

Challenges of Implementing Sustainable Practices in Purchasing Process Management: A Case Study on One of The Five-Star Hotel Chain in Cairo

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Sustainable purchasing has become an important interest in the world because purchasing decisions can have environmental and social effects, particularly for hotels sector. Hotels can generate a number of benefits by implementing sustainable purchasing but there are several challenges facing its implementation. Therefore, this study aimed to identify challenges of implementing sustainable practices in purchasing process management. The study chooses a case study to explore the challenges of implementing sustainable practices in purchasing process management. The study used structured interview to collect data. The population of study is 35 respondents consist of purchasing managers; stores managers; food and beverage managers; food and beverage cost controllers; and executive chefs in one of the five-star hotel chain in Cairo which including 7 hotels. The data collected was analyzed by SPSS version 26. The result revealed that there is a significant and positive effect between the implementation of sustainable practices and the benefits of implementing sustainable practices in purchasing process management and there is a significant and negative effect between the implementation of sustainable practices and the challenges of implementing sustainable practices in purchasing process management.

Introduction

Traditional purchasing mainly focuses on three criteria: cost; quality; and delivery (Mensah and Ameyaw, 2012; Prier et al., 2016). Purchasing is called sustainable when it incorporates social and environmental criteria into purchasing process (Brammer and Walker, 2011; Vörösmarty et al., 2011), particularly for hotels sector, which find themselves under pressure to import huge numbers of products (Nikotina, 2015). Hotels can play substantial role in changing the culture of social and environmental practices being followed in order to attain sustainable growth (Fukey and Issac, 2014).

Sustainable purchasing is one of the key characteristics of sustainable hotels (Kolawole, 2020). This requires the suppliers to supply them with environmental

friendly products only, and the employees are required to have enough information about sustainable products (Masa'deh et al., 2017). According to Giménez and Tachizawa, (2012) ; Prier et al., (2016), sustainable purchasing practices are purchasing from small and local suppliers; products probable for recycling or reuse; comply with labor rights; carbon reductions in the movement of products to facilities; operational excellence; product innovation; and willingness of suppliers to commit to waste reduction goals. Hotels can generate a number of benefits by implementing sustainable purchasing practices such as reduce impacts on the environment; address human rights; improve relationships with suppliers; and improve purchasing performance (Murutu, 2016). According to ISO 20400 (2017), the benefits of implementing sustainable purchasing are given hotels a competitive advantage; reduce risk; increase productivity; and optimize cost and encourage innovation in the market.

The implementation of these practices faces many challenges such as lack of clear definitions; high cost; lack of sustainable resource; lack of training; resistance to change; lack of environmental regulation (Chan, 2008; Ageron et al., 2011; Giunipero et al., 2012; Telewa, 2014; Chan et al., 2020; and Lambert, 2020). Ahamdy et al. (2018), and Hinrichs and Wettlin (2019) recommend to study the steps of implementing sustainable purchasing practices in organizations and its benefits and challenges to achieve the ways of minimizing and handling these challenges. Vijayvargy et al. (2017) stated that, the challenges are difficulty in defining environmental criteria; difficulty in defining social criteria; and lack of tools and guidelines.

Sustainable purchasing is important for Egypt's sustainable transformation but is not easy task for hotels operating in an environment lacking government incentives; guidance; trained personnel; and a mature market of sustainable consumption (Esen and El Barky, 2017). The existence of these challenges led to desire to study them and try to address them so that sustainable purchasing can be implemented correctly. Therefore, the study aims to identify challenges of implementing sustainable practices in purchasing process management by exploring sustainable practices in purchasing process management and its benefits to reduce the environmental and social impacts and improve hotels' performance.

Literature Review

Sustainable purchasing definition

Sustainable purchasing is well known as responsible or green purchasing; environmentally preferable purchasing; or responsible procurement (Nikotina, 2015). According to Kennard (2006); ISO 20400 (2017); and Bugri et al., (2019), Sustainable purchasing is a process which organizations acquire products and services to meet the customer's requirements in a way that achieves value for money in terms of generating maximize social and economic benefits and minimize damage to the environment and health. Also, Rais et al. (2018) states that Sustainable purchasing is 'purchasing activities of products, services and work considering environmental criteria and standards that conserve the natural environment and resources which minimizes the negative impact of human activities'.

Considerations of sustainable purchasing

The seven considerations of sustainable purchasing are the following (ISO 20400, 2017):

- Organizational governance
- Human rights
- Labor practices
- The environment
- Fair operating practices
- Consumer issues
- Community involvement and development

Sustainable purchasing practices

Organizations in different countries and in different industries have differing sustainable purchasing practices (Zhu et al., 2005; Brammer and Walker, 2011; Giménez and Tachizawa, 2012; Hollos et al., 2012; Perry and Towers, 2013; Gormly, 2014; Gunawardhana and Karunasena, 2014; Spiller et al., 2015; Buniamin et al., 2016; Dhull and Narwalb, 2016; Islam et al., 2016; and Hinrichs and Wettlin, 2019).

Sustainable practices in purchasing process management divided into three types as follows:

A-Economic practices of sustainable purchasing that are:

- Purchasing necessary needs: Hotels should review demand; purchase only what is needed and research for more sustainable alternatives (Preuss, 2009; Gormly, 2014).
- Rent products and equipment: Hotels can rent expensive products and equipment (Cardoso and Schoor, 2017; Kanat and Atilgan, 2017).
- Purchasing alternative products with the same quality: Hotels should think what alternative products with the same quality (ISO 20400, 2017). This can reduce sustainability risks and effects (Fems, 2017; Hinrichs and Wettlin, 2019).

B-Environmental practices of sustainable purchasing as follows:

- Purchasing from environmentally certified sources: Purchase all hotel needs from certified suppliers who implement sustainable practices (Giessen, 2018; Soliman and ElKady, 2020; and Kaur, 2021).
- Using food waste as animals feed: Hotels use of food waste as animal feed (Ustad, 2010; Fukey and Issac, 2014).
- Using e-mail to reduce paper: Reuse and reduce of paper waste system (Kaur, 2021). The system guides managers and employees of the hotel to reduce use of paper by not printing e-mails unless it is important, for example, accepting job applications by e-mail instead of having paper application (Ustad, 2010; Elbana et al., 2011; and Hamzah et al., 2021).
- Use of efficient gas boilers to save energy consumption: The main function of a gas boiler is to act as a heater and provide buildings with the hot water they need (Elbana et al., 2011; Fukey and Issac, 2014; Kaur, 2021).

- Use of key cards to control room lighting: Key card systems are planned to turn off the electricity supply when rooms are empty, avoiding excess power consumption such as lights, television set etc. (Ustad, 2010; Elbana et al., 2011; Raderbauer, 2011; Kanat and Atilgan, 2017; Cardoso and Schoor, 2017).
- Use of LED light in the customer rooms and public areas: Hotels' LED light can reduce heat and energy consumption by 80-90% this is the ideal solution for hotels (Elbana et al., 2011; Verma, 2014).
- Purchase eco-friendly detergent: Purchasing eco-friendly detergents and avoiding products containing toxic ingredients will reduce air pollution (Raderbauer, 2011; Giessen, 2018; Hamzah et al., 2021).
- Purchase organic fruit and vegetables: Organic food is produced without the use of food additives; chemical pesticides; genetically modified crops and antibiotics (Cardoso and Schoor, 2017; Hamzah et al., 2021).
- Reduce packaging materials: Packaging is an important sustainable practice (Brammer and Walker, 2011; Islam et al., 2016; Soliman and ElKady, 2020). Currently eco-friendly packaging is used in most products in Egypt (Esen and El Barky, 2017).

C- Social practices of sustainable purchasing as follows:

- Purchase from woman owned business enterprises: Purchasing process can enhance gender equity and the empowerment of women by implementing practices that support businesses owned by them (Brammer and Walker, 2011; Islam et al., 2017; Hamzah et al., 2021).
- Purchase from local suppliers: Purchasing can support local suppliers by requesting that a specific percentage of products be locally sourced (Brammer and Walker, 2011; Raderbauer, 2011; Islam et al., 2017).
- Ensure that suppliers' locations are operated in a safe manner: Safety issues involve the movement of incoming purchased material evaluating suppliers' location in sustainable purchasing implementation (Brammer and Walker, 2011; Islam et al., 2017)
- Donate to philanthropic organizations: Brammer and Walker (2011); Elbana et al. (2011); Islam et al (2017) stated that philanthropy and community activities can include helping to develop local suppliers and auctioning or donating gifts. If hotels are donating leftover food to local charities, only send food that has been untouched by consumers.

Benefits of implementing sustainable practices in purchasing process management

Incorporating social and environmental criteria into purchasing process with economic criteria is very useful for reducing adverse effects on social conditions; the environment; human health; saving money for hotels; customers; suppliers and the community (Giménez and Tachizawa, 2012; Hollos et al., 2012; Zhang et al., 2012; Perry and Towers, 2013; Telewa, 2014; Azadnia et al., 2015; Kirce and Seifert, 2015;

Dhulla and Narwalb, 2016; Prier et al., 2016; Islam et al., 2017; Saeed and Kersten, 2019; Tiwari et al., 2019; and Alibašić, 2020).

Benefits of implementing sustainable practices in purchasing process management divided into three types as follows:

A- Economic benefits

B- Environmental benefits

C- Social benefits

A-Economic benefits of sustainable purchasing implementing as follows:

Improve financial performance: Zhu and Sarkis (2004) found that sustainable purchasing can enhance hotels' financial performance through the increase in sales and market share.

- Reduced whole-of-life costs to achieve value for money, including cost savings: Cost savings is an important driver for hotels to implement sustainable purchasing practices (Raderbauer, 2011). By taking product life cycles into account hotels can reduce costs related to waste disposal and establish healthier and safer working conditions (Zhang et al., 2012; Azadnia et al., 2015).
- Improved processing operation: Diab et al. (2015) stated that, there is a strong and positive relationship between sustainable purchasing; quality; and operational performance (Preuss, 2009; Fukey and Issac, 2014).
- Increase net income: Chan and Wong (2006) found that, sustainable purchasing process can increase net income of hotels.

B-Environmental benefits of sustainable purchasing implementing as follows:

- Comply with environmental legislation: Hotels must gain environmental licenses and approvals required, and environmental registration and reporting must be complied with the regulations and laws (Choi and Sirakaya, 2006; Hinrichs and Wettlin, 2019).
- Reduced use of water: The hotel has installed a water circulation system to reduce water consumption and enhance water efficiency (Svensson and agner, 2012; Huang et al., 2015; Yang, 2019).
- Reducing greenhouse gas emissions to minimize climate change: An environmental benefit of a sustainable purchasing is the reduction of greenhouse gas emissions when hotels purchase sustainable products, those products are sourced close to hotels to reduce energy required to transport the products (Strandberg and Robinson, 2007; Yang, 2019).
- Reduced use of energy: Hotels use central air conditioning and other equipment to reduce electricity power loss (Svensson and Wagner, 2012; Huang et al., 2015; Yang, 2019).
- Reduced demand on raw materials and natural resources: Sustainable purchasing is based on reducing the use of natural resources by encouraging the use of second-hand; recycled; renewable; refillable; and reusable materials (Svensson and Wagner, 2012; McMurray et al., 2014; Huang et al., 2015; and Islam et al., 2017).

- Reduce environmental risk: Reduce environmental risk by focus on handling unnecessary consumption to reduce waste; setting environmental considerations into the value for money evaluation of a purchasing process; and dealing with suppliers who are committed to improve environmental performance (Kalubanga, 2012; Hinrichs and Wettlin, 2019).

C- Social benefits of sustainable purchasing implementing as follows:

- Reduce social risk: According to Kalubanga (2012), social risk is defined as 'challenges by stakeholders to companies' business practices due to real or perceived business impacts on a broad range of issues related to human welfare – for example, working conditions, environmental quality, health, or economic opportunity'. The consequences may include brand, reputation damage and heightened regulatory pressure. Implementation of sustainable practices reduces these risks (Hinrichs and Wettlin, 2019).
- Comply with social legislation: Social legislation can be defined as special laws which are passed with the special purposes of improving the socio-economic position of the specific groups (Zhang et al., 2012; McMurray, 2014; Azadnia et al., 2015; Diab, 2015).
- Improve working conditions and environment; labor standard; health and safety: Sustainable purchasing is based on improving working environment conditions by encourage labor standards and fair wages for employees (McMurray, 2014; Azadnia et al., 2015; Diab, 2015; Kirce and Seifert, 2015). Labor standards can include preventing child labor; creating mechanisms to prevent corruption; and supporting human rights. Putting standards for suppliers help hotels protection against risk agree with their ethical values and assure safe and productive working environments for employees (Strandberg and Robinson, 2007).
- Support small and medium organization: purchasing from small and medium organization has positive social and economic effects (Brammer and Walker, 2011; Islam et al., 2017).
- Support local suppliers: Encourage purchasing from local suppliers has positive social and economic effects (Brammer and Walker, 2011; Raderbauer, 2011). Purchasing products and services locally wherever possible to encourage local business; create authenticity; and cut down on the energy used for transport and distribution (Kalubanga, 2012; Islam et al., 2017).

Challenges of implementing sustainable practices in purchasing process management

Despite sustainable purchasing benefits, there are several challenges that have hindered implementing it. These include lack of clear definitions; high cost; lack of resource; lack of training; resistance to change; and lack of environmental regulation (Boomsma, 2008; Preuss, 2009; Ageron and Spalanzani, 2011; Brammer and Walker, 2011; Khisa, 2011; Meehan and Bryde, 2011; Sourani and Sohail, 2011; Giunipero et al., 2012; Choi et al., 2013; Grandia, 2013; Islam and Siwar, 2013; Gormly, 2014; and Lambert, 2020).

Challenges of implementing sustainable practices in purchasing process management divided into three types as follows:

A- Economic Challenges

B- Environmental Challenges

C- Social Challenges

A- Economic Challenges face implementation of sustainable purchasing as follows:

- Lack of funding: Lack of funding considers as challenge in sustainable purchasing (Boomsma, 2009; Pembere, 2016; and Dutra et al., 2017).
- Implementation cost is too high: Hervani et al. (2015) showed that, incorporate sustainability into purchasing process is expensive especially for small to medium hotels. According to Tinashe (2012); Appiagyei et al. (2018); Saroha et al. (2019), higher costs is the other main challenge that purchasing manager's face. Cost savings can be obtained by reduction of raw material wastes, less pollution, recycling and energy savings (Svensson and Wagner, 2012, and Adjarko et al., 2014).
- Lack of sustainable resources of implementing sustainable practices in purchasing process: Resources are such as management and staff time; money; and purchase of equipment (Seuring and Müller, 2008). Without sufficient resources, hotels sometimes find it very difficult to achieve the desired sustainable performance (Perry and Towers, 2013; Pembere, 2016; Ahmad et al., 2017).

B- Environmental Challenges face implementation of sustainable purchasing as follows:

- Lack of sustainable suppliers: The lack of them will prevent the implementation process as the hotels will continue to purchase products which do not consider sustainable products (Chari and Chiriseri, 2014).
- Lack of environmental regulation: Environmental regulations are the general actions and specific rules enforced by administrative agencies so as to reduce pollution and manage natural resources with the purpose of protecting the environment (Brammer and Walker, 2008, and Adjarko et al., 2014). Gormly (2014) stated that, unclear regulations can be a challenge to sustainable purchasing practices.
- Lack of sustainable audits and certifications: Sustainability audits are useful to compare hotel's practices with the best practices for sustainability. But there is a lack of sustainable audits and certifications (Giménez and Tachizawa, 2012; Hollos et al., 2012; and Perry and Towers, 2013).

C- Social Challenges face implementation of sustainable purchasing as follows:

- Weak relationship between suppliers and hotel: Hotels need to choose appropriate and committed suppliers based on the expected outcomes of the relationship and create high commitment relationships with suppliers through transparent communication (Dhull and Narwalb, 2016).

- Lack of government regulation and enforcement: Government regulations are a main driver but in some cases they can also be as one of the challenge for the sustainable purchasing implementation (Brammer and Walker, 2008). Dhulla and Narwalb (2016) stated that, government do not providing special benefits to hotels implementing sustainable purchasing practices. Government regulation can hinder the adoption of innovation.

Conceptual framework and hypotheses of the study

The study framework aims to explain its variables (see Figure 1).

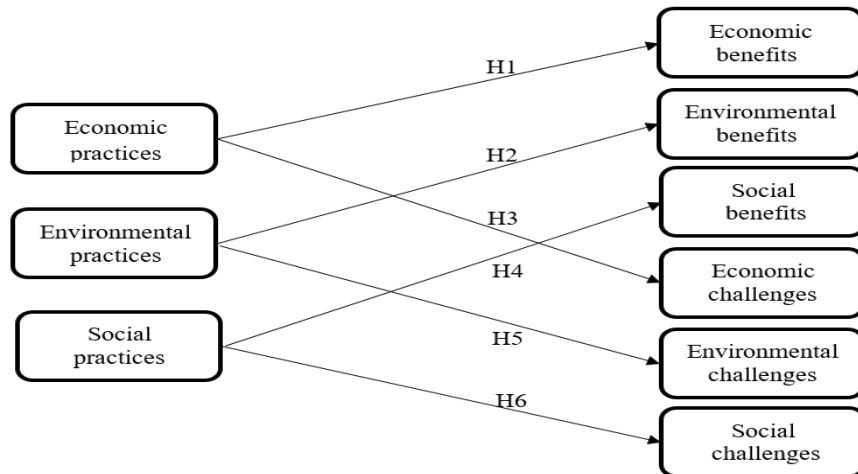


Fig.1.Sustainable purchasing framework

The following hypotheses should be tested:

- H1**-There is an effect between the implementation of sustainable economic practices and the economic benefits of implementing sustainable practices in purchasing process management.
- H2**-There is an effect between the implementation of sustainable economic practices and the economic challenges of implementing sustainable practices in purchasing process management.
- H3**-There is an effect between the implementation of sustainable environmental practices and the environmental benefits of implementing sustainable practices in purchasing process management.
- H4**-There is an effect between the implementation of sustainable environmental practices and the environmental challenges of implementing sustainable practices in purchasing process management.
- H5**-There is an effect between the implementation of sustainable social practices and the social benefits of implementing sustainable practices in purchasing process management.
- H6**- There is an effect between the implementation of sustainable social practices and the social challenges of implementing sustainable practices in purchasing process management.

Methodology

The study used a case study to explore the challenges of implementing sustainable practices in purchasing process management. Primary data was collected by structured interview as a quantitative method. The population of study is 35 respondents consist of seven purchasing managers; seven stores managers; seven food and beverage managers; seven food and beverage cost controllers; and seven executive chefs in one of the five-star hotel chain in Cairo which including seven hotels.

The structured interview in the study is divided into three sections. Section one consisted of 18 items that listed questions about determining sustainable practices in purchasing process management. Section two consisted of 20 items that listed questions about highlighting benefits of implementing sustainable practices in purchasing process management. Section three consisted of 18 items that listed questions about identifying challenges of implementing sustainable practices in purchasing process management. Items of structured interview in the study is extracted from earlier studies (Brammer and Walker, 2011; Alzawawi, 2014; and Islam et al., 2017).

The fifth Likert scale is used (1= strongly disagree; 2= disagree; 3= neutral; 4= agree; 5= strongly agree). The data collected was analyzed by SPSS program Version (26).

Results and discussions

Descriptive Analysis

Table 1

Sustainable practices in purchasing process management

	Mean	Std. Deviation
Economic practices	4.409	.371
Environmental practices	4.583	.320
Social practices	4.457	.490
Economic benefits	4.642	.380
Environmental benefits	4.500	.402
Social benefits	4.228	.355
Economic challenge	3.771	.408
Environmental challenges	4.271	.668
Social challenges	4.200	.778

The data are shown in table (1), the total mean of the respondents' agreement on implementing sustainable economic practices in purchasing process management is (4.4). This value refers to the value (agree, 4) which is closer to respondents' agreement upon of importance implementing sustainable economic practices in purchasing process management. In addition, the value of standard deviation is (0.371) that refers to there being no dispersion among the respondents. The total mean of the respondents' agreement on implementing sustainable environmental practices in purchasing process management is (4.5). This value refers to the value (strongly agree, 5) which is closer to respondents' strongly agreement upon of importance

implementing sustainable environmental practices in purchasing process management. In addition, the value of standard deviation is (0.320) that refers to there being no dispersion among the respondents. The total mean of the respondents' agreement on implementing sustainable social practices in purchasing process management is (4.4). This value refers to the value (agree, 4) which is closer to respondents' agreement upon of importance implementing sustainable economic practices in purchasing process management. In addition, the value of standard deviation is (0.490) that refers to there being no dispersion among the respondents.

According to table (1), the total mean of the respondents' agreement on implementing sustainable economic benefits in purchasing process management is (4.6). This value refers to the value (strongly agree, 5) which is closer to respondents' strongly agreement upon of importance implementing sustainable economic benefits in purchasing process management. In addition, the value of standard deviation is (0.380) that refers to there being no dispersion among the respondents. The total mean of the respondents' agreement on implementing sustainable environmental benefits in purchasing process management is (4.5). This value refers to the value (strongly agree, 5) which is closer to respondents' strongly agreement upon of importance implementing sustainable environmental benefits in purchasing process management. In addition, the value of standard deviation is (0.402) that refers to there being no dispersion among the respondents. The total mean of the respondents' agreement on implementing sustainable social benefits in purchasing process management is (4.2). This value refers to the value (strongly agree, 4) which is closer to respondents' agreement upon of importance implementing sustainable social benefits in purchasing process management. In addition, the value of standard deviation is (0.355) that refers to there being no dispersion among the respondents.

The data are shown in table (1), the total mean of the respondents' agreement on economic challenges of implementing sustainable practices in purchasing process management is (3.7). This value refers to the value (agree, 4) which is closer to respondents' agreement upon of economic challenges of implementing sustainable practices in purchasing process management. In addition, the value of the total standard deviation is (0.408) that refers to there being no dispersion among the respondents. The total mean of the respondents' agreement on environmental challenges of implementing sustainable practices in purchasing process management is (4.2). This value refers to the value (agree, 4) which is closer to respondents' agreement upon of environmental challenges of implementing sustainable practices in purchasing process management. In addition, the value of the total standard deviation is (0.668) that refers to there being no dispersion among the respondents. The total mean of the respondents' agreement on social challenges of implementing sustainable practices in purchasing process management is (4.2). This value refers to the value (agree, 4) which is closer to respondents' agreement upon of social challenges of implementing sustainable practices in purchasing process management. In addition, the value of the total standard deviation is (0.778) that refers to there being no dispersion among the respondents.

Structural Equation Model Results**Measurement model statistics**

The measurement model shows the loadings of indicators on relevant constructs; Cronbach alpha (CA); composite reliability (CR); and Average Variance Extracted (AVE) of constructs in table (2).

Table 2

Measurement model statistics

Constructs	Indicators	Loading	CR	CA	AVE	\sqrt{AVE}
Economic practices	Purchasing necessary needs	0.793	.780	.754	.547	.739
	Rent products and equipment	0.581				
	Purchasing alternative products with the same quality	0.821				
Environmental practices	Purchasing from environmentally certified sources	0.587	.861	.810	.563	.750
	Using food waste as animals feed	0.592				
	Using e-mail to reduce paper	0.761				
	Use of efficient gas boilers to save energy consumption	0.583				
	Use of key cards to control room lighting	0.710				
	Use of LED light in the guest rooms and public areas	0.745				
	Purchase eco-friendly detergent	0.796				
Social practices	Purchase from local suppliers	0.851	.830	.777	.709	.842
	Donates to philanthropic organizations	0.842				
Economic benefits	Improve financial performance	0.726	.867	.794	.622	.788
	Reduced whole-of-life costs to achieve value for money, including cost savings	0.846				
	Improved processing operation	0.855				
	Increase net income	0.735				
Environmental benefits	Reduced use of water	0.780	.883	.823	.655	.809
	Reducing greenhouse gas emissions to minimize climate change	0.742				
	Reduced use of energy	0.878				
	Reduced demand on raw materials and natural resources	0.829				
Social benefits	Reduce social risk	0.766	.836	.738	.562	.749
	Comply with social legislation	0.709				
	Improve working conditions and	0.716				

continued

	environment: labor standard, health & safety					
	Supporting small and medium enterprises	0.802				
Economic challenges	Lack of funding	0.821	.794	.671	.659	.811
	Cost of implementing sustainable practices in purchasing process is high	0.812				
Environmental challenges	Lack of sustainable suppliers	0.842	.820	.741	.695	.833
	Lack of Environmental regulation	0.834				
Social challenges	Weak relationship between suppliers and hotel	0.924	.912	.806	.838	.915
	Lack of government regulation and enforcement	0.915				

As indicated in table (2), Reliability coefficients for all the sections were above 0.70. This result is valid in the most social science research situations (Griethuisen et al., 2014). The Cronbach Alpha reliability was calculated for three sections and the tests showed that Cronbach Alpha for all the sections were above 0.60 which indicates that the instrument is reliable for being used (Hair et al., 2017). Additionally, all constructs' AVE are more massive than 0.5, leading to convergent validity (Kock and Lynn, 2012).

Hypothesis Testing

The structural model illustrates the causal relationships among constructs. The study's six hypotheses were put to the test.

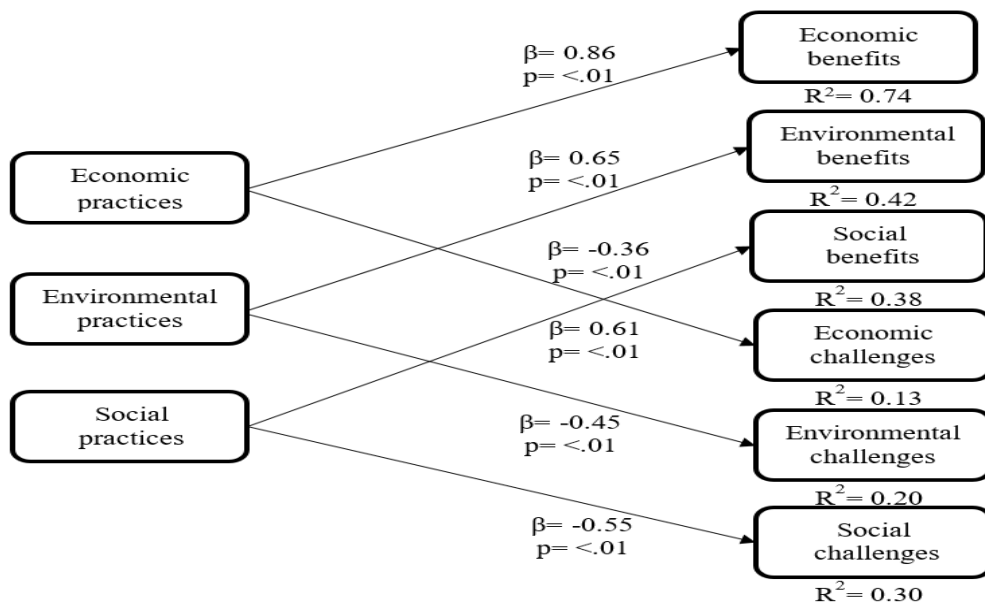


Fig.2. the structure model of sustainable purchasing practices; benefits; and challenges

Figure (2) revealed that economic practices are significantly affecting the economic benefits ($\beta=0.86$ and $P<0.01$, and H1 is supported). It explains 74% of the variance in economic benefits ($R^2 = 0.74$). This means that the economic practices have a large effect on economic benefits. In addition, economic practices are negatively affect economic challenges ($\beta=-0.36$ and $P<0.01$, and H2 is supported). It explains 13% of the variance in economic challenge ($R^2 = 0.13$). This means that the economic practices have an effect on economic challenges.

Environmental practices are significantly affecting the environmental benefits ($\beta=0.65$ and $P<0.01$, and H3 is supported). It explains 42% of the variance in environmental benefits ($R^2 = 0.42$). Environmental practices are negatively affect environmental challenges ($\beta=-0.45$ and $P<0.01$, and H4 is supported). It explains 20% of the variance in environmental challenge ($R^2 = 0.20$). This means that the environmental practices have an effect on environmental challenges.

Social practices are significantly affecting the social benefits ($\beta=0.61$ and $P<0.01$, and H5 is supported). It explains 38% of the variance in social benefits ($R^2 = 0.38$). Social practices are negatively affect social challenges ($\beta=-0.55$ and $P<0.01$, and H6 is supported). It explains 30% of the variance in social challenge ($R^2 = 0.30$). This means that the social practices have an effect on social challenges.

The results indicate that the more implementing sustainable practices in purchasing process management, the greater benefits will achieved to hotels. Also, the results indicate that the more implementing sustainable practices in purchasing process management, the fewer challenges will face hotels.

Conclusion

The main objective of this study is to determine challenges of implementing sustainable practices in purchasing process management in one of five stars hotel chain in Cairo. The data were analyzed to identify sustainable practices in purchasing process management; benefits of implementing sustainable practices in purchasing process management; and challenges of implementing sustainable practices in purchasing process management. The structure equation model was used to determine the relationship between the implementation of sustainable practices and the benefits of implementing sustainable practices in purchasing process management, and identify the relationship between the implementation of sustainable practices and the challenges of implementing sustainable practices in purchasing process management.

The study highlighted many results in purchasing process management. For sustainable practices in purchasing process management; the results highlighted that the economic practices in purchasing process management as purchasing alternative products at the same quality and the lowest price and purchasing necessary needs; the environmental practices in purchasing process management as purchasing from environmentally certified sources, using e-mail to reduce paper, using efficient gas boilers to save energy consumption, purchasing eco-friendly detergent and purchasing organic fruit and vegetables; the social practices in purchasing process management as purchasing local suppliers and donate to philanthropic organizations.

Additionally, the results stated that the economic benefits of implementing sustainable practices in purchasing process management such as improving financial performance, improving processing operation; the environmental benefits of implementing sustainable practices in purchasing process management such as complying with environmental legislation, reducing use of energy and water; the social benefits of implementing sustainable practices in purchasing process management such as improving working conditions and environment, supporting small and medium enterprises.

Also, the results highlighted the economic challenges of implementing sustainable practices in purchasing process management as high implementation cost and lack of resources; the environmental challenges of implementing sustainable practices in purchasing process management as lack of sustainable suppliers and lack of environmental regulation; the social challenges of implementing sustainable practices in purchasing process management as lack of complying of government regulation and enforcement.

Finally, the results showed that there is a significant and positive effect between the implementation of sustainable practices and the benefits of implementing sustainable practices in purchasing process management and there is a significant and negative effect between the implementation of sustainable practices and the challenges of implementing sustainable practices in purchasing process management.

Recommendations

- Hotels should take into account of whole life costing of products until its disposal. This will reduce the hotel's operating costs.
- Hotels should comply with government regulations and legislation that aim to encourage it to implement sustainable practices in purchasing process.
- Hotels can present incentives and rewards to employees to encourage them to implement sustainable practices in purchasing process.
- Hotel should be put effective training program on sustainable practices concept, implementation and benefits to improve the skills and knowledge for effective sustainable practices in purchasing process.
- Hotels can communicate with their customers through social media to introduce them sustainable practices and its benefits.
- Hotels should use IT application in all transactions that can facilitate the implementation of sustainable practices in purchasing process management.
- Hotels should encourage purchasing from woman owned business enterprises taking into account health and safety standards.
- Egyptian government should conduct an audit to ensure that hotels comply with government regulations and legislation.
- Hotels should implement sustainable purchasing policy.
- Hotel should put supplier evaluation criteria to ensure that they implement sustainable practices.

Recommendations for further research

The research recommends for further researches to study the implementation of sustainable practices in purchasing process management in five- star independent hotels to identify challenges of it and conduct comparative study about the implementation of sustainable practices in purchasing process management in four- star hotels and five- star hotels.

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تحديات تطبيق الممارسات المستدامة في إدارة عملية الشراء : دراسة حالة على إحدى سلاسل فنادق الخمس نجوم بالقاهرة

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معلومات المقالة	الملخص
الكلمات المفتاحية الشراء المستدام؛ الممارسات؛ التحديات؛ عملية الشراء؛ الفنادق.	يحظى الشراء المستدام باهتمام عالمي وذلك لان قرارات الشراء لها تأثيرات بيئية واجتماعية مهمة خاصة في قطاع الضيافة. ويمكن أن تحقق الفنادق العديد من الفوائد من خلال تطبيق ممارسات الشراء المستدام والتي يمكن ان تقلل من التأثير السلبي على البيئة والمجتمع وتحسين أداء الفندق، ولكن تطبيق هذه الممارسات يواجه العديد من التحديات. تهدف هذه الدراسة إلى التعرف على تحديات تطبيق الممارسات المستدامة في إدارة عملية الشراء. وقام الباحث باستخدام استراتيجية دراسة الحالة للوصول إلى أهداف الدراسة، وقد اختار الباحث دراسة الحالة الاستكشافية لاكتشاف تحديات تطبيق الممارسات المستدامة في إدارة عملية الشراء. وقد قام الباحث بجمع البيانات باستخدام المقابلة الشخصية المنظمة. صمم الباحث استمارة مقابلة شخصية منظمة وتم توزيعها على مدير المشتريات، مدير المخازن، مدير الأغذية والمشروبات، مراقب تكاليف الأغذية والمشروبات، الشيف التنفيذي في 7 فنادق تابعة للسلسلة محل الدراسة في القاهرة. وقد تم إجراء 35 مقابلة شخصية منظمة. وتم تحليل البيانات كمياً وإجراء اختبار الثبات والصدق وحساب التكرارات والنسب المئوية والمتوسطات الحسابية والانحرافات المعيارية واختبار الفروض باستخدام نمذجة المعادلة البنائية. وأثبتت الدراسة وجود تأثير معنوي ايجابي بين تطبيق الممارسات المستدامة وفوائد تطبيق الممارسات المستدامة في إدارة عملية الشراء. كما أثبتت وجود تأثير معنوي سلبي بين تطبيق الممارسات المستدامة وتحديات تطبيق الممارسات المستدامة في إدارة عملية الشراء.

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