

# Structural Equation Model on Organizational Performance of Hotels in Region XII, Philippines

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**ABSTRACT.** The study developed and tested a model of organizational performance of 446 hotel employees using structural equation modeling (SEM) as the fundamental statistical tool to analyze the relationship among the constructs covered in the study. The constructs consisted of total quality management, innovation capability, entrepreneurial orientation, and organizational performance of hotels in Region XII, Philippines. Relationships of the three constructs with organizational performance were established and supported the model in the final analysis. The model fit consisted of total quality management innovation capability, and entrepreneurial orientation as the predictors of organizational performance. The model also showed a positive relationship between the three exogenous variables and organizational commitment. The findings of the study confirmed the resource-based view (RBV) theory, which demonstrated that when top management identifies the strategy or competitive position that best utilizes internal resources and capabilities with external opportunities, the organization can hold several competitive positions.

**Keywords:** entrepreneurial orientation, innovation capability, organizational performance, total quality management, Philippines

## I. INTRODUCTION

### Rationale

Hotels which aim to improve their performance cannot just depend on the quality, yet should likewise plan incitements to pull in guests. (Hosseinpour, Hajizadeh, Shariati, Rokhideh, & Karimi, 2013). The organizational performance interpreted as a result or outcome, and as a business organization, performance covers the measurement of profitability, productivity, quality of service, as well as employee and customer satisfaction (Baloglu, Erdem, Brewer, Mayer & Sainaghi, 2010). Moreover, organizational performance is evaluated by determining the organization's effectiveness and efficiency in the attainment of its goals and objectives (Gerba & Viswanadham, 2016). Most businesses are continually finding ways to improve products and service quality, attain a competitive position, and improve performance (Ebrahimi, Moosavi, & Chirani, 2010). Further, assessing and gauging the performance of an organization has become an integral component in the proliferation of the organization's strategies. Their contribution to organizational performance ultimately evaluates all functional areas of the organization, such as marketing, operations, human resources, as well as the organization's strategy. Measuring organizational performance is vital in allowing top management to assess the particular behavior of companies and executives, where firms stand up to their competitors, and how firms develop and perform over time (Abd Aziz & Mahmood, 2011). Total quality management as a driver of organizational performance is a broadly perceived theory and has become an essential trademark as associations make progress toward upper hand in business sectors that attention on the organization's consistent procedure improvement to give and meet client worth and necessities (Frese, Lumpkin, Rauch, & Wiklund, 2009). As reported by Demirbag, Tatoglu, Tekinkus, and Zaim (2006) that there is a relationship between TQM and organizational performance. Opposite to the study of Feng, Prajogo, and Sohal (2006) that there is no effect between variables, and it has a negative impact that resulted in a lack of leadership support, poor implementation and lack of top management support (Arumugam, Ooi &

Fong, 2008). The concept of innovation capability in all organizations is survival, as firms need to be able to manage and innovate in an entrepreneurial manner in this dynamic and competitive environment and researchers identified innovation capability as a critical driver of performance (Arya, Fartyal, Gautam, Singh, & Tiwari, 2016). In this way, the capability to help innovation, and especially persistent advancement, is a primary driver of organizational performance. Also, researchers have recognized measurements and proportions of innovation capability and have demonstrated a positive connection to organizational performance (Balan & Lindsay, 2010), and firmly, there have been no first-hand studies to investigate the relationship between the two variables in the hotel industry. Another driver of organizational performance is entrepreneurial orientation, and a firm can operate in an entrepreneurial manner as supported by numerous studies that it has proven that its dimensions and measures have generally identified a positive relationship with organizational performance and limited studies have explored the hotels entrepreneurial orientation that merely focuses on larger hotel chains (Jogarotnam, Ching-Yick, & Tse, 2006). In Region 12, the Tourism industry becomes a top priority, and the demand for hotel service increases, and given the importance of organizational performance, the researcher conducted a comprehensive literature review of possible variables that might affect hotel organizational performance. Research about total quality management, innovation capabilities, and entrepreneurial orientation are extensive and but there are inadequate studies conducted to explore, evaluate the association of the hotel's total quality management, innovation capabilities, and entrepreneurial orientation and the organizational performance. Hence, it is at this point that this study conceptualized in order to identify the relationship between hotel total quality management, innovation capabilities, and entrepreneurial orientation, and organizational performance.

### **Research Objective**

This study focused on the investigation of the structural model on organizational performance as influenced by total quality management, innovation capability, and entrepreneurial intention. Specifically, this study had the following objectives:

1. To assess the level of total quality management practices of hotels in terms of customer focus; internal/external cooperation; continuous improvement; leadership; employee fulfillment; learning; and process management.
2. To ascertain the level of innovation capabilities of hotels in terms of environmental awareness; alliances; customer Intelligence; experimentation; strategy and planning; manager attributes; human resources and human capital; resource awareness; and operations.
3. To measure the level of entrepreneurial orientation of hotels in terms of Innovativeness; risk-taking; pro-activeness; competitive aggressiveness; and autonomy.
4. To determine the level of organizational performance in terms of financial and market performance; quality performance; innovation performance; environmental performance; and social performance.
5. To identify the significant relationship between: total quality management and organizational performance; innovation capability and organizational performance; and entrepreneurial orientation and organizational performance.
6. To recognize the best fit model that predicts organizational performance

### **Hypothesis**

The following null hypotheses were tested at 0.05 level of significance:

1. There is no significant relationship between:
  - 1.1 total quality management and organizational performance;
  - 1.2 innovation capability and organizational performance; and
  - 1.3 entrepreneurial orientation and organizational performance.
2. Total quality management, innovation capability, and entrepreneurial orientation do not significantly influence organizational performance.
3. There is no model that best fits organizational performance.

## **II. REVIEW OF RELATED LITERATURE**

The connection between total quality management and organizational performance was talked about in the examination directed by Brah, Wong and Rao (2000) and uncovered that total quality management receiving firms delighted in a competitive advantage and detailed that TQM and organizational performance are emphatically related. Additionally, Wang et al. (2012) uncovered that the hotel experience improved financial performance after TQM usage. Bolstered by the investigation led by Benavides, Quintana, and Marchante (2014), presumed that total quality

management assumes a first job in expanding hotel performance. Strengthened by the consequence of the investigation led by Marco, Zaragoza, Claver-Cortés and Úbeda (2018) that clarifies hotels with higher degrees of total quality management responsibility will get fundamentally higher gross employable benefits per accessible room every day, competitive performance, and partner fulfillment levels and Liao, Chang and Wu (2010) perceived that TQM could be actualized to expand piece of the pie and benefit and decrease costs.

Inverse to the investigation of Tari, Molina, and Castejon (2006) that presumed that there is no impact of total quality management on different performance measures or that it is contrarily related with hierarchical performance, which may result from various proportions of TQM, low usage, or an absence of the executives support, among different reasons. Different researchers guarantee that a few firms do not encounter this total quality management constructive outcome and a portion of the reasons incorporate, an absence of top administration support, an absence of client center, and an absence of making arrangements for quality, which neglects to performance total quality management adequately and reliably (Calabrese & Corbò, 2014).

The cases about the connection among TQM and innovation capability limit were part into two gatherings: the first gathering bolsters the positive connection among TQM and innovation, while the subsequent gathering contends that TQM does not promote innovation in organizations (Cole & Matsumiya 2007; Hassan, Nawaz, Shaikat, & Hassan, 2014). Analysts contend that organizations that embrace TQM and apply it to their framework and culture give a profitable domain to innovation. We accept that the clarification for that view is that TQM's standards give the establishment to innovativeness.

As far as the relationship of innovation capability and organizational performance, the investigation directed by Martinez-Roman, Gamero, and Tamayo (2011) clarified that there is an association between advancement abilities with the presentation of item and procedure innovation. Furthermore, connections between innovation capability and performance are additionally found in the examination led by Romijn and Albaladejo (2012) which explored the connection between innovation capabilities and advancement performance in the assembling business and as innovation capability is the most significant determinant of firm performance, a discovering bolstered by numerous exact investigations.

The investigation directed by Jiménez-Jiménez and Sanz Valle (2011) bolstered the possibility that innovation is a pivotal driver of firm achievement and found that diverse sort of innovation affects various fields of performance. The effect of imagination limit on a company's outcomes has stayed obscure, be that as it may. Numerous individual angles and their relationship to progress have been inspected, yet for accomplishing higher proficiency, there is a deficiency of research focusing on the aspects of innovation capability in general.

The relationship is tween's entrepreneurial orientation, and organizational presentation talked about similarly as with prior discoveries in regards to the social all-inclusiveness of entrepreneurial orientation as an idea, and the writing contains significant proof that the connection between innovative direction and performance is commonly positive. The primary contention behind this discovering is that organizations that receive a fundamental innovative methodology are bound to create and use new business openings and, in this manner, accomplish unrivaled performance (Covin & Lumpki, 2011). Along these lines, theoretical contentions propose that this prompts better. In any case, the greatness of the relationship appears to differ across contemplates, while a few examinations have discovered that organizations that embrace a hearty entrepreneurial orientation perform superior to firms that do not receive an entrepreneurial orientation (Wiklund & Shepherd, 2005). Different investigations detailed lower connections between entrepreneurial orientation and organizational performance or were even incapable of locating a massive connection between entrepreneurial orientation and organizational performance, and there is a wide variety in the size of announced connections (Brouthers, Nakos, & Dimitratos, 2015).

As bolstered by Ellis (2007), he did not locate a critical connection between entrepreneurial orientation and business performance by any means. Swierczek and Ha (2003) found just an incomplete positive relationship, and Jalali, Jaafari and Ramayah (2014) found that EO was never legitimately identified with business performance. Gupta and Dutta (2018) found that there is an increasingly noteworthy beneficial outcome of an organization on business performance in competitive situations, while there is, by all accounts no huge connection in generous conditions.

For the subject under survey, the applicable writing and studies gave the analyst the most basic information and setting, basically on the connection among factors and how these factors and their markers impact one another. The aptitude picked up from recognized researchers added to the hypothetical structure being created.

## **Theoretical Framework**

To have a strong understanding on the nature of total quality management, innovation capability, entrepreneurial orientation, and organizational performance, this research was anchored on the resource-based view theory and several prepositions: The *resource-based view (RBV)* theory hypothesizes that competitive advantage and success outcomes are the product of firm-specific resources and skills that other competitors can hardly mimic. Specific tools and skills can be essential variables of sustainable competitive advantage and firm success if organizations possess such unique features. Resources should be valuable, unusual, imperfectly imitation, and not replaceable (Barney, 1991).

In the resource-based view, strategists distinguish the methodology or serious position that best uses inside assets and capacities about outside circumstances. Given the vital assets which comprise an arrangement of interconnected resources and capacities, associations can hold a few serious positions (Hooley, Greenly, Fahy, & Cadogan, 2001). Hence, total quality management, innovation capability, and entrepreneurial orientation as organization-wide strategies may be a competitive weapon leading to the organization's superior performance if a great deal of managerial effort will be invested.

The relationship between total quality management and organizational performance is anchored on empirical research studies conducted by Wang et al. (2012), Jaafreh and Al-abadallat (2013), and Nguyen et al. (2018). The study explored by the study of Wang et al. (2012) shows that TQM positively affects hotel performance. External environment factors indeed play a moderator between TQM, market orientation, and hotel performance, especially when external environment factors more significant changes are going to help to build a relationship with the customer, enhancing hotel performance and further to gain the chance of hotel's survival. It is supported by Nguyen et al. (2018) among Vietnamese firms showed that four quality management practices have a significantly positive impact on sustainability performance, namely: top-quality management support for quality management, quality data, and reporting design, and continuous improvement. Additionally, there was a significant relationship between quality management dimensions (leadership, strategic planning, customer focus, and employee relation) and organizational performance (Jaafreh & Al-abadallat, 2013).

Concerning the correlation between innovation capability and organizational performance, it is supported by Fainshmidt, Pezeshkan, Lance Frazier, Nair, and Markowski, (2016), as well as Rajapathirana and Hui, (2018). The empirical verification of the assumption of this model has given evidence to confirm the relationship between innovation capabilities; innovation efforts and firm performance are significant and robust. The results of this study could result in the effective management of innovation capability, which helps to deliver more effective innovations outcomes to generate better performance, and it would be benefits for the management of the insurance companies (Rajapathirana & Hui, 2018).

The relationship of entrepreneurial orientation and organizational performance is anchored on the study conducted by Gruber-Muecke and Hofer (2015); Shan, Song, and Ju, (2016); as well as Al-Dhaafri, Al-Swidi, and Yusuf (2016). The study revealed that this study finds that organizational performance speed leads to superior performance, and the empirical evidence challenges traditional views Innovativeness increases and innovation speed. Risk-taking reduces, not increases, innovation speed (Shan et al. 2016). Firms are encouraged to adopt an entrepreneurial-oriented strategy to achieve better results in international, emerging market operations (Gruber-Muecke & Hofer, 2015).

## **Conceptual Framework**

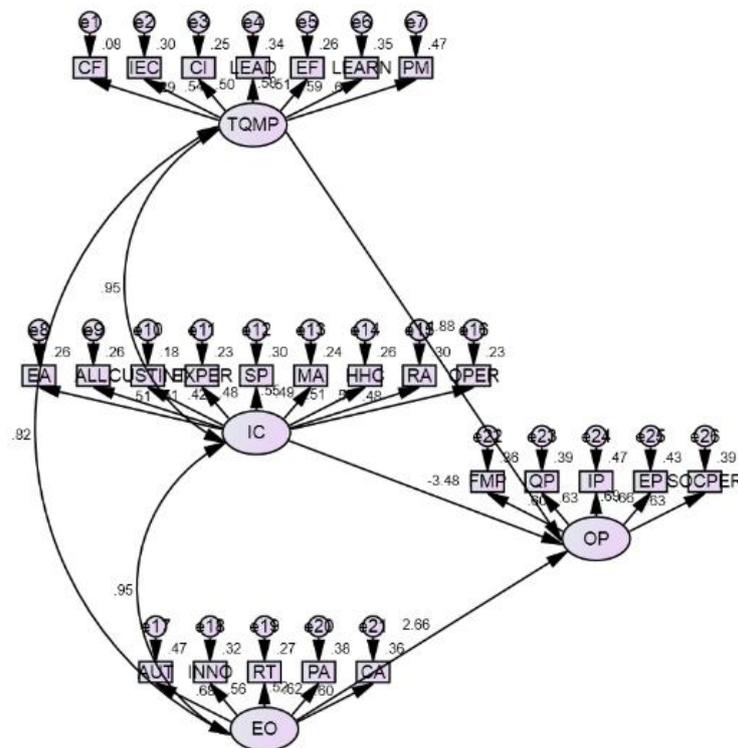
The study contained four proposed models. Such proposed models consisted of two types of latent structures, exogenous and endogenous variables in particular. The exogenous variables of this study were total quality management, innovation capability, and entrepreneurial orientation. On the other hand, organizational efficiency was the endogenous component. When latent variables were indirectly observed, it followed that they could not be directly calculated. With this, a multiple 76 measures or observed variables were correlated with each latent build. So, one of the primary interests of this analysis was the magnitude of regression paths from the latent variable to the observed variables.

The first exogenous variable is total quality management (Wang et al., 2012), which has seven indicators, namely: customer focus, internal/external cooperation, continuous improvement, leadership, employee fulfillment, learning, and process management. The second exogenous variable is innovation capability (Balan & Lindsay, 2010) with the nine indicators, namely, environmental awareness, alliances, customer intelligence, experimentation, strategy

and planning, manager attributes, human resource and human capital, resource awareness, and operations. Furthermore, another exogenous variable is the entrepreneurial orientation (Gautam et al., 2016) with five indicators, namely: innovativeness, risk-taking, pro-activeness, competitive aggressiveness, and autonomy.

Hypothesized Model 1 is a conceptual model depicting the interrelationships between the latent exogenous variables and their direct causal relation to the latent endogenous variable.

Figure 1: Structural Model 1 in Standardized Solution



Legend:

- CF -Customer Focus
- IEC -Internal/External Cooperation
- CI -Continuous Improvement
- LEAD -Leadership
- EF -Employee Fulfillment
- LEARN -Learning
- PM -Process Management
- TQMP -Total Quality Management Practices
- EA -Environmental Awareness
- ALLI -Alliances
- CUSTINT - Customer Intelligence
- EXPER -Experiment
- SP -Strategy & Planning
- MA -Manager Attributes
- HHC -HR & Human Capital
- RA -Resource Awareness
- OPER -Operations
- IC - Innovation Capability
- AUT -Autonomy
- INNO -Innovation
- RT -Risk-Taking
- PA - Pro-Activeness
- CA -Competitiveness Aggressiveness
- EO - Entrepreneurial Orientation
- FMP -Financial and Market Performance

QP -Quality Performance  
IP -Innovation Performance  
EP -Environmental Performance  
SOCPER- Social Performance  
OP -Organizational Performance

### III. INDENTATIONS AND EQUATIONS

This chapter presents the research design, research locale, population and sample, research instruments, data collection, statistical tools of the data, and the ethical consideration of the study.

**Research Design.** This research employed the quantitative descriptive-correlation technique, utilizing Structural Equation Modelling (SEM) to generate the best fit model. The correlation technique is used to show whether and how strongly pairs of variables are related. SEM is defined as a multivariate statistical framework used to model complex relationships between directly and indirectly observed (latent) variables. The study also uses normal theory methods since the parameter estimates due to the large samples that are asymptotically unbiased, efficient, and consistent due to sampling estimate convergence. It is a general framework that involves concurrently solving systems of linear equations and encompasses other techniques such as regression, factor analysis, path analysis, and latent growth curve modeling (Stein, Nock, & Morris, 2012). The study utilized the use of correlation technique and SEM in the study as it is the only analysis that allows complete and simultaneous tests of all the relationships (Bagozzi & Yi, 2012).



Figure 2: Map of the Philippines and SOCCSKSARGEN

**Research Locale.** The study was conducted in the SOCCSARGEN area, or Region XII. It is one of the administrative regions in the Philippines situated in South Central Mindanao, as shown in Figure 2. It has four provinces, namely: South Cotabato, Cotabato, Sultan Kudarat, and Sarangani as well as five cities, namely: General Santos, Cotabato, Koronadal, Tacurong, and Kidapawan. Moreover, General Santos and Cotabato are chartered cities, whereas Koronadal, Tacurong, and Kidapawan are component cities. South Cotabato has 11 municipalities and one component city. Cotabato has 17 municipalities and one component city. Sultan Kudarat has 12 municipalities and 1 component city.

In Region 12, the Tourism industry becomes a top priority, and the demand for hotel service increases and given the importance of organizational performance. Department of Tourism commended the affability business' commitment to the consistent development of the Philippine the travel industry and economy throughout the years as it pledged to build commitment with the private segment. The region is characterized as having the right business environment. Moreover, a large number of businesses ranging from micro, small, and medium enterprises (MSMEs) to large entities

specifically of hotels flourish and are widespread in the region. This explains why the SOCCSARGEN region is the best choice as the study's locale.

**Population and Sample.** A total of 446 respondents from 16 hotels comprised the study. A sample size of at least 200, as proposed by Harris and Schaubroeck (1990), will guarantee robust structural equation modeling. Besides, Yuan, Wu, and Bentler (2011), after evaluating different models based on various numbers of respondents, a sample size of 446 is justified. Stratified random sampling was employed in the selection of respondents. This sampling method was used when a researcher wants to access a particular subset of people, and all participants of the study are selected because they fit a particular profile to facilitate the relevant research (Etikan, Musa, & Alkassim, 2016). The respondents of the study were regular employees in the Department of Tourism (DOT) accredited hotels operating in Region XII. The accreditation issued by the department that complied with the minimum standard for the operation of the tourism facilities and services. These respondents have sufficient knowledge and experience regarding the specific phenomenon under study. Only the accredited hotel establishment was included in the study. Consequently, Non-DOT accredited hotel establishment and hotels affected by the earthquake were excluded from the study. Meanwhile, the participation of the respondents was entirely voluntary, and they may withdraw anytime without consequences of any kind. However, the termination of respondents' participation is possible when they hardly follow study procedures or deliberately provides false information. Finally, data gathering was conducted last October to November 2019.

**Research Instrument.** Primary data were used in the study through survey questionnaires various related researchers. The adapted instruments were modified to make the instrument more applicable in the current undertaking and to suit the local business setting. To ensure its validity, the instrument went through content validation by the panel of experts. The overall mean ratings of expert validators are 4.17 describe as high. Pilot testing was carried out after validation, in which 40 respondents were asked to participate. Cronbach's alpha was used to check the validity of the questionnaire. The excellent rating was obtained as the results revealed Cronbach's values of 0.973, 0.974, 0.962, and 0.952 for total quality management, innovation capability, entrepreneurial orientation, and organizational performance, respectively. The instrument on total quality management was adapted from the works of Wang et al. (2012). The instrument is designed to measure the total quality management practices perceived by hotel employees based on seven indicators, namely: *customer focus, internal/external cooperation, continuous improvement, leadership, employee fulfillment, learning, and process management*. The instrument on innovation capability was adapted from Balan and Lindsay (2010). The instrument is designed to measure the innovation capabilities as perceived by hotel employees based on the nine indicators, namely, *environmental awareness, alliances, customer intelligence, experimentation, strategy and planning, manager attributes, human resources and human capital, resource awareness, and operations*. The instrument on entrepreneurial orientation was adapted from Gautam et al. (2016). The instrument is designed to measure the entrepreneurial orientation as perceived by hotel employees based on the five indicators, namely: *innovativeness, risk-taking, pro-activeness, competitive aggressiveness, and autonomy*. The instrument on organizational performance was adapted from Maletič et al. (2013). The instrument is designed to measure the hotel organizational performance as perceived by the hotel employees based on the five indicators, namely: *financial and market performance, quality performance, innovation performance, environmental performance, and social performance*. In identifying the best fit model, all indices included must consistently fall within the acceptable ranges. Chi-square/degrees of freedom value should be less than 2 with a corresponding p-value greater than 0.05. The root means square error approximation value must be less than 0.05, and its corresponding Pclose value must be higher than 0.05. the other indices such as normed fit index, Tucker-Lewis index, comparative fit index, and the goodness of fit index must all be higher than 0.95.

**Data Collection.** Several procedures were undertaken in gathering data for this research. The dean of the Professional Schools of the University of Mindanao, Matina Campus, permitted the conduct of the study. The letter of request was noted by the research advisor, while the letter of endorsement to the Department of Tourism-Region XII and Department of Trade and Industry-Region XII was issued by the Dean of the Professional Schools for the conduct of the study. The letters were personally handed to the hotel manager and the human resource departments of the accredited DOT hotels. Upon approval, the researcher asked assistance from the human resource personnel or any of the hotel representatives for the administration and retrieval of the questionnaires. A brief orientation was made on the purpose of the study before questionnaires were administered. Data gathering was conducted from October to November 2019. All data collected for this research were guarded to safeguard confidentiality at all times, most notably during the periods during which the data was transported. In any case, it was ensured that information such as names and addresses was retained as part of the research separately from other personal information obtained. The completed questionnaires were secured in a locked filing cabinet, while the soft copy of the data was stored on a computer protected by a password. Kidapawan City was excluded from the study due to the earthquake disaster. Gradual

administration and retrieval of data, collation, and tabulation of the data were conducted. Wherein a screening was performed to lessen the possible outliers during the analysis. The information gathered for random people was not even-handed. Alternatively, this may mean that the information can be used, but the names of people and other situation identification features have been removed. The paper records were ultimately disposed of by burning or cross shredding. The responses were tabulated and stored in an Excel spreadsheet for statistical evaluation, which was then forwarded to the statistician. Finally, evaluating and interpreting the data in which the findings were analyzed and interpreted based on the study's intent.

**Statistical Tools.** The researcher has used the following statistical tools in the analysis and interpretation of the data:

**Mean.** This was used to measure the level of total quality management practices, innovation capability, entrepreneurial orientation, and organizational performance of DOT Accredited hotels in Region XII.

**Pearson Product Moment Correlation (Pearson R).** This was utilized to determine the interrelationships between total quality management practices, innovation capability, entrepreneurial orientation, and organizational performance.

**Multiple Regression.** This was applied to determine the significant influence of total quality management practices, innovation capability, entrepreneurial orientation, and organizational performance.

**Structural Equation Modelling.** This employed used to determine the best fit model on organizational performance among DOT Accredited hotels in Region XII.

#### IV. FIGURES AND TABLES

Presented in this chapter are the data gathered, comprehensive discussion, interpretation, and implications of the findings on the organizational performance of hotels in Region XII. The discussions are arranged according to the following sub-headings: level of total quality management strategy, level of innovation capabilities, level of entrepreneurial orientation and level of organizational performance; the relationship between total quality management and organizational performance, innovation capability and organizational performance, entrepreneurial orientation, and organizational performance; and the best fit model that predicts organizational performance.

##### **Significance on the Relationship between Total Quality Management and Organizational Performance**

Exhibited in Table 1 are the data on the results of the correlation between total quality management and organizational performance. The overall r-value obtained was 0.594, with a p-value of less than 0.05 level of significance. The result was significant, and the null hypothesis was rejected. Moreover, it was observed that *customer focus, internal/external cooperation, continuous improvement, leadership, employee fulfillment, learning, and process management* as indicators of total quality management practices when correlated with *financial and market performance* obtained the overall r-value of 0.439 with a  $p < 0.05$ . Hence it was significant.

When the indicators of total quality management practices were correlated to *quality performance*, the overall r-value was 0.489 with  $p < 0.05$ , meaning significant. When the indicators of total quality management were correlated to *innovation performance*, the overall r-value was 0.311 with  $p < 0.05$ , therefore significant. When the indicators of total quality management were correlated to *environmental performance*, the overall r-value was 0.367 with  $p < 0.05$ , hence, significant. When the indicators of total quality management practices were correlated to *social performance*, the overall r-value was 0.440 with  $p < 0.05$ , hence, significant. Lastly, the probability values showed a significant correlation.

The take a look at the connection between variables that reveal a significant relationship between total quality management and organizational performance, which results in rejecting the null hypothesis of the study. This suggests that total quality management practices are related to organizational performance. Further, it implies that organizational performance has one thing to try to do with total quality management practices. The results on the correlations between indicators of total quality management practices in terms client focus, internal/external cooperation, continuous improvement, leadership, worker fulfillment, learning; and method management bear essential relationships on the symptoms of organizational performance in terms of monetary and market performance, quality performance, innovation performance, environmental performance, and social performance.

The results of the correlation match with the analysis conducted by Demirbag et al. (2006) on TQM and organizational performance which are entirely connected. However, no impact of TQM on various performance measures or that TQM is negatively associated with organizational performance, which can result from entirely different measures of TQM, ineffective implementation, or a scarcity of management support, among different reasons (Tari et al.,

2006). However, the building trade has known outperformance in TQM-committed hotels (Chen, 2015), and TQM is probably going to enhance client satisfaction, and ultimately, money performance (Gerba & Viswanadham, 2016).

Table 1  
Significance on the Relationship between Levels of Total Quality Management and Organizational Performance

Total Quality Management Practices	Organizational Performance					Overall Organizational Performance
	Financial and Market Performance	Quality Performance	Innovation Performance	Environmental Performance	Social Performance	
Customer Focus	0.131* (0.008)	0.261* (0.000)	0.222* (0.000)	0.115* (0.002)	0.198* (0.000)	<b>0.264*</b> <b>(0.000)</b>
Internal/External Cooperation	0.285* (0.000)	0.290* (0.000)	0.190* (0.000)	0.244* (0.000)	0.250* (0.000)	<b>0.345*</b> <b>(0.000)</b>
Continuous Improvement	0.254* (0.000)	0.251* (0.000)	0.223* (0.000)	0.163* (0.001)	0.241* (0.000)	<b>0.309*</b> <b>(0.000)</b>
Leadership	0.299* (0.000)	0.329* (0.000)	0.300* (0.000)	0.255* (0.000)	0.263* (0.000)	<b>0.397*</b> <b>(0.000)</b>
Employee Fulfillment	0.255* (0.000)	0.317* (0.000)	0.330* (0.000)	0.176* (0.000)	0.291* (0.000)	<b>0.374*</b> <b>(0.000)</b>
Learning	0.346* (0.000)	0.320* (0.000)	0.330* (0.000)	0.283* (0.000)	0.307* (0.000)	<b>0.423*</b> <b>(0.000)</b>
Process Management	0.331* (0.000)	0.348* (0.000)	0.285* (0.000)	0.334* (0.000)	0.358* (0.000)	<b>0.462*</b> <b>(0.000)</b>
<b>Overall Total Quality Management Practices</b>	<b>0.439*</b> <b>(0.000)</b>	<b>0.489*</b> <b>(0.000)</b>	<b>0.311*</b> <b>(0.000)</b>	<b>0.367*</b> <b>(0.000)</b>	<b>0.440*</b> <b>(0.000)</b>	<b>0.594*</b> <b>(0.000)</b>

\*Significant at 0.05 significance level.

### Significance of the Relationship between Innovation Capability and Organizational Performance

Reflected in Table 2 are the data on the results of the correlation between innovation capability and organizational performance. The overall r-value attained from the measures mentioned above was 0.639 with a p-value less than 0.05; or significant. The null hypothesis was thus rejected. Also, it was observed that when all the indicators of innovation capability and *financial and market performance* were correlated, the overall r-value was 0.473 with  $p < 0.05$ , hence, significant. When the indicators of innovation capability were correlated with *quality performance*, the overall r-value was 0.463 with  $p < 0.05$ , hence significant. When the indicators of innovation capability were correlated with *innovation performance*, the overall r-value was 0.473 with  $p < 0.05$ , hence significant. Likewise, the indicators of innovation capability were correlated to *environmental performance*; the overall r-value was 0.432 with  $p < 0.05$  hence, significant. When the indicators of innovation capability were correlated to *social performance*, the overall r-value was 0.484 with  $p < 0.05$ , hence significant. Thus, the probability values showed a significant correlation.

The take a look at the connection between variables that reveal a significant relationship between innovation capability and organizational performance, which implies that the null hypothesis of the study is rejected. This signifies that quality management practices are related to organizational performance. Further, it indicates that organizational performance has one thing to try to do with innovation capability. The overall results show a correlation among indicators of innovation capability in terms of environmental awareness, alliances, client Intelligence, experimentation, strategy and designing, manager attributes, 60 minutes and human capital, resource awareness, and operations. This bear vital relationships on the indications of organizational performance in terms of economic and market performance, quality performance, innovation performance, environmental performance, and social performance.

These findings are just like the study conducted by Martinez-Roman et al. (2011) which explained that there is a connection between innovation capabilities with the performance of product and method innovation Relationships between innovation capability and performance also are found within the study conducted by Romijn and Albaladejo

(2012) that investigated the connection between innovation capabilities and innovation performance in producing business. Moreover, innovation capability is the most vital determinant of firm performance, a finding supported by several empirical studies. The diffusion of innovations literature additionally confirms and suggests that corporations should be innovative to achieve a competitive near order to survive. Notwithstanding. The link between firm originality and performance has not been tested sufficiently. Garcia-Morales, Jimenez, and Gutierrez, (2012) observed that technological organization with additional excellent structure innovation capability achieves an improved response from the surroundings, getting additional only the capabilities required to extend organizational performance and consolidate a competitive property advantage. Moreover, several systematic varieties of analysis appear to reveal a positive relationship between innovation and performance in businesses (Koellinger, 2008).

Table 2  
Significance on the Relationship between Levels of Innovation Capability and Organizational Performance

Innovation Capability	Organizational Performance					Overall Organizational Performance
	Financial and Market Performance	Quality Performance	Innovation Performance	Environmental Performance	Social Performance	
Environmental Awareness	0.280* (0.000)	0.199* (0.000)	0.297* (0.000)	0.267* (0.000)	0.252* (0.000)	<b>0.359*</b> <b>(0.000)</b>
Alliances	0.235* (0.000)	0.252* (0.000)	0.241* (0.000)	0.213* (0.000)	0.324* (0.000)	<b>0.345*</b> <b>(0.000)</b>
Customer Intelligence	0.254* (0.000)	0.214* (0.000)	0.204* (0.000)	0.174* (0.000)	0.213* (0.000)	<b>0.291*</b> <b>(0.000)</b>
Experimentation	0.248* (0.000)	0.276* (0.000)	0.285* (0.000)	0.245* (0.000)	0.278* (0.000)	<b>0.366*</b> <b>(0.000)</b>
Strategy and Planning	0.238* (0.000)	0.315* (0.000)	0.337* (0.000)	0.275* (0.000)	0.318* (0.000)	<b>0.407*</b> <b>(0.000)</b>
Manager Attributes	0.283* (0.000)	0.259* (0.000)	0.293* (0.000)	0.190* (0.000)	0.320* (0.000)	<b>0.368*</b> <b>(0.000)</b>
Human Resource and Human Capital	0.316* (0.000)	0.304* (0.000)	0.251* (0.000)	0.300* (0.000)	0.312* (0.000)	<b>0.408*</b> <b>(0.000)</b>
Resource Awareness	0.379* (0.000)	0.305* (0.000)	0.291* (0.000)	0.335* (0.000)	0.281* (0.000)	<b>0.440*</b> <b>(0.000)</b>
Operations	0.247* (0.000)	0.295* (0.000)	0.278* (0.000)	0.268* (0.000)	0.242* (0.000)	<b>0.366*</b> <b>(0.000)</b>
<b>Overall Innovation Capability</b>	<b>0.473*</b> <b>(0.000)</b>	<b>0.463*</b> <b>(0.000)</b>	<b>0.473*</b> <b>(0.000)</b>	<b>0.432*</b> <b>(0.000)</b>	<b>0.484*</b> <b>(0.000)</b>	<b>0.639*</b> <b>(0.000)</b>

\*Significant at 0.05 significance level.

### 4.3 Significance on the Relationship between Entrepreneurial Orientation and Organizational Performance

Displayed in Table 3 are the data on the results of the correlation between entrepreneurial orientation and organizational performance. The overall r-value attained from the measures mentioned earlier was 0.688, with a p-value less than 0.05 hence significant. The null hypothesis is, therefore, rejected. Notably, the data revealed that autonomy, innovativeness, risk-taking, proactiveness, and competitiveness aggressiveness as indicators of entrepreneurial orientation when correlated with *financial and market performance*, the overall r-value was 0.502 with  $p < 0.05$ ; hence, significant. When the indicators of entrepreneurial orientation were correlated to *quality performance*, the overall r-value was 0.490 with  $p < 0.05$ ; hence, significant. When the indicators of entrepreneurial orientation were correlated to *innovation performance*, the overall r-value was 0.501 with  $p < 0.05$ ; hence, significant. When the indicators of entrepreneurial orientation were correlated to *environmental performance*, the overall r-value was 0.538 with  $p < 0.05$ ; hence, significant. When the indicators of entrepreneurial orientation were correlated to *social performance*, the overall r-value was 0.457 with  $p < 0.05$ ; hence, significant.

Therefore, the probability values showed a significant correlation. Notably, the data revealed that all indicators: *innovativeness, risk-taking, pro-activeness, competitive aggressiveness, and autonomy* of entrepreneurial orientation showed a significant relationship to all indicators of organizational performance as the individual p-values were less than 0.05.

The take a look at the link between variables reveals a significant relationship between entrepreneurial orientation and organizational performance, which indicated the rejection of the null hypothesis of the study. This means that entrepreneurial orientation is related to organizational performance. Further, it implies that organizational performance has one thing to try and do with market orientation. The results on the correlations between indicators of market orientation in terms of originality, risk-taking, pro-activeness, competitive aggressiveness, and autonomy have essential relationships on the indications of organizational performance in terms of economic and market performance, quality performance, innovation performance, environmental performance, and social performance. This result is almost like a correlation like previous findings relating to the cultural catholicity of entrepreneurial orientation as an idea, and therefore the literature contains substantial proof that the link between entrepreneurial orientation and performance is universally positive. Different studies reportable lower correlations between entrepreneurial orientation and performance or were even unable to search out a significant relationship between EO and performance (Dimitratos, Lioukas, & Carter, 2004).

Table 3  
*Significance on the Relationship between Levels of Entrepreneurial Orientation and Organizational Performance*

Entrepreneurial Orientation	Organizational Performance					
	Financial and Market Performance	Quality Performance	Innovation Performance	Environmental Performance	Social Performance	Overall Organizational Performance
Autonomy	0.394* (0.000)	0.358* (0.000)	0.413* (0.000)	0.402* (0.000)	0.363* (0.000)	<b>0.533*</b> <b>(0.000)</b>
Innovativeness	0.305* (0.000)	0.327* (0.000)	0.300* (0.000)	0.418* (0.000)	0.274* (0.000)	<b>0.451*</b> <b>(0.000)</b>
Risk-Taking	0.258* (0.000)	0.308* (0.000)	0.260* (0.000)	0.330* (0.000)	0.326* (0.000)	<b>0.407*</b> <b>(0.000)</b>
Pro-Activeness	0.381* (0.000)	0.383* (0.000)	0.404* (0.000)	0.371* (0.000)	0.337* (0.000)	<b>0.517*</b> <b>(0.000)</b>
Competitiveness	0.422* (0.000)	0.342* (0.000)	0.385* (0.000)	0.367* (0.000)	0.310* (0.000)	<b>0.505*</b> <b>(0.000)</b>
Aggressiveness	0.422* (0.000)	0.342* (0.000)	0.385* (0.000)	0.367* (0.000)	0.310* (0.000)	<b>0.505*</b> <b>(0.000)</b>
Overall Entrepreneurial Orientation	<b>0.502*</b> <b>(0.000)</b>	<b>0.490*</b> <b>(0.000)</b>	<b>0.501*</b> <b>(0.000)</b>	<b>0.538*</b> <b>(0.000)</b>	<b>0.457*</b> <b>(0.000)</b>	<b>0.688*</b> <b>(0.000)</b>

\*Significant at 0.05 significance level.

#### 4.7 Best Fit Model of Organizational Performance

This portion presents an analysis of variables that best predict the best performance organizational model between hotels. Four alternative models have been reviewed to provide the best match for the study. Additionally, the fit evaluation was used as a benchmark to approve and reject the pattern. As a rule, the researcher developed the relationship between the latent variable's causality relationships with the various latent variables. The relationship between endogenous and exogenous variables was also introduced. The moment that the structured model exhibited a suitable fit, it underscored that there was the dependability of the empirical relationships among variables inferred by the model. The model parameter estimates entailed the magnitude and direction of the relationship among variables.

The generated Model 4 exhibited in Figure 3 displayed the conceptual model showing the interrelationships of the latent exogenous variables: total quality management practices, innovation capability, and entrepreneurial orientation towards the latent endogenous variable, organizational performance.

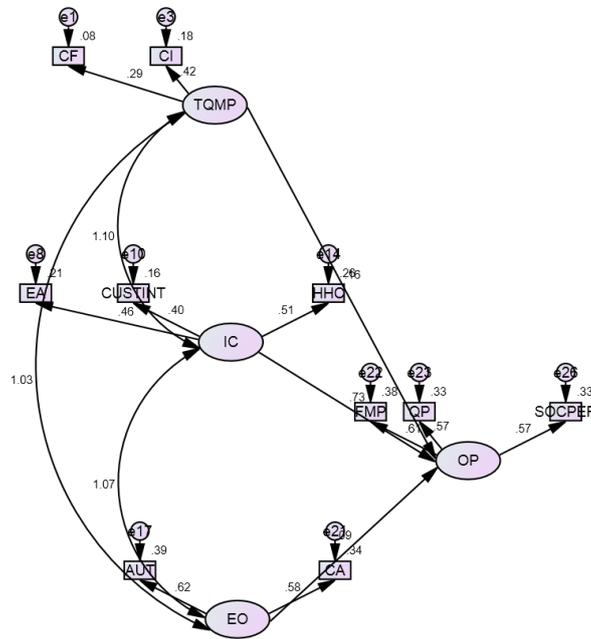
Revealed in Table 4 are the effects among latent variables and between measured and the latent variables, which were estimated to produce regression weights. Results showed that the latent variable had no significant effect on the endogenous variable, organizational performance ( $p < 0.05$ ).

Finally, the fourth model, as shown in Figure 10, is identified as the best fit model. It displays the direct causal link of the exogenous variables' total quality management practices, innovation capability, and entrepreneurial

*Structural Equation Model on Organizational Performance of Hotels in Region XII, Philippines*

orientation towards the endogenous variable organizational performance. Its indices consistently indicated a perfect fit for the data, and all the indices presented fall within each criterion.

Thus, there was no need to find another model for testing because it was already found to be the best fit among all the tested models. Therefore, the null hypothesis of no best fit model was rejected. It could be stated that there is the best fit model that predicts the organizational performance of hotels in Region XII.



**Figure 3.** Structural Model 4 in Standardized Solution

**Legend:**

- CF -Customer Focus
- ICI -Continuous Improvement
- TQMP -Total Quality Management Practices
- EA -Environmental Awareness
- CUSTINT - Customer Intelligence
- HHC -HR & Human Capital
- IC - Innovation Capability
- AUT -Autonomy
- CA -Competitiveness Aggressiveness
- EO - Entrepreneurial Orientation
- FMP -Financial and Market Performance
- QP -Quality Performance
- SOCPER- Social Performance
- OP -Organizational Perfo

The model clearly illustrates the significance of total quality management practices, innovation capability, and entrepreneurial orientation as a predictor of organizational performance. However, it can be gleaned from the model that all of the seven indicators of total quality management practices, only customer focus, and continuous improvement, predicted organizational performance. Moreover, for innovation capability, only three out of nine indicators were found to have an influence on organizational performance, namely: environmental awareness, customer intelligence, HR, and human capital.

On the other hand, out of five indicators of entrepreneurial orientation, only the autonomy and competitive aggressiveness predicted organizational performance. On the part of organizational performance, only three out of five indicators remained to be measured, namely: financial and marketing performance, quality performance, and social performance. Thus, the findings suggested that organizational performance of hotels was best anchored on total quality management measured on customer focus and continuous improvement, innovation capability measured on environmental awareness, customer intelligence, HR and human capital. Entrepreneurial orientation measured on autonomy and competitive aggressiveness.

Displayed in Table 4 is the examination of Model 4 using goodness of fit indices: Chi-Square divided by the degrees of freedom (CMIN/DF) is 1.114; Normed Fit Index (NFI) is .953; Tucker-Lewis Index (TLI) is 0.992; Comparative Fit Index (CFI) is 0.995; Goodness of Fit Index (GFI) is .983; Root Means Square of Error Approximation (RMSEA) is .017 and P of Close Fit (Pclose) is .988. The result of the goodness of fit of the Model 4 was highly acceptable since all indices met the set criteria against the obtained model fit value. These indices satisfied the requirement of the goodness of fit measures. Moreover, this indicated that generated Model 4 is a perfect fit model.

Table 4  
 The goodness of Fit Measures of Structural Model 4

INDEX	CRITERION	MODEL FIT VALUE
P-Close	> 0.05	0.988
CMIN/DF	0 < value < 2	1.114
P-value	> 0.05	0.304
GFI	> 0.95	0.983
CFI	> 0.95	0.995
NFI	> 0.95	0.953
TLI	> 0.95	0.992
RMSEA	< 0.05	0.017

**Legend:**

**CMIN/DF** - Chi-Square/Degrees of Freedom

**TLI** - Tucker-Lewis Index

**GFI** - Goodness of Fit Index

**Pclose** - P of Close Fit

**NFI** - Normed Fit Index

**CFI** - Comparative Fit Index

**RMSEA** - Root Means Square of Error Approximation

**P-value** Probability Value

In identifying the best fit model, all indices included must consistently fall within the acceptable ranges. Chi-square/degrees of freedom value should be less than 2 with its corresponding p-value greater than 0.05. The root means square error approximation value must be less than 0.05, and its corresponding Pclose value must be higher than 0.05. The other indices such as normed fit index, Tucker-Lewis index, comparative fit index, and the goodness of fit index must all be higher than 0.95. The research question related to the model that best represents the variables as a predictor of organizational performance among hotels, the proposed model sketched in Figure 1, needs to be modified to meet the requirements of the goodness of fit measures. The four models generated in the study were encapsulated in Table 5.

Table 5  
Summary of Goodness of Fit Measures of the Five Structural Models

Model	CMIN/DF 0 < value < 2	P-Value > .05	NFI > .95	TLI > .95	CFI > .95	GFI > .95	RMSEA < .05	P-Close > .05
1	1.416	0.000	0.864	0.951	0.955	0.926	0.032	1.000
2	1.290	0.020	0.912	0.974	0.978	0.958	0.027	1.000
3	1.354	0.035	0.927	0.973	0.979	0.969	0.030	0.987
4	1.114	0.304	0.953	0.992	0.995	0.983	0.017	0.988

**Legend:**

- CMIN/DF - Chi-Square/Degrees of Freedom
- TLI - Tucker-Lewis Index
- GFI - Goodness of Fit Index
- Pclose - P of Close Fit
- NFI - Normed Fit Index
- CFI- Comparative Fit Index
- RMSEA- Root Means Square of Error Approximation
- P- value - Probability Value

**V. CONCLUSION AND RECOMMENDATION**

**Conclusion** .The use of the structural equation model intense the rigor of the study as a result of the analysis goes through the steps of model specification, model estimation, and model analysis. The subsequent conclusions were drawn. The high level of total quality management practices, innovation capability, entrepreneurial orientation, and organizational performance was perceived by the respondents, which suggests that it is oftentimes determined. Overall, all the indications have a significant relationship to organizational performance. Significantly, it is over that model four is that the best match model that predicts organizational performance. The findings of the study confirmed the resource-based view (RBV) theory, that incontestable that once prime management identifies the strategy or competitive position that best utilizes internal resources and capabilities in relevance external opportunities, the organization will hold many competitive positions. Moreover, these resources and capabilities may be necessary variables in achieving competitive property advantage and a firm’s performance (Barney, 1991)

**Recommendations.** The researcher proposed the following recommendations based on the result of the study: The high-level rating of total quality management practices, innovation capability, entrepreneurial orientation, and organizational performance of hotels implies that there is still a space for improvement by enhancing its implementation and turning these practices to a high level. Hotels can use focused activities to satisfy purchasers. Customers’ feedback may be used to work out their necessities so much so that senior executives behave in ways that will reduce the importance of the client. Moreover, the building can promote a work culture that actively supports innovation, and workers receive in-

depth formal skills coaching in areas that are vital to one's business, aside from the training needed by regulation and have a corporate structure that powerfully supports innovation in each of the areas of activity. The significant relationship of the three variables: total quality management practices, innovation capability, and entrepreneurial orientation to organizational performance counsel that hotels also give these variables further stress as these signify the upper level of those variables. The high level of organizational performance follows. This will be done once hotels offer freedom to staff for deciding their method of doing their work while not looking at the manager's direction. Also, the staff plays a significant role in distinctive in choosing entrepreneurial opportunities instead of prime management groups. The workers will decide what business opportunities to pursue. People as well the team will pursue business opportunities without taking approval from their manager. The highest managers of the organization believe that the workers may add to high productivity if they decide their target and once the employees have full authority and responsibility to act alone for the most sincere interests of the business. The best fit model showing total quality management practices, innovation capability, and entrepreneurial orientation as predictors of organizational performance indicate that these variables will be of prime worth in achieving high organizational performance. It will be materialized as hotels strive to adopt "undo-the-competitors" posture at the time of competition, specialize in the client necessities; takes a daring and aggressive approach once competition, and intensely compete within building the business.

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