

## Moderating Effects of Customer Lifetime Value and Referral Value on Customer Service of Frontline Employees for Customer and Organizational Satisfaction: A Comparative Analysis

Dhameeth, G.D<sup>1</sup>, Dissanayake, D.M.R<sup>2</sup>, Gagnon, D<sup>3</sup>. & Shannon, C<sup>4</sup>.

### Abstract

The increasing magnitude of the competition in the marketplace, locally and globally, has influenced many organizations to revamp their strategy for reaching, acquiring, maintaining, and retaining customers to enhance future survival and growth. In this context, companies are at a juncture for making investment decisions on their Customer Relationship Marketing (CRM) to leverage marketing efficiency. In the aforementioned holistic exercise, Customer Lifetime Value (CLV) and Customer Referral Value (CRV) play a significant role in seeing the future cash flow value of customers. Despite understanding the importance of this strategy at the senior level in organizations, it is apparent that frontline employees, who have a high level of customer interaction at the operational level, have not been able to conceive and apply the above two orientations when serving their customers. As a result, many companies have experienced downturns in aspects, such as loyal and satisfied customers, turnover, market share, inventory management, profits, and share values. Data suggest that Customer Service Orientation (COS) is a key variable that influences Customer and Organizational Satisfaction regardless of the industry and that CLV and CRV do not significantly influence Customer and Organizational Satisfaction. However, when compared to the financial industry, sales staff training investments on CLV and CRV orientations pay back high returns in the retail industry.

**Key words:** customer service, customer satisfaction, customer lifetime value, customer referral value, and customer relationship marketing

### 1. Introduction

Improving the quality of customer service to provide a memorable superior service has been the focus of marketing managers of today's businesses (Keiningham, T. L., Aksoy, L., and Bejou, D. 2006). Superior customer service will increase customer retention over time and will eventually yield future cash flow through word of mouth (WOM). Several studies in the marketing literature have shown that factors, such as leadership, pay, stress level, service environment, customer engagement, product breadth, technology, and orientation (marketing and customer lifetime value), moderate the relationship between frontline employees' service and customer satisfaction that ultimately leads to organizational achievement (Kamakura, W., and et al. 2005; Rapp, A., and Baker, T. L. 2017; Johnson, M. D., Herrmann, A., and Huber, F. 2006; Malshe, A., and Agarwal, M. K. 2015; Keiningham, T. L., Aksoy, L., and Bejou, D. 2006; Baesens, B., et al. 2004; Schmitt, P., Skiera, B., and Van den Bulte, C., 2011; Bialogorsky, E., Gerstner, E., and Libai, B. 2001; Kumar, V., Petersen, J. A., and Leone, R. P. 2010). However, past studies have not been successful in establishing how customer referral value would moderate the above relationship. In this article, we define a referral as a new customer entering into a transaction with a firm and attributing the motivation for the transaction to a current customer. We summarize the key contributions and implications from these prior studies in comparison with the contributions and implications of the current study in Table 1. The challenge that practitioners confront today is to understand how well the orientations of customer lifetime value (CLV) and customer referral value (CRV) are taken into consideration when frontline service staff provide customer service with the expectation of providing a memorable service to gain potential future cash flow for organization success. Given the above situation and the interest in developing a better understanding of this context, it is necessary for research in marketing to address the following two research questions:

<sup>1</sup> Associate Professor of Business, Department of Economics and Management, Wells College, Aurora, New York, USA E-mail: [gdhameeth@wells.edu](mailto:gdhameeth@wells.edu)

<sup>2</sup> Senior Lecturer – Marketing, Faculty of Marketing and Management, University of Kelaniya, Sri Lanka

<sup>3</sup> Professor of Psychology, Department of Psychology, Wells College, Aurora, New York, USA

<sup>4</sup> Professor of Business Data Analytics, 4|John E. Simon School of Business, Maryville University, Missouri, USA

Q1: Do frontline service staff consider CLV at the time of service encounters for the customer and organizational satisfaction and eventual future cash flow?

Q2: Do frontline service staff consider CRV at the time of service encounters for the customer and organizational satisfaction and eventual future cash flow?

We answered the above questions in the following way: We captured all the dimensions of key variables (Customer Service, CLV, CRV, and Customer Satisfaction) in developing our questionnaire. To collect data, we administered an online survey through Microsoft Forms Pro using a random sample drawn from a variety of international regions including Asia, Europe, North America, South America, Australia, Africa, and Antarctica, and from the following industries: a) financial, b) fast moving consumer goods (retail) and c) telecommunication.

## 2. Literature Review

A literature review was performed under five sections to capture critical grounded theories and concepts that support the crafting of a theoretical frame. Eventually, the conceptual framework was used to build the hypotheses to test. These key sections of the literature review were customer relationship management (CRM), customer service, customer satisfaction, customer lifetime value (CLV), and customer referral value (CRV).

### 2.1 Customer Relationship Management (CRM)

Customer relationship management (CRM) is typically encapsulated by tracking individual customer behavior over time and using this knowledge to articulate solutions precisely tailored to the customer's needs. However, in the context of choice, it includes designing longitudinal models of choice over organizational products. Organizations could increase their revenue by using these models prescriptively (Kamakura, W., and et al. 2005). CRM is a process of collecting and analyzing a firm's information regarding customer interactions to enhance the value of the client to the firm. Companies, in return, exploit such information by designing strategies uniquely targeted to consumer needs. The process above enhances loyalty and customer switching costs as information on consumer preferences which in turn bestows an enduring competitive advantage. By integrating various data choices, researchers can obtain a complete view of customer behavior. Alternatively, behavioral CRM uses experiments and surveys to focus on the psychological underpinnings of the service interactions (Kamakura, W., and et al. 2005). The implementation of CRM processes has a positive association with both perceptual and objective company performance (Reinartz, W., and et al. 2004).

CRM has its origin in the primary domain of marketing (to satisfy customers with the best possible alternatives through a relationship-based exchange process. CRM as a philosophy goes beyond the transactional exchange and enables the marketer to measure customer's sentiments and buying intentions. As such, the customer can be provided with products and services before there is a demand. Boulding, W., and et al. (2005) propose the following propositions: CRM is an outcome of the continuous evolution of marketing ideas, data analysis, technologies, and organizational structures. The final yield of the organization investment depends on how CRM is integrated with the firm's existing processes and capabilities. The core of CRM is the ideology of dual creation of value for both customer and organization. However, the challenge when an organization implements CRM is to consider the issues of consumer trust, privacy, and fairness. The mismanagement of CRM metrics can put the firm at risk of developing core rigidities, thus leading to long-term failure. A successful implementation of CRM requires an organization to consolidate knowledge about the competition, corporate capabilities, CRM processes, coordination of channels, technologies, customer needs, and committed employees. According to Reinartz, W. J., and Kumar, V. (2003), profitable customer lifetime duration is positively related to the spending of the client, the degree of cross-buying behavior that consumers exhibit, the proportion of merchandise that customers return, customer's ownership of the company's loyalty instrument, number of mailing efforts of the company, areas with high population density, and customers' income. The decision on marketing spending on customer acquisition and retention depends on either single-period customer profitability or forecasts of customer lifetime value (Ryals, L. J., and Knox, S. 2005).

### 2.2 Customer Service

As sales and service activities become increasingly woven integratively within the frontline role, frontline research has begun to consider how traditionally separate functions may be complementary for the customer, employee, and firm outcomes (Rapp, A., and Baker, T. L. 2017). The conventional advice for salespeople to remain calm during a confrontation with an angry customer complainant and to provide high-quality service seeing the bigger picture strategically. Salespeople's willingness and ability to do so depends on whether they believe the customer's complaint and anger is justified. Tao, K., et al. (2016) contend that salespeople experience greater anger when they blame someone other than themselves for causing the service failure.

Furthermore, when customers complain in an angry tone, and salespeople believe others are responsible for the service failure, salespeople perceive more emotional labor, develop stronger revenge intentions, and express less commitment to serving customers.

Cross selling and up selling are growing business practices, with the promise of enhanced revenue generation and long-term customer retention. However, organizations struggle to create the environment that is conducive to frontline service providers' concurrent engagement in sales and service. The greater challenge lies with organizations in facilitating ambidextrous behavior and interacting positively with an assessment orientation. Ambidextrous behavior is a paradox in some sense as it increases customer satisfaction and sales performance while decreasing efficiency (Jasmand, C., and et al., 2012). Employee attitudes and employee service behavior has been shown to be important mediators between organizational practices and customer satisfaction (Conway, N., and Briner, R. B. 2015). The other critical factor that interplays with customer service is the employees' level of stress. In tasks requiring self-regulation, high-stress employees feel more fatigue and perform more poorly than low-stress employees. However, the depletion effect from work stress is largely attenuated by employees' performance on tasks requiring less or limited self-regulation. Further, the extent of the depletion effect is not uniform. Employees who can replenish their resources from organizational (supervisory) support or engage in perspectives taking are less affected by regulatory depletion (Chan, K. W., and Wan, E. W. 2012).

Bowden, J. H., Gabbott, M., and Naumann, K. (2015) show that customer engagement and disengagement are highly correlated in that prior levels of engagement significantly influence customers' subsequent probability to engage or disengage. Another factor in customer perception of service level is the organizational citizenship behavior and leadership. Won Jun, K., and Hwa-Kyung, K. (2015) propose that supervisors' leadership was positively correlated to customers' perception of quality service levels. Hence, to improve customer service quality, supervisors need to facilitate the performance of their staff. Recent research suggests that inseparability is not a universal characteristic of service. Additionally, customers' purchase decisions and post-experience evaluations are influenced by the convenience and risk perceptions induced by service separation. Customers prefer separation for experience services and when they have an established relationship with the service provider according to Keh, H. T., and Pang, J. (2010). For most types of service firms, salespeople are direct participants in implementing the customer lifetime value (CLV) concept. The effect of salesperson CLV orientation depends on salesperson's customer orientation, adaptive selling behavior, and sales and service experience. Therefore, firms should monitor individual salesperson CLV orientation more closely (Valenzuela, L., Torres, E., Hidalgo, P., and Farías, P. 2014).

### 2.3 Customer Satisfaction

The goal of embracing relationship marketing is to maximize CLV. Recently, there has been considerable controversy about whether there is a link between customer satisfaction and retention. Bolton, R. N. (1998) remarks that the duration and the strength of the relationship depend on customers' prior experience with the organization. The drivers of customer loyalty intentions are critical. It is important to understand how these intentions evolve through the introduction and growth phases of a life cycle. Value intentions of both - customer and organization- play mediating roles on loyalty intentions of customers. As such, managers must adapt from improving value to measuring and managing relationships and brands directly over the life cycle (Johnson, M. D., Herrmann, A., and Huber, F. 2006). Customer profitability models will not serve their purpose if assessed in isolation and ignoring social factors, such as word of mouth and imitation that can influence future customer acquisitions. The impact of a lost-customer on the profitability of a firm depends on (a) whether the customer defects to a competing firm or dis-adopts the technology altogether and (b) whether the customer dis-adopts the technology distinctions often overlooked in conventional models. Hogan, J. E., Lemon, K. N., & Libai, B. (2003) contend that value of the customer should be evaluated throughout the life cycle. This approach is paramount, especially at the early adopter stage, when the cost of loss is higher compared to the late adopter stages. Service quality dimensions such as empathy, reliability, assurance, responsiveness, and tangibility influence the degree of service quality companies provide. According to Anjum, U., Aftab, J., Sultan, Q., & Ahmed, M. (2016), three out of the above five predictor variables have a positive impact on customer satisfaction while empathy and tangibility have no significant influence on customer satisfaction. Some of the key factors of customer satisfaction are product quality, service quality, prices, facility, and emotional factors (Dastane, O., & Fazlin, I. 2017). Kant, R., and Jaiswal, D. (2017) remark that "responsiveness" was also found to be one of the most significant predictors of customer satisfaction.

### 2.4 Customer Lifetime Value (CLV)

The simplest and standard definition of CLV is the future cash flow value of a customer. Companies do an inferior job of determining the economic value of their customers. There are three primary reasons that this has been the case: (1) technological inadequacy,

(2) managements' internal focus on products (as opposed to customers), and (3) accounting system inadequacy. Each of these areas, however, has undergone a rapid transformation in regard to sophistication and managerial usefulness. As a result, it is destined that asset valuation and management will evolve to focus on a company's most primary asset, its customers (i.e., customer lifetime value). Most managers have come to accept this inevitability. What managers fail to realize is just how radically an understanding of customer lifetime value will transform the business landscape. It will dramatically impact the breadth and type of data collected, the way managers view and segment customers, the types of experiences firms offer customers, the metrics executives provide to the financial markets, and the way companies structure and staff their organizations (Keiningham, T. L., Aksoy, L., and Bejou, D. 2006). The evolution from brand-centered marketing to customer-centered marketing and the beginnings of a focus on viewing the customer as an asset have become central foci of many organizations.

The inconsistencies in the use of two of the most important terms in interactive marketing- customer lifetime value and customer profitability- have motivated scholars to create and clarify major differences to these constructs in the literature. While customer lifetime value connects the word 'value' in "present value" and "valuation" as used in finance theory, customer profitability connects the word 'profitability' to the concept of accounting profitability (Pfeifer, P. E., Haskins, M. E., and Conroy, R. M. 2005). Forward-looking customer metrics are valuable tools for firms that aim to increase the value of their customer base. These reporting tools should align customer management with corporate goals and investors' perspectives (Wiesel, T., Skiera, B., and Villanueva, J. 2008). One of the key strategies firms could use is recommending products to attract customers and meet their needs. These recommender systems have emerged in e-commerce applications to support product recommendations. Recently, a weighted RFM-based method (WRFM-based method) has been proposed to provide recommendations based on customer lifetime value, including Recency, Frequency, and Monetary. Preference-based collaborative filtering (CF) typically makes recommendations based on the similarities of customer preferences (Duen-Ren, L., and Ya-Yueh, S. 2005).

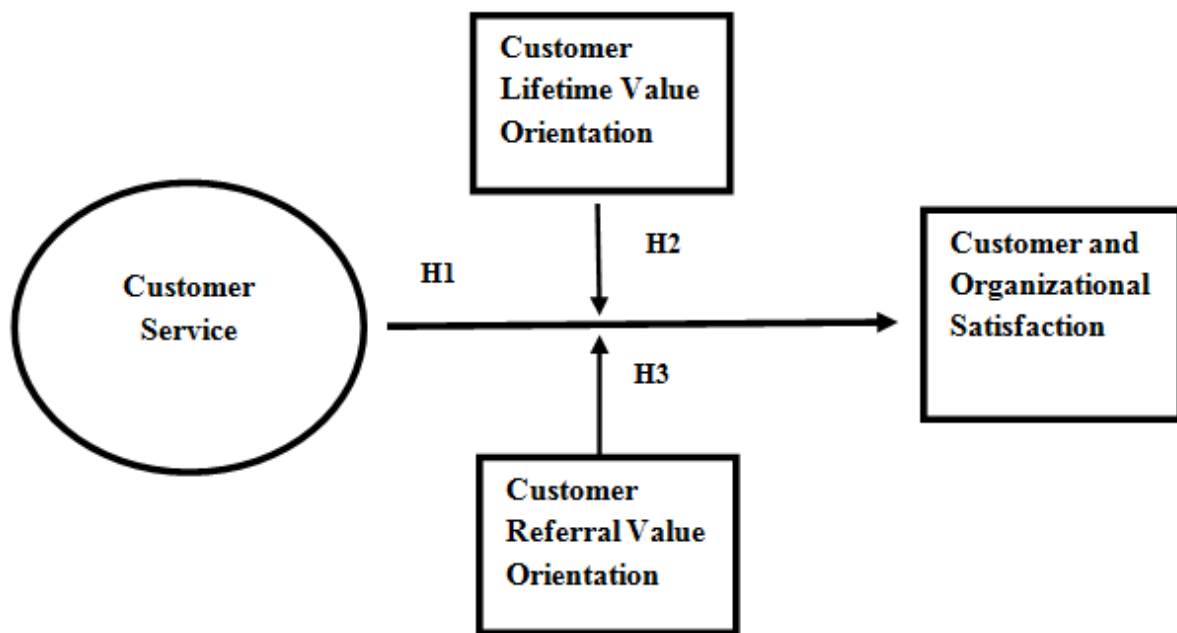
Capturing the extant literature on Customer Lifetime Value (CLV), four empirical generalizations have been identified: cross buying, marketing efforts, customer satisfaction, and multichannel purchasing. All four have been shown to have a positive influence on CLV (Blattberg, R. C., et al. 2009). Based on this finding, Cuadros, A. J., & Domínguez, V. E. (2014) argue that companies should segment their customers based on the value proposition in crafting customized strategies to meet the needs of those customers. Customers have to be treated as assets in an organization in order to achieve superior cash flow and eventually to augment shareholder value (Stahl, H. K., Matzler, K., and Hinterhuber, H. H. 2003). Venkatesan, R., and Kumar, V. (2004) claim that there is potential for improved profits when managers design resource allocation rules that maximize CLV.

## 2.5 Customer Referral Value (CRV)

Recently, word of mouth (WOM) has reemerged as an important marketing approach. Its use as a customer acquisition method has begun to attract renewed interest. WOM claims to be the most cost-effective method of customer acquisition. Customers who are acquired through WOM tend to have less turnover compared to customers acquired through other traditional channels (Schmitt, P., Skiera, B., and Van den Bulte, C., 2011; Biyalogorsky, E., Gerstner, E., and Libai, B. 2001; Kumar, V., Petersen, J. A., and Leone, R. P. 2010). Additionally, it is established that customers acquired through WOM can generate more revenue for the firm than customers acquired through traditional marketing efforts. Referred customers are more profitable and loyal and they (a) have a higher contribution margin, (b) have a higher retention rate, and (c) are more valuable in both the short and the long run. Nevertheless, the value differential varies across customer segments. Therefore, firms should use a selective approach for their referral programs (Schmitt, P., Skiera, B., and Van den Bulte, C., 2011). It is also critical to understand the behavioral drivers of CRV and identify effective methods of targeting the most promising customers by their CLV and CRV scores. CLV and CRV scores are critical factors to optimize profitability. This approach will help in understanding the behavioral drivers of CRV that can, in return, help managers target the most profitable customers with referral marketing campaigns (Kumar, V., Petersen, J. A., and Leone, R. P. 2010). Firms can offer exceptional value to clients through high-quality service, product, or desirable price to encourage customers to generate referrals; other companies may instead offer rewards. The mix of price and referral rewards captured under the following strategies; (a) lower the selling price when the customers are easy to satisfy, (b) use a reward to compliment a low-price strategy, and (c) no rewards. However, referral rewards are not offered across all markets. The flip side to this approach is "free-riding" (Biyalogorsky, E., Gerstner, E., and Libai, B. 2001).

**Table 1. Contributions of the Current Study Relative to Prior Studies**

<b>Criteria</b>	<b>Kumar, Petersen, &amp; Leone (2010)</b>	<b>Valenzuela, Torres, Hidalgo, &amp; Fariás (2014)</b>	<b>Kamakura, Mela, Ansari, Bodapati, Fader, Iyengar, &amp; Wilcox (2005)</b>	<b>Bolton (1998)</b>	<b>Johnson, Herrmann, &amp; Huber (2006)</b>	<b>The Current Study</b>
<b>Factors moderating relationship between frontline employees' service and customer satisfaction</b>	N.A.	Customer orientation, adaptive selling behavior, and sales experience	Breadth of company products	Duration of customer relationship	Perceived value in the life cycle	Customer lifetime value orientation (CLVO) and customer referral value orientation (CRVO)
<b>Key objective of the article</b>	Optimal customer targeting for referral marketing campaigns	Understand the key factors influencing customer service	Determine the factors that influence organizational profitability and customer relationship	How customers' assessment of services influences their subsequent behavior	How to create value throughout life cycle	How to manage CLVO and CRVO at point of customer service for customer and organizational satisfaction
<b>Contribution to marketing</b>	Determining behavioral drivers of referral value, which can help in targeting customers for referral marketing campaigns	Factors managers should consider for training frontline service employees	Provides a framework for CRM	Possibility to predict the revenue impact of service improvements in the same manner as other resources allocations	Managers must adapt improving value from introduction to growth stages to measure and manage relationships	Training frontline service employees to consider CLV and CRV at the point of customer service for long-term profits

**Figure 1. Conceptual Frame**

### 3. Hypotheses

#### 3.1 Customer Service (CS) and Customer and Organizational Satisfaction (COS)

Sales and service activities have become increasingly intertwined within the frontline role, and sales and service function interaction within an organization with respect to the customer, employee, and firm outcomes are critical (Rapp, A., and Baker, T. L. 2017). Cross- and up-selling in inbound call centers are a growing business practice, with the promise of enhanced revenue generation and customer retention. Ambidextrous behavior also increases customer satisfaction and sales performance but decreases efficiency (Jasmand, C., and et al., 2012). It has been shown that the importance of employee attitudes and employee service behavior mediate between organizational practices and customer satisfaction (Conway, N., and Briner, R. B. 2015). For most types of service firms, salespeople are direct participants in implementing the customer lifetime value (CLV) concept. Salesperson's orientation is also another critical driver for the firm to yield optimum sales, marketing, and financial results. However, salesperson CLV orientation depends on the following orientations: (a) customer, (b) adaptive selling behavior, or (c) experience. Therefore, firms need to monitor individual salesperson CLV orientation closely (Valenzuela, L., Torres, E., Hidalgo, P., and Farías, P. 2014). A recent controversy about whether there is a link between customer satisfaction and retention has led to many further investigations in this particular area. Bolton, R. N. (1998), remarks that the duration of the service provider and customer relationship also depends on the number of customers' prior experience in service transactions or failures. Dastane, O., & Fazlin, I. (2017) argue that the most significant factors of customer satisfaction are store facility, service quality, and prices while the least significant is product quality. Emotion and service play an important role in customer satisfaction which in return affects customer retention. Kant, R., and Jaiswal, D. (2017) remark that "responsiveness" was found to be the most significant predictor of customer satisfaction. Based on the above, we formulate the following:

Hypothesis 1: Customer service (CS) positively influences customer and organizational satisfaction (COS)

#### 3.2 Customer Lifetime Value Orientation (CLVO)

From the extant literature on Customer Lifetime Value (CLV), four factors have been identified to have positive relationship with CLV: customer satisfaction, marketing efforts, cross-buying and multi-channel purchasing. The frequency and monetary value of previous purchases have a positive effect on CLV (Blattberg, R. C., et al. 2009). The evolution of a marketing paradigm enhances long-term relationship with customers. A recent marketing paradigm previously is referred to as Customer Relationship Management (CRM), pursues long-term relationships with the most potentially profitable customers. In seeking to achieve customers' full profit potential, organizations should focus on developing a relationship management strategy to understand and measure the true value of customers during their expected tenure with an organization. Strategically, the ability to maintain a relationship with loyal and valued customers will help the organization to achieve its future financial and social goals. As such, it is worth making an effort to build refined strategies for customers based on their economic and social value. Based on this premise, Cuadros, A. J., & Domínguez, V. E. (2014) argue that companies should segment their customers based on the value proposition in crafting customized strategies to meet the needs of those customers. Such efforts play a significant role in customer acquisition and retention decisions.

It is further argued that customers have to be treated as assets that increase shareholder value by accelerating and enhancing cash flows, reducing cash flow volatility and vulnerability and increasing the residual value of the firm (Stahl, H. K., Matzler, K., and Hinterhuber, H. H. 2003). Developing a dynamic framework that serves to maintain or improve customer relationships strategically based on customer contacts across all marketing channels is imperative to maximizing CLV. This approach would be considered as the core of marketing investments. Venkatesan, R., and Kumar, V. (2004) claim that there is potential for improved profits when managers design resource allocation rules that maximize CLV. Based on the above premises, we propose the following:

Hypothesis 2: Customer lifetime value (CLV) orientation at the point of customer service positively moderates the relationship between customer service (CS) of frontline employees and customer and organizational satisfaction (COS)

### *3.3 Customer Referral Value Orientation (CRVO)*

Recent studies have confirmed that the customers who were acquired through word of mouth (WOM) tend to have less turnover compared to those acquired through traditional channels. Moreover, customers acquired through WOM tend to bring in additional customers through WOM (Schmitt, P., Skiera, B., and Van den Bulte, C., 2011; Biyalogorsky, E., Gerstner, E., and Libai, B. 2001; Kumar, V., Petersen, J. A., and Leone, R. P. 2010). Another critical suggestion is that WOM customers generate more revenue for the firm. Referral programs also have become a popular way to acquire customers. Referred customers are more profitable and more loyal and they (a) have a higher contribution margin, though this difference erodes over time, (b) have a higher retention rate, and this difference persists over time, and (c) are more valuable in both the short and the long run. Offering exceptional value and rewards to current customers for referring other customers will help firms to generate profits and improve market survival in the long run. The utility of referral rewards depends on how demanding consumers are before they are willing to recommend to others. Based on the above premise, we postulated the following hypothesis:

Hypothesis 3: Customer referral value (CRV) orientation at the point of customer service positively moderates the relationship between customer service (CS) of frontline employees and customer and organizational satisfaction (COS)

### *3.4 Industry Applications of the CLV and CRV Orientations*

An industry is formulated by the aggregation of many players. The application of the CLV and CRV orientations vary according to the industry given the degree of customer interaction and the opportunity to promote products and services in the form of up-selling or cross-selling (Keh, H. T., and Pang, J., 2010). Additionally, the degree of competition in a specific industry is intensified based on critical factors, such as customer bargaining power, supplier bargaining power, substitution availability, and the opportunity for new entrance into the industry (Reinartz, W., Krafft, M., and Hoyer, W. D., 2004). However, in the retail and financial industry, consumers make relatively frequent visits to points of sales compared to other industries such as telecommunication. Therefore, retail, financial, and telecommunication industries use CLV and CRV orientations at the point of customer interference in differing degrees. Based on the above premise, we postulated the following hypothesis:

Hypothesis 4: Customer referral value (CRV) and customer lifetime value (CLV) orientations at the point of customer service positively moderate the relationship between customer service (CS) of frontline employees and customer and organizational satisfaction (COS) in the retail industry more than in financial industries.

## **4. Methodology**

### *4.1 Materials*

We captured the dimensions of key variables (Customer Service, CLV, CRV, and Customer Satisfaction) in developing a questionnaire. The questionnaire consisted of a total of 20 questions, each responded to on a 1-100 scale. A pilot study had been conducted over a one-year period; responses from 50 participants were collected using the developed questionnaire. Reliability tests were performed to test the internal reliability of the key constructs, which yielded a raw reliability value of Cronbach Alpha .80 and above for each variable. Based on the high Cronbach Alpha scores, we proceeded to the full investigation using the same questionnaire.

### *4.2 Procedure*

We administered the survey online through Microsoft Forms Pro. We shared the link to survey with the managers at banks (HSBC Bank, HNB Bank, Sampath Bank, American Express, Bank of America, Barclays, Citi Bank, Commercial Bank, Bank of India, etc.), other financial institutions (Morgan Stanley, The Finance, LOLC,

Union Assurance, Wells Fargo, etc.), telecommunication companies (AirTel, Mobitel, Dialog, Verizon, Spectrum, AT&T, China Mobile, Vodafone, etc.), and retail companies (Coca-Cola, Nestles, Nike, Addidas, Gillette, Staples, etc.). The respective managers shared the link with the volunteer respondents (staff) to participate the survey. These organizations were chosen based on the accessibility to each co-author involved in the study.

#### 4.3 Participants

Participants came from a random sample drawn from various geographic regions - Asia, Europe, North America, South America, Australia, Africa, and Antarctica, and from the following industries: a) financial (33% respondents), b) fast moving consumer goods (33% respondents), and c) telecommunication (34% respondents). All the respondents were frontline sales staff worked as salesclerks, sales officers, cashiers, customer service supervisors, customer service officers, call center officers, sales directors, sales managers, and etc. Over 60 respondents indicated they have more than four-years of customer services while 40 respondents have over 25 years customer service experience. All the other respondents fall in between. From the total sample size, 104 respondents possessed at least a diploma-level education while 75 possessed a masters-level degree. The full study included a sample size of 355 respondents who were administered the survey over a three-year period.

### 5. Analyses and Results

RStudio 3.5.3 was used to analyze the data. the data set of 355 responses to 20 different measures. All measures tended to be symmetrical (though not normal) in their distributions with means and medians near the center of the scale. One important characteristic of the data is that the 20 non-composite variables were uncorrelated with one another (see Figure 2). The middle 50% (Q1-Q3) of the data had correlation coefficients between -0.036 and 0.037. Correlation coefficients for 95% of the data ranged between -0.075 and 0.134.

The 20 measures were composited to 4 variables: Customer Satisfaction, Customer Service, Customer Lifetime Value (CLV), and Customer Referral Value (CRV). The application of CLV and CRV as orientations used at the point of customer interaction to leverage customer satisfaction and organizational satisfaction was empirically tested to understand industry-related implications among the three industries (retail, financial, and telecommunication) considered in this study. Multiple Linear Regression Modelling (MLR) and type III ANOVA was used for modelling and hypotheses testing, while a Structural Equation Model (SEM) was used to establish the path relationship of the variables using Lavaan package.

#### 5.1 Model Building

We built five models to gain different perspectives of the phenomenon. The statistical foundation used in model building was linear multiple regression:  $Customer\ Satisfaction\ (Y) = \beta_0 + \beta_1 * Customer\ Service + \beta_2 * CLV + \beta_3 * CRV + \epsilon$

Model 01: Model one was developed to measure how customer satisfaction is regressed on customer service.

$$Customer\ Satisfaction\ (Y) = \beta_0 + \beta_1 * Customer\ Service + \epsilon$$

Model 02: Model two was developed to measure how customer satisfaction is regressed on CLV.

$$Customer\ Satisfaction\ (Y) = \beta_0 + \beta_1 * CLV + \epsilon$$

Model 03: Model three was developed to measure how customer satisfaction is regressed on CRV.

$$Customer\ Satisfaction\ (Y) = \beta_0 + \beta_1 * CRV + \epsilon$$

Model 04: Model four was developed to measure the moderating effect of CLV on customer service and customer satisfaction.  $Customer\ Satisfaction\ (Y) = \beta_0 + \beta_1 * Customer\ Service * \beta_2 * CLV + \epsilon$

Model 05: Model five was developed to measure the moderating effects of CRV on customer service and customer satisfaction.  $Customer\ Satisfaction\ (Y) = \beta_0 + \beta_1 * Customer\ Service * \beta_2 * CRV + \epsilon$

The above models were calibrated to measure the same effects under the empirical dynamics of three different industries: retail, financial, and telecommunication. We developed three models to investigate the path relationship between the latent and observed variables in the overall SEM:

Model 01: Customer Satisfaction ~ Customer Service + Customer Lifetime Value + Customer Referral Value,

Model 02: Customer Lifetime Value ~ Customer Service, and

Model 03: Customer Referral Value ~ Customer Service

During the data cleaning process, we imputed one data point related to customer service variables with the variable related average score. Finally, data was transformed using the Shapiro-Wilk test and converted to percentages in order to normalize. The model coefficient scores, and the related empirical outcomes are discussed in the following section.



Figure 2. Correlation: Non-Composite Variables



Each of the variables was summed to create composite variables:

**Customer Service:** Service Experience, Customer Service Attitude, Service Engagement, Needs Identification, Option Evaluation, Providing Best Solution, Ask for Referrals.

**Customer Satisfaction:** Purchases, Meeting Expectation, Customer Satisfied, Profit Contributed, Became Loyal, Willingness for Future Purchases.

**Customer Lifetime Value:** Recent Purchases, Frequent Visits, Profit Contribution, Future Interaction.

**Customer Referral Value:** Word of Mouth, Purchased Customers, Customer Contribution.

These four composite variables were then used in regression models to test four hypotheses. One of the records had a missing value in a single field. This value was imputed using a Random Forest decision tree that used the entire data set to model the missing value. Since this was only a single value in a single record, it was considered that assumptions of independence among the observations would not be significantly compromised and we felt it better to keep the record because of the information its other 19 fields contained. Among the composite variables, the highest correlation coefficient score yielded was  $r = .68$  between customer service and customer satisfaction. All the other coefficients were less than  $r = .09$ . Normality tests were conducted using the Shapiro- Wilk test; all variables were found to have a score greater than the alpha value ( $\alpha = 0.05$ ).

The full model was developed to test multicollinearity and regression coefficients in the following equation:  $Customer\ Satisfaction\ (Y) = \beta_0 + \beta_1 * Customer\ Service + \beta_2 * CLV + \beta_3 * CRV + \epsilon$ . A multicollinearity test was performed using two tests methods: Principal Component Analysis (PCA) and Variance Inflation Factor (VIF). All eigen values of the variables being greater than 43 according to the PCA test, while all the VIF scores yielded were less than 2 establishing the parsimony of the main model.

*Hypothesis 1:* There was strong evidence (p-value near 0) of Customer Service (CS) positively influencing customer and organizational satisfaction (COS).

Table 2. Hypothesis 01: Linear Regression Output

	Estimate	Std. Error	t value	Pr(>  t )	
(Intercept)	315.70847	16.83244	18.76	<2e-16	***
Customer_Service	0.95366	0.05427	17.57	<2e-16	***

Residual standard error: 70.55 on 353 degrees of freedom. Multiple R-squared: 0.4666, Adjusted R-squared: 0.4651. F-statistic: 308.8 on 1 and 353 DF, p-value: < 2.2e-16

*Hypothesis 2:* The lack of an interaction effect (Customer\_Service \*CLV – p-value = 0.18) shows that there is insufficient evidence in this data set to show that CLV helps moderate frontline customer service and customer satisfaction. There was also no evidence of a main effect of CLV on COS.

**Table 3. Hypothesis 02: Linear Regression Output**

	Estimate	Std. Error	t value	Pr(>  t )	
(Intercept)	237.12639	62.150761	3.815	0.000161	***
Customer_Service	1.213619	0.201343	6.028	4.21E-09	***
CLV	0.406025	0.309084	1.314	0.189826	
Customer_Service *CLV	-0.001341	0.001	-1.341	0.180826	

Residual standard error: 70.57 on 351 degrees of freedom. Multiple R-squared: 0.4693, Adjusted R-squared: 0.4648. F-statistic: 103.5 on 3 and 351 DF, p-value: < 2.2e-16

*Hypothesis 3:* The CustomerServiceand CRV interaction testedwhether customer referral value (CRV) orientation at the point of customer service positively moderates the relationship between customer service (CS) of frontline employee and customer and organizational satisfaction (COS). Because the interaction term was not significant (p-value 0.732, there was insufficient evidence to conclude that CRV moderates the relationship between frontline employees and customer satisfaction.

**Table 4. Hypothesis 03: Linear Regression Output**

	Estimate	Std. Error	t value	Pr(>  t )	
(Intercept)	2.80E+02	5.05E+01	5.544	5.81E-08	***
Customer_Service	1.00E+00	1.62E-01	6.175	1.83E-09	***
CRV	2.36E-01	3.15E-01	0.75	0.454	
Customer_Service * CRV	-3.45E-04	1.01E-03	-0.342	0.732	

Residual standard error: 70.43 on 351 degrees of freedom. Multiple R-squared: 0.4714. Adjusted R-squared: 0.4669. F-statistic: 104.3 on 3 and 351 DF, p-value: < 2.2e-16

*Hypothesis 4:* There was no significant relationship detected by which either CRV or CLV moderated customer service. However, a weak relationship between COS and CRV was indicated with a p-value of 0.696 for the t-test. The effect of the Retail Industry on CS as compared with the Financial and Telecom industries was tested. Despite only weak evidence of a significant relationship with customer service, the null hypothesis was not rejected because the test was a one-sided test. The regression coefficient suggests that the relationship with CS is negative (the test was for a positive relationship). This indicates weak evidence for influence of customer service in the retail industry.

**Table 5. Hypothesis 04: Linear Regression Output**

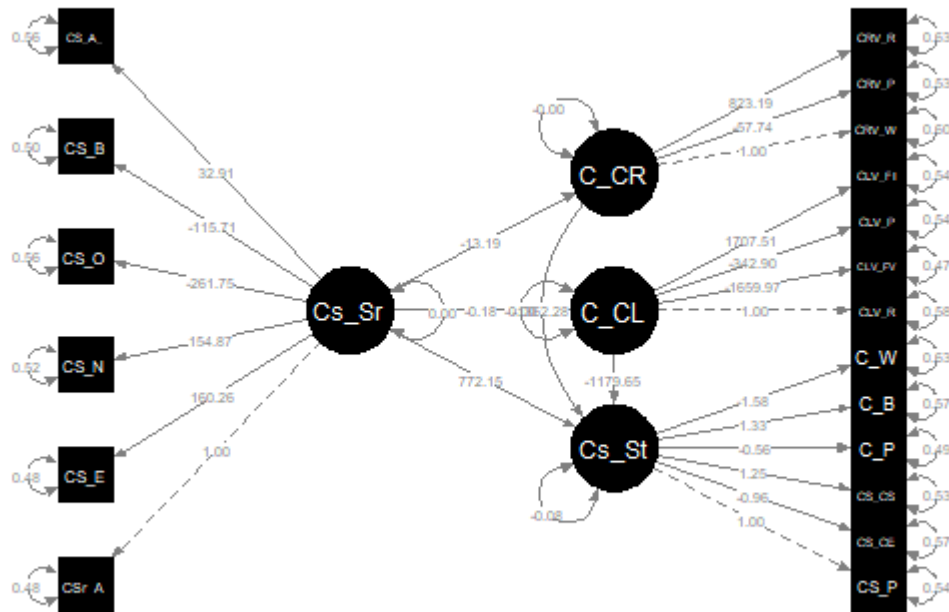
	Estimate	Std. Error	t value	Pr(>  t )	
(Intercept)	298.59247	20.21077	14.774	<2e-16	***
Customer_Service	0.93895	0.05444	17.248	<2e-16	***
CRV	0.13633	0.07491	1.82	0.0696	.
Industryretail.vs.rest	-9.34797	5.27074	-1.774	0.077	.
Industryretail.vs.fin	13.01035	9.1335	1.424	0.1552	

Residual standard error: 70.22 on 350 degrees of freedom. Multiple R-squared: 0.476, Adjusted R-squared: 0.47. F-statistic: 79.48 on 4 and 350 DF, p-value: < 2.2e-16.

*5.2 Path Relationship (SEM Estimates)*

Path relationships among the variables was tested using structural equation modeling. One latent variable (Customer Satisfaction) and three observed variables (CLV, CRV, and Customer Service) with their related loads were tested in the model. Figure 3 illustrates the resulting relationships and strengths. Based on the SEM loadings, the only variable that was statistically significant and influential in the overall model was the customer service variable that influences customer satisfaction. This confirms the similar findings established by the multiple regression coefficients.

Figure 3. Path Relationships (SEM)



## 6. Discussion

Superior customer service significantly influences customer repurchase decisions (Keiningham, T. L., Aksoy, L., and Bejou, D. 2006). When customer satisfaction is high due to customer service, customers factor in revisiting the point of service when making a purchase decision. Thus, organizations make significant investments in training their operational staff who serve at the customer interaction level in order to provide a memorable service with the intention of converting a regular customer into a loyal customer. Going beyond the making of a loyal customer, organizations also encourage their customer service staff to induce referrals for the bottom-line benefit to the organization. Towards this end, organizations encourage their staff to be mindful of two critical orientations at the point of customer service: customer lifetime value (CLV) and customer referral value (CRV). Consequently, this study investigated the following phenomena: How the customer service of the frontline service staff influences customer satisfaction and eventual organizational satisfaction, how CLV influences the positive relationship between customer service and customer satisfaction: how CRV influences the positive relationship between customer service and customer satisfaction: and finally, how CLV and CRV orientations influence customer satisfaction and organizational satisfaction in retail, financial, and telecommunication industries.

Based on this empirical investigation, the data suggests that superior customer service is at the core of a successful business regardless of the industry. A superior customer service will attract and retain loyal customers for the future survival of the business. Customer lifetime value (CLV) and customer referral value (CLV) orientations at the point of customer service did not significantly influence the customer service (CS) of frontline employee in order to attract and retain customers for customer and organizational satisfaction (COS) in any of the three industries considered in this study. This finding of the study contradicts most of the arguments found in the extant body of literature (Kamakura, W., and et al. 2005; Rapp, A., and Baker, T. L. 2017; Johnson, M. D., Herrmann, A., and Huber, F. 2006; Malshe, A., and Agarwal, M. K. 2015; Keiningham, T. L., Aksoy, L., and Bejou, D. 2006; Baesens, B., et al. 2004; Schmitt, P., Skiera, B., and Van den Bulte, C., 2011; Bialogorsky, E., Gerstner, E., and Libai, B. 2001; Kumar, V., Petersen, J. A., and Leone, R. P. 2010). However, compared to the financial industry, the application of CLV and CRV orientations at the point of customer service by sales staff in the retail industry showed promising customer and organizational satisfaction results. This implies that any investment on training sales staff to apply the two orientations -- CLV and CRV -- at the customer service point in the retail industry will help retail organizations yield higher returns, compared to this strategy in the telecommunication and financial industries (Rapp, A., and Baker, T. L. 2017). Thus, this study has significant implications for brand managers, marketing managers, product managers, sales managers, and human resource managers in making operational and strategic decisions for leveraging bottom-line goals.

While this study helps managers, especially in the retail industry to enjoy relative positive results, the study also encompasses a few limitations. One of the key limitations of the present study is the number of industries considered and compared. Further study will need to investigate across many key industries that have relatively higher purchase frequencies including retail, telecommunication, and financial, but also tourism, healthcare, transportation, etc. The other limitation of the present study was the lack of focus on a cross regional perspective. An investigation into an understanding of how training investments on CLV and CRV would pay back organizations from a cross-regional perspective would be a valuable and welcome addition to our current understanding.

## References

- Anjum, U., Aftab, J., Sultan, Q., & Ahmed, M. (2016). Factors Affecting the Service Quality and Customer Satisfaction in Telecom Industry of Pakistan. *International Journal of Management, Accounting & Economics*, 3(9), 509-520.
- Baesens, B., Verstraeten, G., Van den Poel, D., Egmont-Petersen, M., Van Kenhove, P., & Vanthienen, J. (2004). Bayesian network classifiers for identifying the slope of the customer lifecycle of long-life customers. *European Journal of Operational Research*, 156(2), 508. doi:10.1016/S0377-2217(03)00043-2
- Bell, D., Deighton, J., Reinartz, W. J., Rust, R. T., & Swartz, G. (2002). Seven Barriers to Customer Equity Management. *Journal of Service Research*, 5(1), 77.
- Biyalogorsky, E., Gerstner, E., & Libai, B. (2001). Customer Referral Management: Optimal Reward Programs. *Marketing Science*, 20(1), 82-95.
- Blattberg, R. C., Malthouse, E. C., & Neslin, S. A. (2009). Customer Lifetime Value: Empirical Generalizations and Some Conceptual Questions. *Journal of Interactive Marketing (Mergent, Inc.)*, 23(2), 157-168. doi:10.1016/j.intmar.2009.02.005
- Bolton, R. N. (1998). A Dynamic Model of the Duration of the Customer's Relationship With a Continuous Service Provider: The Role of Satisfaction. *Marketing Science*, 17(1), 45.
- Boulding, W., Staelin, R., Ehret, M., & Johnston, W. J. (2005). A Customer Relationship Management Roadmap: What Is Known, Potential Pitfalls, and Where to Go. *Journal of Marketing*, 69(4), 155-166. doi:10.1509/jmkg.2005.69.4.155
- Bowden, J. H., Gabbott, M., & Naumann, K. (2015). Service relationships and the customer disengagement – engagement conundrum. *Journal of Marketing Management*, 31(7-8), 774-806. doi:10.1080/0267257X.2014.983143
- Chan, K. W., & Wan, E. W. (2012). How Can Stressed Employees Deliver Better Customer Service?? The Underlying Self-Regulation Depletion Mechanism. *Journal of Marketing*, 76(1), 119-137. doi:10.1509/jm.10.0202
- Conway, N., & Briner, R. B. (2015). Unit-level linkages between employee commitment to the organization, customer service delivery and customer satisfaction. *International Journal of Human Resource Management*, 26(16), 2039-2061. doi:10.1080/09585192.2014.971848
- Cuadros, A. J., & Domínguez, V. E. (2014). Customer segmentation model based on value generation for marketing strategies formulation. *Estudios Gerenciales*, 30(130), 25-30. doi:10.1016/j.estger.2014.02.005
- Dastane, O., & Fazlin, I. (2017). Reinvestigating Key Factors of Customer Satisfaction Affecting Customer Retention for Fast Food Industry. *International Journal of Management, Accounting & Economics*, 4(4), 379-400.
- Duen-Ren, L., & Ya-Yueh, S. (2005). Hybrid approaches to product recommendation based on customer lifetime value and purchase preferences. *Journal of Systems & Software*, 77(2), 181-191. doi:10.1016/j.jss.2004.08.031
- Hogan, J. E., Lemon, K. N., & Libai, B. (2003). What Is the True Value of a Lost Customer?. *Journal of Service Research*, 5(3), 196.
- Jasmand, C., Blazevic, V., & de Ruyter, K. (2012). Generating Sales While Providing Service: A Study of Customer Service Representatives' Ambidextrous Behavior. *Journal of Marketing*, 76(1), 20-37. doi:10.1509/jm.10.0448
- Johnson, M. D., Herrmann, A., & Huber, F. (2006). The Evolution of Loyalty Intentions. *Journal Of Marketing*, 70(2), 122-132. doi:10.1509/jmkg.70.2.122
- Kamakura, W., Mela, C., Ansari, A., Bodapati, A., Fader, P., Iyengar, R., & ... Wilcox, R. (2005). Choice Models and Customer Relationship Management. *Marketing Letters*, 16(3/4), 279-291. doi:10.1007/s11002-005-5892-2
- Kant, R., & Jaiswal, D. (2017). The impact of perceived service quality dimensions on customer satisfaction. *International Journal of Bank Marketing*, 35(3), 411-430. doi:10.1108/IJBM-04-2016-0051
- Keh, H. T., & Pang, J. (2010). Customer Reactions to Service Separation. *Journal of Marketing*, 74(2), 55-70. doi:10.1509/jmkg.74.2.55
- Keiningham, T. L., Aksoy, L., & Bejou, D. (2006). The Future of Managing Customers as Assets. *Journal Of Relationship Marketing*, 5(2/3), 133-138. doi:10.1300/J366v05n02\_08
- Kumar, V., Petersen, J. A., & Leone, R. P. (2010). Driving Profitability by Encouraging Customer Referrals: Who,

- When, and How. *Journal of Marketing*, 74(5), 1-17. doi:10.1509/jmkg.74.5.1
- Malshe, A., & Agarwal, M. K. (2015). From Finance to Marketing: The Impact of Financial Leverage on Customer Satisfaction. *Journal of Marketing*, 79(5), 21-38. doi:10.1509/jm.13.0312
- Pfeifer, P. E., Haskins, M. E., & Conroy, R. M. (2005). Customer Lifetime Value, Customer Profitability, and the Treatment of Acquisition Spending. *Journal of Managerial Issues*, 17(1), 11-25.
- Rapp, A., & Baker, T. L. (2017). Introduction to the special issue on the intersection of professional selling and service. *Journal of Personal Selling & Sales Management*, 37(1), 4-10. doi:10.1080/08853134.2017.1292099
- Reinartz, W., Krafft, M., & Hoyer, W. D. (2004). The Customer Relationship Management Process: Its Measurement and Impact on Performance. *Journal of Marketing Research (JMR)*, 41(3), 293-305.
- Reinartz, W. J., & Kumar, V. (2003). The Impact of Customer Relationship Characteristics on Profitable Lifetime Duration. *Journal of Marketing*, 67(1), 77-99.
- Ryals, L. J., & Knox, S. (2005). Measuring risk-adjusted customer lifetime value and its impact on relationship marketing strategies and shareholder value. *European Journal of Marketing*, 39(5/6), 456-472. doi:10.110803090560510590665
- Schmitt, P., Skiera, B., & Van den Bulte, C. (2011). Referral Programs and Customer Value. *Journal of Marketing*, 75(1), 46-59. doi:10.1509/jmkg.75.1.46
- Stahl, H. K., Matzler, K., & Hinterhuber, H. H. (2003). Linking customer lifetime value with shareholder value. *Industrial Marketing Management*, 32(4), 267. doi:10.1016/S0019-8501(02)00188-8
- Tao, K., Karande, K., & Arndt, A. D. (2016). How Angry Customer Complaints Influence Salesperson Commitment to Service Quality. *Journal of Marketing Theory & Practice*, 24(3), 265-282. doi:10.1080/10696679.2016.1170521
- Valenzuela, L., Torres, E., Hidalgo, P., & Farías, P. (2014). Salesperson CLV orientation's effect on performance. *Journal of Business Research*, 67(4), 550-557. doi:10.1016/j.jbusres.2013.11.012
- Venkatesan, R., & Kumar, V. (2004). A Customer Lifetime Value Framework for Customer Selection and Resource Allocation Strategy. *Journal of Marketing*, 68(4), 106-125.
- Wiesel, T., Skiera, B., & Villanueva, J. (2008). Customer Equity: An Integral Part of Financial Reporting. *Journal Of Marketing*, 72(2), 1-14.
- Won Jun, K., & Hwa-Kyung, K. (2015). Servant Leadership and Customer Service Quality at Korean Hotels: Multilevel Organizational Citizenship Behavior as A Mediator. *Social Behavior & Personality: An International Journal*, 43(8), 1287-1298. doi:10.2224/sbp.2015.43.8.1287

### Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal. This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/3.0/>).