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Special Issue on

Adaptation Era and Innovative Management in Emerging Markets

Guest Editors

Dr Michael Pasco, San Beda University, Philippines

Dr Arhan Sthapit, Nepal Open University, Nepal

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Editorial

The Special Issue on the *adaptation era and innovative management in emerging markets* are timely. This special Issue aims to intensify awareness, confidence, and effectiveness of various stakeholders in emerging countries to adapt to drastic conditions brought about by recent global events, including the COVID-19 pandemic and the crisis in Ukraine, to name a few. This Special Issue focuses on emerging countries that are considerably vulnerable to changes in the external environment in the Philippines, Dominican Republic, and Nepal. Thus, their key objectives revolve around different organizational management approaches, be they institutional or business entities applicable in the new normal. Moreover, we highlight the adaptation opportunities of people and groups to the recent business, organizational and environmental challenges. The legitimization of different management innovations is also our focal research interest. Opening more ideas in changing the way managing people, tasks, processes, structures, and policies to be more successful are the valued contributions of this Special Issue.

The challenges and novel problems initiate the development and institutionalization of management innovation. When there are marked changes in management practices, principles, and processes to adapt to alarming situations, effectiveness, efficiency, and competitive advantages are expected from the pioneering people, firms, or organizations. Management innovations are also synergistic with the different technological innovations as digitalization, robotics, big data utilization, cryptocurrencies, logistics advancements, and security become more conspicuous. This special issue also highlights potential management innovations in synergy with the following: brand trust, customer satisfaction, and loyalty; global competitiveness and economic growth; environmental concern, green perceived benefits, green perceived quality, green willingness to purchase, green future estimates, and green purchase decisions; food delivery service quality, customers' eating habits, patronage of food delivery services; and working environment and workforce retention programs on workforce productivity.

Whatever happens, the relationship between firms and their customers must remain intact. Alejandrino and Palma-Samson tested how brand trust enhances customer satisfaction and loyalty to commercial banks in Metro Manila, Philippines. Strong brand trust denotes customer loyalty as a brand conveys an embraceable experience and customers' beliefs that the associated promise will be fulfilled. In commercial bank consumers, Alejandrino and Palma-Samson determined the effect of various factors on customers' brand loyalty in a banking service environment. They argued that consumer brand trust and brand effect influence consumer brand loyalty. The study's results also indicated that customer satisfaction influenced consumer brand loyalty. However, the results did not confirm the indirect effect of consumer brand trust on the influences of customer satisfaction and consumer loyalty.

Emerging countries must not give up developing global competitiveness, regardless of economic growth or decline. In the 2nd research article, Banks-Peña investigated the relationship between the Global Competitiveness Index (GCI) and Economic Growth (EG) of the Dominican Republic as triggered by the apparent fads in the Dominican Republic (DR) 2017-2018 report against the prior year. The World Economic Forum (WEF) prepared its reports using data from international cooperation and financing organizations, and the global competitiveness index was assessed. Banks-Peña found a direct positive relationship between EG and the GCI, as most reviewed literature stated. The events between 2007-2016 have affected the outcome of GCI of the Dominican Republic during the said period. Banks-Peña also found that the raters' awareness level affected the place in GCI of the Dominican Republic. It is claimed that the rater's awareness of various exposures and situations influences the ratings. Institutions and market size are found to be different categories of factors of GCI in this research.

In the following important research article, Devkota, Shrestha, Dhakal, Mahato, Paudel, and Agrawal argued that green products and marketing are becoming societal trends considering wellness, well-being,

and sustainability. They focused on customer awareness of green marketing and determined consumers' purchase decisions regarding green products in Nepal. In Nepal, green marketing is an emerging concept that deserves more attention. As a result, more people are urged to adopt green goods for environmental and health reasons. Following the notion of the Theory of Planned Behavior, the authors found that ecological concern, green perceived benefits, green perceived quality, green willingness to purchase, and green future estimates significantly influence green purchase decisions. The authors advocate that policymakers develop efficient plans and tactics to encourage sustainable consumption of green products.

To be more relevant, fitting with consumers' dynamic needs and behavior are market adaptation priorities. In the next valuable article, Matitu studied the food delivery services (FDS) closely with apps among students in Philippines. FDS is an emerging business with exponential growth during and after the COVID-19 pandemic. Matitu investigated the marketing-related adaptation areas for sustainable business outcomes based on the customers' eating habits. This research indicated the kinds of food students routinely eat. The interrelationship of food delivery service quality, customers' eating habits, and patronage of food delivery services were indicated in this research. The apps are also a critical success factor of food delivery services. Matitu suggests that food delivery services firms have more innovations in preserving the health of their consumers while upgrading their services. Matitu also revealed some respondents' alarming poor eating habits that must be addressed more than the business needs of food delivery service providers.

Successful organizations are powered by highly engaged people and a strong workforce. Responsible leaders continuously look at workforce retention because they cannot achieve sustainability alone. In the final research article, Banaag selected respondents from the regular employees of four financial technology companies operating in the Philippines. The working environment and workforce retention strategies need appropriate attention and commitment to achieve desired workforce productivity. Banaag uncovered that workforce retention strategies have a significant effect on workforce productivity. The working environment has a direct effect on employee productivity. The mediation effect of the working environment on the impacts of workforce retention strategies on workforce productivity needs to be proven. Banaag further asserted that the common goal of businesses is to sustain productivity in an emerging market, maintain a sustainable workforce by revisiting policies, and cover the working environment and reward system.

In the book review section, Pasco reviews the book: *Doing Action Research in Your Organization*, 4e ed. by David Coghlan and Teresa Brannick, Sage 2014.

Please enjoy reading the research articles. We hope these will be meaningful and helpful for you. Please also share your feedback with us.

Guest Editors

Journal of the Academy of Business and Emerging Markets


Dr Michael Pasco, San Beda University, Philippines (mpasco@sanbeda.edu.ph)

Dr Arhan Sthapit, Nepal Open University, Nepal (arhansthapit@nou.edu.np)



How does brand trust enhance satisfaction and loyalty of commercial bank customers?

Krishna C. Alejandrino , JA Philippines, JA Worldwide, Philippines

Karmela Palma-Samson* , University of Essex, United Kingdom

*Corresponding author: k.samson@qfcra.com

The purpose of the study is to discuss the importance of brand trust in the banking industry in the Philippines. This study aims to determine various factors' effect on customer loyalty in a banking service environment. It empirically tests a model that proposes that consumer brand trust and brand effect influence consumer brand loyalty. We used a partial least squares structural equation modeling (PLS-SEM) to test the hypothesis and model. The findings indicated that customer satisfaction influenced consumer brand loyalty. Additionally, the results have a positive, though nonsignificant, the indirect effect of consumer brand trust on the relationship between satisfaction and consumer loyalty.

Keywords: banking services, loyalty, satisfaction, trust,

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Introduction

Customer satisfaction has been identified as a factor influencing loyalty theoretically and empirically. Market success and profitability are contingent upon the ability of the business to attract, satisfy, and retain customers. This necessitates an examination of the factors that influence consumers' satisfaction with a product or service, the factors that influence their decision to purchase or use a product or service, and their loyalty to the company. As measured by previous research, satisfaction with service quality can be critical for competitive advantage in the service industry, as it is associated with customer retention and corporate reputation (Zeithaml 2000). For various reasons, a company's long-term customers are important. Maintaining a loyal customer is typically less costly than bringing in a new business (Martisiute et al. 2010). A growing body of research has produced various loyalty models. Much previous research on customer loyalty has focused on a single bank such as Swedbank (Bülbul 2013). Also, the competitive banking industry in Germany recognizes that customer trust is important to increase customer loyalty and must be evaluated carefully.

Deregulation in many countries has encouraged large banks to expand into other countries, but a new-or-foreign bank establishment is the most difficult thing for local banks to handle. Banks focus on

investment, lending, asset management, and financial services while improving processing and communication (Talavera 2020). These developments attracted financial firms. Global and geographic diversification followed the financial crisis (Duke & Cejnar 2013). The Philippines' banking industry achieves similar results. The 1980s saw several banking reforms, including RA 7721 and the "BA Law" (the "Foreign Bank Merger Law" or Regulation Law). Asian banks recovered from mergers and acquisitions. Liberalization regulation allowed foreign banks, prepared the industry for globalization, and gave it a chance (Manlagnit & Lamberte 2004). Customers have options. Consumers are more selective, analytical, and critical because they have many options. More importantly, financial deregulation and globalization have allowed non-corporate services to compete. It spreads geographically. The Philippine banking industry adapted to aid the financial sector. These reforms also enabled (1) enhanced functions and offerings after RA 7721 (the 1994 Foreign Bank Liberalization) and (2) Asian bank consolidation after the early 1990s crisis. International banks increased after Philippine banking liberalization. Customers now have more banking options. Quality and responsiveness are needed to retain banking customers by improving customer service.

Because consumers have an extensive range of options, they are more selective, analytical and critical. Satisfying customers also means fixing their problems and resolving their issues. Banks are known for providing exceptional service, a benefit to the competition. In response to the deregulation and privatization of the banking industry, banks have begun providing new and enhanced services for clients. This research examines how customer trust affects consumer satisfaction and loyalty as a critical component. It aims to build a model for determining the elements that contribute to customer satisfaction and trust and their interplay with customer loyalty. This study is situated in the context of commercial banks in the Philippines. Specifically, this study aims to determine the impact of customer satisfaction on customer loyalty; customer satisfaction on brand trust; brand trust on customer loyalty, and the mediation effect of brand trust on the influence of customer satisfaction on customer loyalty.

Theoretical Foundation and Hypotheses Development

According to the conceptual framework, as seen in Figure 1, customer satisfaction and trust impact customer loyalty to the bank. Based on a literature review, the study proposes that trust indirectly affects customer loyalty via satisfaction.

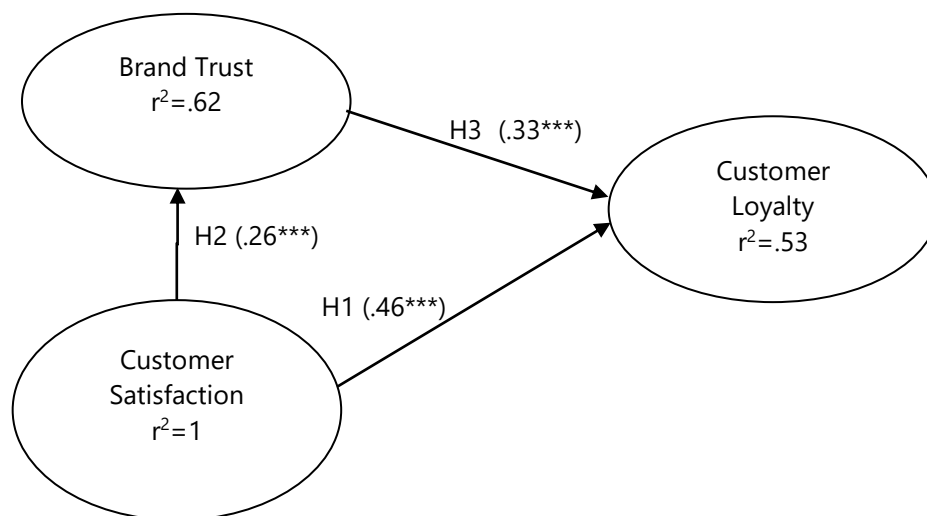


Figure1. Conceptual Framework

Source: PLS-Path Coefficients, ***= $p < .01$

The model suggests that trust is a critical mediator of the effect of loyalty. Customer satisfaction is highly correlated to customer loyalty, repeated business, and new opportunities through word-of-mouth (Oliver 2009). Successful businesses can increase customer satisfaction after they (a) are made aware of the level of quality of service perceived by the customers, (b) the level of quality of service they provide, and (c) make the necessary steps to close the gap between customer perception or expectations with their actual quality service levels (McDougall & Levesque 2000). When a business delivers the quality-of-service customers need, the customers are shown to practice loyalty and trust in the business (Zheitaml 2000). Similarly, brand trust is critical in customer-bank relationships and all customer relationships. The trust facilitates customer transactions. Trust in the banking system, trust in banks, and trust in financial institutions such as insurance companies and pension funds have decreased because of the financial crisis in several countries. The banking system and specific banks are blamed for contributing to the financial crisis (Bülbül 2013). As a result, trust has been violated, and it is necessary to view the situation from a broad and narrow perspective (Veloutsou 2015).

Customer Satisfaction and Customer Loyalty

Manyanga et al. (2022) revealed that customer experience, satisfaction, and word-of-mouth intention positively affected customer loyalty because banks that provided distinctive customer experiences satisfied their clients and enhanced word-of-mouth intention by addressing main points and word-of-mouth intention on customer loyalty. Pasco and Lao (2021) confirmed that positive customer experience increased customer retention in a call center firm in the Philippines. Menidjel et al. (2017) discovered a direct relationship between brand satisfaction and customer loyalty. Further, Han et al. (2018) examined the factors affecting brand loyalty in the coffee shop industry. Krivic and Loh (2018) found the factors influencing fitness club customer loyalty, while Cheng et al. (2016) focused on the factors contributing to customer loyalty in China's theme parks. Therefore, this research posits:

H1. Customer satisfaction positively affects customer loyalty.

Customer Satisfaction and Brand Trust

Customer satisfaction plays a significant role in brand trust. Customer satisfaction positively correlates to brand trust and loyalty among female cosmetic consumers in Scotland (Veloutsou 2015). Similarly, Rather and Sharma (2016) reached the same conclusion in a study in hospitality management to determine the factors that influence brand trust. Bianchi (2015) studied how customer satisfaction influences brand trust in Chile's wine industry. Kuswati et al. (2021) concluded about Telkomsel in Surakarta Indonesia that consumer satisfaction positively and significantly impacts brand trust. Ali et al. (2020) showed that there is an influence of brand trust on customer satisfaction. However, Fadli et al. (2023) argued that brand trust has no significant relationship with customer satisfaction in Bank Syariah in Indonesia. So we propose the following hypothesis:

H2. Customer satisfaction positively affects brand trust.

Brand Trust and Customer Loyalty

Customer loyalty is critical to the success of the business and the customer. Oliver (2009) defined customer loyalty as a 'firm commitment to repurchase or re-patronize a preferred product and services in the future, resulting in repetitive purchases of the same brand or brand-set, despite situational influences and marketing efforts that might cause switching behavior. Brand trust influences customer loyalty; thus, the greater the level of customer trust, the greater customer loyalty (Nunnally 1978). Apart from customer satisfaction, numerous researchers have examined the role of brand trust in developing high-quality relationships (Nunnally & Bernstein 1994). Additionally, brand trust has been conceptualized as a

necessary component of relationship management as a source of credibility, honesty, and communication between parties (Zeithaml et al. 1996). Malhan and Anjum (2017) found a significant influence of customer satisfaction and brand trust on brand loyalty in the mobile phone industry in India. This research asserts:

H3. Brand trust positively affects customer loyalty.

Mediation Effect of Brand Trust

In the Saudi Arabia banking sector, trust in the bank partially mediated the relationship between knowledge, loyalty, and satisfaction (Albarq 2023). Testing the theory of consumer behavior, Diputra and Yasa (2021) found that product quality, brand image, and brand trust improved customer satisfaction and increased consumer loyalty. The current study views satisfaction as a predictor of brand trust. This demonstrates the validity of the assertion that customer satisfaction and trust are inextricably linked to customer loyalty (Han et al. 2018). Considering the preceding research, this research hypothesizes that:

H4. Brand trust mediates the impact of customer satisfaction on customer loyalty.

Methodology

This research is quantitative and explanatory. Purposive sampling was used to select the cross-sectional research participants in Metro Manila (Kock & Hadaya 2018). The researchers gathered 169 test subjects best positioned to describe brand trust, customer satisfaction, and customer loyalty as commercial bank customers. The respondents were identified using screening standards, and these are: participants have not been involved with a Focus Group (FG) in the past three months involving bank study; working in the bank; and working in a research agency that handles bank clients. These screening questions were necessary to avoid bias in the analysis. A hundred fifty-five people participated in this study after deleting the outliers. Inverse square root and gamma exponential methods were used to determine the sample size required to test a structural model. The inverse square root method estimates standard error by taking the inverse square root of the sample size. The gamma exponential method, on the other hand, estimates standard error using the gamma and exponential smoothing function corrections. The inverse square and gamma exponential methods simulate Monte Carlo experiments, and their estimates are identical to those obtained using the Monte Carlo method (Kock & Hadaya 2018). Because the inverse square root method occasionally overestimates the minimum required sample size, both results must be reported to ensure that the study achieves a power level greater than required (Hair et al. 2019).

With a minimum absolute significant path coefficient of .33 in the structural model, a significance level of .05, and a statistical power level of .80, the following sample sizes are required: 44 is used for the gamma exponential method, and 57 is used for the inverse square root method. The required minimum sample size is between 44 and 57; thus, the actual sample size of 155 is sufficient to adequately explain the structural model's results. Both tests were conducted with statistical computer software using Warp PLS. The mediation model's results show a value of .33 for the minimum absolute significant path coefficient. A statistical power level of .8 indicates that the likelihood of making a Type II error is extremely low. The statistical power of .8 is generally considered an acceptable level of power (Kock & Hadaya 2018). Because 155 samples were used in this study, there is sufficient evidence that the structural model's results are highly acceptable.

Table 1 reports the sample characteristics (n=155). Further, four out of five (4 out of 5) of the respondents in Metro Manila were BDO bank clients; 32 percent and 12 percent were BPI and Union Bank users, respectively. In addition, two percent to seven percent bank users among the respondents are consumers of other commercial banks.

Table 1. Sample Characteristics

<i>Demographic Profile</i>	<i>Frequency</i>	<i>%</i>
<i>Male</i>	52	34
<i>Female</i>	93	60
<i>Anonymous Respondents</i>	10	7
<i>Age</i>		
<i>20-25</i>	57	37
<i>21-26</i>	63	41
<i>27-31</i>	18	12
<i>32-35</i>	15	10
<i>No Response</i>	2	1

Research Instruments

The researchers developed a structured questionnaire with closed-ended and open-ended questions and a rating scale. These instruments were pre-tested on 100 initial respondents to ensure their understandability and usability of the test questionnaire. The sample size was large enough to support the exploratory factor analysis. Personal interviews with a few customers were used to validate the research instrument's content validity and appropriateness. Pre-testing was beneficial for examining and evaluating the research instrument, resulting in minor modifications to the developed items. These variables (customer satisfaction, brand trust, and customer loyalty) were derived from previously developed research instruments (Hayes 2008, Hess 1995). However, the language of the items has been modified to align with the banking sector. All items were rated on a five-point Likert scale from 5 (strongly agree) to 1 (strongly disagree). The three construct variables were assessed using a 12-item questionnaire.

Analysis and Results

The current study employed a quantitative research design. Additionally, a causal approach was used to quantify the relationships between customer satisfaction, brand trust, and customer loyalty. The parameters of the mediation model were estimated using partial least squares – structural equation modeling (PLS-SEM) with WarpPLS™ statistical software. PLS-SEM is a variance-based estimation technique used to determine the reliability and validity of constructs and estimate the relationships between these measures (Hair et al. 2019). In PLS-SEM, the path model is evaluated in two stages. The first phase involved evaluation of the measurement model. This phase assessed the variables' reliability and validity. The second phase evaluated the structural model, which analyzed the hypothesized relationships between variables (Dimaunahan & Amora 2016). The mean score for all 155 responses was high, exceeding 4, as shown in Table 2. Customer satisfaction scores above the mean indicate that customers perceive the bank favorably.

Reliability and Validity Measurements

The reliability and validity tests (convergent and discriminant) were analyzed to evaluate the measurement model. The assessment of construct reliability enables examining a reflective or formative item or set of items about the construct it is intended to measure (Hair et al. 2016). Composite reliability and Cronbach's alpha are typically used to determine reliability (Hair et al. 2019). To indicate high reliability, the composite reliability (CR) and Cronbach's alpha (CA) values must be equal to or greater than 0.7 (Nunnally & Bernstein 1994). The variables of customer satisfaction, brand trust, and customer loyalty met the criterion for construct reliability. To achieve an acceptable level of convergent validity, the p-values for each item should be less than or equal to .05, and the loadings should be greater than or equal to .5. (Hair et al. 2019). The correlation between an item and a construct is called item loading (Hair et al. 2019). In Table 2, all item loadings are statistically significant and greater than the .5 thresholds.

Table 2. Item Loading, AVE, and Reliability of the Variables

<i>Item</i>	<i>Variables</i>	<i>Mean</i>	<i>SD</i>	<i>Loading</i>	<i>AVE</i>	<i>CR</i>	<i>CA</i>
<i>Brand Trust</i>							
Tr1	The employee is trustworthy when I open an account	4.41	.57	.93			
Tr2	Online bank transaction is trustworthy	4.38	.62	.89			
Tr3	Banking services can increase customers' trust	4.34	.55	.94	.85	.94	.91
<i>Customer Satisfaction</i>							
S1	My choice to use my current bank was a wise choice	4.36	.55	.82			
S2	I am always delighted with bank employees' service	4.31	.64	.81			
S3	Overall, I have a good impression of my bank	4.39	.58	.86			
S4	I am satisfied with the use of ATM facilities at the bank	4.34	.54	.79			
S5	I am satisfied with the online banking experience	4.36	.55	.80			
S6	Overall I am satisfied with my preferred bank.	4.41	.55	.91	.70	.93	.91
<i>Customer Loyalty</i>							
L1	I will not switch bank	4.14	.74	.82			
L2	If I avail loans, I will use my current bank	4.19	.66	.88			
L3	I will recommend this bank to my friends and relatives	4.48	.67	.74	.66	.85	.74

All item loadings significant at $p < .001$; AVE=average variance extracted; CR=composite reliability; CA=Cronbach's Alpha

Additionally, the average variance extracted (AVE) quantified the variance of each construct derived from its items compared to the variance due to measurement error. Each latent variable has an AVE greater than .5, the recommended value for acceptable validity (Fornell & Larcker 1981). The coefficients of AVE were found to be valid. The reliability and validity tests (convergent and discriminant) were analyzed to evaluate the measurement model. The assessment of construct reliability enables examining a reflective item or set of items about the construct it is intended to measure (Hair et al. 2019). Composite reliability and Cronbach's alpha were used to determine to construct reliability. To indicate high reliability, the composite reliability (CR) and Cronbach's alpha (CA) values must be equal to or greater than .7 (Nunnally & Bernstein 1994).

Correlations between variables and square roots of AVE coefficients are shown in Table 3 to assess the instrument's discriminant validity. Discriminant validity determines whether the statements associated with each latent variable are clear to respondents when completing the questionnaire. Additionally, it verifies that statements relating to a single variable, for example, do not conflict with statements of other variables. For each variable, the square root of the AVEs should be greater than the square root of any of the variables' correlations (Fornell & Larcker 1981). The results conclude that the measures possess discriminant validity.

Table 3. Square Roots of AVE Coefficients and Correlation Coefficients

	<i>Trust</i>	<i>Satisfaction</i>	<i>Loyalty</i>
Brand Trust	.92	.77	.57
Customer Satisfaction	.77	.83	.64
Customer Loyalty	.57	.64	.87

Notes: Diagonal elements are the square root of the AVE of constructs, while the off-diagonal elements are the correlation between constructs

Model Fit and Quality Indices

Overall, the results showed that the SEM estimates were within an acceptable range. The p-values of the average path coefficient (APC), average R-squared (ARS), and average adjusted R-squared (AARS) must be equal to or less than .05 for the model to be acceptable. The recommended value for average block VIF (AVIF)

and average full collinearity VIF (AFVIF) indices is 3.3 or less. In terms of Tenenhaus goodness of fit (GoF), an index that measures the model's explanatory power, the following thresholds are used: small if equal to or greater than .1, medium if equal to or greater than .25, and large if equal to or greater than .36 (Wetzels et al. 2009). The GoF is the square root of the product of the average communality index and the ARS (Tenenhaus et al. 2005). The fit and quality indices of the model are within acceptable ranges. The model fit and quality indices are *APC* (.52 $p < .00$), *ARS* (.57 $p < .00$), *ARRS* (.57 $p < .00$), *AVIF* (2.07), *AFVIF* (2.54) and Tenenhaus *GoF* (.65).

Mediation and Model Results

The model for a significant mediating effect test is depicted in Figure 2. The relationship between satisfaction and trust is significant ($\beta = .26$, $p < .01$), as is the relationship between trust and loyalty ($\beta = .33$, $p < .01$). Furthermore, the relationship between customer satisfaction and loyalty is significant ($\beta = .46$, $p < .01$). The mediation model's parameter estimates are summarized in Table 3. The data analysis revealed that customer satisfaction influences respondents' loyalty. The positive path coefficient accentuates the fact that customer satisfaction increases customer loyalty. The path from customer satisfaction to customer loyalty has a significant effect size (Cohen's $f^2 = .31$). The statistical test implies that *H1* is supported.

Table 3. Parameter Estimates of the Mediation Model

<i>Relationships between Variables</i>	<i>Coefficients β</i>	<i>SE</i>	<i>P-Value</i>	<i>f²</i>
H1 Customer Satisfaction → Customer Loyalty	.46	.07	.00	.31
H2 Customer Satisfaction → Brand Trust	.26	.06	.00	.62
H3 Brand Trust → Customer Loyalty	.33	.07	.00	.21
H4 Indirect effect Satisfaction → Brand Trust → Loyalty	.08		ns	

f² is Cohen's (1988) effect size: .02=small, .15=medium, .35=large; β =standardized path coefficient.

On the other hand, customer satisfaction significantly affects trust ($\beta = .26$, $p < .00$). The positive path coefficient signifies that the customer is satisfied with the bank and increases bank trust. The coefficient of determination indicates that 62 percent of the variation in bank trust is accounted for by customer satisfaction. The effect size of the path from satisfaction to bank trust is large (Cohen's $f^2 = .62$). Thus, *H2* is supported. Data analysis also revealed that bank trust and loyalty are positively related ($\beta = .32$, $p < .00$). The positive path coefficient depicts that as customer increases, their trust towards the bank in their intention to be loyal and committed to the bank increases. The effect size of the path from bank trust to bank loyalty is medium (Cohen's $f^2 = .21$). Thus, *H3* is also supported. The indirect effect of bank trust on the relationship between customer satisfaction and bank loyalty is statistically nonsignificant ($\beta = .08$, $p > .05$). This suggests that trust does not mediate the relationship between customer satisfaction and customer loyalty significantly, though positive. And thus, *H4* is partially supported.

Key Drivers of Customer Satisfaction

To add to the context of this research, the researchers asked open questions to examine the customers' satisfaction with their banks. The clustering of the responses is based on the Q methodology evaluation of Talavera's (2020) research on the dimensionality structure of SERVQUAL of Philippine banks. According to the findings, five critical service attributes may contribute to their satisfaction: convenient location (43%), functional ATM (33%), prompt and courteous service (19%), secure bank transaction (9%), and effective customer service assistance (7%).

Discussion

There are significant relationships between customer satisfaction and customer loyalty, customer satisfaction and brand trust, brand trust and customer loyalty, and the mediation effect of brand trust on the impact of customer satisfaction on customer loyalty. For *H1* (Customer satisfaction positively affects customer loyalty), results suggest that superior banking services boost customer loyalty because perceived satisfaction results in loyalty and commitment. The study's findings corroborate those of Cheng et al. (2016), Menidjel et al. (2017), Krivic and Loh (2018), Pasco and Lao (2021), and Manyanga et al. (2022). While the current study demonstrates that Filipino bank customers remain loyal to their bank despite service problems and concerns, Talavera (2020) argues that bank customers do not expect immediate resolution of any bank-related concerns, the bank's effort to respond to and address the customer's queries or complaints reflects the bank's service quality. For *H2* (Customer satisfaction positively affects brand trust), findings suggest that customer satisfaction significantly affects a customer's brand trust. Superior banking services reinforce brand trust because perceived satisfaction brings out respect, a feeling of security, loyalty, and commitment in clients, which supports the findings of Bianchi (2015), Veloutsou (2015), Rather & Sharma (2016), and Kuswati et al. (2021). The results contradict the findings of Fadli et al. (2023) about the absence of a relationship between customer satisfaction and brand trust.

For *H3* (Brand trust positively affects customer loyalty), brand trust also enhances brand satisfaction. A brand trust provides numerous marketing benefits, including reduced marketing costs, increased new customer acquisition, significant trade leverage, favorable word of mouth, and resistance to competitor marketing efforts. As a result, marketing executives can justify promotional expenditures if they wish to ensure both constructs' long-term viability. A customer's brand trust is a precursor to customer loyalty, emphasizing the critical role of trust in loyalty that comes with service quality, reliability, and satisfactory experience of clients with a bank. The results are aligned with the findings of Nunnally (1994), Zeithml et al. (1996), and Malhan & Anjum (2017).

The *H4* that brand trust mediates the impact of customer satisfaction on customer loyalty was partially supported. In the mediation analysis, brand trust was presented as a mediator to the impact of customer satisfaction on customer loyalty, emphasizing the critical role of brand trust in customer loyalty. Brand trust increases in direct proportion to customer satisfaction. The findings corroborate prior research (Bianchi 2015; Cheng et al. 2016; Menidjel et al. 2017; Han et al. 2018; Krivic & Loh 2018). The findings of Albarq (2023), Diputra & Yasa (2021) also converged with the results of this study. It is critical to emphasize that over 86 percent of Filipino bank consumers will not switch banks because of increased satisfaction and brand trust, willingness to recommend their bank to others, and future intention to use additional bank services such as loans, all of which demonstrate customer loyalty and commitment to their current bank.

Conclusion

In commercial banking in the Philippines, brand trust, with its direct and mediating effects, is important to realize customer loyalty. The relevance of the customer experience, the reliability of products and services, and the consistency of customer satisfaction develop brand trust. Customer satisfaction with the bank strengthens customer loyalty, while customer satisfaction develops brand trust. Building strong customer relationships on routine occasions with excellent bank service is the key to building trust and loyalty. Aside from human process intervention to foster excellent customer service with bank clients, customer focus system innovations are necessary to be ahead of the competition.

This study has implications for managers. The study suggested investing in digital infrastructure to streamline the process of opening an account, paying bills, consumer investment, and consumer loans application through an online facility without going to physical banks to avoid long waiting lines. A sophisticated digital transformation to enhance customer experience requires secured and reliable

infrastructure to build consumer trust and confidence. Reliable cybersecurity initiatives are also recommended to ensure online bankers are assured of security online now that bank clients are more inclined to transact an online banking experience. Further study is needed to validate the mediation effects.

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The Authors




Krishna C. Alejandrino (OrcID 0000-0003-0501-8384) is the Executive Director of JA Philippines (A Member of JA Worldwide), and a graduate of Master of Science in Commerce at the University of Sto Tomas Manila. He is a Doctor of Business Administration Candidate. He can be contacted at krishna@japionline.org



Ms. Karmela Palma-Samson (OrcID 0000-0002-5842-1890) is an LLM from the University of Essex, United Kingdom. She teaches undergraduate students and conducts research in Organization Development, Business Strategy, and Human Resources. She is also a Doctor of Business Administration Candidate. She is currently affiliated with the Qatar Financial Centre Regulatory Authority. She can be contacted at k.samson@qfcra.com



Global competitiveness Index vs. economic growth: Analysis of relationship in the Dominican Republic Context

Moisés Alejandro Banks Peña , APEC University, Dominican Republic
Corresponding author: mbanks@unapec.edu.do

This research studied the relationship between the Global Competitiveness Index (GCI) and Economic Growth (EG), motivated by the apparent decline of the Dominican Republic (DR) in the 2017-2018 report, with respect to the previous. As the World Economic Forum (WEF) prepared its reports using data from international cooperation and financing organizations, the concept of competitiveness was evaluated by analyzing data on indicators from the same type of institutions. As some leading scholars had previously stated, the investigation results contradict the WEF's statements about a direct positive relationship between EG and the GCI. Moreover, the negative impact of assessing the GCI indicators based on responses of senior business executives to surveys applied by the WEF was also determined in the DR context.

Keywords: Global Competitive Index, economic growth, Dominican Republic

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Introduction

The World Economic Forum (WEF 2018), since 1979, has been publishing the Global Competitiveness Index (GCI) as an indicator of performance for most of the world's countries. After assessing the competitiveness of nations, in their report from 2017-2018, they define competitiveness as a set of institutions, policies, and factors that explain a country's productivity level. That refers to the prosperity that an economy can achieve and the rates of return obtained by investing in that economy. Both elements are the drivers of its Economic Growth (EG). The most competitive economy is the one that is more likely to grow quickly over time, and the index measures this growth potential using weighted averages of different components. The GCI components are organized into twelve categories or pillars and grouped into three sub-indices. In addition, the index incorporates statistical data provided by entities such as International Monetary Fund (IMF), World Bank (WB), International Labor Organization (ILO), International Telecommunications Union (ITU), United Nations Organization for Education, Science, and Culture (UNESCO), World Health Organization (WHO), Inter-American Development Bank (IDB), among others. In addition, they include indicators determined from the Executive Opinion Survey, applied by the WEF to reflect qualitative aspects of competitiveness and correct the lack of data on many economies (World Economic Forum 2018). The basic requirements of the global competitive pillars are

institutions, infrastructure, macroeconomic environment, macroeconomic stability, health, and primary education. The efficiency enhancers of the global competitive pillars are higher education and training, good market efficiency, labor market efficiency, financial market development, technological readiness, and market size.

Moreover, the innovation and sophistication factors are business sophistication and innovation capacity (World Economic Forum 2018). In the 2017-2018 GCI report, the DR outcomes appeared to have deteriorated from the previous report compared to other countries of the region. This made us check the results obtained by Panamá, Trinidad and Tobago, Jamaica, Guatemala, Nicaragua, Honduras, Costa Rica, and DR in the GCI Report and the data about EG of WB from 2007 to 2016, and the comparison yielded a contradiction, as can be seen in Table 1. Countries with less EG than DR and Nicaragua had a better GCI rank, so it is intuited that there is no direct relationship between both indicators because this negates the explanations of WEF cited previously.

Table 1. Comparative EG and GCI / Averages (2007-2016)

<i>Countries</i>	<i>EG</i>	<i>GCI</i>
Costa Rica	4.09	4.31
Dominican Republic	5.31	3.77
Guatemala	3.52	4.01
Honduras	3.28	3.89
Jamaica	-0.06	3.90
Nicaragua	4.17	3.64
Panamá	7.23	4.36
Trinidad and Tobago	0.73	3.94

Source: the author, from the GCI and WB data

Particularly for DR, the place occupied in the GCI and the level of EG during the time frame analyzed, at first glance, show that there is no direct relationship between the two indicators, as the values presented in Table 2 revealed.

Table 2. Comparative Matrix GCI vs. EG

<i>Year</i>	<i>GCI</i>	<i>EG</i>
2007	3.65	8.71
2008	3.72	3.21
2009	3.75	0.95
2010	3.72	8.32
2011	3.73	3.10
2012	3.77	2.79
2013	3.76	4.74
2014	3.82	7.61
2015	3.86	7.04
2016	3.94	6.65

Source: the author, from the GCI and WB data

On the other hand, the country's rating is demerited when more information from surveys and less concrete numerical data are used, as can be validated by Table 3. This situation motivated an investigation of those results based on pragmatic epistemology (Creswell 2014). This epistemology states that knowledge arises from actions, situations, and consequences, allowing researchers to use multiple research methods according to their needs and purposes. So, different points of view can be expressed,

and various forms of data collection can be applied because the problem is more important than the methods, and all types of approaches are used to understand it.

Table 3. Comparative Matrix Place in Ranking versus Percentage of Answers to Surveys

<i>Pillars</i>	<i>Comparison Items</i>		
	Indicators	<i>DR Place Obtained</i>	<i>Answers to Surveys (%)</i>
<i>Institutions</i>	Global Competitiveness Index	8	100
	Global Innovation Index	5	88
<i>Infrastructure</i>	Global Competitiveness Index	7	67
	Global Innovation Index	3	40
<i>Macroeconom ic</i>	Global Competitiveness Index	2	0
	Economic Growth (WB)	2	0
<i>Environment</i>	Inflation in Consumer Prices (WB)	2	0
<i>Health and Primary Education</i>	Global Competitiveness Index	7	40
	Universal Health Coverage (WHO)	3	0
<i>Higher Education and Training</i>	Doctors / 10 thousand People (WHO)	3	0
	Student / Teacher Ratio (UNESCO)	2	0
	Net Primary Enrollment Rate (UNESCO)	3	0
	Global Competitiveness Index	5	25
<i>Goods Market Efficiency</i>	Tertiary Education Rate (GII)	2	0
	Training Companies (GII)	1	0
	QS Ranking QS for Universities	3	0
<i>Labor Market Efficiency</i>	Global Competitiveness Index	7	94
	Import of Goods and Services (WTO)	3	0
	Export of Goods and Services (WTO)	3	0
<i>Financial Market Sophistication</i>	Global Competitiveness Index	7	90
	Labor Productivity (OIT)	2	0
	GDP / Employed Person (OIT)	3	0
	Employment Rate (OIT)	3	0
	Global Competitiveness Index	8	100
<i>Technological Readiness</i>	Access Points / 100 thousand Adults (IDB)	2	0
	Credits for People Over 15 Years Old (IDB)	1	0
	Regulated Financial Intermediaries (IDB)	3	0
	Bankruptcy Risks (WB)	4	0
	50 Largest Banks in Latin America (S&P)	3	0
<i>Market Size</i>	Global Competitiveness Index	5	43
	Foreign Direct Investment (ECLAC)	3	0
	Internet Users as a Population % (ITU)	3	0
	Mobile Broadband	3	0
<i>Business Sophistication</i>	Global Competitiveness Index	1	0
	GDP (WB)	1	0
<i>Innovation Capacity</i>	Global Competitiveness Index	8	100
	Global Innovation Index	2	27
	Global Competitiveness Index	7	86
<i>Capacity</i>	Production of Technology & Knowledge	4	15
	Creative Production	3	15

Based on the apparent decline of the Dominican Republic in its 2017-2018 GCI rating, the two following objectives were defined for the investigation: (1) to verify if there is a direct positive relationship between the GCI and the EG, and (2) to prove whether the method of gathering information to determine the value of an indicator affects the qualification obtained by a country in the GCI.

Theoretical Framework

For successful economic growth, a country must advance competitively driven by factors of production, investment, and innovation, so the GCI was developed by the WEF to provide a picture of the growth potential of an economy (Delgado et al. 2012). In that sense, this indicator has been used by policymakers, business executives, and academics as a tool that shows an economy's productivity and its ability to prosper and grow sustainably (Sala-i-Martin 2016). Therefore, the GCI has become an essential reference for governments, which react differently to the annual results of their countries (Xia et al. 2012). Despite the GCI having been assumed as a helpful tool, some researchers question its validity. Krugman (1994), Nobel Prize in Economics, stated that competitiveness is meaningless when applied to national economies. In that sense, Lall (2001) pointed out that some analytical, methodological, and quantitative problems prevent the GCI from inducing a better economic performance. It should also be noted that the ranks of some countries have not been stable over the years, and an index could not be a good standard if it is not so stable (Xia et al. 2012). While Van Stel et al. (2005) acknowledged that GCI could not predict EG well when combined with other variables.

McArthur and Sachs (2002) emphasized that the index authors have linked GCI with EG using past growth as the dependent variable and admitted the need to validate that GCI can help explain future rather than past growth. They also indicated that the research into economic growth is in progress. The understanding of the relevant technological, institutional, geographical, and societal factors enhances continuously, so the WEF is constantly updating the framework used in the GCI. For their part, Bernardi et al. (2004) explained that the indicators were called informative, predictive, and program evaluative to support analysis in any complex field. To them, an indicator results from the disarticulation of a complex phenomenon, observing its fundamental components and its reassembling through rationalized aggregation, weighting, and transformation procedures.

Therefore, different frameworks refer to the qualitative and the quantitative, the subjective and objective, external sources and original surveys, the research of connections, and reasonable comprehensive visions. In that tenor, they argue that objectivity in measuring a complex construct is more formal than substantial. Hence, the measurement needs to be based on factual evidence as opposed to a measurement based on an opinion. Moreover, it must be considered that people's perception of something is instinctively based on the comparison, so respondents' perceptions will also differ with their different perspectives, their background, wealth, and experience (Kaufmann et al. 2005).

The previous approaches guided us to define the research questions as follows: a) Would the GCI directly impact the economic growth of nations? b) Is there any relationship between the period analyzed and the results in the GCI? c) Does the place obtained in the ranking depend on the percentage of data obtained from surveys? d) Does the source of the data affect the weighted weight of the indicator and, therefore, the DR classification in the GCI ranking? Considering the above, a conceptual framework was developed, as shown in Figure 1. It reflects the incidence of the time on GCI indicators, as well as the impact of the nature of the indicator and its characterization in the country's qualification. In addition, the researcher considered the possibility that GCI directly affects the EG.

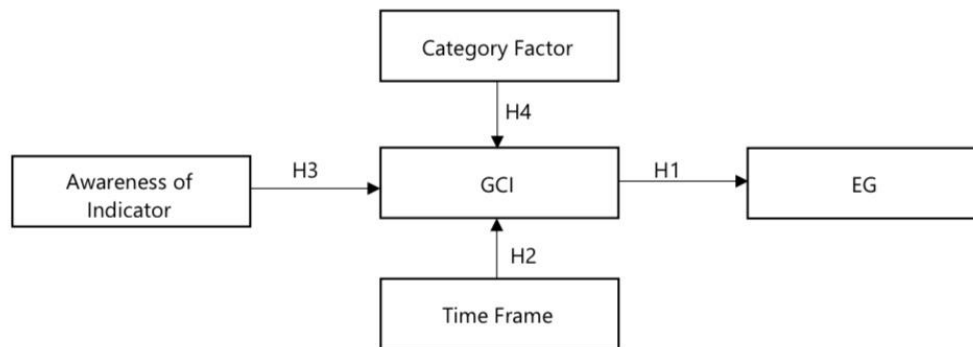


Figure 1. Conceptual Framework
Source: the author

Hypothesis Development

To better analyze the situation with the DR rating in the GCI 2017-2018 report, four hypotheses capable of contributing to understanding the causes of the phenomenon were defined. The behavior of the data corresponding to the GCI and the EG show results that do not indicate a direct correspondence. For example, the DR score for the GCI in 2016 was 3.94, while the value of its EG was 6.65. In 2009 the EG was .95, and GCI was 3.75; in 2007, the EG was 8.71, and the GCI was 3.65. The non-correspondence is evident, as shown in Table 2. To achieve global competitiveness, a nation must accomplish high economic growth rates, usually measured with the increase in their Gross Domestic Product (GDP) (Poi & Ekekwe 2017; Poi 2020; as cited in Oke et al. 2022). Data from entities such as World Economic Forum (2017), World Bank (2018; 2019), International Monetary Fund (2017), World Trade Organization (2017), Economic Commission for Latin America and the Caribbean (2017), Inter-American Development Bank (2017), World Intellectual Property Organization (2017), International Labour Organization (2017), S & P Global Market Intelligence (2017), among others, supported the comparisons between the places obtained by DR in the reports of said institutions, taking in account the statement of Ketels (2016) that the economic growth reflects the productivity of a country. In the GCI 2017-2018 report, five Central American and Caribbean nations scored better than the Dominican Republic (3.9). These countries were Costa Rica (4.5), Panama (4.4), Jamaica (4.2), Guatemala (4.1), and Trinidad and Tobago (4.1), while Honduras (3.9) and Nicaragua (3.9) had the same rating as DR in the ranking. Based on these observations, the researcher establishes the first hypothesis:

H1. There is a significant relationship between GCI and EG.

The interest is to prove that the WEF's statements regarding the direct relationship between the GCI and the EG do not correspond to reality, as shown in the case of DR analyzed in this investigation. The data behavior of the DR ratings in the GCI during the period selected tends to a positive increase, although with moments of decline. From 2007 to 2009, it went from 3.65 to 3.75, and then dropped to 3.72 in 2010 to go up to 3.77 in 2012. In 2013, it was reduced to 3.76 and then assumed a continuously increasing trend up to 3.94 in 2016. In other words, the periods of rating improvement and rating reduction are presented in a staggered manner. From 2007 to 2009, there was an increase, and from 2009 to 2010, there was a decrease. A new increase happened from 2010 to 2012, and another decline occurred from 2001 to 2013. Finally, from 2013 to 2016, a new increment materialized. (Ketels 2016; WEF, 2017-2018). As the GCI is linked with EG using past growth as the dependent variable (McArthur and Sachs, 2002), it was

necessary to validate if there was any relationship between the results obtained and the time elapsed during the period analyzed. Hence, it hypothesizes:

H2. There is a significant relationship between the period (2007-2016) (Time Frame) and GCI.

Chun and Larrick (2022) found that the influence of ranks was justified by the extent to which decision-makers prioritized the top-ranked option and overlooked the other options when given rank information. Berg et al. (2022) argued that the analyses of the reasons for measurement divergence detected a rater effect where a rater's overall view of a firm affected the measurement of specific categories. As shown in Table 3, the results of DR improve in each pillar of the GCI using indicators based only on numerical data. If the information comes from responses to surveys, the results deteriorate. Something similar happens when we use another type of indicator for comparison. In the case of the Institutions pillar, the DR obtained the last place compared to the countries selected for the study. Still, the qualification in this indicator depends 100% on answers to questions from surveys. The same happened with the Financial Market and Business Sophistication pillars (WEF 2017-2018). While in the opposite direction, DR obtained first place in the Market Size pillar and second place in the Macroeconomic Environment pillar, which depends 100% on tangible data (WB 2017-2018). This observation led us to the 3rd hypothesis, to validate the data from pool incidence in the results for DR in the GCI ranking:

H3. There is a significant dependence between percentage data from poll (awareness) and place in GCI.

The empirical evidence from Russian software SMEs operating in global niche markets of Mihailova et al. (2020) revealed that managers perceived institutional influence on their firms' ability to be internationally competitive in several direct and indirect ways. There are negative impacts of institutions and triggering forces that incentivize SMEs' global expansion and evolution of competitive advantages (Mihailova et al. 2020). Taking into account the fact that 7 of the 12 pillars of the GCI use from 85 percent to 100 percent of the responses to the survey, the weight of the indicator within the evaluation could have had a pernicious incidence in the DR results in that sense, another hypothesis was developed, to identify the categorical relationship between the pillars of GCI in the DR case:

H4. Institution and market size have different categories.

Methodology

Based on the approaches of Creswell (2014), Crotty (1998), and Yin (1981), a hybrid of quantitative and descriptive or cross-sectional research was applied to determine whether there is a relationship between the GCI and the EG and to validate if the method used to raise the information affect the score in the GCI ranking. Pragmatic epistemology contributed to the strategy to search for information, define topics of interest, and collect data from the review of documentary information on economic and social performance indicators from 2007 to 2016. This information came from the same type of entities that provide data to determine the GCI (WEF 2017-2018), and the results obtained by DR and the seven nations of Central America and the Caribbean that exceeded DR in the GCI 2017-2018 were tabulated. Also, a table was structured to show the DR rating in the GCI Index and the levels of EG, as well as another table relating the place obtained by DR with the percentage of answers to surveys used in the indicators. To analyze the significant relationship between GCI and EG, and between the period 2007-2016, an Interrupted Time Series Analysis was applied, using an adaptation from the Fortran program written by Glass and Maguire and based on Box and Tiao IMA (1,1) procedure, (Gottman et al. 1974). Regarding the level of significant dependence between the percentage of data from the poll and the place obtained by

DR in the GCI report, categories of the pillar were evaluated by correspondence analysis since it allowed us to graphically represent the dependency of the place obtained for the % of indicator data taken based on surveys, both variables characterized as categorical (Fernández 2011).

Results and Analysis

Given the categorical characteristic of the data and the sample size, a non-parametric analysis evaluated their relationship. In this case, the GCI is the independent variable, while the EG is the dependent variable. Therefore, the Interrupted Time Series Analysis *validated hypothesis number 1 (H1)*, so there is not a significant relationship between GCI and EG because the relationship between each pair of numeric variables of the dataset had resulted in a correlogram lag 1 $r=1$, but the negative association was not significant due to small sample size, since $\rho=-.01$, $t=-.41$ and $p=.68$. Then, GCI did not cause EG given the results of the Granger Causality Test, where $Y=f(X)=F=3.384$ and $p=.01$. Moreover, the level of correlation between the 2007–2016 period and GCI, was expressed by a correlogram lag 1 $r=6.90$, indicating that the time series data is not randomly related or due to chance alone. The computed Spearman's $\rho=.94$ ($t=7.95$, $p=.00$) indicated a significant relationship between the period (2007-2016) and GCI, confirming *hypothesis number 2 (H2)*. Considering previous results, a Spearman Rank Correlation Test was applied between Years & GCI, based on time series data without missing values=10, and applying $t(df:8)$ distribution (two-tailed), validating these results.

To determine the relationship between the place ranked DR in the GCI and the information for the qualification collected through polls, hypotheses 3 and 4 were evaluated based on a matrix that compares Place in Ranking versus percentage of Answers to Surveys. First, *hypothesis 3 (H3) about the significant dependence between percentage of data from the poll (Awareness) and the place in GCI was validated*, considering the resulting values of the computed Chi-square=22 with $df=11$ and $p=.02$. Also, the likelihood ratio test (*Likelihood Ratio=24.55*, $p=.01$) showed that a higher degree of awareness results in the worst place in GCI. Figure 2 shows the inverse relationship of the position occupied in the GCI for the percentage of data from responses to surveys. The higher the percentage, the worse the position occupied.

Table 4. Awareness on Indicators

Interpretation	Factors	Inertia	Proportion of Inertia
Weakest	1 Macroeconomic Context	.11	.03
	2 Market Size	.16	.04
	3 Higher Education & Training	.19	.05
	4 Technological Readiness	.22	.06
	5 Health and Primary Education	.25	.07
	6 Infrastructure	.27	.08
	7 Innovation Capacity	.29	.09
	8 Labor Market Efficiency	.32	.09
	9 Financial Market Sophistication	.33	.10
	10 Business Sophistication	.35	.10
	11 Good Market Efficiency	.37	.11
Strongest	12 Institution	.39	.11
Total Inertia=3.31, Inertia=.28			

Source: the author

Finally, the correspondence analysis stated, as can be seen in Table 4, that the values in the proportion of inertia for the indicators entitled Institution (.11) and Market Size (.04) confirmed the more significant incidence in the GCI rank of the pillars more supported by answers to poll than in numerical data, taking in account degree of awareness on indicators.

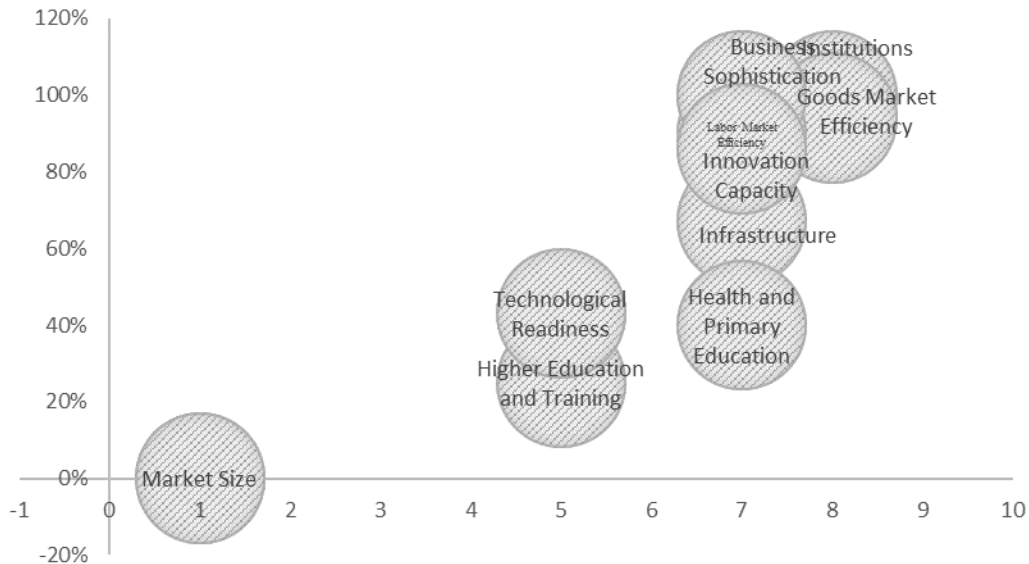


Figure 2. Graphical Analysis of the Place in GCI and Awareness of the Pillars

Source: the author

Discussion

In this section, the results of this research are explained and evaluated with reviewed literature according to each hypothesis tested. The *H1—There is a significant relationship between GCI and EG—is not statistically generalized in this research. The negative rho value indicates an inverse relation for the variables, and a lower p-value signifies a greater significance of the observed difference. Moreover, a $p \leq .05$ is generally considered statistically significant, and the difference is not due to chance alone (Fernández 2011). In that tenor, a statistically significant correlation does not necessarily mean that the strength of the correlation is strong, but when p-value is below the significance level indicates statistically significant lags. In contrast, those above indicate no statistically significant lags (Akoglu 2018). Therefore, the results showed no significant relationship between GCI and EG, given that there is a strong correlation with a low statistical significance. The *H2—There is a significant relationship between the period (2007-2016) (Time Frame) and GCI—was validated based on a similar criterion, indicating that the values of the GCI have some correspondence with the years, that is, not originated in an arbitrary cause only or due to chance alone. Also, the Spearman rank correlation test supported this premise based on time series data without the number of missing values specified and applying a two-tailed t distribution.**

The *H3—There is a significant dependence between percentage data from poll (awareness) and place in GCI—was evaluated based on a matrix that compared place in ranking versus percentage of survey answers. The chi-square and the likelihood ratio analyses showed that a higher degree of awareness results in the worst place in GCI. This corresponds to Kaufmann et al. (2005) affirmation of the direct relation of perception with comparison, regardless of perspectives, background, wealth, and experience. Hence, the incidence of the data from the poll is bigger because they weigh more than factual data. This also justifies Bernardi et al. (2004) remarks that every construction of complex indicators must respect the*

accurate rules of measurement and aggregation on which it is focused. Also, they affirmed that there are different levels of separation between the intention to arrive at a judgment on a complex dimension and its realistic measurement based on the system of operational conditions adopted and related to methodological rigor. In this case, the perceptions reflected in the answers from the persons surveyed had a stronger incidence in the classification in the GCI because they participated in a greater proportion, so a high degree of awareness was converted to a worst ranking place in GCI. Nevertheless, the validated trustworthiness of the data structure used in classifying the different global competitive pillars is necessary to improve the methodology to reflect reality. Chun and Larrick (2022) and Berg et al. (2022) assert that the rater's awareness as affected by various exposures and situations affects the ratings.

The final *H4—Institution and market size have different categories—is* another factor in this research, as also separately emphasized in the study of Mihailova et al. (2022). The correspondence analysis stated that the values in the proportion of inertia for the indicators confirm the bigger incidence in the GCI rank of the pillars more supported by answers to the poll than in numerical data, taking into account the degree of awareness of indicators. The inertia of a component has been defined as the amount of variation that the component explains, and its proportion indicates the part of the total inertia that is explained by each main component. Therefore, low inertia means that all the points are located very close to the center of gravity and similar. In contrast, high inertia values could imply significant differences from the rows or columns' average profile (Fernandez 2011). In this case, the global competitive pillars named *institution* and *market size* have different categories related to their incidence level, based on the place in GCI due to the degree of awareness (Mihailova et al. 2022).

Conclusion, Implications, and Future Directions

The GCI, for decades, has been considered a driver of the EG. Still, this research has shown no significant relationship between GCI and EG, although the behavior of the data corresponds to the period analyzed. Moreover, the study confirms a significant dependence between % data from poll (Awareness) and place in GCI. In other words, while there is a greater proportion of evaluations supported by the subjective perceptions expressed in response to surveys, the worse the position in the GCI ranking will be for some countries. The WEF must redesign some of the elements used to assess the competitiveness of countries. A greater proportion of indicators based on data, not perceptions, is required since economic growth and development are concrete results that can be measured through objective variables. The case of DR makes evident that the indicators used in the GCI to qualify each country's performance need to be improved to reflect reality better. Besides, moving effectively from the current place in the GCI to a special place deserves to take advantage of the momentum and facilitation generated by the results obtained from the country and expressed through concrete numerical data. It also requires improving the perceptions expressed through the surveys applied by the WEF and defining a communicative plan in each State institution to enhance the stakeholders' perception of the country's performance based on concrete and tangible facts. Also, it is necessary to propose improvements to the WEF on how to measure better some performance indicators to guarantee a greater attachment to reality. Moreover, it is important to apply benchmarking to take advantage of experiences from countries that surpass DR in a real way, as well as generate conditions of synergy between state and private institutions since they directly impact the country's competitive performance.

Regarding future actions, as the study detected the discrepancies between the reality expressed by the factual data and the perceptions of the surveyed stakeholders, the reasons for the differences must be determined. This research's results open space for future studies in two ways. One has to do with how to restructure the indicators to evaluate the pillars of the GCI so that there will be a correspondence between the results based on data and responses to surveys. It is also important to extend the study to other regions to confirm if the phenomenon occurred with the DR occurs. If this is the case, the WEF will be

compelled to take action to guarantee a more precise way to evaluate and rank the different countries of the world. The second way broadens the spectrum to analyze whether, in other global indices, the detrimental effect in the rating for some countries is evident due to the subjectivity of perceptions communicated in the polls answers, in contrast to reality expressed by the actual data. Added to the above is the fact that the use, in a high proportion, of perceptive answers to evaluate the performance of countries has a negative effect on different nations in the world, as shown in the Dependence Analysis as in the case of the DR, this part of the results makes evident that the indicators used in the GCI to qualify the performance of each country need to be improved so that they can better reflect reality.

Limitations

The key limitations for this research are related to the number of years considered in the GCI report, since given the fact that a decade was taken, only ten values were considered, which generated restrictions for a complete statistical analysis. The point of evaluating a single country implied needing to compare results that could reinforce the findings and the conclusions derived from them. On the other hand, the high number of indicators and their components used to qualify the countries makes the work very laborious in operational terms since the analysis cannot be automated. It is important to consider the propensity to use surveys in response to the labor difficulties in locating and using numerical data, the challenges to minimize the bias associated with the individual perception of phenomena, and the mitigating effect of peer pressure. Interest groups on personal opinions related to the dynamics of institutional information gathering in some state and private entities. Another limitation is the need for more indicators based on actual data due to the difficulties in measuring some phenomena related to the provision of services to satisfy necessities or resolve problems.

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Author



Dr. Moisés Alejandro Banks Peña (OrcID 0000-0001-8714-6878) is the Research Coordinator of the Economic and Business Sciences Faculty of the APEC University in the Dominican Republic. Dr. Banks has more than 30 years of professional, teaching, and researching experience, in business management, strategic performance, and corporate social responsibility practices, among others. Dr. Banks can be contacted at moises.abp@gmail.com and mbanks@adm.unapec.edu.do



Customer awareness of green purchase decisions regarding green products in Nepal

Garima Shrestha^{ID}, Quest International College, Nepal
Nirajan Devkota*^{ID}, Kathmandu Model College, Nepal
Krishna Dhakal^{ID}, Quest International College, Nepal
Surendra Mahato^{ID}, Tribhuvan University, Nepal
Udaya Raj Paudel^{ID}, Quest International College, Nepal
Sarita Agrawal^{ID}, Madan Bhandari Memorial College, Nepal
*Corresponding author: niranjand@kmcen.edu.np

This study focuses on customer awareness of green marketing and determines consumers' purchase decisions regarding green products in Nepal. Following the notion of the theory of planned behavior, this study uses a convenience sampling method to collect data using a structured questionnaire via KOBO Toolbox. The results show that environmental concern, green perceived benefits, green perceived quality, green willingness to purchase, and green future estimates all significantly impact green purchase decisions. Green marketing is an emerging concept that deserves more attention. As a result, more people are urged to adopt green goods for environmental and health reasons. Therefore, these results may help policymakers develop efficient plans and tactics to encourage sustainable consumption.

Keywords: Customer awareness, customer purchasing decision, green product

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Introduction

Human wants are infinite, but resources are finite. Thus, marketers use limited resources efficiently and effectively to meet individual and corporate objectives without wasting many resources (Desing et al. 2020). As the globe becomes more globalized, companies are moving from conventional marketing to a contemporary economy that is ready to study green economic parts of firms via various green technology and environmental management tactics (Wahidul et al. 2019). Green packaging, eco-labeling, reuse, reduce, recycle, green disposal, etc. are crucial for sustainable company growth and carbon footprint reduction (Wandosell et al. 2021). From the 1960s ecology movement focusing on pollution and energy

conservation to the recent use of environmental issues as a competitive advantage in business and politics, individual and societal concerns over environmental issues have become increasingly apparent (Juwaheer 2005). From the late 80's, global challenges of climate change, high carbon emission, global warming, natural calamities, etc., green development and green movement get special attention (Peattie 2001). In the 21st century, agriculture and industrial businesses are intimately linked to environmental challenges including global warming, greenhouse gas emissions, pollution, and climate change, which have a disastrous influence on human behavior (Gornall et al. 2010). Consumers must use more green goods to tackle these environmental problems (Handfield et al. 1996). Thus, affluent nations use green marketing more than low- and middle-income nations (Johri 1999).

Green marketing is an important topic in business and academia as people become more conscious of environmental and sustainable development challenges (Dincer & Rosen 1999). Environmental challenges are among the most pressing in the 21st century, and people want to green the planet (Saleem et al. 2021). Since 1987, numerous significant articles have discussed green marketing concerns, including Martínez et al. (2020). Greenwashing is a key problem in green marketing. Greenwashing is when companies deceive consumers about their environmental practices to improve their image. It hurts enterprises' reputations and finances, customers, shareholders, investors, regulators, environmental protection agencies, and society (Zhang et al. 2018). According to Heckman et al. (2019), the most prevalent greenwashing approach is a corporation advertising an eco-friendly program or policy or an area of its manufacturing process. Still, its fundamental business operations are not sustainable. Going green is healthy for the environment and may help Nepal achieve sustainable development. Ghimire (2019) noted that organic product demand is rising in Kathmandu, Chitwan, and Pokhara. Eco-friendly items also command a premium in Nepal (Devkota et al. 2022). Thus, Nepalese service and industrial companies and non-profits are hosting more green fairs and projects. Laxmi Bank built solar lights on the Bagmati Bridge, and the Green Angel initiative has given rural and young Nepali women green employment (Shrestha 2018). Green marketing research is scarce in Nepal. Only a green marketing tool study on customer purchase intention and impression of green goods was included. Thapa (2019) found that urbanites still know about the subject.

Compared to wealthy nations, few developing countries like Nepal have established Green Marketing policies for sustainability. More than thorough studies on green marketing and customer behavior toward green goods are required in Nepal. Although organic and eco-friendly goods are gaining popularity in Nepal, research on the variables affecting consumer behavior toward green products and the efficacy of green marketing methods in the nation are sparse. In addition, some other questions remain unsolved in the context of Nepal. They are: customers' green marketing awareness, factors influencing Kathmandu Valley customers' green shopping decisions, green product marketing: what's hard? What's an excellent green marketing strategy? This study examines Kathmandu Valley customers' green marketing awareness. Nepal has a substantial study deficit in general concerning green marketing, customer behavior, and sustainable company practices.

The purpose of the study is to determine the influence of (1) environmental concern on green purchase decisions; (2) green perceived benefits on green purchase decisions; (3) green perceived quality on green purchase decisions; (4) green awareness of the price on green purchase decision; green willingness to purchase on green purchase; and (5) green future estimation on a green purchase decision.

Theoretical Framework and Hypotheses Development

This study opted to use the theory of planned behavior (TPB), as it is concerned with the prediction of a person's behavioral intentions and behavior based on three fundamental beliefs, namely, behavioral belief, normative belief, and control belief (Ajzen 1991) which are utilized to understand the linkage between green marketing and customer. Thus, TPB is especially used to know how customers' attitudes

about conduct, subjective standards, and perceived behavioral control influence their purchase awareness and intention for green marketing products.

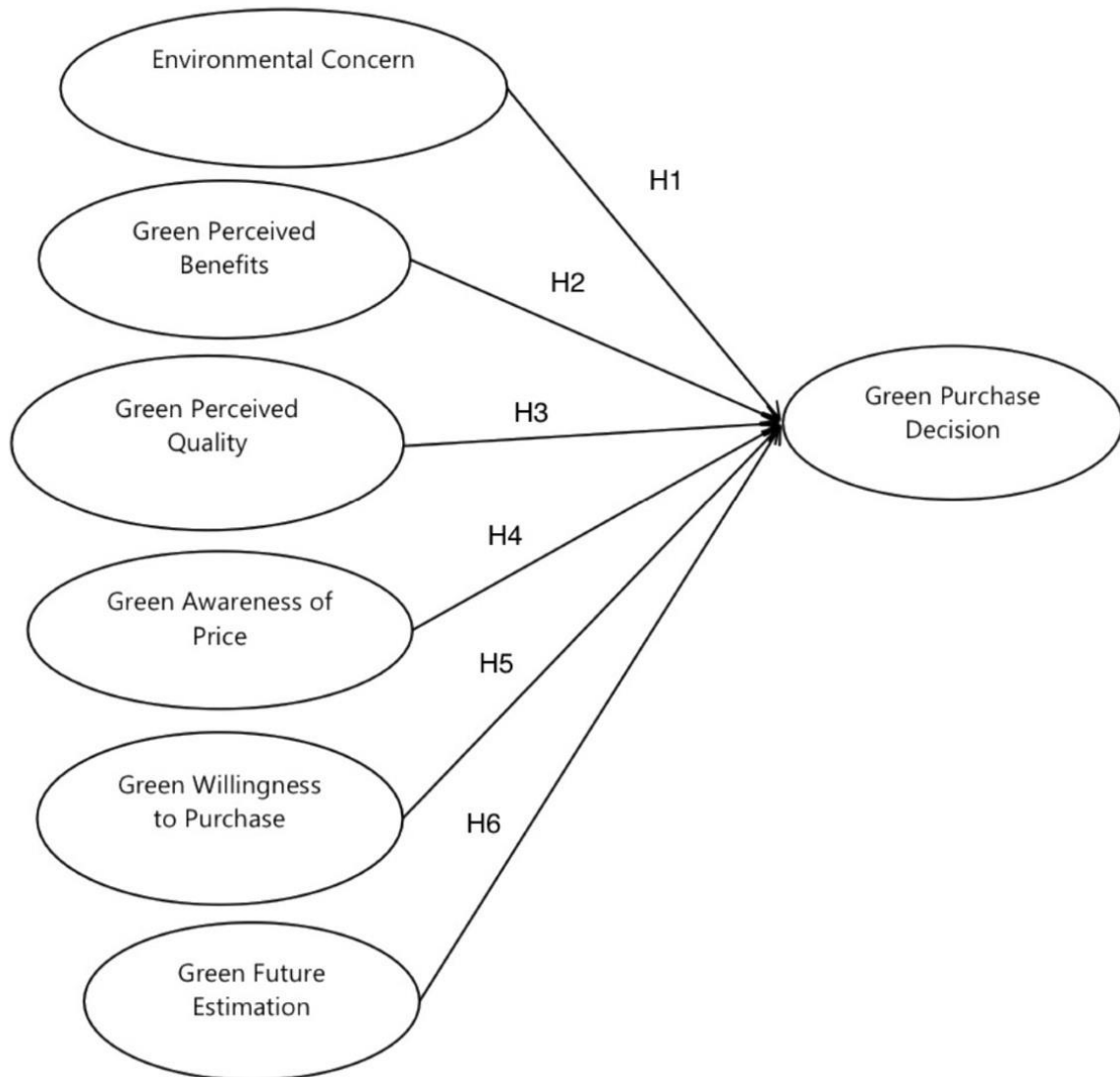


Figure 1. Conceptual Framework

Source: the authors

The models taken into consideration are the model of the Green Purchase Decision (Nekmahmud & Fekete-Farkas 2020), the Green Hotel Visit Intension Model (Verma & Chandra 2018), the Conceptual Model of Green Purchasing, Green Purchase Intension Model (Woo & Kim 2019), and Conceptual Model of Green Product Purchase Intention (Maichum et al. 2016). As a result, figure 1 tries to explain the impact of green purchase decisions based on Environmental concerns, green perceived benefits, green perceived quality, green awareness of price, green willingness to purchase, and green future estimates.

Environmental Concern and Green Purchase Decision

Customers concerned about environmental issues are enthusiastic about products that are safe for the environment and are eager to purchase such products to live a healthier lifestyle (Tompas et al. 2020). Despite this, it is still feasible for it to indirectly impact the objective of gaining things via the medium of perceived behavioral control (Barbaritano & Savelli 2021). In a similar line, the attitudes that people have about purchasing environmentally friendly items have an impact on the amount of green expenditures that they make (Cheung & To 2019). There is a connection between environmental concerns and environmentally conscious purchasing behavior. A link also exists between environmental and social benefits (attitudes) that positively influences environmentally conscious purchasing behavior. Consumers more knowledgeable about the environmental impact of products tend to be more likely to purchase environmentally friendly products (Cheung & To 2019). This suggests that providing more information about the environmental impact of products helps to increase environmentally conscious purchasing behavior. So our first hypothesis:

H1. Environmental concern has a significant positive influence on the green purchase decision.

Green Perceived Benefit and Green Purchase Decision

Perceived benefits are beliefs about the positive results of behaviors in response to perceived risk and include six characteristics: monetary economy, convenience, value, quality, expression, and entertainment (Wu & Chen 2014). Menassa and Baer (2014) highlighted that the perceived benefits correlate with sustainable building design and appear more influential in the economic and environmental aspects. Consumers' perceived benefits of green products will lead to a positive attitude towards purchase intent and higher satisfaction. This is because consumers are more likely to purchase a product if they believe it will positively impact their lives or the environment (Jacobsen 2006). However, by adding actual benefits, greenwashing can positively affect perceived benefits. Companies need to provide accurate information about the environmental benefits of their products to avoid greenwashing and to increase consumer trust and satisfaction. Perceived benefits also mean customers want accurate and useful quality products by reducing uncertainty (Wang et al. 2017). Our second hypothesis:

H2. Green perceived benefit positively influences the green purchase decision.

Green Perceived Quality and Green Purchase Decision

According to Zeithaml (1988), perceived quality is a significant factor that describes consumer judgment about the overall superiority of a product compared to an alternative. It influences consumers in making buying decisions and measures customer satisfaction. In addition, the concept of green perceived quality was referred to as 'the consumers' decision about the overall environmental excellence of the brand' (Chen et al. 2015). This means that consumers assess the environmental performance of a brand or product and use it as a criterion to make purchasing decisions. Therefore, green perceived quality is an important aspect that companies should consider when marketing their products to consumers. Research has shown that perceived green quality can positively impact consumers' purchasing behavior and brand loyalty (Zhao et al. 2022). However, it is important to note that greenwashing, or making false or misleading claims about a product's environmental benefits, can negatively impact green perceived quality and consumer trust. Our third hypothesis:

H3. Green perceived quality positively influences the green purchase decision.

Green Awareness of the Price and Green Purchase Decision

Many researchers have highlighted that price is a crucial factor influencing consumers' purchase decisions when purchasing any product or service (Nekmahmud & Fekete-Farkas 2020; Xiao et al. 2019). This is especially true for green products, which are often more expensive than traditional ones. Companies' management faces the pricing issue of their products with an appropriate choice of reasons related to procurement and marketing. For example, the cost of materials and production processes for green products may be higher than for traditional products, leading to a higher price point (Guo et al. 2020). Additionally, some companies may price their green products higher to reflect their perceived value and environmental benefits (Zhang et al. 2020). However, research has shown that consumers may be willing to pay a premium price for green products if they offer superior environmental performance (Guo et al. 2020). Our fourth hypothesis:

H4. Consumers' awareness of the price of green products positively impacts green purchase decisions.

Green Willingness to Purchase and Green Purchase Decision

Green willingness to purchase refers to the extent consumers are inclined to buy environmentally friendly products. It is influenced by consumers' positive and negative perceived value of green products (Ahmad & Zhang 2020). For example, consumers with a positive perceived value of organic products are highly interested in buying natural products because they believe they are better for their health, the environment, and overall sustainability. On the other hand, when consumers feel negative value, they are less interested in purchasing natural products, as they may perceive these products as being less effective, less convenient, or more expensive than traditional products (Xiao et al. 2019). The price of green products is often higher than traditional products (Witek & Kuźniar 2020). Earlier research has indicated that consumers are willing to pay a premium price for products based on various criteria, such as being eco-friendly, food quality and safety, and health (Ketelsen et al. 2020). However, it is important to note that consumers' willingness to purchase green products is not solely influenced by perceived value. Other factors like availability, accessibility, education, and marketing influence consumers' decision-making process. Our fifth hypothesis:

H5. Consumers' green willingness to purchase influences green purchase decisions.

Green Future Estimation and Green Purchase Decision

Future estimation of green products depends on consumers' present demand for these products or services. If consumers respond positively in the current market, demand for green products will likely increase (Gao et al. 2018). Consumers tend to be positive toward products they believe are good for the environment and their health (Chang & Chen 2012). Research showed that consumers were willing to pay a premium price for green products that were environmentally friendly and suitable for their health (Gao et al. 2018). This indicates that consumers are willing to invest in products that align with their values and are believed to impact their lives and the environment positively. Additionally, as more and more consumers become aware of the environmental and health benefits of green products, demand for these products will continue to grow (Chang & Chen 2012). Therefore, companies should invest in green products and be transparent about the environmental benefits to increase consumer trust and satisfaction. If consumers positively respond to green products in the current market, the demand for these products will increase. Consumers tend to have a positive attitude towards products they believe are good for the environment and their health. Our sixth hypothesis:

H6. Green future estimation of a product significantly impacts green purchase decisions.

Green Purchase Decision

Additionally, earlier research has found that organic food is often perceived as natural, nutritious, healthy, and eco-friendly (Carrigan et al. 2001). These positive perceptions may drive consumers to choose organic food products over conventional options. However, the higher cost of organic food can still act as a barrier to purchasing, which suggest that while consumers may have positive attitudes towards green and organic products, the price can still play a significant role in their purchasing decisions (Thøgersen 1999).

Methodology

Data Collection

Following explanatory research design and quantitative method, this study was conducted in Kathmandu valley—is the capital city of Nepal—comprised of the Kathmandu, Lalitpur, and Bhaktapur Districts. The major motive for selecting this area was the pollution and environmental degradation of the valley were high compared to other areas in Nepal. Hence, it would be easy to acquire enough information on customers' purchase intention of green products. The target population was the people with whom the intervention would conduct research and develop findings. Therefore, this study adopted a non-probability convenience sampling technique. We collected 208 usable responses for this study from shopping stores, malls, and shops. A structured questionnaire with socio-demographic and Awareness Index questions was created to collect data using the KOBO toolbox. A pilot survey of 15 respondents was tested to confirm the consistency and accuracy of the instrument. The data was collected using the 5-point Likert Scale and analyzed using SPSS and AMOS.

Table 1. Socio-demographic Characteristics

<i>Variables</i>	<i>Frequency</i>	<i>%</i>
<i>Sex</i>		
Male	105	58
Female	75	41
<i>Age</i>		
Below 20	21	11
21-30	117	65
31-40	36	20
40 above	6	3
<i>Education</i>		
Below Higher Secondary	10	5
Bachelors	90	50
Masters	74	41
Above Masters	6	17
<i>Profession</i>		
Service	92	42
Industry	25	11
Government	5	2
Student	64	29
Self-employed	30	13
<i>Marital Status</i>		
Unmarried	114	63
Married	66	36

First, the total number of aware customers was identified through 20 questionnaires for the awareness index. All the respondents were asked about awareness indicators (e.g. environmental beliefs, green

labeling, branding, advertisement, and packaging). There were four questions under all the indicators. The respondents who secured more than 15 were considered "aware." The respondents who secured between 10 and 14 were considered moderately aware, and those who secured less than ten were considered unaware (Paudel et al. 2020). In sampling, only conscious and moderately aware respondents were considered for further analysis. Therefore, out of 218 respondents, only 180 were considered the final samples based on the above condition. Kaiser-Meyer-Olkin test yielded .86 and indicated meritorious sampling adequacy.

Sample Characteristics

The data showed that the majority of the respondents were male (58.33%) who were under the age group of 21-30 (65%), possessed a bachelor's degree (50%), and suggested that young male people nowadays were more concerned about environmental issues and purchasing decisions. Additionally, most respondents are from the service industry (42.60%) and are unmarried (63.33%), as shown in Table 1. The socio-demographic characteristics indicated that the people with the higher study were more willing to purchase green products, while service sector personnel were more aware of green marketing. The unmarried customers knew about green marketing and intended to buy green products more.

Analysis

Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA)

The EFA results showed that the data is suitable, normal, and reliable for further analysis. The KMO and Bartlett's test of Sphericity, common method bias, summary statistics, rotated component matrix, and communalities were all within acceptable limits.

Table 2. Measurement Model

<i>Construct</i>	<i>Indicators</i>	<i>Factor Loadings</i>	<i>Cronbach Alpha</i>	<i>CR</i>	<i>AVE</i>	<i>MSV</i>
<i>Environmental Concern (EVC)</i>	EVC1	.85	.86	.87	.69	.39
	EVC3	.83				
	EVC4	.79				
<i>Green Perceived Benefits (GDP)</i>	GPB1	.87	.95	.95	.87	.53
	GPB3	.87				
	GDP4	.88				
<i>Green Perceived Quality (GPQ)</i>	GPQ1	.88	.89	.89	.74	.39
	GPQ4	.88				
	GPQ5	.67				
<i>Green Awareness of Price (GAP)</i>	GAP3	.93	.94	.94	.86	.07
	GAP4	.92				
	GAP5	.94				
<i>Green Willingness to Purchase (GWP)</i>	GWP1	.76	.86	.86	.68	.45
	GWP3	.85				
	GWP4	.80				
<i>Green Future Estimates (GFE)</i>	GFE1	.89	.91	.91	.78	.28
	GFE2	.86				
	GFE3	.87				
<i>Green Purchase Decision (GDP)</i>	GPD1	.69	.90	.90	.76	.53
	GDP2	.70				
	GDP4	.63				

Similarly, the CFA results indicated that the study had an excellent model fit as all indicators (CMIN/df, RMR, RMSEA, GFI, IFI, TLI, and CFI) were within the criteria for good fitting. The CMIN/df was less than 5, RMR was less than .08, RMSEA was less than .08, GFI was greater than .80, IFT was greater than .90, TLI was greater than .90, and CFI was greater than .90, respectively.

The reliability and validity of the data were further confirmed by using convergence and discriminant validity, as shown in Table 2. The data demonstrated convergence validity as it satisfied the condition of CR greater than .70 and AVE greater than .50 (Kim 2010). The data also showed discriminant validity as it satisfied the condition of AVE greater than MSE and the square root of AVE greater than the correlation. Additionally, the reliability of the data was confirmed as the CR was greater than .70. Therefore, the findings of this study demonstrate that the data satisfies the criteria for convergence and discriminant validity as well as reliability, indicating the absence of validity and reliability concerns.

Test of Hypotheses

In Table 3, *H1*, *H2*, *H3*, *H5* and *H6* are accepted, which implies a significant relationship between dependent and independent variables. On the other hand, *H4* is rejected, leading to the conclusion that there is an insignificant relationship between the variables in the respective hypothesis. The regression analysis, variable analysis, and assessment of the normality pattern are all analyzed using EM in the inferential phase of the study. Based on latent variables, five factors are studied based on variables relative to observed variables (Rhemtulla et al. 2012). The model's fitness criteria demonstrate fitness. The consequence shows an outcome of X^2/df (CMIN/DF) of 1.51 (<3). The result revealed the meaningful relationship between latent variables and observable variables ($p < .05$). The hypothesis in this analysis is substantially endorsed as the meaning level of all the hypotheses (p-value) is smaller than .05. Thus, all independent variables employed in this study have a significant impact on all contingent factor hypotheses, as all hypotheses are dismissed. The structural model of this study is where EVC explains 21 percent, GPB explains 39 percent, GPQ explains 23 percent, GWP explains 22 percent, and GFE explains 14 percent to GPD.

Table 2. Path Estimates for Structural Model

<i>Hypotheses</i>	<i>Estimates</i>	<i>SE.</i>	<i>CR.</i>	<i>P</i>	<i>Hypotheses Results</i>
<i>Environmental Concern</i> → <i>Green Purchase Decision</i>	.20	.07	2.91	.00	Supported
<i>Green Perceived Benefits</i> → <i>Green Purchasing Decision</i>	.38	.06	6.30	.00	Supported
<i>Green perceived quality</i> → <i>Green Purchase Decision</i>	.23	.07	3.15	.00	Supported
<i>Green Awareness of The Price</i> → <i>Green Purchase Decisions</i>	-.03	.04	-.68	.49	Not supported
<i>Green Willingness to Purchase</i> → <i>Green Purchase Decisions</i>	.21	.06	3.56	.00	Supported
<i>Green Future Estimation</i> → <i>Green Purchase Decisions</i>	.13	.05	2.35	.01	Supported

Discussion

This study examines customer awareness of green marketing using five variables: environment Believes, Green Labeling, Green Branding, Green Advertisement, and Green Packaging. Then, factors influencing customers' purchasing decisions on green products in Nepal were determined. The reliability test and

multiple linear correlations were used to develop and test the relationship between the variables in this study. Environmental concern has a significant positive influence on the green purchase decision. It means that the preservation of nature and wildlife, environmental impact and environmental responsibility influences the green purchasing decision. In a similar study conducted between young customers, the result also indicated Environmental concerns strongly influenced young, educated consumers' green purchasing decisions in Bangladesh (Nekmahmud & Fekete-Farkas 2020). These findings supported those obtained in the previous foreign survey in developed countries (Yadav & Pathak 2016). Likewise, this study indicates whether consumers' perceptions of green benefits influence their purchasing decisions regarding a green product. As a result, H2 is supported, indicating a significant relationship between GPB and GPD. Consumers' opinions that a green product offers specific advantages over a non-green one are perceived as green benefits. These advantages include environmental, health, and social advantages. A customer may feel that a green product is better for the environment since its carbon footprint is lower than that of a non-green product (D'Angelo et al. 2022).

Quality is the standard by which something is judged in comparison to other items of a similar nature (Sparkes & Smith 2009). The model approach revealed that Consumers' Perceived Quality of environmentally friendly products emerges as the third vital variable, which affects the consumer's green purchasing decision and makes visible a positive relationship, thus supporting the assumed H3. The perceived quality of green products has been linked to a higher likelihood of purchasing the green brand (Wang 2017). Furthermore, Hypothesis H5 is supported, implying that consumers' green willingness to purchase (GWP) has a strong positive relationship with purchasing decisions for green products. The study can be trusted because a similar study concluded that consumers who are aware of the Earth and the environment in developing countries are highly interested in paying extra for eco-friendly products (NekMahmud & Fekete-Farkas 2020). Furthermore, behavioral controls like willingness to pay significantly influence client purchase decisions (Xu et al. 2020). Finally, the quantitative method confirmed the acceptability of H6, where it was discovered that customers' future estimation (GFE) of green marketing positively impacted green product purchasing decisions. Nekmahmud & Fekete-Farkas (2020) also showed that GFE positively impacts green purchase decision.

Implications for Managers

The study on customer awareness and intention to purchase green products in the Kathmandu Valley has several implications for managers in Nepal. Firstly, the importance of customer awareness in driving green purchase intentions should be emphasized. Thus, managers should create awareness and educate customers about the benefits of green banking products and services through various marketing strategies. Secondly, cost as a barrier to green purchasing should be considered, and managers should strive to offer competitive pricing to make these products more accessible. Thirdly, cultural and educational differences should be considered when developing marketing efforts. Lastly, the availability and environmental concerns should be focused on driving green purchase intentions by implementing sustainable practices and promoting them to customers. Overall, managers should invest in creating customer awareness, offering competitive pricing, tailoring their marketing efforts, and promoting the environmental benefits of green products to drive green purchase intentions.

This study found that most respondents agreed that the environment is severely damaged and consider themselves environmentally responsible individuals. They are willing to change their lifestyle and even pay a premium price for environmentally friendly products. Likewise, the study revealed that people are becoming increasingly aware of the positive impact of green products on their health. The respondents believe that these products are long lasting and have a positive effect on their well-being. Respondents also agreed that the price of green products is fair and acceptable, indicating that people are willing to invest in products that are better for the environment.

Green products are an excellent concept for the future of Nepal and that with proper green marketing, these products will be more prevalent. This research aligns with previous studies, such as the one by Liao et al. (2020), that psychological benefits significantly moderate green purchase behavior. The research by Maichum et al. (2016) are also similar, which found that the willingness of consumers to buy green items is referred to as green buying intention. Thus, people are becoming increasingly aware of the importance of protecting the environment and are willing to change their lives. They are also willing to invest in products that are better for the environment, indicating a shift towards a greener future for Nepal.

Future Directions and Limitations

This study on customer awareness and intention to purchase green products in the Kathmandu Valley has several limitations that could be addressed in future research. One limitation is the small sample size, which limits the generalizability of the findings to other regions and demographic groups in Nepal. Additionally, cultural and educational differences may affect consumer behavior and attitudes toward green products. Future research should consider these differences when conducting similar studies in other countries. Additionally, this study may not account for other factors influencing green purchase intention, such as the availability of green products, price sensitivity, and consumers' environmental concerns. Future research should also investigate these factors and their effect on green purchase intention and actual green purchasing behavior. This study provides valuable insights, but more research is needed to gain a more comprehensive understanding of green marketing in Nepal.

Conclusion

The study shows that the customers of Kathmandu Valley are aware of green products. Kathmandu Valley youth are moderately aware of green products and revealed that customers still need awareness on green marketing. Hence, there is a considerable possibility of Green Marketing that is still untapped. People have concerns about the environment and their health and want to buy organic foods and goods that are environmentally beneficial. The people in the Kathmandu Valley are no exception, as they are interested in purchasing environmentally friendly items and supporting green or environmental marketing. The theoretical framework and SEM have revealed that ecological concern, green perceived benefits, green perceived quality, green willingness to purchase, and green future estimation have positively and positively influenced green purchase decisions. Here, only one predictor, green awareness of the price, showed an insignificant impact on consumer purchasing decisions on green products. The study confirms that the proposed extended TPB is a helpful model for understanding consumers' green purchase decisions. Moreover, the respondents suppose that green products are very beneficial for health and the environment and do not have any harmfulness or side effects on health. The respondents articulate that green products are durable and are easily recycled, disassembled, reused, or decomposed, and green products result in minimum environmental damage. Consumers in Kathmandu Valley believed that green marketing would be an excellent idea and accessible in Nepal.

In Nepal, most consumers are not concerned about green marketing but are aware of eco-friendly products. The major challenges in effective green marketing were awareness level followed by price, accessibility, trust, unclear information, lack of technology, etc. Respondents suggested green environmental benefits should be highlighted, Government policy should be formulated, renewable energy should be encouraged, and standard prices should be maintained. Established on the above findings, the following suggestions are recommended as a recipe by the researcher to implement Green Marketing effectively. As these recommendations are also put forward to better understand Customer Purchase Intention on Green Marketing, government bodies, and top-level managers should act accordingly to promote and raise awareness of green products in Kathmandu Valley.

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Authors



Miss Garima Shrestha (OrCID 0009-0007-3437-0201) is an MBA from Quest International College, Nepal. Her research interests are in the realm of marketing. She can be contacted at garima19s5@quest.edu.np



Dr. Niranjana Devkota (OrCID 0000-0001-9989-0397) is an economist focusing on cross-border activities and climate change-related issues on adaptation. His recent research focuses on development economics, especially in cross-border activities and agriculture. Dr. Devkota can be contacted at niranjandevkota@gmail.com and niranjand@kmcen.edu.np



Er. Krishna Dhakal (OrCID 0000-0002-6668-9707) is an MBA from Quest International College, Nepal. He is working as an assistant coordinator in Quest Research Management Cell. He has published articles in journals and attended national and international conferences. Er. Dhakal can be contacted at krishnadhakal9841@gmail.com



Dr. Surendra Mahato (OrCID 0000-0002-1065-0010) is an assistant professor in the management faculty at the Nepal Commerce Campus, Nepal. Dr. Mahato teaches and conducts research in social science and management. Dr. Mahato can be contacted at usr.mahato@gmail.com




Mr. Udaya Raj Paudel (OrCID 0000-0002-5234-5081) is a lecturer and director at the faculty of management at Quest International College, Nepal. He teaches and conducts social science and general management research. Mr. Paudel can be contacted at udaya@quest.edu.np



Ms. Sarita Agrawal (OrCID 0000-0003-1157-6446) is the Head of the Faculty of Management Department at the Madan Bhandari Memorial College, Nepal. She also teaches and conducts research in social science and marketing. Ms. Agrawal can be contacted at agrawals@nbmc.edu.np



Market adaptation areas of food delivery services based on the customers' eating habits

Bayani C. Matitu , San Beda University, Philippines
Corresponding author: bmatitu@sanbeda.edu.ph

Food delivery service is an emerging business with exponential growth during the pandemic. This research evaluated the marketing-related adaptation areas based on the customers' eating habits to gain consistent positive business outcomes. This research has limited scope and customer segment but gave indications of the kinds of food routinely eaten by the senior college students in Manila, Philippines. The positive association between food delivery service quality, customers' eating habits, and patronage of food delivery services was indicated in this study. The applications also played a vital part in the success of food delivery services. The study also gives an overview of the food delivery services firms on the possible innovations in preserving the health of their consumers while upgrading their service and meeting current customer needs. There is a call to change the relatively poor eating habits of the respondents more than the business needs of food delivery service providers.

Keywords: Eating habits, food delivery service, market adaptation, patronage

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Introduction

Eating is one of the things that Filipinos usually love to do. Gathering peers around a food table goes beyond fulfilling one's appetite but also acquires a socializing dimension that makes eating an experience that transcends food (Gavilan et al. 2021). However, since the COVID-19 pandemic transpired in the whole world, including the Philippines, it has threatened the health and safety of all people, making us isolated inside our homes for the past two years. Food delivery service is excellent for those who need more time to visit a restaurant. Anyone with a smartphone quickly orders food from anywhere and has it delivered to their residence. Payments are made at the time of delivery or by credit card (Noviana & Darma 2020). Eating habits are "conscious, collective, and repetitive behaviors that lead people to select, consume, and use specific foods or diets in response to social and cultural influences" (Medina et al. 2020). Aside from the danger that COVID-19 brought to our health, this global pandemic also threatens most businesses, especially in the food industry since physical operations have become more limited to avoid the transmission of the virus. Consumers experienced collective panic, dread, worry, and uncertainty because of lockdown measures induced by health problems and the resulting economic harm (Ahmed et

al. 2020). Despite this dilemma, the emergence of food delivery services is critical, and they are the food industry's primary savior (Gamilla 2021). In a global setting, statistics showed that the online food delivery market revenue swells to 27 percent year-over-year, reaching \$36.4b in 2020 (AJOT, 2021). The Philippines' food delivery business has expanded to a total of \$1.2b in gross merchandise value (GMV) by the end of 2020, with the overall food delivery sector in Southeast Asia (SEA) growing at an exponential rate of 183 percent (Legaspi 2021).

The birth of food delivery services, apps, and technologies creates many possibilities that are beyond imaginable. In the Philippines, about 72 percent of the population was smartphone users in 2020, and there were 74m internet users in the country in January 2021 (Kemp 2021). The frequent users are in the young-adult age segment, who is most likely to have smartphones (Stephens et al. 2020). Food delivery apps are now highly accessible since they can be easily downloaded from different application stores. They can easily choose and order food online with just a few clicks. It has been noticeable that technology progresses at a rapid pace that, caused business models in the food delivery industry to be drastically altered (Voytovych et al. 2020). Statistics show that users of online food delivery services quickly rose by 25 percent year-over-year, reaching 1.5b in 2020. It also projected that in the next three years, users might reach almost two billion globally (AJOT 2021).

Moreover, the findings of the study of Puriwat and Tripopsakul (2021) have revealed that it is possible that, in the event of an unusual event such as a worldwide pandemic, an increase in the number of features integrated into current technology will be noticed in the food delivery industry, resulting in more productive outcomes and a better understanding of technological adoption. Ali et al. (2020) pointed out that optimism and innovativeness positively influenced the intention to use Online Food Delivery Ordering (OFDO) services, while insecurity and discomfort negatively influenced its use. Situational influences in the middle of the COVID-19 pandemic also play a role in the intention to use OFDOs. In a study by Pandey et al. (2021), respondents from India and the Philippines preferred to adopt FDA (Food Delivery Applications) through convenience, discounts, app service quality, fulfillment, and multiple payment methods.

Food and beverage marketing changed to other outlets, such as social networking platforms, in response to the digital age. In their study, Partridge et al. (2020) discovered that over 88 percent of the most popular menu items on leading online food delivery services are energy-dense, nutrient-poor foods. According to a comprehensive evaluation of 71 studies by Smith et al. (2019), children and adolescents have improved attitudes, preferences, and intake of foods that are advertised to them. Stephens et al. (2020) stated that the benefit of these applications might present a greater risk to health outcomes among overweight or obese individuals who consume more calories than their normal weight equivalent. In a study by Tus et al. (2021), many Filipino tertiary students from private and state universities showed an unhealthy lifestyle involving their physical activity, smoking status, stress, and eating habits.

Despite its adverse outcomes, there are still developments and advantages when switching to digital ordering as food delivery services innovate from time to time (Stephens et al. 2020). Some emerging features can help consumers keep track or count calories if they are having difficulty losing weight and if a person needs to maintain a strict diet. But the most highlighted advantage of these applications is their convenience (Maimaiti et al. 2018), especially if a person needs more time to cook food. The innovation in Online Food Delivery (OFD) influenced consumers' purchasing decisions, increasing its experiential value through a ready-to-enjoy concept (Gavilan et al. 2021). It also shows the reuse intention of the delivery application caused by the customers' perceived service process and experienced innovation (Ahn 2021).

This research intends to answer the research problem: How do food delivery applications affect eating habits? Specifically, the purpose of the study is to determine the association between (1) food delivery service quality and customers' eating habits, (2) food delivery service quality and patronage, and (3) customers' eating habits and patronage of the food delivery services.

Conceptual Framework and Hypotheses Development

A study by Acampado and Valenzuela (2018) revealed that about one out of every three college students show below-average to poor dietary habits. This means that they rarely ate the right kinds of food. Therefore, this study will examine if the senior students who use food delivery services will also show poor eating habits since it became part of their lifestyle as the consumers switched to e-commerce technology from physical purchases (Gamilla 2021) during the COVID-19 pandemic. This study is anchored on Isobel Contento's Influences on Food Choice Model. According to Contento (2008), this model emphasized that people's food choices are influenced by many factors: (a) biologically determined behavioral dispositions, (b) experience with food, (c) personal Factors, and (d) environmental factors. This model was further discussed in Nutrition Education, defined as any combination of educational strategies with environmental supports designed to voluntarily adopt food choices and other food and nutrition-related behaviors conducive to health and well-being. Construct validity was performed to verify the research instrument. It contains all the necessary items, excluding those unimportant to a certain construct area (Hair et al. 2019). Afterward, the internal consistency reliability of the instrument was measured using Cronbach's alpha coefficient and item-total correlation. The coefficients were higher than .70. Thus, the research instrument was considered reliable and acceptable.

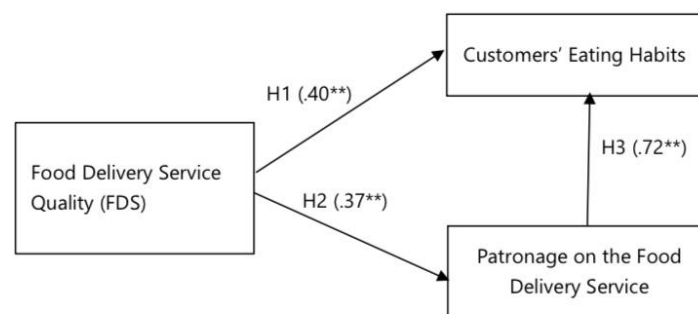


Figure 1. The Conceptual Framework

Source: the author, *** = $p < .05$

Food Delivery Service (FDS) Quality on Eating Habits

The food delivery service quality reveals the market adaptation areas for sustainable business. Adithya et al. (2017) proposed a system that enables ease for customers. It overcomes the disadvantages of the traditional queueing system. In a global setting, statistics showed that the online food delivery market revenue swells to 27 percent year-over-year, reaching \$136b in 2020 (AJOT 2021). Statistics show that users of online food delivery services quickly rose by 25 percent year-over-year, reaching 1.5b in 2020. It also projected that in the next three years, users might reach almost two billion globally (AJOT, 2021). Moreover, the findings of the study of Puriwat and Tripopsakul (2021) revealed that it is possible that, in the event of an unusual event such as a worldwide pandemic, an increase in the number of features integrated into current technology will be noticed in the food delivery industry, resulting in more productive outcomes and a better understanding of technological adoption. The Philippines' food delivery business has expanded to a total of \$1.2b in gross merchandise value (GMV) by the end of 2020, with the overall food delivery sector in Southeast Asia (SEA) growing at an exponential rate of 183 percent (Legaspi 2021). From going to restaurants to order your meal, these online platforms serve your food at your doorstep. Food delivery apps are noticeable that this technology progresses rapidly, causing business models in the food delivery industry to be drastically altered (Voytovych et al. 2020). But the most

highlighted advantage of these applications is their convenience (Maimaiti et al. 2018), especially if a person has no time to cook food. The innovation in Online Food Delivery (OFD) influenced consumers' purchasing decisions, increasing its experiential value through a ready-to-enjoy concept (Gavilan et al. 2021). Our first hypothesis:

H1. Food delivery service quality is associated with the customers' eating habits.

Food Delivery Service Quality on Patronage of FDS

Their service quality evaluation primarily determines the customer's intention to patronize a specific service provider. As a result, service providers should focus more on effective and efficient service quality to influence customers' patronage intentions (Rahman et al. 2020). Consumers' preferences for simple consumption patterns have increased. These simple consumption patterns have led to the development of food storage and processing technology, making it possible to provide better quality food to consumers. It also shows the reuse intention of the delivery application is influenced by the customers' perceived service process and experienced innovation (Ahn 2021). Our second hypothesis:

H2. Food delivery service quality is associated with the customers' patronage.

Eating Habits on Frequency of Patronage of FDS

Tus et al. (2021) found that many Filipino tertiary students from private and state universities showed an unhealthy lifestyle involving their physical activity, smoking status, stress, and eating habits. Food delivery applications and services are noticeable during our isolation inside our homes brought about by the COVID-19 pandemic. Eating habits are related to obesity among college students (Pineda et al. 2020). According to Puriwat and Tripopsakul (2021), productive outcomes and a better understanding of technology adoption will be noticed in the food delivery industry during an unfamiliar phenomenon such as a worldwide pandemic. Healthy eating habits protect people from temptations (Lin et al. 2016). Maimaiti et al. (2018) argued that how a person eats determines what the person becomes. Medina et al. (2020) asserted that the students' eating habits were affected by their nutrition knowledge. Our third hypothesis:

H3. Customers' eating habits are associated with the frequency of patronage of food delivery services.

Methodology

This research method concentrated on discussing the procedures adhered to by the researcher to answer systematically the specific problems posed for investigation. The researchers utilized a 5-part survey questionnaire for the respondents to collect the data in this study. Part 1: Basic information consists of the basic information of the respondents, namely their name, age, gender, year level, section, course, and the food delivery application they commonly use. Part 2: Key factors of food delivery services are based on the study of Lim & Noroña (2021) and divided into five subcategories that represent the independent variables: convenience, responsiveness, assurance, safety, and reliability (Pasco & Lao 2021). A 4-point Likert Scale (very satisfied=4, satisfied=3, dissatisfied=2, very dissatisfied=1) was utilized. Part 3: Frequency of patronage has questions attributed to the study of Alao et al. (2020), where the frequency of the consumer's patronage was assessed. Part 4: Purpose of patronage is part of the questionnaire that determines the purpose of usage of food delivery applications. It utilized a checklist patterned by Alao et al. (2020). Part 5- Eating habits discover the eating routines of the respondents. The questions were aligned with the study of Acampado and Valenzuela (2018). This also followed a 4-point Likert scale with

scoring of almost always=4, frequently or often=3, sometimes or occasionally=2, rarely or never=1. The total scores also classified the eating habits into poor (30-49), average (50-69), and excellent (70-80).

Research Design

This study used a quantitative descriptive-correlational method of research. A descriptive correlational study is a study in which the researcher is primarily interested in describing relationships among variables. The results are just indications because of the non-parametric nature of the Spearman rank correlation test (Natovová & Chýlová 2014). Quantitative data (summated scale scores from the critical factors of food delivery services, frequency of patronage, food choices in food delivery services, and eating habits) will undergo non-parametric tests for this non-normally distributed data. The Spearman rho is used for the rank correlation analysis.

Research Participants and Respondents

The study participants are limited to the 405 senior college students currently enrolled in San Beda University this school year 2021-2022. The chosen students for the study are not specific to any age or gender. However, they are randomly selected per department. This will examine the status of the eating habits of San Beda University- CAS fourth-year students with the influence of food delivery services. The study was conducted in the second semester of AY 2021-2022. The data was gathered online using survey questionnaires through Google Forms. The researcher chose this platform due to the pandemic's limitations to our country. Google Forms links will be publicly disseminated through social media platforms such as Facebook, Messenger, Twitter, and Instagram. The confidentiality of all the students who wish to participate in the study will be prioritized. A stratified sampling technique was used in this study. The respondent's availability and capability to answer the questionnaires were considered. Data were gathered online following data privacy notice in compliance with the Data Privacy Act of 2012 and the data privacy guidelines of the institution.

Response Rate

Among the 99 respondents who completed the survey, the Senior students were 51.5% male and 48.5% female. Overall Kaiser-Meyer-Olkin Test, computed using JAMOVI, yielded KMO=.82 and was interpreted as meritorious sample size adequacy. The gender of the respondents is closely equal to each other. Results have shown that their mean age is $21.90 \pm .17$ confidence interval at 95%. Most of the students are 22 years old. The youngest respondents are 20 years old, while the oldest is 26 years old. Among the 99 respondents, 97 eligible respondents were qualified based on year level in college.

Analyses

Descriptive Statistics

As shown in Table 1, the research instruments were reliable with Cronbach's alpha values within .70 to .95. The questionnaires used to determine the overall experience of food delivery applications, the status of the student's eating habits, and their patronage of FDS have a Cronbach's alpha value of .91, .84, and .89 respectively that revealed its reliability to support the results of the study. Results have shown that the senior students are delighted with their experience using food delivery services and applications, with a mean of 3.51. This includes its convenience, responsiveness, assurance, safety, and reliability. With a mean of 2.72, the results also revealed that students often eat a wide variety of foods with or without the influence of FDS and use them at least three times a week. Lim and Norona (2021) stated that there are characteristics of food delivery services and applications that influence their users: convenience, responsiveness, assurance, safety, and reliability. Students also see these applications as well presented by giving the correct information that the consumers need. This includes courier updates and different

payment methods. However, some aspects still receive low ratings that the students experience. These are inappropriate compensation for wrong orders, no fresh foods, pricey items, delivery charges, and the limited discount or vouchers most users want.

Table 1. Descriptive Statistics

<i>Concepts</i>	<i>Mean</i>	<i>Interpretation</i>	<i>Cronbach Alpha</i>
<i>Food Delivery Service (FDS) Quality</i>	3.51	Very Satisfied	.91
<i>Eating Habits</i>	2.72	Often	.84
<i>Patronage of FDS</i>	2.72	At least 3 x a week	.89

Because the students projected reasonable satisfaction with the food delivery service, it is noticeable that they also use it at least three times a week. The students use it frequently because food delivery applications are very accessible because you can download and use them anytime and anywhere.

Results

These are presented following the sequence of the research problems. The respondents were highly satisfied with their food delivery service provider, with a mean overall satisfaction rating of 3.63 \pm .1 confidence interval of 95 percent. Seventy-five percent of the respondents used food delivery applications for personal meal consumption. In comparison, 15 percent of them use FDAs to provide food for special occasions such as birthdays, celebrations, and the like.

Table 2. Association of the Conceptual Variables

<i>Cause</i>	<i>Effect</i>	<i>Spearman's rho</i>	<i>t-value</i>	<i>p-value</i>	<i>Interpretation/Indications</i>
<i>FDS Quality</i>	Eating Habits	.40	4.37	.00	Moderate association
<i>FDS Quality</i>	Patronage of FDS	.37	3.90	.00	Moderate association
<i>Patronage of FDS</i>	Eating Habits	.72	10.35	.00	Strong Association

H1—Food delivery service quality is associated with the customers' eating habits. As seen in Table 2, the delivery service quality indicates a significant moderate association (Spearman's ρ = .40) with the student's eating habits. According to Stephens et al. (2020), frequent smartphone users are in the young-adult age group, to which the study's respondents belong. Food and beverage marketing and services changed in response to the digital age. This results in improved attitudes, preferences, and intake of foods that are advertised to them (Smith et al. 2019). Since the results have shown that most students use food delivery applications readily available on their phones, it was evident that students engaged with different kinds of food available in these applications affected their eating habits. Consumers could choose what they wanted and request delivery at their convenience. In this situation, public health nutrition policies are likely to be inapplicable and irrelevant (Bates et al. 2020).

H2—Food delivery service quality is associated with the customers' patronage. As shown in Table 2, the food delivery services indicate a significant moderate association (Spearman's ρ = .37) with the student's patronage of food delivery services. The results support the claims of Rahman et al. (2020) and Pasco & Lao (2021) that a customer's intention to patronize a specific service provider is primarily determined by their evaluation of service quality. Moreover, it also explained that the continuous usage of the delivery

application is caused by the customers' perceived service process and experienced innovation (Ahn 2021). According to the previous results, students were delighted using food delivery apps and services. This strengthens Pandey et al.'s (2021) claim that people from India and the Philippines preferred to adopt the food delivery services through its convenience, discounts, app service quality, fulfillment, and multiple payment methods. These experiences influence the frequency of their patronage of food delivery applications.

H3—Customers' eating habits are associated with the frequency of patronage of food delivery services. As also seen in Table 2, the student's eating habits indicate a significantly strong association (Spearman's $\rho = .72$) with the student's patronage of food delivery applications. Since convenience is one of the top factors that influence the patronage of the students, it is noticeable that their continued usage of the food delivery service influenced their eating habits as well. Among the respondents, three percent have excellent, 46 percent have average, and 50 percent have poor eating habits. The respondents showed that they are carried away by the rapid pace of technological advancements, especially in the food delivery industry (Voytovych et al. 2020), which caused them to change in attitudes, preferences, and intake of foods (Smith et al., 2019). Most college students admitted to eating fresh fruits, and many consume processed foods such as chips, cookies, and cereal for convenience. It was found that taste, time sufficiency, convenience, and budget-influenced students' eating habits. Our results support the study of Tus et al. (2021) that many Filipino tertiary students from private and state universities showed an unhealthy lifestyle involving their eating habits. In contrast to Medina et al. (2020), the respondents have an adequate knowledge of healthy nutritional requirements, yet their food choices are not necessarily healthy and solely based on convenience. According to the respondents, they claimed that they like the most about the food delivery applications' convenience and efficiency because they can easily order food anytime and anywhere. Some of them also answered that online payment methods also positively influence their usage due to the health and safety restrictions brought about by the COVID-19 pandemic.

Food delivery applications negatively affect their eating habits because people tend to eat more than they usually do as it is straightforward to grab the meals they want to eat. Some of them rely on unhealthy foods from different fast food chains that put their nutrition status at risk. Since FDS can quickly boost your appetite and satisfy your cravings, some respondents revealed that using FDS caused an addiction for them and made them lazier. This research cannot generalize the impact of the kinds of food and FDS on the health and well-being of respondents (Maimati et al. 2018). However, some students still claim that FDS still positively supports their lifestyle because some do not know how to cook food. FDS boost their mood upon fulfilling their cravings. If these food delivery applications showed poor quality service, most students said it would lead to disappointment. Dissatisfaction may arise, and some will create trust issues that make them avoid ordering and cooking food in their houses again. This clearly shows that users of FDS are more dependent on the service that they provide to the consumers.

Implications for Managers, Future Research Direction, Limitations

The study's findings would serve as a basis for the food delivery service providers and fitness practitioners. Because the results showed that people have poor eating habits, it is suggested that healthy lifestyle education that includes engaging people in physical activities and food consumption should be promoted. The study also guides the students, faculty, and other sports and wellness enthusiasts outside the school to be mindful of their decisions in choosing the right food for them. In the digital era where people can acquire things right in front of their hands in just a snap, this convenience wants them to experience the same feeling all over again. The existence of food delivery applications is a perfect example of it. Foods are delivered at their doorsteps without acquiring too much effort. However, there are risks that these foods may have. This is why this study can help every consumer better understand the possible effects of these food delivery services and applications on our well-being. Furthermore, the study also

gives an overview of the food delivery services companies and the food corporations about the possible innovations in preserving the health of their consumers while upgrading their service at the same time.

The results of the data gathered influenced the study to verify that there is a substantial correlation between the quality of food delivery services and the eating routines of college students. Since the study is rooted in the experiences during the COVID-19 pandemic, only some scholarly materials still tackle this topic. Therefore, other researchers who focus on students' eating behaviors can utilize the study's results. There is a call to change the relatively poor eating habits of the respondents more than the business needs of food delivery service providers. This study also paves the way for future research about food delivery applications and the behavior of their users. This opens opportunities for companies that want to blend into the technological advancements in our world. Because food delivery services are still a booming industry in the Philippines, studies like this can be a steppingstone to looking for innovations that will entice more customers to energize again the food industry that was once lost during the time of the COVID-19 pandemic.

This research is limited to studying the influences of food delivery services on eating habits and food patronage among college students. The non-probability selection of respondents required a non-parametric test that draws a lower level of statistical conclusions than the statistical generalization of a parametric test.

Conclusion

Food delivery service providers need to look closer at the customers' eating habits, the kinds of food a customer prefers, and their level of service quality for different segments to succeed in these emerging markets. Since COVID-19, food delivery services have become prevalent not just in the Philippines but worldwide. Based on this research, respondents have high satisfaction with food delivery services and are complacent in using them because of their convenience and efficiency. Using food delivery services and apps, students can eat anything they want and wherever they are. It eases the food preparation process and removes the risk of acquiring COVID-19 when having a dine-in experience inside fast food chains or restaurants. The quality of food delivery services indicates a direct influence on eating habits. This means that if they have experienced these qualities, it likely affects their decisions in choosing the food they need. Instead of cooking food for 15-30 minutes, which requires a lot of energy, it is more suitable for people to acquire it with just a simple click with their smartphones and have it right away inside their homes. The experiences within food delivery services are strongly associated with their usage frequency. Because these experiences meet their standards, it builds trust between them and the service provider. This justifies the studies' claims that customers' intention to patronize a specific service provider is primarily determined by their service quality evaluation. It is like going to the same barbershop, with the same barber, because they have given you a good haircut.

FDS affects eating habits as service quality increases the patronage of its users. The result of the study indicates that the frequency of patronage establishes the rhythm of the eating habits of people. Like any emotion, eating habits are caused by repetitive responses by our brains. If the brain is trained to experience the positive qualities of food delivery services all over again, it is highly expected to use them more often. If the usage is frequent, the customers are also exposed to the wide variety of foods that the food delivery services and applications offer. Furthermore, the results also show the respondents' poor eating habits. It is true that respondents may have a fair knowledge of nutrition but need to practice healthy food choices. Despite this, there are still students that set their lifestyle using food delivery applications because they boost their mood while fulfilling their cravings at the same time. The students patronize the food delivery application because it is accessible and readily available on their phones which they can use anytime and anywhere. The food delivery industry is the start of the future, where we can easily acquire the food we want. But along with this innovation, people's lifestyles are also affected. Convenience is one of the reasons why people patronize food delivery applications; unfortunately, this

convenience changed how we think and act. Convenience is a significant factor in the growing acceptance of FDS.

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The Author



Bayani C. Matitu (OrcID 0000-0002-4154-8430) is associate professor and chair of the Human Kinetics Department at the College of Sciences (CAS) at San Beda University, Philippines. He has publications in *Scientia*, and the CAS research journal, among others, focusing on the topics—Athletes after Retirement, Head Coaches' Servant Leadership, and (3) the Role of Sports in Peacebuilding. Professor Matitu can be contacted at bmatitu@sanbeda.edu.ph

Effects of working environment and workforce retention programs on workforce productivity of financial technology companies

Francis Banaag , *Organization Development and Finance Planning, Philippines*
Corresponding author: fbanaag85@gmail.com

Organizational challenges, market competition, and workforce productivity are vital to promote employees' health and the firm's success. Research indicates that time, stress, work environment, and the cost of hiring and training new employees were significant in achieving the organizational deliverables. Poor work environments and the lack of workforce retention strategies negatively impact business outcomes. The high employee turnover brings multiple problems, with high human capital costs and knowledge loss, leading to low productivity. The combined good working environment and workforce retention strategies increase workforce motivation in the firm and ultimately reach the extremes of workforce productivity. The researcher finds that working environment and workforce retention strategies have strong positive relationships with workforce productivity. Managers should collaborate for competitive workforce retention programs and policies.

Keywords: Workforce retention programs, workforce productivity, working environment

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Introduction

Although the nature of the job and its required deliverables from the workforce are considered in all management aspects, the working environment provisions are essential. Organizations need to understand that the appropriate and good working environment, where most organizations integrate several factors to sustain the agreed productivity, improves the effectiveness of its primary activities to achieve the desired deliverables. According to Scott (2022), optimal outcomes are only possible if the physical space and environment are managed and maintained. The appropriate organization of the working environment contributes to successful business operations, thus creating an impression of good workforce productivity. An adequately managed working environment is essential for improved savings on costs. The importance of addressing the working climate lies in the fact that improper management can negatively affect productivity and even halt the day-to-day activities of the workforce. Regardless of the areas of the physical environment, the core concepts of planning, preparation, resource allocation, corrective actions, and evaluations are combined for effectiveness (Scott 2022). In most of the practices in people management in today's market challenges, workforce retention strategies are some of the key

interventions to address human capital challenges. Organizations only survive if all the top performers quit. The organization needs to retain those employees who work hard and are indispensable to the system. Effective workforce retention strategies address challenges in employee morale. When employee morale is high, the workplace becomes a more positive place. Xu et al. (2022) studied that employee turnover has negative consequences, including reduced productivity and organizational performance. Experts in human resources (HR) and other business professionals consider that robust workforce retention strategies combat these voluntary employee turnovers. Reduced voluntary turnover makes a certain organization avoid unnecessary resources, costs, and barriers to organizational growth. Employee retention strategies are the techniques competitive companies employ to help the organizations keep their key employees staying for a more extended period.

The organization's efficiency and long-term success are determined by employee productivity. The result of high workforce productivity is seen in its offered product or service in efficiency, higher profit, or positive return on investment for the firm. Employee productivity happens when people create their respective jobs with cost-effectiveness efficiency. Also, it is considered when the employees come up with something different that benefits the companies in the short- or long-term. Shahab et al. (2019) pertain that if an organization provides a safe and comfortable working environment, it ultimately increases the satisfaction level of the employees and motivates them to give maximum job performance output. On the other hand, poor workforce productivity and work rate are associated with poor employee performance. A satisfaction survey on anonymous employees offers personal insight that can help inform leadership on the quality of its work culture.

The purpose of this study is to describe and explore the role of working environment and workforce retention strategies towards workforce productivity of selected financial technology companies in the Philippines. The researcher seeks to answer the following research questions: (1) What is the mediating effect of the working environment on the relationship between workforce retention strategies and workforce productivity? (2) What is the relationship between the working environment and workforce productivity? (3) How is the relationship between workforce retention strategies and productivity?

Theory and Conceptual Framework

This study's theoretical review and basis came from Maslow's Hierarchy of Needs Theory and Herzberg's two-factor theory.

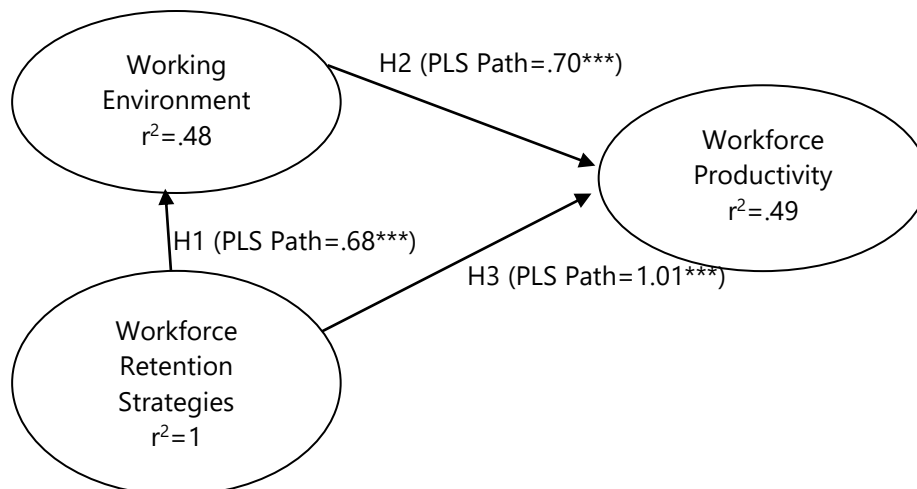


Figure 1. Conceptual Framework

Source: the author, *** $p < .00$

The hygiene factors are associated with the environment and work's external dimensions, including working conditions, salary, and job security. These factors affect the employees' dissatisfaction. The theoretical foundation of the studies on the working environment and the impacts on productivity and employee retention consider Maslow's Hierarchy of Needs Theory and Two Factor theory (Lee et al. 2022). Managing equipment and premises makes maintenance issues fewer and helps saving costs (Setiyanto & Natalia 2016). It also allows to focus more on prevention than treatment since the organization can deal with problems before they arise. It is acceptable for organizations to keep track of their assets (Prasetyo et al. 2021). The relationships between the working environment (Sari & Dewi 2020), workforce retention strategies (Velma et al. 2019), and workforce productivity (Sutanto & Kurniawan 2016) are illustrated in Figure 1.

Although the nature of organizing a working environment may differ depending on the business, the one thing that remains constant is that a good working environment includes physical layout, lighting, sanitation, ventilation, and any other utilities that can pose health or safety hazards to employees (Duijnhoven et al. 2019). Organizing a good working environment ensures compliance. When an organization is fully compliant, its data reflects it. There is a good idea in the study of Bestvinová and Marková (2022) that the working conditions are at the core of paid work and employment relationships. Also, working conditions cover a broad range of topics and issues, from working time (hours of work, rest periods, and work schedules) to remuneration, as well as the physical conditions and mental demands in the workplace. In most practices, the admin department handles concerns on this aspect. It is crucial to improve the efficiency and productivity of a business. It ensures a more cost-effective working process within the facility (Haralambie et al. 2020).

An organization invests time and money in grooming an individual and making them ready to work and understand the corporate culture: A new employee is completely raw, and the management has to work hard to train him for his overall development. The study by Asher and Lavigna (2019) provides a good point about employee retention and discusses that employees will stay if they build their skills. Organizations that invest in employee retention build loyalty and competencies (Velma et al. 2019).

From a superficial perspective, business leaders agree that workforce productivity is about completing the work, getting the job done, sustaining the motivation, and continuously engaging holistically in the mission, vision, goals, and to organization's philosophy. Maintaining the agreed productivity helps achieve the goal efficiently. Workforce productivity directly impacts a company's profitability (Setiyanto & Natalia, 2016). Also, workforce productivity can be best described as the ability to complete organizational processes efficiently. In most industries and organizations, a low productivity rate concludes that the company must promptly generate the needed output. Because the production process of each product or the operations to perform expected services is more expensive/costly, focusing on the result, the return on investment (ROI), thus, affects the profit of each product is lower (Shahab et al. 2019).

Hypotheses Development

Workforce Retention Strategies and Working Environment

The research on the mediation effect of the working environment on the impact of workforce retention strategies on workforce productivity is limited. However, the researcher reviewed more studies on the direct effects of related variables. The combination of a good working environment and workforce retention strategies could further increase the motivation of the workforce to remain with the firm and ultimately reach the highest possible workforce productivity (Lee et al. 2022). The working environment can be best described as a condition around the workplace that gives the impression of being pleasant, secure, and appealing (Raziq & Maulabakhsh 2015). The workforce should feel comfortable and safe, and employee has the right to have a conducive working environment that eventually affects the results of their respective work in achieving the firm's targets. Thus, employees feel more comfortable working, and

that can increase employee retention (Lee et al. 2022). If employees have a safe, comfortable work environment and have a good working relationship between superiors and fellow employees, the employee will remain at the company (Sari & Dewi 2020). An interesting discussion in the study by Pruettkomon and Louhapensang (2018) is that the most problematic area in the workplace is the need for physical effort. Support must be provided in suitable work environments with adequate facilities leading to a safe work area.

H1. Workforce Retention Strategies have a significant impact on Working Environment.

Working Environment and Workforce Productivity

The working environment is a significant factor that influences the performance of the company's employees or so-called workforce productivity (Pruettikomon & Louhapensang 2018). A good working environment helps the workforce or the employees to complete the tasks given to them. Thus, ultimately affecting work productivity. Appropriate provisions on the working environment will improve work and both sides. If the work environment receives less attention, it will increase the level of mistakes in the workforce (Velma et al. 2019). There is a good discussion that the organizational culture reflects the values and behaviors that contribute to the organization's unique social and psychological environment. It is also explained that culture defines an organization's identity and how it is perceived. It impacts every aspect of the facility. Shahab et al. (2019) the working environment is designed ergonomically. It decreases injuries and absenteeism, which raises the motivational level of an employee toward the job they perform. The environment shapes work relationships, processes, and interactions. Carrying out planned arrangements reduces the money spent on repairs by having essential resources readily available at your disposal. Also, a comfortable provision in the working environment motivates employees and makes them more productive. In addition, Haralambie et al. (2020) emphasized the need for positive feedback as one of the mechanisms that increased employee motivation, whether about a simple thank you if an employee has accomplished the task before the deadline. Such on recognized as the team leader, the employees' work thus gives them a sense of pride, motivates them to be more efficient, and raises the standard of the entire team.

H2. Working Environment has a significant effect on Workforce Productivity.

Workforce Retention Strategies and Workforce Productivity

Workforce retention strategies contribute to improving employee performance or the so-called workforce productivity. The relationship between employee retention strategies and workforce productivity is exceedingly complex in human capital. Performance falls across the organization if bad employee retention practices happen. Employee stagnation is possible if voluntary turnover is too depressed (Sutanto & Kurniawan 2016). Also, in most aspects, turnover in any form has been associated with rising economic costs and organizational disruption, and employees are likely to stay and become great advocates for your company instead of suffering from the corporate challenges in human resources as domino effects of high employee turnover (Hultman 2022). He asserts that a sound financial base concerning salary, benefits, and job security should primarily be considered. Good relationships with management and peers should not be compromised; the recognition of employee efforts is needed with the right policy; the career advancement opportunities contribute significantly, and an opportunity for personal skill development and the work must be both challenging and meaningful. Gabriel et al. (2014) and Krishna & Garg (2022) linked fit and overall attitude with pleasant work experiences from hiring.

H3. Workforce Retention Strategies have a significant effect on Workforce Productivity.

Methodology

This quantitative study employed descriptive and correlational research designs (Otache & Inekwe 2021). Descriptive design is best used when there is a need for a systematic method of presenting the patterns of the participants and variables in the study. At the same time, the correlational design is used to determine if there is an existing association between the working environments categorized as one of the independent variables, workforce retention strategies as another independent variable, and workforce productivity as the only dependent variable (Meniado 2021).

The researcher utilized a survey questionnaire as a primary data-gathering instrument composed of four parts. The first part of the questionnaire shows the employee respondents' profiles, which comprised age, sex, marital status, tenure, position, education, and years of professional experience. The second part showed the questions on the components of the working environment. The third part includes questions about workforce productivity. The questionnaires for workforce productivity were placed in the fourth and the last part of the survey form. To ensure clear and explicit communication, we performed pilot testing with a convenience sample of 30 respondents with the same characteristic as the final sample. These 30 respondents were excluded from the last gathering of data. Additional adjustments were made to the wording of some items according to the suggestions and recommendations obtained during this process. Cronbach's Alpha for all the item results for each variable in the pilot study and testing were working environment (.80), workforce strategies (.83), and workforce productivity (.76). The final questionnaire consisted of 16 items. These items were considered reliable and adequate measures for their respective constructs since the individual Cronbach's alpha coefficients of the constructs were all greater than .6 (Hair et al. 2019). Items in the survey questionnaires were assessed and measured using a seven-point Likert scale ranging from strongly disagree (1) to agree (7) strongly. Seven-point Likert scale items in the survey questionnaires are more accurate and better reflect an employee respondent's evaluation. Also, given all the advantages, in most cases, even when compared to higher-order items, the 7-point things are quite good to be the best solution for questionnaires regarding usability evaluations.

This study has 97 respondents whose responses came from the regular employees (customer service, telesales agent, loan evaluators, and collection agents) of four financial technology companies operating in Manila. Using the purposive sampling method, the number of respondents was deemed appropriate to establish the best-fit model. The PLS-SEM was used to determine the relationship between the involved and studied variables (Ringle et al. 2015). The data for this study were collected using a survey questionnaire. Based on experts' observations who are consultants in human capital management, changes were made to the questionnaire's wording, structure, and presentation.

The researcher obtained ethical approvals from the company's senior operations manager participating in financial technology companies. Also, informed consent was sought from this study's employee respondents/ participants. The consent informed participants about their right to decline to respond to the survey questionnaires. The data collected will be treated with confidentiality.

Analysis

Table 1 shows the demographic profile of the employee respondents in terms of age, sex, marital status, tenure, position, education, and years of professional experience. The employee participants under 20-29 (85%) got the most significant number of respondents. Under the variable of sex, (52%) of the respondents were dominated by females, with five percent with male respondents, and predominantly shared by single marital status (92%). While the highest employee tenure was 1-2 years (36%), the position is undoubtedly on rank and file (92%). The college graduate under the variable of highest education shows 58 percent and the 3-5 years of professional experience has the most significant share (72%). In terms of the business profile, company C has most of the respondents (55%).

Table 1. Sample Characteristics

<i>Profile</i>	<i>Categories</i>	<i>n</i>	<i>%</i>
<i>Age (years old)</i>	20-29	83	85.57
	30-39	11	11.34
	40 and above	3	3.09
<i>Gender</i>	Male	46	47.42
	Female	51	52.58
<i>Civil Status</i>	Married	7	7.22
	Single	90	92.78
<i>Experience (years)</i>	less than 1	35	36.08
	1-2	35	36.08
	3-5	16	16.49
	6-7	6	6.19
	Eight and above	5	5.15
<i>Job Position</i>	Manager	6	6.19
	Rank and File	89	91.75
	Supervisor	2	2.06
<i>Education</i>	College Graduate	57	58.76
	College Level	21	21.65
	High School	19	19.59
<i>Business Profile</i>	Company A	9	9.28
	Company B	20	20.62
	Company C	54	55.67
	Company D	14	14.43

Table 2 shows the computed mean for all the latent variables or constructs. The working environment shows 5.77, indicating that employee respondents positively "agree" that the provisions on the operating environment of the involved companies were anchored on needs and that involved companies were compliant with the required standards. The second independent variable, the workforce retention strategies received a weighted mean of 5.58 (i.e. agree). This indicated that the employees have an average appreciation of the current workforce retention strategies. The dependent variable-the, workforce productivity, has a weighted mean of 5.47. This implies that employee respondents *agreed* with the company's current practices, such as the completion of required deliverables, the accomplishment of KPIs, and target management at the organizational level, to name a few.

The research instruments are reliable, with robust data, as seen in Table 2. All the individual Cronbach's alpha coefficients of the mentioned variable were within the recommended level of .70 to .95. After a careful analysis using the Smart PLS 3, the performed measurement model was accurately assessed in terms of convergent and discriminant validity (Ringle et al. 2015). The initial test of the measurement model indicated that some of the model fit indices did not pass their respective recommended levels. The researcher chose to revise the measurement model by performing item deletion. There are indications of overfitting in the responses, given the composite reliability and rho values are more than .95 (Hair et al. 2019).

Table 2. Descriptive Statistics and Construct Validity of Latent Variables

<i>Latent Variables</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Confidence Interval at 95%</i>	<i>Cronbach Alpha</i>	<i>Composite Reliability</i>	<i>rho</i>	<i>Average Variance Extracted</i>
<i>Working Environment</i>	5.77	1.19	.24	.80	.96	.96	.83
<i>Workforce Retention Strategies</i>	5.58	1.27	.25	.72	.96	.96	.86
<i>Workforce Productivity</i>	5.47	1.27	.25	.75	.96	.96	.86

The three primary measures for evaluating a measurement model's convergent validity are that the indicator loadings with values greater than .7 are considered statistically significant. Values greater than .7 for composite reliability (CR) are reported. The last primary measure is the average variance extracted (AVE) estimates with values greater than .5. The Composite Reliability of .96 reliable measurement model. The AVE values ranged from .61 to .84, which considered that each construct was strongly related to its respective indicators. The average variance extracted values were more than .50 and indicated convergent validity.

Results

The hypotheses test results, as shown in Table 3, were tabulated using PLS-SEM.

Table 3. Hypothesis Testing

<i>Hypotheses</i>	<i>PLS Path Coefficients</i>	<i>t-value</i>	<i>p-value</i>	<i>Hypotheses Results</i>
<i>H1. Workforce Retention Strategies have a significant impact on Working Environment (WRS → WE)</i>	.68	6.43	.00	Supported
<i>H2. Working environment has a significant effect on workforce productivity (WE → WP)</i>	.70	6.66	.00	Supported
<i>H3. Workforce retention strategies have a significant effect on workforce productivity (WRS → WP)</i>	1.01	196.54	.00	Supported

The discriminant validity—the positive square root of the average variance extracted for each latent variable—was higher than the highest correlation of the three latent variables. The factor loadings (ranging from .60 to .93) are significant. It indicated that each item in the measurement model was strongly related to its respective construct since involved constructs have explained more of the indicators' variances. There are also indications of robust model fit with the standardized root mean square residual or SRMR=.07 since it is less than .08 (Hair et al. 2019). The workforce productivity coefficient of determination ($r^2=.49$, $t=3.33$, $p=.00$) and workforce retention strategies ($r^2=1.01$, $t=11153.13$, $p=.00$) were considered significant explanatory power.

Discussion

Workforce productivity is affected by workforce retention strategies and the working environment. But the mediation effect of the working environment was not confirmed. *H1—Workforce Retention Strategies have a significant impact on Working Environment*—is supported. However, Working Environment does not mediate the effect of workforce retention strategies on workforce productivity. The direct path ($WRS \rightarrow WP = 1.01$, $p = .00$) is higher than the product of the indirect paths ($WRS \rightarrow WE$ and $WE \rightarrow WP = .48$). Moreover, all the paths are significant. It is highly recommended that appropriate provisions for a good working environment should be considered, especially in today's management practices. Bestvinová and Marková (2022) support the direct effects on the working environment and work productivity, but the mediation effects were not explicitly supported by previous literature such as the core of paid work and employment relationships. The results of this research also are aligned with the findings of Lee et al. (2022), Sari & Dewi (2020), and Raziq and Maulabakhsh (2015) that the working environment affects workforce retention and productivity.

H2—The working environment's significant effect on workforce productivity was supported. Operating conditions cover a broad range of topics and issues, from working time (hours of work, rest periods, and work schedules) to remuneration, as well as the physical conditions and mental demands that exist in the workplace; thus, comfortable and appropriate provision on working environment motivates employees, making them more productive. The last hypothesis was supported as workforce retention strategies have a significant effect on workforce productivity (PLS path = 1.01, $t = 196.54$, $p = .00$). This result was supported by the study of Pruettikomom & Louhapensang (2018) that organizations can achieve high profitability and productivity by keeping employees engaged and committed to their jobs. Competitive retention strategies will likely stay and become great advocates for your company. Another study echoed that the organization increases productivity and profitability because of its employees. Thus, the organization attains low or moderate performance with employee turnover intentions (Velma et al., 2019). Employee retention strategies go a long way in motivating employees to stick to the organization for the maximum time and contribute effectively. Also, it provides them a good understanding that even a highly skilled individual can perish in a toxic work environment, meaning their work quality and throughput will suffer, or they will find a better-suited position elsewhere. It's essential to be mindful that a person's work performance and productivity vary widely based on their work environment, leadership, and teammates. This reflects in the quality of products. Customers, either internal or external, are considered as the end-user experiencing dissatisfaction, which eventually results in the decline of the long-term profitability of a service or product. There are cases of reduced workforce productivity, which also affects employee engagement and morale within a dynamic team. This also makes the level of initiatives decline where employees have currently taken. In a precise manner, the workforce loses interest in facing the project challenges. Being productive is primarily about accomplishing more in a shorter period. Job accomplishment makes every team member feel highlighted, hence the motivation for performance, loyalty to the employer, and increased productivity. In most cases where workforce productivity is a continuous demand, especially in companies that are project heavy. If the project's performance declines, the project's due date may be missed, resulting in dissatisfaction from the client. Productivity reduces with unattended basic concerns that employers. An organization's inefficiency is also caused by low productivity. A team with unmotivated employees begins with lowered spirits, eventually resulting in missed deadlines. No matter how fully employed an employee is, that does not imply that they don't intend to submit resignations. For most respondents, it is normal to find out that they spend their time browsing job portals, updating their LinkedIn profiles, or accommodating headhunters during their work disengagement.

H3—Workforce retention strategies have a significant effect on workforce productivity is supported as Table 3 reports: the PLS path coefficient = 1.01, $t = 196.54$, and $p = .00$. Therefore, workforce retention

strategies significantly affect workforce productivity. The respondents noted that it is a waste of time and money when an employee suddenly leaves an organization. The human resources department might start the recruitment process all over again for the same vacancy as a mere duplication of work. Finding the right employee for an organization is tedious; all efforts go to waste when the employee leaves. When an individual resigned from his present organization, it is most likely that he would join the competitors. In such cases, employees followed all the strategies and policies from the current organization to the new one. Individuals took all the valuable information and numbers to their new organization and, in some cases, even leaked the secrets of the previous organization. This eventually turned the birth of stricter policies. The financial and non-financial motivations for workforce retention are essential (Hultman 2022, Krishna & Garg 2022).

Implications for Managers, Future Research Directions, and Limitations

A well-designed physical working environment needs to be allocated with time and resources by firms. As the second home of most of the employees, the feeling of physical and emotional security is mandatory. The working environment must be motivating with the essential needs of employees being considered. Managers should collaborate and continuously develop competitive workforce retention programs and policies to solve these challenges effectively. To avoid attrition and loss of assets or information, most human resources professionals recommend that the new employee sign a document that reminds them to pass on any information. Human resources should balance the policies and programs for one common goal.

We recommend further exploring and including other sub-components of working environment and employee retention strategies that are significant to workforce retention and employee turnover. Specific metrics to retain a valuable workforce and a more substantial number of respondents are needed for future research. Other settings are also encouraged for similar research. The continuation of the study means future models that are more relevant to managerial practices.

Studies have limitations. The characteristics of the working environment, not limited to noise, lighting, and its conditions, the amount of space for each employee that would be available, can affect workforce productivity. Another fundamental aspect is the layout of the office space. Several assumptions exist concerning the functions with the most significant number of interactions with one employee to another should be appropriately placed and organized in the closest proximity. Workforce retention strategies are considered as an organization's most critical programs and policies. When programs and policies relevant to workforce retention fail to be adequately monitored, it will cost organizations significantly. Not all in the workforce would be ready to attain professional and personal growth in an organization. These employees or the crew eventually become a liability for organizations. Added value declines over time and adversely affects the organization.

Conclusion

Empirical evidence on the role of working environment and workforce retention strategies needs appropriate attention and commitment to achieve desired workforce productivity. This study uncovered that workforce retention strategies significantly affect workforce productivity. The working environment shows that it directly affects employee productivity. Still, the working environment's mediation effect between workforce retention strategies' and workforce productivity is yet to be proven. This study is compelling and influential and provides ample information for operations managers in financial technology companies being studied to assess workforce productivity in conjunction with the important variables: working environment and workforce retention strategies. The goal of an organization is to

sustain productivity in an emerging market, maintain a sustainable workforce by revisiting policies, and cover the working environment and reward system.

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Author

Francis Banaag (OrcID 0009-0009-0525-2550) is a Consultant for the Organizational Development and Financial Planning in Philippines. He has significant experience in human capital management and developing strategies in human resources, financial, and business operations. He is a member of the Philippine Association of Researchers and Statistical Software Users and the International Society for Human Resources Management (SHRM). Mr. Banaag can be contacted at fbanaag85@gmail.com




BOOK REVIEW

Book

Doing Action Research in Your Own Organization, (4e)
Coghlan D & Brannick T
2014 SAGE. ISBN: 978-1-4462-7256-5

Reviewer

Randall Pasco , Pamantasan ng Lungsod ng San Pablo, Philippines
randall.pasco@plsp.edu.ph

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As global, national, and organizational scenarios become unpredictable, some failures and uncertainties need precise and accurate decisions to remain viable and sustainable in different industries. While managers, leaders, and stakeholders are concerned about the organizational and business environment implementation within their reach, action research is now a well-known methodology for academic research and management practice. Action research is an approach to research to address important organizational, individual, or societal issues. It aims to take action and create knowledge or theory about that action. The researcher and member participate actively in the cyclical process instead of being an object of research. Action research is about change management where the current state needs to be assessed, sound planning with concepts based on legitimate theories must be made, solutions and actions shall intervene, keen evaluation of outcomes and the process per se, the respect on reflections of the researchers and participants, and about the cyclical process to determine effectiveness and patterns.

In this book, Coghlan and Brannick have legitimized action research as one of the research and organizational change management methodologies of choice. It has been accepted as a dissertation in doctoral programs. Several journal articles used the action research methods. The theoretical foundations, the epistemology of knowledge, constructivist research philosophy, frameworks, and related theories are institutionalized. The 4th edition of this book promoted the understanding, application, and execution of action research. There are similarities between traditional qualitative and quantitative research, from the construction of research projects to the action research design. Research methods to develop statistical and analytic generalizations are welcome to be used in action research.

Action research enables individuals and organizations to adapt to the changing external environment. The peculiarities of action research are in the specific focal phenomenon to be investigated at the different levels of organizations or individual situations. The cyclical process and the careful intervention and evaluation are also some of the differentiations of action research. The meta-analysis, learning window, and the taking into account of the reflection of the researcher and the participants balance the search for effective and efficient solutions to relevant problems.

According to the book, some barriers to successful action research are managing ethics and organizational politics. Thus, action research prefers the participation of members with executive power, excellent political savvy, and great communication skills who can theorize the value of an action research project. The implementation of action research is not easy. The action researcher must have strategies to manage constant parameters and variables. The promised success of applicable theories must not deceive the action researcher but must be open to failures, restrictions, confidentiality, and the determination of

hidden antecedents and anomalies. The sample size, context, and settings limitations are not handicaps of the majority of action research but are research components that must not lower the credibility of the research conclusions. At the doctoral level, action research is not an escape to quantitative or qualitative research that covers a large sample size of respondents or numerous cases to describe an industry. With the outcomes of action research, the theories' generalizability is validated or contradicted. A clear solution to a well-understood problem is the most important contribution of action research.

In this edition of the book, it is challenging to look for an outstanding research article that can be referred for future action research. Explicit guidelines for completing an action research article should be provided. The detailed research outline and section components need to be conveyed. The missing pieces in the readers' understanding of what the authors communicate are the keys to further expansion and publications of quality action research. Compiling excellent action research articles will help scholars and management practitioners who need more tips in extrapolating action research findings to broader contexts acceptable in the academic community and practice. As different firms and organizations scientifically attempt to solve significant problems, action research allows documenting the work and further legitimizing management innovation into practice. Coghlan and Brannick shared the rules in action research, excellently.

Reviewer



Randall B. Pasco (OrcID 0000-0002-0748-076X) is the Vice President for Student Affairs and the Dean of the College of Business Administration of the Pamantasan ng Lungsod ng San Pablo, Philippines. Dean Pasco teaches management subjects at an undergraduate, graduate and post-graduate levels. He can be contacted at

randall.pasco@plsp.edu.ph



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