



THE INFLUENCE OF TOP-LEVEL HOTEL MANAGERS' DEMOGRAPHIC CHARACTERISTICS ON ADOPTION OF PROACTIVE ENVIRONMENTAL STRATEGY AND ORGANIZATIONAL PERFORMANCE

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Abstract

The purpose of this study is to examine the influence of top-level hotel managers' demographic characteristics on adoption of proactive environmental strategy (APES) and organizational performance (OP). The study examines the influence of top-level hotel managers' age, level of education and career experience on adoption of proactive environmental strategy. This study also examines the relationship between adoption of proactive environmental strategy and organizational performance. A survey was conducted using a sample of 314 managers from

star-graded hotels in Sri Lanka. The findings of this study indicate that top-level managers' education influence proactive environmental strategy decisions while age and career experiences have no any impact on adoption of proactive environmental strategy. The results also confirmed that hotels with a higher degree of environmental proactivity obtain better organizational performance.

Keywords: Top management, Demographic characteristics, Adoption of proactive environmental strategy, Organizational performance, Hotel industry

INTRODUCTION

Contemporary business organizations can express their concern to protect natural environment by encouraging and practicing green initiatives (Liu, 2019; Porritt & Winner, 1988). In today's competitive scenario, the preservation of the natural environment has become a significant variable which emphasizes the need to develop new and innovative ways to address business sustainability. Therefore, the organizations' ability to face these environmental issues and challenges are becoming strategic issues in the present business arena (Wahid et al., 2011). Existing literature have explained that the proactive environmental strategy (PES) enhance the firm performance (Liu, 2019; Marchi, Maria, & Micelli, 2013; Molina-Azorín, Claver-Corté, Pereira-Moliner, & Juan Jose, 2009). Many researches on organizations and environmental sustainability mainly highlight that the firms' environmental strategy can be initiated based on stakeholders' influence, firms' environmental management, resource availability, perception on environmental strategy as a competitive resource (Bagur-Femenias et al., 2016; Carmona-Moreno, Céspedes-Lorente & De BurgosJiménez, 2004).

At present, tourism is recognized as one of the world largest economically benefited and rapidly expanding industries (United Nations World Tourism Organization (UNWTO), 2018). Cooper, Fletcher, Gilbert and Wanhill (1998) have elucidated that the tourism industry is inevitably associated with the natural environment and resources. As a sub-sector of the tourism industry, the hotel sector is considered one of the most environmentally harmful sectors. The hotel sector has been known to be associated with utilization of the vast amount of non-renewable goods, energy and water as well as generating large scale of waste (Bohdanowicz, 2005). These practices lead to negative environmental impacts (Amazonas, Silva & Andrade, 2018; Bohdanowicz, 2005; Bohdanowicz & Martinac, 2003). In the meantime, the environmental sensitivity is more significant for the tourism industry due to the fact that industry's attraction is highly depending on natural and man-made environment. After thirty years of civil war, Sri

Lanka has an immense growth in the tourism industry. Sri Lanka is recognized as one of the world's most tourist attraction region. According to 'lonely planet' in 2018, Sri Lanka has received first place among 10 best countries to visit in 2019 while in 2011 'National Geography' recognized Sri Lanka as the 'No 1 of the 6 best places to visit in 2011',. This potential in the industry will lead to significant environmental impact if there is no proper environmental management initiatives lever by the hotels in Sri Lanka. Therefore, it is vigorous to study the top management influence on the adoption of proactive environmental strategy in order to enhance hotel environmental practices and performance.

Researches and hoteliers are concerned on variety of issues and challenges of environmental management. Among them, the types of environmental management practices adopted by hotels (Bruns-Smith et al., 2015; Mensah, 2006), the benefits of proactive environmental strategy (Barba-Sánchez & Atienza-Sahuquillo, 2016; Endrikat et al, 2014), determinants of incorporate environmental management practices into hotel operations (Dief & Font, 2012 ; Samdin et al., 2012) are getting more attention. Furthermore, both internal and external stakeholders play critical role on firms' responses to environmental issues (Mensah, 2014; Aragón-Correa et al., 2008). However, the research have exert less attention on how organization's individuals, mostly top managers influence on environmental initiatives (Kim, Park & Wen, 2015). Being the key decision makers in organizations, top managers play a critical role regarding the firm's environmental strategy.

From the perspective of strategic choice, senior executives are one of the most important participants that influence strategic choices of the firm (Miller & Toulouse 1986; Hambrick & Mason 1984; Child, 1972). Furthermore, top management is considered as one of the key parties that affect the organization to adopt and implement proactive environmental strategy and the results achieved after implementing their strategy. Hence, the relationship between adoption of proactive environmental strategy and firm performance is likely to be affected by the top management.

In 1984, Hambrick and Mason have introduced upper echelons theory through their seminal paper and emphasized that the top managers' individual characteristics influence organizational strategy choices and these preferences can lead to different organizational performance. The upper echelon theory (Hambrick & Mason, 1984) suggests this association by emphasizing that managers' demographic characteristics affect their cognitive bases and values, and accordingly impact their strategic choices.

Environmental strategy of an organization refers to the organizational long-term planning of environmental management activities which determines the environmental position of the organization (Carmona-Moreno et al., 2004). As explained by Sharma (2000), the environmental

strategy of an organization refers to "a pattern in action over time" (Mintzberg, 1989) anticipated to manage the interface between natural environment and the business. Hence, the environmental strategy explains the strategic orientation of a firm, and provides answers to the environmental issues and challenges face by the firm. Environmental strategies have usually been studied with different typologies and taxonomies (Kim, 2018; Winn & Angell, 2000; Henriques & Sadorsky, 1999; Klassen & Whybark, 1999; Arago'n-Correa, 1998; Roome, 1992), but all classifications match in organizing environmental strategies in a continuum, ranging from proactive (most advanced) to reactive (least committed) (Kim, 2018; Buysse & Verbeke, 2003). The proactive corporate environmental strategies are considered as voluntary actions taken over protecting natural environment that go beyond compliance by stressing corporate pollution-prevention activities, redesign of existing processes and higher-order learning (Sharma, 2000; Hart, 1995).

Moreover, proactive environmental practices are closely related to the development of organizational capabilities and affect organization's ability to gain economic benefits by improving corporate environmental performance (Endrikat et al, 2014). The top management team members and company values are the main instruments of ethical motives of organization ecological response, which shows the firms' role in the society (Saeed & Kersten, 2019; Alzawawi, 2014; Bansal & Roth, 2000). As a company feature (González-Benito & González-Benito, 2006) and a critical internal force (Tang et al., 2015), the top management support and commitment is considered as an important factor for the development and implementation of proactive environmental strategies (Valero – Gil et al., 2017; González-Benito & González-Benito, 2006).

By applying upper echelons theory to environmental management, the objectives of the current study are to examine the impact of top-level managers' demographic characteristics on adoption of proactive environmental strategy and to test the relationship between proactive environmental strategy and organizational performance.

LITERATURE REVIEW

Top-level Managers' Demographic Characteristics and Proactive Environmental Strategy Choice

Organization's decisions are made by an individual or a group of managers in the organization. Decision making is a cognitive process influenced by the individual's core values and beliefs (Petrides & Guiney, 2002). Therefore, individual characteristics are considered as a vital factor that determined effectiveness of decisions (Bulog, 2016; Petrides & Guiney, 2002). Upper echelon theory stated that upper echelon characteristics as antecedents of strategic choice and

through that choices they affect organizational performance (Hambrick & Mason, 1984). Furthermore, the theory has also explained that top management demography as unique personal traits or attributes assigned to individual managers, innate or learned, observable or cognitive and are indicators that they bring to administrative situation (Knight et al., 1999). The literature of upper echelons characteristics on strategy choice are examined through two main categories of factor. Namely personality /psychological characteristics (Papadakis & Barwise, 1998; Miller & Toulouse, 1986) and demographic characteristics (Mkalama & Machuki, 2019; Smith et al., 1994; Hitt & Tyler, 1991; Finkelstein & Hambrick, 1990; Hambrick & Mason, 1984). Personality / psychological characteristics are known as unobservable and difficult to measure such as attitude, values, beliefs, knowledge, individual preferences, taking propensity, locus of control and perception (Hambrick & Mason, 1984; Miller & Toulouse, 1986; Papadakis, 2006).The demographic characteristics are observable and easier to collect and measure than personality and psychological characteristics (Hitt & Tyler, 1991; Finkelstein & Hambrick, 1990; Hambrick & Mason, 1984). These demographic characteristics includes age, level of education, tenure, length of service, and gender (Goll & Rasheed, 2005; Papadakis & Barwise, 1998; Pfeffer, 1983, Hambrick & Mason, 1984).

Literature reveals that the top-level managers' characteristics are associated with the firm's strategic preferences and these preferences can in turn lead to diverse organizational performance (Hambrick & Mason, 1984; Goll & Rasheed, 2005; Lee and Park 2006). As Kim, Park and Wen (2014) described, the general managers' environmental commitment affect their firms' involvement in environmental practices. The CEO firm tenure, educational level, functional background, and functional heterogeneity are influential attributes for strategic choices and performance (Rajagopalan and Datta, 1996). As Bantel and Jackson (1989) and Camelo-Ordaz et al. (2005) described, the age, mandate and education are specifically associated with new products and services. Liu et al. (2012) confirm the influence of managers' characteristics in strategic change towards internationalization. In relating to financial disclosure, more precise financial disclosure styles are associated with managers' military experience and finance and accounting experience (Bamber, Jiang & Wang, 2010). Furthermore, Felin and Foss (2006) have emphasized that the micro or individual-level forces and their influences on firm level strategy and actions is vital in the field of strategic management.

In short, previous studies reveal that the characteristics of managers, including demographics, personality and functional specialization have influence on strategy choices and consequently the firm's outcomes. However, little attention has been given on the influence of demographic characteristics on adoption of proactive environmental strategy. As a result, this

study focuses on three demographic characteristics namely age, educational level, and career experience and their impact on environmental strategy choice.

Age

Age is considered as one of the significant demographic variables that influences the organizational performance through strategic choices (Hambrick & Mason, 1984). As explained by Isaga (2015), “younger managers are more likely to be successful in their firms than older managers because younger managers have more energy, higher aspirations and are more likely to be committed to working long hours, which are generally necessary for a business to be successful”. Furthermore, an individual’s age is anticipated to influence strategic decision-making perspectives and choices (Mkalama & Machuki, 2019; Goll et al., 2008; Wiersema & Bantel, 1992). The flexibility and the level of risk taking vary according to age of the decision maker and low level of flexibility and risk taking leads to increase resistance to change (Wiersema & Bantel 1992). Kirchner (1958) found that age influenced decision making style and quality of the decision (Isaga, 2015). Wiersema and Bantel (1992) found younger managers to be more willing to undertake corporate change. Carlsson and Karlsson (1970) who argue that younger executives have consistently been found to be associated with innovativeness and risk-taking. Past research shows that old age favor to formal rules and routine than changes (Carlsson & Karlsson 1970; Child 1974). On the other hand, age has been argued as having negative effect on firms’ strategy choice and performance (Mkalama & Machuki, 2019; O’Reilly, Synder & Booth, 1993). Moreover, Mkalama and Machuki (2019) have found negative but insignificant relationship between age and firm performance. Hitt and Barr (1989) revealed that managers' age has a negative impact on compensation decisions. Goll, Johnson, and Rasheed (2008), found that younger managers and those with less tenure placed greater emphasis on a differentiation strategy. Wiernik, Ones and Dilchert (2013), have conducted a meta-analysis to determine the magnitudes of relationships between age and environmental variables and found many relationships are negligible and small. This study, therefore, proposes the following hypothesis.

H1: Top-level managers’ age will be negatively related to adoption of proactive environmental strategy.

Level of Education

According to Becker (1993), education is one of the main components of human capital and also considered as the source of knowledge, skills, discipline, motivation and self-confidence (Isaga, 2015). Education in general, and professional management education in particular,

emphasizes application of analytic techniques to decision making, compared to the more risk-prone idiosyncratic judgments of 'self-made' executives. The main assumption of person's education is, that individuals with a higher level of education are able to manage their firms more effectively than individuals with a lower level of education (Mkalama & Machuki, 2019; Wiklund & Shepherd, 2003 cited in Isaga, 2015; Mead & Liedholm, 1998).

Person's level of educational displays that person's values and cognitive preferences (Hambrick & Mason 1984) and has been linked with the firm's innovation (Kimberly & Evanisko 1981; Rogers and Shoemaker 1971). The managers with higher level of educations are expected to tolerate ambiguity and show ability for 'integrative complexity' (Dollinger, 1984). Moreover, well-educated managers have been supposed to show more knowledge and ability to perform better, thus contributing to more rational approaches to decision-making and more creative solutions to complex problems (Bantel & Jackson, 1989). According to Kollmuss & Agyeman (2002), two demographic factors that have been found to influence environmental attitude and pro-environmental behavior are gender and years of education. Greater education level and functional diversity are associated with more differentiation of service under deregulation (Goll et al., 2008). Wiersema and Bantel (1992) found that more educated managers are likely to be open to changes in corporate strategy. Rajapaksa, Islam and Managi (2018) have found positive relationship between education level and pro-environmental behavior. Based on these arguments, the following second hypothesis is formulated:

H2: Top-level managers' level of education will have a positive effect on adoption of proactive environmental strategy.

Career Experience

Same as education, experience is also considered as one of the most frequently examined components of human capital (Isaga, 2015). Through their experiences, employees gather information and develop skills that are useful for their future career engagements and advancements (Isaga, 2015). As explained by Shane (2000), managers with prior experiences will have enhanced skills of negotiation, decision making, way to serve the markets and skills of dealing with customers and employees. According to Hambrick and Mason (1984) the amount, but not the type, of manager's education is positively related to innovation while the years of service of a top management team negatively impact the decision-making process in terms of product innovation. Díaz-Fernández, González-Rodríguez and Simonetti (2014) have found positive significant relationship between top managers' international experience on corporate strategy changes. Furthermore, Weng and Liu (2012), argue that prior top executive

experiences in a focal firm will affect a new CEO's inclination toward change because, these experiences provide the foundation for a new CEO's paradigm and they socialize a new CEO. Thus, the third hypothesis is proposed:

H3: Top-level managers' career experience will have a positive effect on adoption of proactive environmental strategy.

Adoption of Proactive Environmental Practices and Organizational performance

Research on the relationship between proactive environmental strategy and organizational performance have received contradictory results and continuing debate (Goll & Rasheed, 2005). Singh, Darwish and Potocnik (2016) expressed, the organizational performance (OP) as the heart of a firm's survival. Business and management research have recognized OP as a central outcome variable of interest (Singh et al., 2016). According to Kaplan and Norton (1992), OP is assessing the degree to which organizational goals and objectives are achieved. And these achievements can be assessed through a set of both financial and non-financial indicators (Kaplan & Norton, 0192).

Aragon- Correa and Sharma (2003) stated that proactive environmental strategy is a dynamic capability which supports to align corporate strategy with the dynamic business environment. Therefore, proactive environmental strategy offers various benefits to the organization (Ryszko, 2016). Empirical research highlighted that there is a link between environmental proactivity and organizational performance, but the findings are different and some studies found a positive relationship among environmental proactivity and firm performance (Al-Mawali¹, Sharif, Rumman & Kerzan, 2018; Molina-Azorin et al., 2009; Russo and Fouts, 1997) but others revealed no such relationship (Lee & Rhee, 2007; Link & Naveh, 2006). Pollution prevention environmental practices, reduce input, water and energy saving practices as well as waste management help to save firm's operational costs (Hart, 1999). Therefore, at the same time the organizations can improve their environmental and economic performance through such environmental management practices. Wagner (2005) found that there is no positive impact of proactive environmental strategy on firm's financial performance. Environmental proactivity of firms reduces the environmental impact of companies by improving their environmental result. Liu et al. (2015) performed a meta-analysis of sixty-eight studies which had been conducted in different countries and they concluded that environmental proactivity affects both the firms' economic and environmental results. As stated by Carmona-Moreno et al. (2004) that the most proactive environmental strategies are always associated with an improvement in environmental performance.

The environmental results always have a positive impact on perceived corporate performance (Barba-Sánchez & Atienza-Sahuquillo, 2016). As Li, Jayaraman, Paulraj and Shang (2016) revealed, the proactive environmental strategies—green product design and green supply chain processes play an important role in improving firms' environmental and financial performance. Miller (2003) has emphasized that the implementation of environmental management initiatives by hotels will increase guests' vacation and accommodation motivations. And this will lead tourists' demand which directly influence of the hotel's economic performance. According to Claver-Cortes et al., (2007), the results obtained by their study on environmental strategy and performance show no significant relationship between the performance levels and their degree of environmental proactivity. The relationship between environmental proactivity and organizational performance depends on the range of environmental practices in which this proactivity is verified, and on the forms of business performance which is considered by the studies (González-Benito & González-Benito, 2005). Accordingly, the study proposed the following hypothesis:

H4: Adoption of proactive environmental strategy has a positive direct effect on organizational performance.

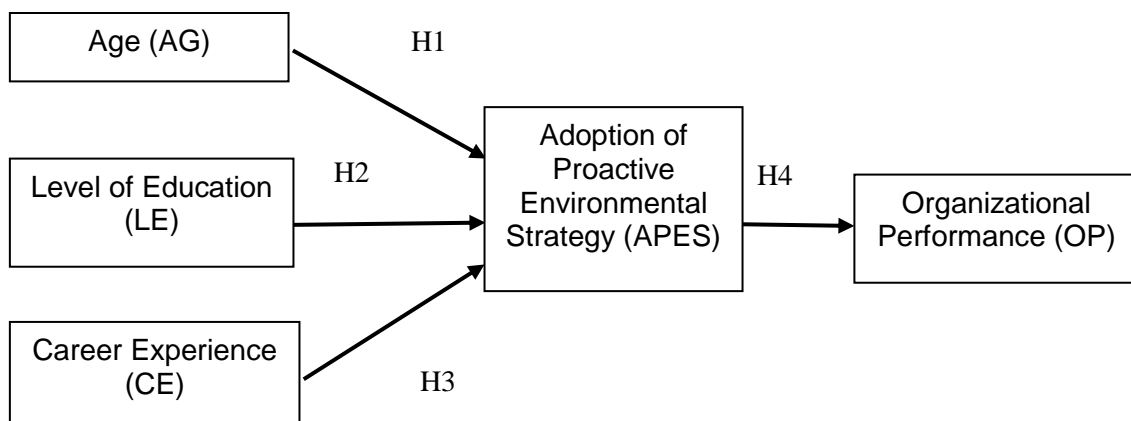


Figure 1: Conceptual Model

RESEARCH METHODOLOGY

Sample and Data Collection

The present study aims to investigate the influence of top managers' demographic characteristics on adoption of proactive environmental strategy and proactive environmental strategy-performance relationship. The sample frame comprised of star graded (5 star to 1 star) hotels in Sri Lanka. The hotel sector has given more than 5% direct contribution to the gross domestic production (GDP) in Sri Lanka (during 2016-2018) and presently the industry is ranked

as the third (3rd) foreign exchange earner of the country (Annual Statistical Report, 2017 and 2018, SLTDA). As far as the study context is concerned, only star graded (classified) hotels in Sri Lanka. Since, the study is interested in analyzing the impact of top hotels' top managers' characteristics on adoption of proactive environmental strategy and subsequently strategy-performance relationship of the hotels, the data will be gathered from top-level managers and owners of star-grade hotels in Sri Lanka. The managers and owners were chosen for the study as they are the key decision makers who familiar with the hotels' environmental practices and performance.

A total of 500 questionnaires were circulated among managers and owners of star-graded hotels with 338 completed questionnaires were returned and 314 usable questionnaires were considered for data analysis after eliminating missing data and outliers. This sample size is in accordance with the number of 300 sample size as recommended by Hair et al. (2010) for the data to be analyzed using a structural equation modelling (or SEM). The characteristics of the sample are shown in Table 1.

Table 1: The details of survey sample

Demographic variables	Frequency	Percentage (%)	Mean±SD
Managers from each star category			
1 Star	33	10.5	
2 Star	65	20.7	
3 Star	53	16.9	
4 Star	77	24.5	
5 Star	86	27.4	
Position in organization			
Senior Management	70	22.3	
Head of the Departments	220	70.1	
Owner Manager	24	7.6	
Level of education			
Secondary	74	23.6	
Vocational/Diploma	40	12.7	
Professional	120	38.2	
Undergraduate degree	66	21.0	
Postgraduate Master	12	3.8	
Postgraduate PhD	2	.6	
Age (in years)			41.32±10.671
Career experience (in years)			14.88 ±9.926

Measures

The study consists of both observable variables and latent constructs. The top-level managers' demographic variables (age, level of education and career experience) were observed variables and proactive environmental strategy and organizational performance were latent constructs and was measured with a five-point Likert scale (using anchors of 5-strongly agree/very great extent and 1-strongly disagree/not at all). All measures used in this study were developed based on previous literature. Prior to actual data collection, the questionnaire was reviewed and moderated by a panel of scholars and industry experts in order to ensure the validity of the items in the questionnaire. Table 2 summarizes all constructs in the study and their items.

Top managers' Demographic Characteristics

The study considered three demographic variables namely, age, level of education and career experience. For age and career experience (in hotel industry), respondents were asked to indicate them in years. The level of education was defined on a six-point scale (1= Secondary education, 2= Vocational programs/ diploma 3= Professional qualification, 4= Bachelor's degree, 5= Master's degree and 6=Doctoral degree) (Goll & Rasheed, 2005; Plilemon & Kessy, 2015; Bulog, 2016).

Adoption of Proactive Environmental Strategy (PES)

Previous researches suggest that environmental proactivity is a multidimensional construct (Gonzalez – Benito & Gonzalez – Benito, 2006; Wright et al., 2012) due to its multifaceted nature that is reflected in a multitude of different environmental practices (Banerjee et al., 2003; Gonzalez-Benito & Gonzalez-Benito, 2005). In order to develop a measuring scale for proactive environmental strategy among hoteliers, the current study consulted both general and sector-specific literature (Carmona-Moreno et al., 2004; Hunt and Auster, 1990; Arago'n-Correa, 1998; Henriques & Sadorsky, 1999; Krik, 1995). These practices included a wide range of voluntary environmental practices in different areas.

Organizational Performance (OP)

Measurement of performance vary according to different purposes and different performance indicators (Anderson, 2011). Therefore, measurement of organizational performance with a single indicator cannot apply to all organizations. However, organizational performance could be evaluated in both subjective and objective methods. Since financial indicators of performance measurement are even more famous, especially in the changing competitive environment, non-

financial performance should be considered in order to fill the gap in case insufficient information is available (Dess & Robinson, 1984). The differences in the definitions of organizational performance and measurement leads to inconsistent results in empirical research on relationship between strategic orientation and organizational performance (Liu & Fu, 2011). Hence, this study measures organizational performance with two dimensions: environmental performance and economic performance.

The study used the environmental performance scales adapted from previous empirical studies to assess hotels' environmental performance (Armas-Cruz & Soto, 2017; Sraufe, 2003; Carmona-Moreno et al., 2004). The scale adequately cover physical and societal aspects of environmental performance and asked the managers to point out to what extent they agreed with certain questions on environmental performance. Economic performance of the company ensures that the company remains on the right track financially (Business Dictionary, 2019). The four items for measuring economic performance were adapted from previous empirical literature (Molina-Agorin et al., 2009; Darnall & Sides, 2009; Alvearez-Gil et al., 2001). The study select subjective measures and respondents were asked to evaluate the impact of adoption of proactive environmental strategy on items relating to economic performance of their hotels.

Table 2: Construct and items

Code	Items
Proactive Environmental Strategy (PES)	
PES1	Gives priority to purchasing ecological products (biodegradable, reusable, recyclable...)
PES2	Has a waste management practice.
PES3	Reduces the use of environmentally dangerous products
PES4	Applies energy-saving practices
PES5	Applies water-saving practices.
PES6	Makes a selective collection of paper, oil, glass, etc.
PES7	Provides training to employees on environmental issues
PES8	Gives compensation to employees who have environmental initiatives
PES9	Uses ecological arguments in marketing campaigns
PES10	Facilitates customer collaboration in environmental protection (voluntary changing of towels)
PES11	Organizes or sponsors environmental protection activities
PES12	Applies some environmental protection practices although they are not profitable in the short term
Organizational Performance (OP)	

Environmental Performance (ENVP)	
ENVP1	Reduced water consumption
ENVP2	Reduced energy consumption.
ENVP3	Minimized waste generations
ENVP4	Reduction in environmental hazards
ENVP5	Increased guest awareness of environmental initiatives
ENVP6	Increases in pro-environmental behavior among employees
ENVP7	Increases in environmentally responsible purchases and contracting
ENVP8	Improves hotel strength to obtain through environmental certifications
ENVP9	Saving natural resources and preserving their quality
Economic Performance (ECP)	
ECP1	Increases in occupancy rates.
ECP2	Increases in profitability
ECP3	Reduction in operational cost
ECP4	Increases in revenue.

Table 2...

Analytical approach

The gathered data was analyzed using SPSS (version 21) and AMOS (version 23). SPSS was used for analysis of missing values, outlier, descriptive and exploratory factor analysis (EFA). Structural equation modeling (SEM) with AMOS was used for confirmatory factor analysis (CFA) and hypotheses testing. A two-step approach was used in SEM. In the first stage, confirmatory factor analysis (CFA) was used to test the reliability and validity of the constructs used in the model. Then, in the second stage, a hypothesized structural model was assessed using path analysis technique for testing the hypothesized causal relationships among the variables proposed in the conceptual model. The internal consistency was tested by analyzing Cronbach's alpha value. The item reliability was verified through factor loadings (given as Regression Weights in the AMOS) which specify whether each item that forms the construct is highly correlated with its relevant latent variable. Subsequent, average variance extracted (AVE) and composite reliability (CR) values are tested to determine convergent validity. Discriminant validity check is done by comparing the square root of AVE's with the correlation for each of the constructs. The AVE of a latent variable should be higher than the correlations between the latent variable and all other latent variables. The structural model has been examined through the significance of the path coefficients (standardized β value) which point out the strength of causal relationships between constructs and by observing the R^2 (squared multiple correlations) values of the dependent variables.

RESULTS

The Assessment of Measurement Model

In the first step, the study applied exploratory factor analysis (EFA) for all latent variables to determine the factor structure of the measures using principle component analysis. The EFA revealed that the two-factor construct for proactive environmental strategy. Furthermore, EFA has confirmed the two factors in the organizational performance (OP) construct (environmental performance (ENVP) and economic performance (ECP)). After the factor rotation was done, a factor loading of 0.50 and above was considered significant at the 0.05 level (Hair et al., 2010); hence, the variables of a factor loading less than 0.5 were eliminated. Accordingly, PES3 was removed due to low factor loading. A two-factor construct of proactive environmental strategy (PES) labeled as basic-PES and advanced-PES. The Adoption of Proactive Environmental Strategy (APES) and Organizational Performance (OP) are realized as second order constructs since both consist of two sub-constructs. Basic-PES (B-PES) and Advanced-PES (A-PES) are seen as reflections of the main concept of adoption of proactive environmental strategy. Similarly, the concept of organizational performance is seen as reflections of subdomains of Environmental Performance (ENVP) and Economic Performance (ECP). Hence, this study assessed second order measurement model (Awang, 2015). Furthermore, the lodgings of first order latent variables Basic-PES and Advanced-PES on the second order construct APES were 0.96 and 0.89 respectively. Similarly, the lodgings of the first order latent variables ENVP and ECP on the second order construct OP were 0.75 and 0.84, respectively. The AMOS has took 13 iterations to achieved model minimization. According to Awang (2015), all the goodness of fit indexes of the measurement model was met the required levels [RMSEA= 0.079 (<0.08), GFI=0.911(>0.9), CFI= 0.938 (>0.9), TLI= 0.915(>0.9) and Normed - Chi Square= 2.947 (<3)].

The reliability and validity of the measurement model was tested with item reliability, internal consistency and discriminant validity. As shown in Table 3, all factor loadings are greater than the threshold value of 0.5 (Hair et al., 2006). This indicates that the survey instrument is reliable to measure each constructs in the model. Table 3 indicates that Cronbach's alpha values are greater than 0.8 and composite reliability values are also higher than the threshold of 0.6. This confirmed the internal consistency of each construct. The values of average variance extracted (AVE) were also higher than the accepted value of 0.5 which indicate the confirmation of convergent validity (Hair et al., 2010; Fornell & Larcker, 1981).

Table 3: The CFA Report for Every Latent Variables in the Measurement Model

Construct	Item	Mean	SD	Standardized Factor Loading (>0.5)	AVE (>0.5)	CR (>0.6)	Cronbach's alpha (>0.8)
APES	B-PES	3.60	0.80	0.96	0.856	0.923	-
	A-PES	3.80	0.78	0.89			
OP	ENVP	3.52	0.72	0.75	0.634	0.775	-
	ECP	3.80	0.62	0.84			
B-PES	PES1	3.77	1.005	0.82	0.586	0.848	0.816
	PES2	4.15	0.880	0.60			
	PES3	4.21	0.893	Removed			
	PES4	4.03	0.826	Removed			
	PES5	4.11	0.795	Removed			
	PES8	3.23	0.976	0.80			
	PES9	3.72	0.928	0.82			
A-PES	PES6	3.89	1.033	0.84	0.605	0.884	0.867
	PES7	3.25	1.129	0.79			
	PES10	3.72	0.928	0.70			
	PES11	3.60	1.020	0.81			
	PES12	3.82	0.936	0.74			
ENVP	ENVP1	3.83	0.757	0.64	0.571	0.885	0.882
	ENVP2	3.82	0.810	0.56			
	ENVP3	3.91	0.729	Removed			
	ENVP4	3.58	0.772	0.75			
	ENVP5	3.60	0.719	Removed			
	ENVP6	3.48	0.820	0.72			
	ENVP7	3.40	1.000	0.86			
	ENVP8	3.48	1.234	0.78			
	ENVP9	3.60	0.765	0.94			
ECP	ECP1	3.68	0.747	0.82	0.688	0.897	0.877
	ECP2	3.86	0.870	0.82			
	ECP3	3.88	0.768	0.92			
	ECP4	3.75	0.809	0.75			

The Table 4 confirms the discriminant validity of the constructs since all the square root of AVE values are larger than the correlations between the respective constructs (Awang, 2015).

Table 4: The Discriminant Validity

Construct	APES	OP
APES	0.925	
OP	0.481	0.796

Descriptive analysis

Table 5 shows the means, standard deviations and correlations among all the study variables. The top managers' level of education was positively correlated with adoption of proactive environmental strategy ($r=0.194$, $p<0.01$). Both age ($r=-0.038$) and career experience ($r=0.021$) of top managers and adoption of proactive environmental strategy were weak insignificant correlation with adoption of proactive environmental strategy. Adoption of proactive environmental strategy, on the other hand, showed strong positive correlation with organizational performance ($r=0.481$, $p<0.01$).

As shown in the Table 5, the average age of respondents was between 52 and 30. The majority of managers have professional qualification and the respondents had an average of 25-5 year career experience in the hotel industry. The adoption of proactive environmental strategy had a mean of 3.7 (SD= 0.716) and indicates that hotel shows satisfactory level involvement in environmental proactivity.

Table 5: Means, standard deviations and correlations for variables assessed in this study

	Mean	SD	1	2	3	4	5
1. AG	41.32	10.67	1				
2. LE	2.71	1.19	-.219**	1			
3. CE	14.88	9.93	.798**	-.208**	1		
4. APES	3.70	0.716	-.038	.194**	.021	1	
5. OP	3.66	0.617	-.013	.177**	.045	.481**	1

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

The structural model assessment

In the second step, the structural equation modeling (SEM) is assessed using AMOS software. As shown in the Table 6, all the fit indices (RMSEA, CFI, TLI GFI and CIMIN/DF) achieved

recommended levels (Awang, 2015). Therefore, the result asserts that the structural model was adequately fit with the data.

Table 6: Goodness of fit of the model

Name of category	Name of index	Index value	Required value	Comments
Absolute fit	RMSEA	0.069	<0.08	The required level is achieved
	GFI	0.901	>0.9	The required level is achieved
Incremental fit	TLI	0.919	>0.9	The required level is achieved
	CFI	0.938	>0.9	The required level is achieved
Parsimonious fit	CIMIN/DF	2.511	<3	The required level is achieved

Next, the proposed structural model is examined through the significance of the path coefficients (standardized β value) and by observing required multiple correlations (R^2) values of the dependent variables. The direct effect of the causal model is presented in Table 7.

Table 7: The results of the structural model

Hypothesis	Relationship	Estimate β value	p- Value	R^2
H1	AG→APES	-0.137	0.159	0.201(APES)
H2	LE→APES	0.197	0.004	
H3	CE→APES	0.144	0.067	
H4	APES → OP	0.579	<0.001	0.335 (OP)

The analysis of the direct effects

The developed structural model explains a 20% variance of adoption of proactive environmental strategy and 34% variance of organizational performance. The direct effects were examined by interpreting the structural path coefficients and its significance (Table 7). The results indicate that top-level managers' level of education has a significant positive effect on adoption of proactive environmental strategy ($\beta= 0.197$, $p < 0.005$), thus H2 was supported. As for hypotheses 1 and 3 (H1 and H3), top-level managers' age and career experience are not significantly associated with the adoption of proactive environmental strategy ($\beta= -0.137$, $p > 0.005$ and $\beta= 0.144$, $p > 0.05$, respectively) and consequently, hypotheses 1 and 3 were not supported. The results suggest that among the three demographic characteristics of top-level managers (age, level of education and career experience) only one variable, level of education makes impact on decision of adoption of proactive environmental strategy. The direct effect of

adoption of proactive environmental strategy on organizational performance has a $\beta = 0.517$ which indicates that the effect is strong and statistically significant ($p < 0.001$). Therefore, hypothesis 4 (H4) is supported. The results of direct effects are shown in Figure 2.

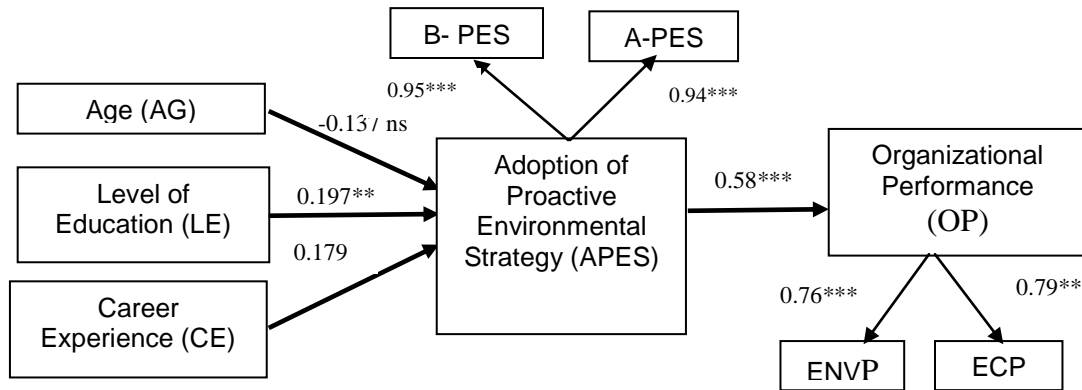


Figure 2: The research model with direct effects results.

Note: ** significant at the 0.005, *** significant at the 0.001

DISCUSSION AND CONCLUSION

The results of the study confirmed that the top-level managers' level of education has a significant direct effect on adoption of proactive environmental strategy, while age and career experience has no significant influence on proactive environmental strategy choice. This indicates that the individual demographic characteristics do not appear to be valuable determinants of proactive environmental strategy of organization. However, in particular, level of education is positively related to the adoption of proactive environmental strategy and this finding was consistent with previous researches (Mkalama & Machuki, 2019; Wiklund & Shepherd, 2003 cited in Isaga, 2015; Trulsson, 2000; Mead & Liedholm, 1998; Rutashobya, 1995). Moreover, Kollmuss & Agyeman (2002) found two demographic factors, gender and years of education which make significant influence on environmental attitude and pro-environmental behavior.

The hypotheses tests confirmed that there is no relationship between top-level managers' age and adoption of proactive environmental strategy. This finding does not conform to the findings of existing literature that there is interaction between these two variables (Mkalama & Machuki, 2019; Goll et al., 2008; Wiersema & Bantel, 1992; Hambrick & Mason, 1984). Nevertheless, Wiernik, Ones and Dilchert (2013) have found negligible and small relationships between age and environmental variables. However, it is important to acknowledge the negative relationship between top-level managers' age and adoption of

proactive environmental strategy. This finding is conformed to the previous studies ((Mkalama & Machuki, 2019; O'Reilly, Synder & Booth, 1993).

As previous research revealed, the career experience is expected to have a positive impact on strategy choice (Isaga, 2015). Simonetti (2014) found positive significant relationship between top-level managers' international experience and corporate strategy changes. In the current study, however, this is not the case. This would be, the environmental related strategies are somewhat strange for managers even though they have industry related experience.

On the other hand, the findings of the study show strong significant positive effect of adoption of proactive environmental strategy on organizational performance. This indicates that organizational performance can be improved by adopting more proactive environmental practices. The proactive environmental initiatives and practices are considered as an instrument for high performance levels , reduce operational cost, gain competitive advantage for the hotels and helps to improve and safeguard the natural environment (Bruns-Smith et al., 2015; Testa et al., 2016; Liu, 2019). This empirical result is in agreement with the findings of previous researches (Al-Mawali1 et al., 2018; Atienza-Sahuquillo et al., 2016; Liu et al., 2015; Endrikat et al., 2014; Molina- Azorin et al., 2009; Schaltegger & Synnestvedt, 2002; Aragon-Correa & Sharma, 2003) that there is a positive relationship among environmental proactivity on firm performance.

IMPLICATIONS

This study has given valuable contribution to the field of environmental sustainability by providing important insight on the relationship between top managers' demographic characteristics, adoption of proactive environmental strategy and organizational performance. Thus, the findings of the study will be important for hoteliers and other managers in the process of recruitment and selection of new managers. It can be concluded that new comers' formal education will lead towards best strategic choices. Furthermore, the study has confirmed that there is a positive relationship between proactive environmental strategy and performance which scholars and managers are still struggling to diagnose. Hence, hotels can improve their performance while protecting natural environment by initiating and enhancing proactive environmental management practices. Furthermore another theoretical contribution of the study is, introduced how environmental strategic choices impacts by top managers' characteristics, which in turn would determine organizational performance.

LIMITATIONS AND FUTURE RESEARCH

Even though the results of the study have contributed significantly to the field of strategic management and environmental management, it has several limitations. One of the limitations is, that only three demographic characteristics were considered and there are more demographic variables that may have impact on strategy choice. Furthermore, the demographic approach has also been criticized for its inability to suggest holistic conclusions (Priem et al., 1999) and the need to examine other personality and psychological variables and its impact such as attitude, perception, values, and knowledge (Goll & Rasheed, 2005; Lewin & Stephens, 1994; Miller & Toulouse, 1986; Nahavandi & Malekzadeh, 1993). Therefore, future research need to consider more demographic variables as well as personality and psychological variables and its influence on strategy choice. Moreover, the study has some limitations relating to the study design, data and methodology. First, the study used a survey method for data collection and mainly relies on top-level managers' self-reported data to measure the study constructs. This study can be enhanced further through a quantitative study followed by a qualitative method (in neo-positive research domain of mix method). Second, the study has explored the environmental concern of "star grade hotels" and hence the findings may have limited generalizability to other accommodation establishments in Sri Lanka. The generalizability can be improved by incorporating different types of accommodations (unclassified hotels such as small hotels, guest houses, bed and breakfast units, boutique villas etc.) and variety of industries in the future studies. In addition, undertaking comparative studies across various countries in the region would provide further insights to the investigation. In the current study, organizational performance, both environmental and economic have been measured through subjective measures. There are instance that subjective measures could vary from objective measures. Finally, this study is cross-sectional where the data collected at a specific point in time. Hence, it will not represent the changes that occurs over time.

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