

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Although the direct-selling industry's business models operate in a somewhat parallel nature regarding innovative digital models, it is important to note that the sharing economy or digital-matching firms function as an access business model, providing peer-to-peer, that is consumer-to-consumer (C-to-C), access to products and services. In contrast, direct selling remains a business-to-consumer (B-to-C) business model that mainly provides ownership that is facilitated through a peer network.

The popularity of digital platforms has disrupted traditional distribution channels, increased reach of social networks, and changed the way people interact (O. C. Ferrell et al., 2017). Traditional business models, such as direct-selling companies performing direct-selling functions, have been increasing the use of digital technology to reach consumers. *Direct selling*, an ownership-based model, is a channel where companies exchange products and services with consumers through micro-entrepreneurs such as nonsalaried and independent contractors (Direct Selling Association, n.d.; Peterson & Albaum, 2007). Well-known companies such as Rodan and Fields, Amway, and AdvoCare help to comprise this channel.

Direct-selling companies generate over US$36 billion per year in the United States (U.S.). Some 20 million people in the U.S. are involved in these organizations as independent contractors such as direct sellers and consultants (Direct Selling Association, 2016). In addition, direct-selling companies continue to experience a steady increase in the number of direct-selling representatives.

Several factors are contributing to industry growth. Societal transformation during the economic recession of 2008 to 2009 led to an increase in entrepreneurial endeavors and a shifting of a work-life balance, with more workers opting for greater control of their income potential and their work environment. Most direct sellers (i.e., independent contractors) engage peers on a part-time basis when and where they decide to connect. Moreover, direct sellers recognize the low-barriers to becoming a small business owner or micro-entrepreneur, the additional income potential, and the autonomous work environment.

Involvement in direct selling continues to have a strong appeal, with 78% of direct sellers reporting that the opportunity meets or exceeds their expectations (Direct Selling Association, 2014). Due to the impact of the direct-selling industry on micro-entrepreneurs and the economy, it is important to further explore its evolution.

Although there are many similarities in the sharing-economy business model providing access based on applications (apps) and direct-selling companies, there are also many differences. Consistent with the sharing-economy business model, technology fuels connectivity of networks enabling both direct sellers and consumers to access each other as well as an exclusive line of products. In contrast, although the sharing economy provides access to services, direct selling provides ownership of products. Independent-contract workers become peer-connected sellers that expand the scope of the direct-selling company's distribution system and increase peer-to-peer interactions.

Direct-selling companies "co-opt the social relations" between people (i.e., independent contractors and consumers) involved in communications or product exchanges (Frenzen & Davis, 1990; Taylor, 1978) and flourish from activity within social networks (Frenzen & Davis, 1990). The network interactions ultimately foster brand advocates that help to create participation in economic exchanges. Using the speed and quality of information flow through technology (Speier & Venkatesh, 2002), most direct-selling companies depend on social networks (cf. L. Ferrell & Ferrell, 2012) to further advance lead generation, relationship development, and order processing (cf. Agnihotri et al., 2012; Taylor, 1978).

The purpose of this research is to examine how digital technology is enabling direct sellers to create and maintain relationships. There are three research questions:

- Is technology changing direct selling to help keep this model competitive?
- Does the use of technology increase trust and satisfaction among consumers or prospective direct sellers?
- What role does technology play in the efficiency and effectiveness of a direct seller (e.g., recruiting direct sellers, retaining direct sellers, recruiting consumers, and / or retaining consumers)?

The current research will make several contributions. We investigate the use of technology among direct sellers. In turn, results allow discoveries that help us to better understand the similarities and differences of the sharing economy and direct selling related to the use of their technology. Finally, we provide further research avenues that could increase our knowledge of the overarching commonalities between the direct-selling industry and the sharing economy. Our conceptual model is presented as Figure 1.

## CONCEPTUAL FRAMEWORK OF DIRECT-SELLING COMPANIES

Direct selling is cultivated through relationships and provides customer-centric marketing opportunities. *Customer-centric marketing* refers to strategically tailoring products or services to the needs and wants of customers (Sheth et al., 2000), that in turn provides support for relational efforts. Channel relationships and marketing strategy represent core organizational

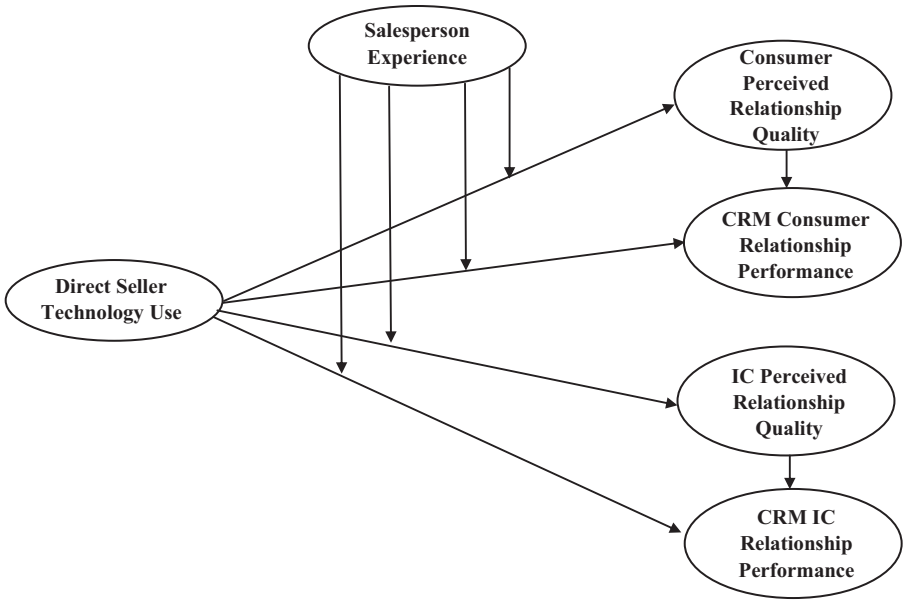


FIGURE 1 Conceptual model. *Note*: CRM refers to customer relationship management; IC indicates independent contractor.

capabilities in producing a competitive advantage (e.g., Kabadayi et al., 2007; Wang et al., 2013). Direct sellers may use technology but sell products based on ownership that is supplied by a direct-selling firm.

Firms that realize success in managing relationships and maintaining satisfied channel members reduce potential withdrawal from the relationship through the increase of commitment and trust (R. M. Morgan & Hunt, 1994) among exchange partners. Successful relationship marketing is imperative as direct sellers are in the unique position of representing three critical roles within the marketing channel: user / consumer, micro-entrepreneur, and direct-selling company representative. Within these three direct-selling capacities, adoption of advanced technology serves as a strategic resource for expanding breadth and depth of long-term relationships (L. Ferrell et al. 2010). Although access-based firms such as Airbnb and TaskRabbit connect consumers and providers through an app, direct selling traditionally makes connections through person-to-person contacts. Technology now facilitates the creation of virtual relationships among direct sellers and consumers.

Technology has expanded the opportunity for direct sellers to engage with consumers beyond personal interactions. Direct selling now thrives on the use of technology through online store websites, mobile devices, and social networks. Direct sellers are champions of the product and often engage in internal consumption as well as selling the product to other consumers. Therefore, the use of these technologies breeds established C-to-C brand communities, where communications are highly valued (Weiss et al., 2008), an advantage not evident in business-to-business (B-to-B) or traditional B-to-C marketing channels. Direct sellers rely on a combination of methods to include company supported as well as personal use technology to enhance communications and sales strategies.

Relationship marketing theory posits that customer behavior is based on the strength of relationships between a firm and its consumers (e.g., Dwyer et al., 1987) and is based upon dyadic interactions within a network of relationships (Achrol, 1997). For example, buyer–seller communication increases understanding (Doney & Cannon, 1997; Smith & Barclay, 1997) and generates trust (Anderson & Narus, 1990). Interpersonal communication (Metcalf et al., 1992) between buyers and sellers allows for frequent, personalized attention thereby advancing customer relationships.

The strength of customer relationships increases the potential for a customer to remain in the relationship and encourages cooperation between parties (R. M. Morgan & Hunt, 1994), but the success of long-term relationships is dependent upon them being embedded in a network (Achrol, 1997). Considering the function of direct salespeople, strong relationships and communication between sellers and buyers are critical as opportunities and organizational growth are built upon relationships with people in networks.

## THE ROLE OF TECHNOLOGY IN INNOVATIVE BUSINESS MODELS

Prior research examines the role of various technologies as they relate to individual and organizational performance. There are two streams of research that predominantly exist within technology literature. The

first stream focuses on technology *adoption*, examining antecedents that encourage employees to adopt technology. Although fewer studies examine the *actual use* of technology, this second stream investigates the outcomes of technology use for employees and firms. Technology is a central component in the process of decision making (Day, 1994) and the focus of this study.

### Technology Use

The technology-use construct has previously been identified and measured with a variety of approaches and results. Within the marketing literature, several authors contribute to research by focusing on both antecedents and outcomes of technology use (e.g., Hunter & Perreault, 2006; Jelinek et al., 2006). Furthermore, many authors find significant relationships between technology use, customer relationship management (Hunter & Perreault, 2006), and salesperson performance only when moderating (e.g., Ahearne et al., 2005; Sundaram et al., 2007) and mediating (e.g., Park et al., 2010; Rapp et al., 2010; Trainor et al., 2014) elements are present.

Interestingly, some authors have found varied results. Speier and Venkatesh (2002) examined adoption and failure of sales force automation technology. Results indicated some relationships between technology fit with both subjective (e.g., organizational commitment and / or job satisfaction) and objective (e.g., turnover and / or sales performance) outcomes. In addition, Ahearne et al. (2004) discovered that customer relationship management technology use initially has a positive impact on sales performance but observes diminishing returns over time resulting in reduced sales performance.

Alternatively, some authors have found no existing association between technology use and salesperson performance (Avlonitis & Panagopoulos, 2005) or customer relationship quality (Yim et al., 2004). The continued study of technology use is essential as mixed results appear dependent upon the environment.

## SALES PERFORMANCE AND TECHNOLOGY

Previous research surrounding the effectiveness of salespeople focuses predominantly on individuals in the field of personal selling versus direct sellers within direct-selling companies. Current themes of highly developed sales research seek to understand relationships between salespeople, technology, and buyers or buying firms (e.g., Bradford et al., 2009). For example, both empirical and conceptual sales research explores the impact of social media (e.g., Marshall et al., 2012; Rodriguez et al., 2012), software such as customer relationship management or enterprise resource planning (e.g., Ahearne et al., 2005; Ahearne et al., 2008; Hunter & Perreault, 2006; Johnson & Bharadwaj, 2005; Speier & Venkatesh, 2002; Sundaram et al., 2007), and behaviors (e.g., Weitz et al., 1986) on various measures of efficiency, effectiveness, and customer relationship performance of salespeople.

Research within the direct-selling context is limited. Conceptual and empirical studies, however, have examined purchasing behavior and market embeddedness (e.g., Frenzen & Davis, 1990), technology use (e.g., L. Ferrell et al., 2010; L. Ferrell & Ferrell, 2012), trust (e.g., Young & Albaum, 2003), and turnover (e.g., Wotruba & Tyagi, 1991). Given the differences in motivating behavior to pursue a position as a direct seller, previous results are not generalizable to the context of a direct seller.

Communicating through the exchange of information is an imperative function for managing buyer–seller relationships (R. M. Morgan & Hunt, 1994) and reaching across the borders of peer-to-peer networks. De Wulf et al. (2001) found that interpersonal communication led customers to perceive that sellers were investing in the relationship. When customers perceive the seller as investing time and effort, they are encouraged to remain in the relationship and reciprocate the behavior (Smith & Barclay, 1997). Technology use provides the capacity to support the seller's investment through efficient and effective flow of information (Agnihotri et al., 2009; Speier & Venkatesh, 2002) to enhance existing relationships and further develop potential relationships.

Considering the substantial technological advances and surge in direct selling over the last five years, there is a need to better understand the evolution of direct-selling relationships within the sharing economy by examining the impact of technology. Organizational job roles and requirements among professional salespeople and direct sellers are inherently differently.

For example, professional sellers are hired to perform specific tasks delegated by their respective company. The use of a specific technology is often mandated by the employer. Alternatively, direct sellers work autonomously by representing a direct-selling company, acting ultimately to their own benefit by expanding their customer relationships and increasing their income. Direct sellers determine what technology to use and when to use it in the course of connecting to peer networks. Previous research results are valuable but not applicable within the direct-selling context or this evolving business model.

It seems to be necessary for salespeople to leverage information technology to flexibly manage customer relationships (e.g., Hunter & Perreault, 2006; Jayachandran et al., 2005; Rapp et al., 2010) through communicating clearly (Jelinek et al., 2006), accurately (Agnihotri et al., 2009), and more promptly (Ahearne et al., 2005; Honeycutt, 2005; Hunter & Perreault, 2006). Sales force automation and customer relationship management technology enhance the efficiency and effectiveness of employees (e.g., Ahearne et al., 2007; Hair et al., 2009; Kim & Kim, 2009), increasing their ability to manage customer relationships.

Moreover, technology use acts as a catalyst to assist salespeople in working smarter through more effective communications as in systematically transferring information (Agnihotri et al., 2009) and working harder through greater effort to reach the expanded network by connecting with more people, using more efficient processes, and increasing the quantity of communications (Rapp et al., 2008). For example, the sharing of meaningful and timely information (Anderson & Narus, 1990) can encourage engagement among social network members and achieve greater trust and connectivity among the sharing economy.

Technology research has examined the role of two central technologies used predominantly by salespeople: customer relationship management technology and sales force automation technology. *Customer relationship management technology* has been defined as "the degree to which firms use supporting information technology to manage customer relationships" (Chang et al., 2010, p. 850). Hunter and Perreault (2006) define *sales technology* as technologies facilitating the performance of sales tasks. Within the context of direct sellers, direct-selling company-sponsored technology (e.g., online ordering websites) and direct-seller self-guided technology (e.g., social and / or mobile) are examples of these definitions and can provide a foundation for examining technology use.

The current study suggests that technology use hinges upon the degree that it is used collectively for connecting customer and independent-contractor (i.e., direct seller) networks. Adopted for this study, the system use reflects three elements: (a) frequency, (b) routinization, and (c) infusion (Sundaram et al., 2007). *Frequency* represents the extent that the technology is used (Sundaram et al., 2007). *Routinization* captures the adoption of technology into the routine of decision making (Sundaram et al., 2007). *Infusion* is determined by the level of use maximized to perform tasks (Sundaram et al., 2007). Similar measures of use have also been examined by other studies that link technology use to performance (Ahearne et al., 2004; Ko & Dennis, 2004).

It is necessary for technology to become an embedded component within the role of modern direct selling because communication is crucial and technology facilitates selling behaviors (Rapp et al., 2008). Direct selling is highly dependent upon the independent-contractor's ability to communicate with people and establish relationships.

Therefore, we posit the following:

Hypothesis 1a: Direct seller's use (frequency, routinization, and infusion) of technology will have a positive effect on enhancing relationship quality (trust and satisfaction) among consumers.

Hypothesis 1b: Direct seller's use (frequency, routinization, and infusion) of technology will have a positive effect on enhancing relationship quality (trust and satisfaction) among sponsored independent contractors.

Hypothesis 2a: Direct seller's use (frequency, routinization, and infusion) of technology will have a positive effect on relationship management performance (e.g., retention, acquisition) among consumers.

Hypothesis 2b: Direct seller's use (frequency, routinization, and infusion) of technology will have a positive effect on relationship management performance (e.g., retention, acquisition) among sponsored independent contractors.

## THE MODERATING ROLE OF SALESPERSON EXPERIENCE

Individual characteristics, such as experience, can impact the salesperson's performance in relationship to technology use (Jones et al., 2002). Experience (e.g., length of time in the current job and / or length of time within the profession) has been recognized as a significant contributing factor for performance (McDaniel et al., 1988) in general and among salespeople (Ko & Dennis, 2004). The more-experienced salesperson should grasp knowledge to facilitate sales behaviors (Park et al., 2010; Vinchur et al., 1998). Therefore, it is anticipated that direct salespeople with greater experience should be able to perform customer exchanges with an increased depth and breadth of interactions. On the contrary, less-experienced direct salespeople will be less likely to capitalize on "organizational, contextual and domain knowledge" (Ko & Dennis, 2004, p. 313) in the integration of technology in network communication exchanges.

Matsuo and Kusumi (2002) and Rapp et al. (2006) suggest that researchers continue to investigate the moderating relationship of experience on salesperson performance. Based upon these arguments, we posit that more-experienced salespeople will be more capable of using and assimilating knowledge in communication efforts with customer and independent-contractor networks.

Hypothesis 3a: Experience has a positive moderating influence on the relationship between technology use and perceived relationship quality by consumers.

Hypothesis 3b: Experience has a positive moderating influence on the relationship between

technology use and perceived relationship quality by sponsored independent contractors.

Hypothesis 4a: Experience has a positive moderating influence on the relationship between technology use and consumers.

Hypothesis 4b: Experience has a positive moderating influence on the relationship between technology use and sponsored independent-contractor relationship management.

## THE ROLE OF RELATIONSHIP QUALITY ON SALES PERFORMANCE

There are few studies examining the impact of perceived relationship quality on salesperson performance (Park et al., 2010). In addition, previous research results are conflicting. Although Crosby et al. (1990) hypothesized a relationship between relationship quality and sales effectiveness, results did not support the proposition. However, other studies support the notion that relationship quality has a positive impact on salesperson productivity (Park & Deitz, 2006; Park et al., 2010).

Ultimately, salesperson job performance is essential to firm success (e.g., Jaramillo et al., 2007; Sharma, 2000). Due to the critical nature of direct seller job performance as a small business owner and representative of the direct-selling company, it is important to continue exploration of the path between customer relationship quality and salesperson performance.

Hypothesis 5a: Perceived customer relationship quality has a positive effect on customer relationship management performance of consumers.

Hypothesis 5b: Perceived customer relationship quality has a positive effect on customer relationship management performance of sponsored independent contractors.

## METHOD

### Sampling and Data Collection

To examine the hypotheses, data was collected from independent contractors representing a variety of direct-selling companies. A panel of Qualtrics participants was used in data collection efforts as Qualtrics maintains a panel of survey participants. Qualtrics provided access to independent contractors representing the direct-selling industry for the completion of the survey.

Respondents were required to be over the age of 18 years and represent a direct-selling company as an independent contractor within the U.S. In total, data collection reflects the responses of 114 participants. The average participant is 38 years old and the respondent group is comprised of 69% women and 31% men.

### Selection of Measurement Scales

Measurement scales used in this study were adapted from prior studies to fit the context of the hypotheses. Technology use was adapted from Sundaram et al. (2007) and measured as a second-order construct consisting of frequency, routinization, and infusion that represented direct-selling company-directed technology use, direct-seller-initiated mobile technology use, and direct-seller-initiated social technology use.

Experience was measured using two items adapted from Spiro and Weitz (1990). Customer and sponsored independent-contractor perceived relationship quality were measured using a multidimensional perspective of customer perceived relationship quality that includes trust and satisfaction.

Satisfaction was measured with the five-item scale by Dywer and Oh (1987). Trust was measured using the eight-item scale from Doney and Cannon (1997). Customer and sponsored independent-contractor relationship management performance was measured using the seven-item scale by N. A. Morgan et al. (2009).

## ANALYSIS AND RESULTS

### Analytic Procedure

The measurement model was validated using SmartPLS software (Ringle et al., 2015). Initially, outer loadings of each construct were examined. Based upon previous suggestions, any items lower than .7 were considered for elimination (Bagozzi, 1980; Hair et al., 2010).

A minimum of three items were retained for each construct with the exception of experience that was categorically measured using two items. In regards to convergent validity, all indicators were significant and loaded on the appropriate constructs. Cronbach's alphas and composite reliabilities were $> .70$ and average variance extracted was .50 or $> .50$. Therefore, the results meet the established benchmarks (Fornell & Larcker, 1981) that provide evidence of convergent validity and internal consistency reliability (see Table 1).

Using HTMT results and confidence intervals to examine discriminant validity (Hair et al., 2017), the constructs are distinguishable from each other (Anderson & Gerbing, 1988; Fornell & Larcker, 1981). Therefore, after examining appropriate ratios (Henseler et al., 2015) discriminant validity was confirmed.

TABLE 1
Measurement Reliability and Validity

| | | | Convergent validity | Internal consistency reliability | |
|---|---|---|---|---|---|
| Construct | *Mean* | *SD* | AVE | Composite reliability | Cronbach's alpha |
| Technology use | 0.99 | 0.00 | .50 | .94 | .94 |
| Consumer perceived relationship quality | 0.33 | 0.10 | .67 | .96 | .95 |
| IC perceived relationship quality | 0.31 | 0.09 | .62 | .95 | .94 |
| CRM consumer relationship performance | 0.42 | 0.07 | .78 | .96 | .95 |
| CRM IC relationship performance | 0.37 | 0.08 | .80 | .96 | .96 |

*Note*: CRM refers to customer relationship management; IC indicates independent contractor.
AVE indicates average variance extracted.

## Hypothesis Testing

The SmartPLS 3 software (Ringle et al., 2015) was also used in accessing the structural model. Figure 2 and Table 2 provide concise information regarding the hypothesized relationships.

Hypotheses 1a, 1b, 2a, and 2b propose that higher levels of technology use will have a positive relationship with customer / independent-contractor perceived relationship quality (trust, satisfaction) and relationship performance (acquisition, retention). The path relationships between technology and customer perceived relationship quality ($\beta = .49$, $p < .01$), independent-contractor perceived relationship quality ($\beta = .51$, $p < .01$), customer relationship management consumer relationship performance ($\beta = .33$, $p < .01$), and customer relationship management independent-contractor relationship performance ($\beta = .20$, $p < .05$) are positive and significant. Therefore, the hypothesized relationships are supported.

Hypotheses 3a, 3b, 4a, and 4b posit that experience (within the current direct-selling position and previous sales experience) of the direct salesperson will positively moderate the relationship between the use of technology and customer relationship quality and performance outcomes. Contrary to the prediction, the moderated relationships in regards to independent-contractor relationship quality ($p > .10$), customer relationship management consumer relationship performance ($p > .10$), and customer relationship management independent-contractor relationship performance ($p > .10$) are not significant.

Alternatively, Hypothesis 3a posits that experience will have a positive impact on the relationship between technology and consumer perceived relationship quality. Although the moderated relationship is significant ($p < .05$), the path ($\beta = -0.183$) is negative and inconsistent with the direction of the original hypothesis.

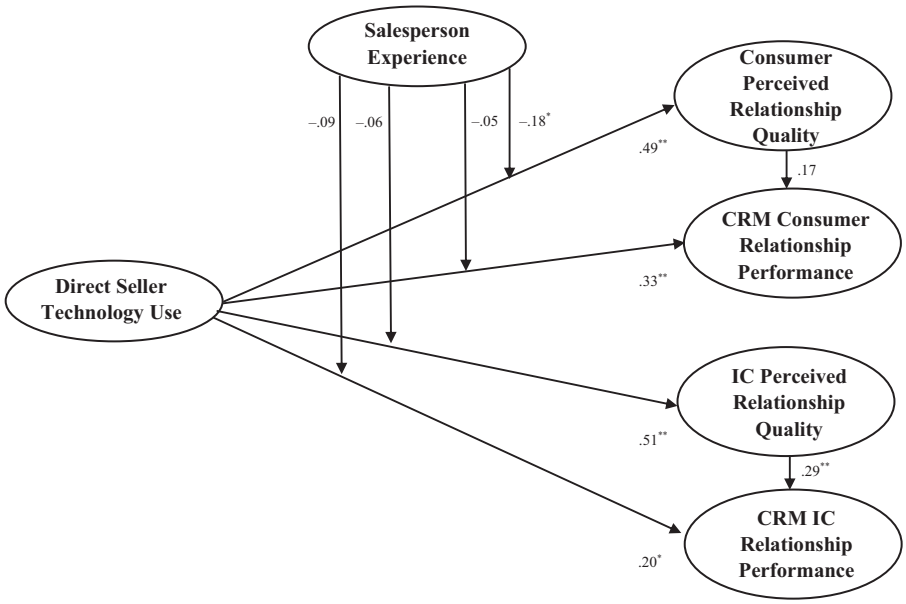


FIGURE 2 Conceptual model results. *Note*: The numbers represent path coefficients; CRM refers to customer relationship management; IC indicates independent contractor; $^{*}p < .05$; $^{**}p < .01$.

TABLE 2
Hypothesized Relationships

| Hypothesis | Path relationship | Path coefficient | *t*-value | *p*-value | Result |
|---|---|---|---|---|---|
| Hypothesis 1a | Technology use > Consumer perceived relationship quality | 0.490 | 5.813 | .000 | Accepted |
| Hypothesis 1b | Technology use > IC perceived relationship quality | 0.513 | 6.258 | .000 | Accepted |
| Hypothesis 2a | Technology use > CRM consumer relationship performance | 0.329 | 2.788 | .003 | Accepted |
| Hypothesis 2b | Technology use > CRM IC relationship performance | 0.197 | 1.676 | .047 | Accepted |
| Hypothesis 3a | ExpTech1 > Consumer perceived relationship quality | − 0.183 | 1.827 | .034 | Rejected |
| Hypothesis 3b | ExpTech3 > IC perceived relationship quality | − 0.064 | 0.670 | .251 | Rejected |
| Hypothesis 4a | ExpTech2 > CRM consumer relationship performance | − 0.050 | 0.654 | .257 | Rejected |
| Hypothesis 4b | ExpTech4 > CRM IC relationship performance | − 0.094 | 1.066 | .143 | Rejected |
| Hypothesis 5a | Consumer perceived relationship quality > CRM consumer relationship performance | 0.172 | 1.226 | .110 | Rejected |
| Hypothesis 5b | IC perceived relationship quality > CRM IC relationship performance | 0.294 | 2.392 | .008 | Accepted |

*Note*: CRM refers to customer relationship management; IC indicates independent contractor.

Hypotheses 5a and 5b propose that the perceived consumer relationship quality will positively impact customer relationship management performance among consumers and independent contractors. Although Hypothesis 5a is not significant ($p > .10$), Hypothesis 5b is positive and significant ($\beta = .294$, $p < .01$).

The impact of exogenous constructs on endogenous constructs is shown in Table 3 (Hair et al., 2017). The impact of technology use on customer perceived relationship quality and customer relationship performance was significant and meaningful. Upon reviewing the $R^2$, technology use explains 32% of the variance of customer perceived relationship quality, 28% of the variance of independent-contractor perceived relationship quality, 39% of the variance of customer relationship management consumer relationship performance, and 34% of the variance of customer relationship management independent-contractor relationship performance.

Blindfolding was used to estimate Stone-Geisser's $Q^2$ value (Geisser, 1974; Hair et al., 2017). Stone-Geisser's $Q^2$ is a measure of external validity to analyze the structural model predictions. Positive values indicate predictive relevance for the endogenous constructs (Hair et al., 2017). Following the suggested values (Hair et al., 2017), it was evident that good predictive relevance was achieved.

TABLE 3
Explanatory Power of the PLS-SEM Model

| Endogenous constructs | $R^2$ |
|---|---|
| Consumer perceived relationship quality | .315 |
| IC perceived relationship quality | .284 |
| CRM consumer relationship performance | .387 |
| CRM independent-contractor relationship performance | .343 |

*Note*: CRM refers to customer relationship management; IC indicates independent contractor.

## DISCUSSION

Unlike most prior research, this study conceptualized technology use to collectively include various technologies. Therefore, technology use as measured in this study encompasses more than a single solution (i.e., customer relationship management and sales force automation).

Building upon relationship marketing theory, the use of technology by direct sellers was explored and tested. Research discovered that through technology many direct-selling companies have evolved and are thriving in the flourishing distribution marketplace that parallels the sharing-economy business model.

### Theoretical Implications

The results of our study are threefold. First, this study expands upon current sales and marketing channels research to examine the evolving direct-selling industry's peer-to-peer distribution marketplace and how it parallels the access-based (i.e., sharing-economy) business model. Results demonstrate that technology is driving the direct-selling company model further into the access-based business model of the sharing economy as connecting peer-to-peer exchanges increases the efficiency and effectiveness of direct sellers in reaching consumers.

Salespeople admit that the main reason for using technology is to enhance efficiency and effectiveness (Hair et al., 2009). Direct salespeople also echoed the previous research findings where 51% said technology made a *positive impact* and 36% said technology made a *very positive impact* in their job role (Direct Selling Association, 2016).

Direct-selling companies and respective independent contractors benefit from social networks and expanded communication efforts permitted through the use of technology. It is evident that direct selling depends upon technology and relationships to be successful and thrives from activity within the sharing economy.

Second, experience does impact technology use in limited context but not in the manner originally anticipated. Although experience does not moderate the relationship of technology and independent-contractor perceived relationship quality, customer relationship management performance, or independent-contractor relationship management performance, experience does negatively impact the strength of technology use and customer perceived relationship quality.

For example, as the level of a direct sales representative increases, the impact of technology use and customer perceived relationship quality decreases. One explanation could be that when direct sellers gain more experience, their response to building trust and satisfaction with consumers is developed through alternative learned processes and capabilities. Experience could provide direct sellers with the capacity to become more adaptive in responding to the needs and wants of consumers outside of connecting to peer groups through technology, thereby reducing the need for technology use in developing relationships.

Third, according to our study results overall technology use has a positive impact on consumer / sponsored independent-contractor perceived relationship quality and customer relationship performance. When evaluating relationship quality, results indicate that customer trust and satisfaction are not a requirement for increasing customer relationship management performance, but does impact relationship management performance among independent contractors.

Although additional direct-selling studies should also consider examining this relationship, it appears that consumers and independent contractors are inspired by different behaviors of the direct salesperson. Consumers connecting with independent contractors through technology might appreciate a more transactional versus emotional relationship (Eckhardt & Bardhi, 2015), whereas a new independent-contractor's participation in the business relationship might be influenced by the feeling of trust and satisfaction from the lead direct-selling company representative as they have greater upfront investment.

### Managerial Implications

Pervasive technology use by people necessitates an even more thorough understanding of how direct selling is similar to, or different from, technology use in the sharing-economy marketing channel. The purpose of this research was to examine how advanced technology is changing the traditional direct-selling marketing channel. Results provide insight that technology use in direct selling is parallel to technology use in the sharing-economy marketing channel.

The use of technology is inextricably linked to connecting direct sellers to peer networks that increase a customer's perceived relationship quality, as well as the performance of direct sellers. If direct sellers reduce or discontinue their connectivity to consumer networks through technology, based upon this study's results we believe that it is highly probable that the efficiency and effectiveness of their sales efforts will decline.

Considering the direct-selling industry's growth through using online websites or digital apps, it appears favorable for direct-selling companies to encourage the use of technology among its independent contractors. Direct-selling organizations and the leaders of direct-selling teams should advocate for technology adoption among their independent contractors that allows connection to expanded networks, thereby linking them with prosperous access-based firms (i.e., the sharing economy) for enhanced performance.

### Limitations

The complex hierarchical construct—technology use—focused collectively on three dimensions of technology use (i.e., frequency, routinization, and infusion). Technology use was based upon two separate categories: direct-selling company-sponsored technology use (e.g., online ordering websites) and direct seller self-guided technology use (e.g., social media technology use and mobile technology use). Although this research is a contribution to the literature, it would be beneficial for future studies to specifically consider the impact of each category on customer or salesperson outcomes.

In addition, cross-sectional data limits the results to reflect a single point in time. Therefore, studies could examine the various impacts of technology throughout the lifecycle of technology becoming imbedded into the work tasks of a direct seller.

Furthermore, this study uses self-reported measures to answer survey items. It would be advantageous for future studies to include dyadic data to capture the perspective of both the direct seller and the customer. Limitations were beyond the scope of the current study but provide opportunities for future research.

## CONCLUSION

This research confirms the importance and effectiveness of technology use in advancing direct selling as a highly competitive marketing channel. Many direct sellers are evolving into technology-enhanced relationships based on website support as web-app connections that keep customers close. Although it seems intuitive that advanced technology will continue to improve relationships among direct sellers and consumers, the diverse use of technology by direct sellers and consumers might lead to information overload and inhibit the direct-selling business.

Furthermore, it is important to remember that direct selling is differentiated from the sharing economy because most products sold through the ownership-based marketplace such as cosmetics, nutritional supplements, or jewelry are predominantly ownership-based versus access-based products. Consumers participating in the sharing-economy marketplace, based upon access, potentially respond in a different manner to sales techniques and behaviors than in direct selling based upon ownership.

For example, Harding and Schenkel (2017) demonstrate that consumers in an access-based versus ownership-based marketplace are influenced differently by appeals that reflect the brand's personality. Therefore, additional moderating and mediating variables could potentially impact the direct seller's engagement as more advanced technology is used in direct selling.

There is value in further understanding behavioral components of direct selling within this business model. Future studies should be considered as consumer attitudes toward ownership in the direct-selling marketplace potentially differ from those of consumers who obtain similar products through access-based marketplaces.

The current study does establish the important role of technology use in connecting sellers and consumers. Technology provides an efficient and effective communication method between independent consultants and consumers. As the use of technology continues to evolve, it is imperative that direct-selling companies and independent consultants understand behaviors and these essential platforms for cultivating relationships and improving performance.

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