THE SUSTAINABLE SERVICE MANAGEMENT FACTORS IN HIGH TECHNOLOGY TRANSPORT SERVICE INDUSTRY

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ABSTRACT: Recently, environmental sustainability has become a global concern and the majority of world organizations are striving hard to achieve this mission. Despite, many studies have attempted to explore the factors that help towards environmental sustainability in the manufacturing sector, the service sector has not yet received a considerable attention in all countries generally and in developing countries particularly. Thus, this paper aims to explore the factors that help to attain environmental sustainability in the service sector. A case study through fifteen semi-structured interviews is conducted with managers from AirAsia as the High Technology Transport Service Provider to explore the factors that are related to environmental sustainability and green services. The finding of this paper emphasizes to three important factors namely top management support, ensure quality control and organizational capabilities towards sustainable services on green practices rather than the economic gain on profit maximization alone.

KEYWORDS: *Sustainability; AirAsia; Green Service Management; High Technology*

1.0 INTRODUCTION

Over recent years, sustainable development in services has become a fundamental issue resulting from the huge impact of global warming and carbon footprint. More specifically, the potential threats to the environmental issue are in water and air pollution and daily environmental risks activities by the industries and human. Service companies have been under pressure to think about their sustainable practices. The pressure comes from both external (government regulations, profit, and not-for-profit organizations) and internal

(strategic objectives, top management vision, employee safety and well-being, cost savings, productivity and quality) [1].

Sustainability is a type of development that meets present needs without compromising the ability of future generations to meet their own needs [2]. This concept has taken increasingly important in the world today as corporations continue to maximize profits while being constrained by the limited earth's resources. Hence, more companies in service sectors are actively integrating sustainability as a priority in their business strategy. Therefore, service sectors will bring a change in direction towards a demand for sustainability to create a competitive advantage in the global marketplace [3].

1.1 Sustainable service

Sustainable service is defined as an innovation strategy to develop an interaction within the organization to fulfill customers' demand for a long period of time without neglecting social and environmental sustainability [4-5]. Through sustainability, the future generations have the ability to meet their own needs and keep creating intelligent services to solve service problems. Therefore, each resource needs to be integrated between the products and services to sustain the firm growth and lead to firm's strategy and generate innovative challenges that will require novel perspectives [4].

Sustainable service can be used to create values based on the services by examining the relationship between the social responsibility and the service dominant logic referring to the values and service quality to sustain business [6]. Moreover, sustainability enables to create new businesses and practices by the source of organizational capability and technological innovation [7]. Top management support is also an effective factor towards sustainability development. Top management support underlies on the sustainability of top manager's commitment during the project life and speed of response to issues [8].

1.2 Top management support (TMS)

Top management support (TMS) has been recognized and as an important factor needed for project success [8]. An extensive literature review conducted by Daily and Huang [9] suggests that top management is an essential factor for sustainability development

because it promotes employee empowerment and organization culture. Another empirical result derived from a study conducted on French companies emphasizes that top management has an important implication towards sustainable management [10]. TMS must serve and be a champion of change in the organization in order to help the organization transition running smoothly and successfully. The role of top management is positive with the implementation of green supply management has found that TMS is able to get direct resources to successfully implement the strategy [11].

Moreover, TMS act as an antecedent to determine employees' knowledge-sharing activities [12]. In addition, TMS enhance the relationship with customers and suppliers thus improving the external involvement of the organization [13]. Through TMS, an organization could establish the vision of the company towards sustainability and green services [11]. For instance, training and education are important issues to encourage and amplify the employees towards the quality of work [14]. TMS also acts to hiring skilful employees, designing green policy, rewarding the employees' performance and frequently evaluating the system and process in order to get the job done in superb action.

Proposition 1: Top management support has a positive effect on organization sustainability.

1.3 Organizational capability (OC)

Organizational capability (OC) is defined as the ability of the organization to create value through effecting the transformation of inputs into outputs and act to maximize their positive impact [15, 16]. An effective OC is to ensure the resources such as materials, staff, equipment, and technology are utilized to the right level and have a major impact not only on the efficiency and the cost of the operation but also upon the customer satisfaction. Beske [17] suggested that dynamic capability has a positive effect on the sustainable development of supply chain.

Many researchers argued that OC is a key competitive advantage in delivering value creation and thus delivered successful services [18-24]. Lin et al. [20] had found that sustainable resources and market

opportunities are important factors for the sustainability of start-up companies. The OC factors such as resources, facilities, equipment, skills, policies, knowledge are all important to prevent replication by competitors and also to improve business growth [25].

Proposition 2: Organizational capability is associated with organization sustainability.

1.4 Quality control (QC)

Quality control (QC) is the conformance to the requirements or specifications that meet customers' demand [26]. QC plays an important role to enhance the efficiency of the processes and managements and to increase the cost effectiveness to meet the customer satisfaction [27-28]. The quality control process is important to assure the sustainability of the organizations, but it always forms a big challenge to the companies budgeting [29]. On the service management basis, they are essentially rooted in the new philosophy by Deming's 14 points for management [30-31].

In the service sector, QC is more focused on establishing and sustaining a relationship with the customers and meeting the customers' desire [32]. QC is the strategy that leads to the organizational stability and also enables the sustainability of continuous improvement. There are five improvement strategies identified to control the service process by Johnston et al. [33] to change including both continuous and radical which are Total Quality Management (TQM), six sigma, Just In Time (JIT), lean thinking, benchmarking and 5S. These methods generally apply internally. To enhance service improvement in the service industry, the voice of customer (VOC) plays an important role to evaluate the internal process and this is an external method to earn the superior services [34].

Proposition 3: Quality control is associated with organization sustainability.

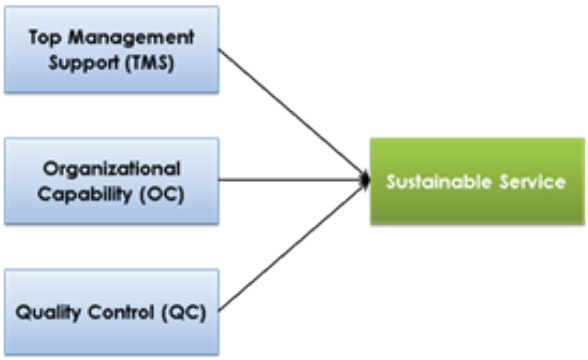

Figure 1: The hypothesized relationships between management dimensions and sustainable service

2.0 METHODOLOGY

The research methodology begins by establishing the research design through the purpose based (exploration) choice of study whilst qualitative research is appropriate to understand the factors of sustainable service development in the service industry. The area of the research study has been done at AirAsia as supported case study through fifteen interviews as data collection in qualitative method.

2.1 Data Collection

Given the research purpose of identifying the sustainable service management strategies based on the award-winning the Best Low-Cost Airline in the world for seven consecutive years which have successfully brought significant implications on catalyst into green sustainability, managers in AirAsia were targeted for interviews. These experienced respondents have strong airline background but differ in their roles and responsibilities in the organization in order to triangulate the information. The fieldwork of primary data collection was undertaken for six months from January 2016 until Jun 2016 in order to get convenience time for the interview since AirAsia is the busiest airline in Malaysia. The primary data was collected through an in-depth semi-structured interview conducted on fifteen managers who were selected through the purposive sample from five departments namely quality management, operation management, human resource, research and development and top management departments. The main reason for selecting those departments is due to their relevance in green service and sustainability development.

This study had interviewed three respondents from each department and the total interviewees were fifteen. The individuals interviewed remain anonymous to protect their privacy. With the interviewees' permission, all the interviews were audio-recorded and then transcribed carefully to provide a basis for reliable data analysis. The open ended questions through semi-structured interview were used as a tool for data collection because it is an appropriate tool for gaining deep information and provide the respondent's space to express his or her opinion freely [35].

2.2 Data Analysis

The tool of content analysis was used to analyze the collected data which is suitable for analysing how and why questions that differed from one to another according to the respondents' experience and perspective [36]. The analysis is consisting of three concurrent flows of activity which are data reduction, data display and conclusion [37]. At the initial stage, data reduction is the process of selecting, focusing, simplifying, abstracting, and transforming the data that appears in field notes or transcriptions. The 'keywords' from the transcriptions was coded becomes theme/sub-themes. Second, the process of organising, compressing assembly of information that permits conclusion drawing called as data display. The data was summarized in form of tables which easy to assemble the information precisely. Furthermore, it is easy to recognize the relationships and pattern of the data. Lastly, conclusion drawn or verification considered on what the analysed data mean and to evaluate their effects for the research questions. Therefore, three main propositions or hypotheses (top management support, organizational capability, and quality control) were developed from intensive literature review to investigate the relation of the sustainable services as stated in the following propositions:-

Proposition 1: Top management support has a positive effect on organization sustainability.

Proposition 2: Organizational capability is associated with organization sustainability.

Proposition 3: Quality control is associated with organization sustainability.

3.0 RESULTS AND DISCUSSION

3.1 Top management support (TMS)

As shown in Table 1, organizational policy and building organizational culture were two main factors to attain sustainability development in AirAsia.

Table 1: Factors on top management support towards sustainable service

Items	Manager A	Manager B	Manager C	Manager D	Manager E
Organizational Policies	Design strict policy with clear objective	Quality and customer satisfaction	Design long term strategy	Green and environmental sustainability as the main goal of our policy outcome	Ensure the effectiveness of resource use
Build Organizational Culture	1) Reduce bureaucracy through decentralizatio n management 2) Ensure fair treatment to all employees and avoid double standards		1) Reduce bureaucracy through decentralization management 2) Avoid any double standard and ensure quality treatment	1) Give and respect employees' rights 2) Always listen to employees opinion and advice	1) Facilitate employees collaboration 2) Encourage employees engagement and decision-making process

First, develop organizational policy by designing strict and clear objectives, ensure the quality and customer satisfaction, designing long term strategy, emphasize environmental sustainability and ensure the effectiveness of using the available resources. Second, building organizational culture was found to be an important factor for sustainability development. The organizational activities and functions which include decentralize the authority and management; ensure the fairness in employers' treatment, work as a team and respect employers' opinion and democratic decision making are all important factors to achieve sustainable development.

3.2 Organizational capability (OC)

Based on Table 2, there are two factors impacting sustainable services in AirAsia. First, allocate the needed resources and facilitates through allocating the needed financial and non-financial services, building tangible and intangible resources, gaining latest technology, forming strategic alliance and sharing resources with other airline

organizations and finally increasing market share through collaboration strategies. Second, building organizational learning by ensuring that everyone in the organization is aware of the vision, consistently training, in hiring expertise and knowledgeable employees, encourage tacit and explicit knowledge sharing, rewarding employers and knowledge transfer.

Table 2: Factors on organizational capability towards sustainable service

Items	Manager F	Manager G	Manager H	Manager I	Manager J
Allocate resources and facilitates	Allocate the financial and non-financial resources	Build tangible and intangible assets	Gain the latest technology	Facilitate resources sharing through an alliance with others	Develop collaboration agreements with others to increase market share
Organizational learning	Consistently train employees and reward the employees	Recruit knowledgeable and expertise candidates	Encourage tacit and explicit knowledge sharing	Knowledge transfer within the organization	Everybody knows vision

3.3 Quality control (QC)

As shown in Table 3, quality control is found to be an important factor in sustainable development in AirAsia organization. The green operation is one of the quality control tools which help to attain sustainability by using an efficient fuel and engine during take-off and landing. AirAsia also controls its quality through avoiding resources such as food in the trip waste and ensure the efficient use of the resources and adopting a flexible flying schedule to avoid any uncertain waste and ensure the effectiveness of resource use. Lean processes are used by AirAsia to eliminate wasting of time and create 5S workplace. This process is done through using automatic check in counter, self-check-in counter, self-baggage check-in and equips with digital program.

Table 3: Factors on quality control towards sustainable service

Items	Manager K	Manager L	Manager M	Manager N	Manager O
Adopting Green Operation	Fuel Efficiency and Engine Efficiency	Avoiding wasting resources and food	Paperless		Single Engine Taxiing and Flat Free Landing
Flight Operation	Route Selection and Build Own Hub		Flexible Schedule	Economical Route and No Transit Airport	
Green Technology		Automatic Check-In Counter	Self-Check-In Counter and Self Baggage Check-In	Equip with digital program	Self-Baggage Check-In and Baggage Tagging
Lean service	Just In Time (JIT) and Lean Thinking	Enhance Service Standard and Lean Thinking		5S implementation and Lean Six Sigma	

4.0 CONCLUSION

In summary, this study contributes to the field of sustainable service management by applying top management supports, organizational capability and quality control of the factors of environmental sustainability and their relations. Therefore, it advances the "pays-to-be-green" literature and the discussion of the factors on sustainability services. Currently, many airlines have demonstrated their awareness of lean service. However, services that are more sustainable in their operations are not only realizing the improvements in the environmental impact but also realizing the cost savings, increasing revenues, attracting top talent and driving the productivity improvements like what AirAsia has done.

Nowadays, climate change is seen as a driver to create more sustainable environment and also contributes to the green factors. This is because aviation emitted about 12% of carbon dioxide. Therefore, the International Civil Aviation Organization (ICAO) has set the goal to achieve 2% of fuel efficiency improvement reaching by

the year 2020. This is because the increase of transportation volume might increase the greenhouse gases emissions as a total. Through this study, AirAsia organization is heading to sustainable transport services to reduce greenhouse gases emissions and could be used as guidance to its competitors and another service sectors. These factors of sustainable services aimed to be more concerned on the green practices rather than the economic gain on the profit maximization alone.

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