



Contents lists available at [EKB](#)

Minia Journal of Tourism and Hospitality Research

Journal homepage: <https://mjthr.journals.ekb.eg/>



Assessing green marketing practices and their impact on the satisfaction of Egypt Air customers

Doaa Yousry Mahmoud ^a, Wafaa Ahmed Elias ^b,
Hussein Abdel Wahab Abdel Rady ^c

^a Assistant Lecturer, Tourism Studies Department, Higher Technological Institute for Tourism and Hotels, Est

^b Professor, Tourism Studies Department, Faculty of Tourism and Hotels, Minia University

^c Associate Professor, Tourism Studies Department, Faculty of Tourism and Hotels, Minia University

Keywords

Green Marketing, Green Aviation, Egypt Air, Green Consumer, Biofuel.

Abstract

The aviation industry within the context of transportation is a significant contributor to global climate change, in response to this, many airline companies have started implementing green marketing strategies and initiatives to promote sustainability and reduce their environmental impact. This paper assesses Green Marketing's Impact on Egypt Air Customers. To achieve the aim and objectives of the research a quantity method was used as a questionnaire tool. The sample was passengers in Egypt Air (550) questionnaires distributed only (508) questionnaires were valid for statistical data manipulation. The research reached several results, the most important of which green marketing aviation is the best way to reduce their carbon footprint and promote climate change awareness in the context of sustainable transportation; there is a positive significant relationship between passenger satisfaction and the use of green marketing aviation. The research thus recommended that Egypt Air should develop green marketing. They should announce their green marketing on their website, and social media. They should make training for their staff in green marketing. Developing green marketing includes several features that increase the number of passengers and attract others to use it to enhance their customer satisfaction.

Printed ISSN 2357-0652

Online ISSN 2735-4741

1. Introduction

Green Marketing is a widely researched topic in travel and tourism; however, only a few studies focus on aviation (Hagmann et al., 2015; Rice et al., 2020; Winter et al., 2019). Nonetheless, these studies focus on how green marketing impacts on the satisfaction of Egypt Air customers. Since the beginning, the airline industry has undergone considerable changes. Air transportation was initially reserved for the rich, but it has turned into a transportation mode for the masses (Alamdari & Fagan, 2005; Graham & Vowles, 2006). With continuously falling airfares and an increasing number of destinations visited more frequently, air travel has become a part of people's lifestyles and a good that is consumed at an increasing rate (Shaw & Thomas, 2006; Randles & Mander, 2011). The growth of the airline industry, in terms of both passenger and cargo transportation in the industry, has heightened concerns because increased demand means more fuel consumption, hazardous waste, and noise. Accordingly, commitment to improve environmental sustainability has become important (Sarkar, 2012; Mayer, 2013; Hagmann et al., 2015).

Mayer (2013) and Szuster (2019) discussed the necessity of launching green marketing campaigns in the air transport industry which aim to offer a greener mate change. Green Marketing enables airlines to announce their environmental initiatives, based on green supply that supports sustainability with environmentally-friendly products and services, meeting the green needs and expectations of protecting the environment (Mayer, 2013; Szuster, 2019; Wong et al., 2020). Accordingly, EgyptAir is committed to the sustainable development of the industry in conducting its business. its fleet modernization plan contributed to reducing fuel consumption by 20% and reducing total CO2 emissions (Airspace-africa, 2022). It Is rapidly advancing in new practices, investing in technology and innovative solutions to enhance their environmental performance (Egypt Air , 2022).

This research adds knowledge to the current literature of sustainable aviation by exploring how the green marketing impact on the satisfaction of Egypt Air customers, which has not been studied before. In recent years, customers have become increasingly aware of environmental issues. Therefore, it is essential to understand how people react to green marketing. In this study, The aim is to understand how EgyptAir' green marketing impact on the satisfaction of customers. The research will be done quantitatively and will be conducted by questionnaire. In addition, this research will help society understand how the marketing of sustainable air travel can change lifestyles through the values towards more environmentally friendly behavior.

Research Problem

Nowadays, the aviation industry is under intense competition, forcing industry stakeholders to strive for distinct competitive advantages in order to provide passengers with a better, faster, and more seamless travel experience while also achieving their satisfaction and loyalty. In this context, the primary focus of this study is the relationship between Egypt Air's green marketing and passenger satisfaction. To that end, the current study focuses on the green services provided by Egypt Air to its passengers, as well as the challenges that Egypt Air may face.

Research Questions

RQ1: To what extent Egypt Air passengers are aware of green marketing?

RQ2: To what extent Egypt Air Passenger Attitudes towards green marketing?

RQ3: To what extend satisfaction with Egypt Air passengers about green marketing?

Research Aim and Objectives

This study's primary aim is to assess the impact of green marketing on services provided to Egypt Air customers. In order to achieve the research's main aim, some objectives were targeted as follows:

- 1- Evaluating Egypt Air passengers awareness of Green Marketing
- 2- Identifying the extent to which Egypt Air Passenger Attitudes towards Green marketing
- 3- Identifying the extent to which Egypt Air Passenger satisfaction about Green Marketing
- 4- Directing some suggestions that are responsible for developing the Green Marketing applications in Egypt Air.

Research Importance

The significance of this research returns to highlight Green Marketing and its Impact on Services Provided to Egypt Air Customers. Therefore, the study tries to evaluate the current situation of the green marketing in the Egypt Air and the challenges faced by Egypt Air in its application. Moreover, the research presents some recommendations to overcome these obstacles and challenges faced by Egypt Air during Implementation.

2. Literature Review

2.1. Green Marketing

Since the inception of the green marketing concept authors have come up with various definitions. Manjunath & Manjunath (2017) Green Marketing refers to a holistic marketing concept wherein the production, marketing, consumption and disposal of products and services happen in a manner that is less detrimental to the environment. Lam and Li (2019) define green marketing as the application of marketing tools to facilitate trade that satisfies both organisational and individual goals while reserving, protecting and conserving the physical environment. In a different view Alamsyah et al. (2020) looks at green marketing from a promotional view which included green advertising, green brand image, green awareness and green purchase intentions.

2.2 Benefits of Green Marketing

Nowadays, as technology improves so does the mind of consumers about the environment. Many organizations or companies are cognizant of the contribution of Green Marketing to sustainable development (Wandhe, 2018). Many businesses around the globe are currently undertaking an ecological transformation process into their activities to decrease the harmful effects on the environment and as an imminent source of competitive advantage (Hart, 1995; Shrivastava, 1995; Fraj et al., 2011; Olsen et al., 2014; Dangelico & Vocalelli, 2017).

In a broad sense, Green Marketing is a pre- and post-production philosophy that aims to achieve the demands and needs of customers and preserve in the long term the company's future in a socially and environmentally responsible manner. whereas The benefits of Green Marketing are many, as follow:

- Improved corporate image and reputation of firms among their target customers (Song et al., 2012).
- Although initially the cost is more but it saves money in the long run (Gupta & Agarwal, 2012)
- Green Marketing ensures long-term sustainability and profitability.
- Encourages accessibility to new markets with a competitive advantage
- Increases morale of employees for being part of environmental cause.
- Satisfies the customer with health products and services (M.D., P & Akhil, 2017).
- Green Marketing helps companies attract more audiences.

- It helps to reduce carbon footprints and also saves natural resources, thus heading to sustainable development (Qureshi, 2019).

2.3 Green Consumer

According to Akehurst et al. (2012), a green consumer is someone who prefers to buy products that cause little or no harm to the environment, disposes of products that they believe are environmentally and health-risky, and avoids purchasing packaged products. Furthermore, green consumers are aware of the environmental consequences of wasting limited natural resources and are working to improve the situation.

2.4 Green Marketing Mix of Aviation

Airlines that embrace green actions tend to integrate green practices in their marketing mix in order to enhance green image and reduce carbon footprints (Aidah, 2016; Mayer et al., 2019; Thummala & Hiremath, 2022).

Green Product & Service of Airline: According to Khoo and Teoh (2014), the aircraft load factor, fuel efficiency, aircraft size, and service frequency have the greatest impact on aircraft emissions. Airlines can provide green products by introducing newer fuel-efficient aircraft with lower noise and carbon emissions, serving green in-flight products such as recycled organic products, and eliminating free meals to reduce food waste, as well as offering online check-in and electronic boarding passes (Sarkar, 2012; Mayer, 2013; Mayer et al., 2014; Aidah, 2016; Mayer et al., 2019; Wong et al., 2020; Thummala & Hiremath, 2022).

Green Price of Airline : According to Halim, Osman and Solaiman (2015), pricing of green products tends to be higher than traditional products as the process of developing a green product including designing lifecycle of the product may incur more costs. Generally, green airline pricing practices can be in the form of offering carbon off-setting programs, in which passengers offset their flights' carbon emissions by paying higher prices which are distributed for environmental issues through environmental organizations (Mayer et al., 2019; Szuster, 2019; Thummala & Hiremath, 2022).

Green Distribution (Place) of Airline: Distribution, which is also called Place (Ivy, 2008; Mohammad, 2015), refers to the method in which products such as services or goods are distributed for use by customer (Thomas, 2008; Rajagopal, 2016). Targeting larger customer segments across multiple geographies through partnering with online travel agencies (Borgogna et al., 2016).

Green communications (Promotion) of Airline : It is the only way to increase customer awareness and information, incorporate sustainability issues into their daily lives, and thus foster long-term customer relationships (Belz & Peattie, 2012). Green communication is crucial for airlines' green image. Mayer (2013) and Alghanmi (2019) found that providing passengers with information about the airline's environmentally friendly products, particularly fleet renewal, is an effective part of the green marketing mix for establishing a green image.

2.5. General Developments in the Green Aviation Industry

New projects have been created to reduce GHG emissions from the aviation industry. Alternative fuel options and new technology have been introduced to make the industry more sustainable (ICAO, 2020). The aviation industry is promoting the use of sustainable aviation fuels (SAF), including biofuel. SAFs emit up to 80% less CO₂ over their lifecycle than jet fuel (ATAG, 2017). Biofuel is made from biodegradable products, residual waste, and biological residues from agriculture and forestry (Regeringskansliet, 2019).

Another project, Pipistrel, a Slovenian aircraft manufacturer, recently announced that their two-seater aircraft is the world's first type certified electrified aircraft. To reduce CO₂ emissions

associated with flying (Kronholm and Karnbo, 2019). According to Heart Aerospace, electric motors will reduce maintenance costs by 90% and fuel costs by 50-75% (Heart Aerospace, 2020). However, current technology does not allow electrified aircraft to fly longer distances or with a large passenger capacity (Roland Berger 2020). Although battery density is not enough for commercial electrified aircrafts today, hybrid aircrafts for both small and large aircrafts are on the verge of becoming a reality within the next ten years (Reimers, 2018). Basically, hybrid aircrafts rely on a mix of fuel and electric energy (Brelje and Martins, 2019).

Another Project, Renewable electricity, water, and CO₂ have good long-term prospects for producing CO₂-neutral fuel on a large scale, also known as electrochemical fuel. This is created by splitting water into hydrogen and oxygen using electricity and then blending the hydrogen with CO₂ (Sveriges Riksdag, 2019). In 2018, there was only one commercial producer of electrochemical fuels in Iceland, with some test plants in Germany. PREEM, a Swedish fuel company, is currently working on projects that could eventually lead to the production of electrochemical fuels in Sweden (Bergqvist, 2018). In the long run, hydrogen as a fuel source could be a viable option. However, hydrogen would necessitate a costly transformation of the aviation sector, requiring new aircraft types.

Airlines and travel agencies can participate in carbon offsetting programs to provide customers with an alternative way to offset their travel. Over thirty IATA member airlines have implemented an offset program for web-sales (IATA, 2020). Flygresor.se, one of the few, if not the only, price comparison sites for air travel, lists airlines that offer carbon offsets and sorts the alternatives based on the inclusion of carbon offsets in ticket prices.

2.6 Customers Satisfaction of Green Aviation

Kotler and Keller (2013) defined satisfaction as a pleasant feeling or disappointment that customers experience when comparing their own expectations to the perceived outcome (performance) of a product. Chen (2010) described green satisfaction as a pleasurable level of consumption related fulfillment to satisfy a customer's environmental desires, sustainable expectations, and green needs. Every customer does not have the same level of satisfaction out of the same hospitality experience since each customer has different needs, objectives and past experience (Chikita, 2012).

Earlier research found that air passengers have a reasonable understanding of an airline's environmental responsibility efforts (Davison et al., 2014; Mayer et al., 2012). Furthermore, it was discovered that these efforts can have a positive impact on a passenger's airline preference (Hagmann et al., 2015), customer loyalty (Han et al., 2019; Wu et al., 2018), and consumer attitude toward the airline (Hwang and Lyu, 2020). Park (2019) discovered that airlines' efforts to promote environmental responsibility can have a significant impact on customer satisfaction.

2.7 Egypt Air's Green Marketing Practices

Egypt Air is one of the airlines that is eager to improve its brand name by continuously improving passenger services to increase customer satisfaction (Ashour et al., 2020). Egypt Air's goal is to provide passengers with a unique travel experience that prioritizes passenger satisfaction while also committing to reducing its environmental footprint and improving its social impact. In 2019, Egypt Air established a dedicated sustainability committee to ensure that sustainability is integrated into all of the company's activities (Egypt Air, 2022).

Egypt Air is launching a number of awareness campaigns for its sustainability initiatives, including the operation of the longest flight powered by a 30/70 blend of sustainable aviation fuel and conventional kerosene. Egypt Air is committed to the industry's long-term development in all aspects of its operations. Its fleet modernization plan helped to reduce fuel consumption by 20% and overall CO₂ emissions (Airspace-Africa, 2022). It is rapidly adopting new practices, investing in technology and innovative solutions to improve its environmental performance (Egypt Air,

2022).

3. Research Methodology

This study is descriptive-analytical, as analytical research is a subset of descriptive research (Collis & Hussey, 2014). The research intends to analyze the role of green marketing practices on the satisfaction of EgyptAir customers. A three-point Likert scale questionnaire was used as the major data collection tool (Brougham & Haar, 2017; Koo et al., 2021).

3.1. Data Collection and Sample

Data has been collected through questionnaires that were prepared in approach that is relevant to the situation so as to decrease invalid responses. They were distributed to passengers at Egypt Air. The researcher used the descriptive analytical approach, where a questionnaire was prepared and distributed to a random sample of (550) of passengers in Egypt Air, and (42) forms were excluded, bringing the total of the valid forms retrieved (508) with a response rate (92.3%) from March to July 2024, the statistical analysis of the responses was carried out via SPSS v22.

3.2. Questionnaire Design and Measure

The study aims to explore the role of green marketing as a modern marketing in EgyptAir. To achieve that, this research used a questionnaire instrument with five sections. The first section contains the demographic profile of respondents. The second section contained seven variables representing The awareness of Egypt Air passenger about green marketing. The third section contained nine variables representing the attitudes of EgyptAir Passenger towards Green marketing. The fourth section contained 23 variables representing the Green marketing practices (Green product, Green pricing, Green promotion, Green place, Green People). The fifth section contained eight variables representing satisfaction with Egypt Air's Green Marketing. The questionnaire items were anchored according to the three-point Likert scale: "1 = disagree, "2 = neutral, and "3 = agree.

3.3. Data Validity and Reliability

The questionnaire of Assessing green marketing practices and their impact on the satisfaction of Egypt Air customers for this research was subjected to internal reliability tests and validation procedures. For this purpose, Cronbach's alpha and factor analysis were applied.

3.3.1. Data Validity

To verify the readability, format, and measurement capabilities of the data collection tool used in this study's data collection; the researcher distributed the questionnaire instrument to a number of (30) passengers in Egypt Air. After that, the questionnaire was improved and updated to take into account the feedback that the domain passengers had provided.

3.3.2. Data Reliability

The researcher used Cronbach's alpha to calculate the questionnaire's reliability; Table 1 displays the reliability coefficient values obtained using the "Cronbach's alpha" approach for the questionnaire's dimensions. By measuring the questionnaire's reliability using the Cronbach's alpha technique, it is obvious that it has a high degree of reliability, indicating its suitability for use in the current study as well as the credibility of the research results.

Table (1): Cronbach's Alpha Value for green marketing of Egypt Air

Variable	No. of Items	Cronbach's Alpha	Validity Coefficient *
Awareness of Egypt Air passengers about green marketing	7	.757	.870
Egypt Air Passenger Attitudes Towards green marketing	9	.879	.937
Green marketing practices			
Green product	8	.896	.946
Green pricing	5	.810	.90
Green promotion	4	.789	.888
Green place / distribution	3	.755	.868
Green people	3	.870	.932
Satisfaction with Egypt Air Passengers about Green Marketing	8	.873	.934
Total	47	.963	.981

* Validity coefficient = $\sqrt{\text{Reliability coefficient}}$

Cronbach's alpha was used to measure internal consistency and reliability. The reliability of the scales was examined, and Cronbach's alpha ranged from 0.755 to 0.896 for all scales in Table 1, as well as 0.963 for all questionnaire items, Cronbach's alpha values greater than 0.7 imply that each field has an adequate Cronbach's alpha value (Hof, 2012). It is also worth noting that the validity coefficient is 98.10 percent, indicating that the tested sample is dependable and genuine.

3.4. Data Analysis

In order to accomplish the objectives of the research, the researcher used statistical techniques like factor loading, Pearson correlation analyses, Cronbach's alpha test, mean and standard deviations (SD), and frequency distributions to process data using SPSS.

4. Results and Discussion

4.1 Descriptive Analysis of Research Variables

In this section, the researcher relied mainly on the descriptive analysis to get the means and the standard deviations for the study constructs along with their items. The items were measured using a Likert-type scale as follows.

Respondent Demographic Characteristics

Table 2: Demographic profile of sample elements

Variable	Frequency	Percentage (%)
Gender		
Male	257	50.6
Female	251	49.4
age group		
Less than 20	27	5.3
21-30 years old	234	46.1
31-40 years old	142	28

	41-50 years old	60	11.8
	51-60 years old	27	5.3
	60 and More	18	3.5
Education level			
	Diploma	27	5.3
	Bachelor degree	313	61.6
	Master degree	107	21.1
	PhD degree	61	12
Income per month the Egyptian pound			
	Less than 2000	55	10.8
	2000 - 3999	106	20.9
	4000- 6999	151	29.7
	7000 - 9999	80	15.7
	10,000 and above	116	22.8

As depicted in Table (2) shows the discussion of the research findings begins with a brief demographic profile of respondents in terms of gender, age, education level, and income the majority of the respondents were male (51%), rather than female respondents (49%). Of this sample, the age bracket of 21-30 had the greatest number of respondents (64%). and the majority of respondents had completed a bachelor's degree(62%). Additionally, more than 30 % of the respondents reported an income range between 4000 to 6999 EGP.

Descriptive Statistics of Study Related Dependent Variables

Table (3): Awareness of Egypt Air passengers about green marketing

Variables	D	N	A	Mean	SD	Rank	Attitude
I have an idea about the green marketing of aviation industry before	24.4	36	39.6	2.15	.786	6	Neutral
I know the importance of green marketing in aviation industry	21.5	37.4	41.1	2.20	.767	4	Neutral
I understand that Green Marketing of aviation industry is helping to save the environment.	19.3	24.8	55.9	2.37	.787	2	Agree
I understand that the environment is for us and future generations, thus must be well preserved	14.4	25	60.6	2.46	.733	1	Agree
I still think that flying is bad for the environment.	26.6	37.2	36.2	2.10	.787	7	Neutral
I know the environmentally friendly products and services of Egypt Air	24	34.8	41.1	2.17	.790	5	Neutral
I understand well how Egypt Air is addressing its impact on climate change.	18.1	32.5	49.8	2.31	.761	3	Neutral
Total mean				2.25			

Table (3) shows the Egypt Air passenger's awareness about green marketing, with means ranging from (2.46 -2.10) compared to the total instrument mean for the domain (2.25).the item “I understand that the environment is for us and future generations, thus must be well

preserved” ranked first with a mean and standard deviation (Mean=2.46, standard deviation = .733) . When compared with the total instrument mean and the standard deviation. In comparison to the mean and standard deviation of the total instrument, The item “I still think that flying is bad for the environment ” ranked last had a mean of (2.10) and a standard deviation of (.787).

Table (4): Satisfaction with Egypt Air Passengers about Green Marketing

Variables	D	N	A	Mean	SD	Rank	Attitude
I am satisfied with Egyptair of adopting green marketing performance.	12.2	37.4	50.4	2.38	.694	4	Agree
I feel that my green experience with Egyptair has been enjoyable.	13.2	44.3	42.5	2.29	.687	6	Neutral
I am satisfied to pay more for flying at an environmentally friendly Egyptair	19.3	40.6	40.2	2.21	.743	7	Neutral
I am satisfied with the increased price of the Egyptair green products	21.5	42.5	36	2.15	.745	8	Neutral
I feel good about buying brands which are less damaging to the environment	11.6	34.8	53.5	2.42	.690	1	Agree
Egyptair Green Product users are more satisfied than people who don't purchase green products	8.9	43.7	47.4	2.39	.644	3	Agree
I am satisfied with Egyptair product because of its environmental concern	12	40.9	47	2.35	.685	5	Agree
I feel satisfied about my next plane trip if I know that Egyptair did not involve any single-use plastics.	12	34.4	53.5	2.42	.696	2	Agree
Total mean				2.32			

Table (4) shows the Satisfaction of Egypt Air Passengers about Green Marketing, with means ranging from (2.42 -2.15) compared to the total instrument mean for the domain (2.32).The item “I feel good about buying brands which are less damaging to the environment.” ranked first with a mean and standard deviation (mean=2.42, standard deviation = .690). When compared with the total instrument mean and the standard deviation. In comparison to the mean and standard deviation of the total instrument, The item “I am satisfied with the increased price of the Egypt Air green products” ranked last had a mean of (2.15) and a standard deviation of (.745).

4.2.Pearson Correlation analysis:

Correlation between Passenger Satisfaction and Green marketing practices

Table (5) Correlation between Passenger Satisfaction and Green Product

		Green Product
Passenger Satisfaction	Correlation Coefficient	.724**
	Sig.	.000
** . Correlation is significant at the 0.01 level (2-tailed)		

As shown in Table 5, there is a strong and positive correlation between passenger satisfaction of Egypt Air and green product. The value of the Pearson correlation coefficient is (.742** - sig = 0.000).

Table (6) Correlation between Passenger Satisfaction and Green Price

		Green Price
Passenger Satisfaction	Correlation Coefficient	.639**
	Sig.	.000
**. Correlation is significant at the 0.01 level (2-tailed)		

As shown in Table 6, there is a strong and positive correlation between passenger satisfaction of Egypt Air and green price. The value of the Pearson correlation coefficient is (.639** - sig = 0.000).

Table (7) Correlation between Passenger Satisfaction and Green promotion

		Green promotion
Passenger Satisfaction	Correlation Coefficient	.715**
	Sig.	.000
**. Correlation is significant at the 0.01 level (2-tailed)		

As shown in Table 7, there is a strong and positive correlation between passenger satisfaction of Egypt Air and green promotion. The value of the Pearson correlation coefficient is (.715** - sig = 0.000).

Table (8) Correlation between Passenger Satisfaction and Green place

		Green Place
Passenger Satisfaction	Correlation Coefficient	.710**
	Sig.	.000
**. Correlation is significant at the 0.01 level (2-tailed)		

As shown in Table 8, there is a strong and positive correlation between passenger satisfaction of Egypt Air and green place. The value of the Pearson correlation coefficient is (.710** - sig = 0.000).

Table (9) Correlation between Passenger Satisfaction and Green people

		Green people
Passenger Satisfaction	Correlation Coefficient	.720**
	Sig.	.000
**. Correlation is significant at the 0.01 level (2-tailed)		

As shown in Table 9, there is a strong and positive correlation between passenger satisfaction of Egypt Air and green people. The value of the Pearson correlation coefficient is (.720** - sig = 0.000).

5. Conclusion and Summary

Adoption of green marketing practices is crucial for Egyptair in order to remain competitive and profitable, Meeting the needs of the present without compromising the ability of future generations to meet their needs and It helps to reduce carbon footprints. This

study aimed to assess the impact of green marketing on the satisfaction of Egypt Air customers and customers in terms of acceptance new marketing; specifically the green marketing aviation, which are provided by the Egypt Air, this research analyze the effects of green marketing tool at Egypt Air. Different tests were applied, including reliability test, correlation test, and regression test. The following results were obtained:

- The target population for this study was Egyptair passangers. Where the questionnaire forms were distributed to a sample of passangers, to know the opinion of the sample of the study on the Green Marketing. The researcher applied the questionnaire to a sample of (550) Egyptair passangers, and (42) forms were excluded, bringing the total of the valid forms retrieved (508) with a response rate (92.3%).
- Cronbach's Alpha estimates of Egyptair passangers .963 indicating that the items of scales are highly correlated to each other ,which in turn does mean the possibility of relying on this form and proves the validity of the study methodology results.
- Totally,%51passangers were male and Most of the respondents 46%were aged between 21and 30 years. Regarding the education level, 62% of the respondents were studying for bachelor degree . more than 30 % of the respondents reported an income range between 4.000and 6.999 EGP.
- The findings from the distributed questionnaires revealed that The highest mean values for assessing Awareness of Egyptair passangers about green marketing emerged for the item “I understand that the environment is for us and future generations, thus must be well preserved.” ranked first with a mean and standard deviation (mean=2.46, standard deviation = .733).
- The findings from the distributed questionnaires revealed that The highest mean values for assessing Satisfaction with Egyptair Passengers about Green Marketing emerged for the item“I feel good about buying brands which are less damaging to the environment.” ranked first with a mean and standard deviation (mean=2.42, standard deviation = .690).
- Results showed that there is very strong positive relation between passenger satisfaction and Green marketing practices (Green product, Green pricing, Green promotion, Green place / distribution, Green people). The value of Pearson correlation coefficient.

6. Recommendations

- Egypt Air should try to reduce the prices of green products in order to attract the largest number of passangers, even if they are not inclined towards them.
- Egypt Air should provide offers to green product that are lower in price than traditional products until these products are considered normal.
- Egypt Air should Give passangers on Egypt Air environmentally friendly shopping gifts
- Egypt Air should increase advertising to raise people's awareness and attract their attention.
- An explanatory video should be made on airplanes about what green marketing is, what it means, and what environmentally friendly products, and Writing that on the ticket and boarding, and giving the traveler an option to donate to the environment.
- Egypt Air should announce their green marketing in their website, social media, and on the YouTube platform to introduce more.
- Egypt Air employees themselves must be more knowledgeable about green marketing so that they can spread this culture to passangers.

References

- Aidah, M. (2016).Effects of Green Marketing Practices on the Non-Financial Performance of the Kenyan Airlines, Masters Degree, School of Business, University of Nairobi

- Airspace-Africa.(2022)." EgyptAir to operate first environmental friendly-service-in-africa", Available online at: <https://airspace-africa.com/2022/01/20/EgyptAir-to-operate-first-environmental-friendly-service-in-africa/> ,Accessed at : 10/3/2022.
- Akehurst, G., Afonso, C. and Goncalves, M. (2012). Re-examining Green Purchase Behaviour and the Green Consumer Profile: New Evidences, *Management Decision*, Vol. 50 No. 5, pp. 972-988.
- Alamdari, F., Fagan, S. (2005),Impact of the adherence to the original low-cost model on the profitability of low-cost airlines. *Transport Reviews* 25, 377-392.
- Alamsyah, D. P., Othman, N. A., & Mohammed, H. A. A. (2020). The awareness of environmentally friendly products: The impact of green advertising and green brand image. *Management Science Letters*, 10(9), 1961–1968.
- Alghanmi , Z. (2019), Development of green marketing strategy for an airline in Saudi Arabia, *International Journal of Advance Research, Ideas and Innovations in Technology*, Vol. 5, pp.212-215
- Ashour, A. A., Hammoud, G. A. & Tawfik, H. F. (2020). Egypt Air Strategic Turnaround Decisions for Recovery and Transformation, *Journal of Tourism and Sports Management*, 3(2), 256-268.
- ATAG. (2017), *Beginner's Guide to Sustainable Aviation Fuel*. 3rd Ed. 3 November. Available at: https://aviationbenefits.org/media/166152/beginners-guide-to-saf_web.pdf , Accessed in (25 Oct 2022).
- Belz, F.-M., & Peattie, K. (2012). Sustainability Marketing. Chichester, Environmental Imperative. *Journal of Marketing* , 132-135.
- Bergqvist, Sara.(2018). Elektrobranslen - ett framtida alternativ. *Preem*.<https://www.preem.se/om-preem/insikt-kunskap/2018/elektrobranslen--ett-framtidaalternativ-till-fossila-drivmedel/> , Accessed in (20 sep 2022).
- Borgogna, Alessandro; Stroh, Stefan; Hilz, Andreas; Agarwalla, Aditya and Jakovljevic,Ivan. (2016).Connecting With The Customer: How Airlines Must Adapt Their Distribution Business Model. *Forbes*, available at: <https://www.forbes.com/sites/strategyand/2016/11/15/connecting-with-the-customer-howairlines-must-adapt-their-distribution-business-model/> , Accessed in (25 jan 2022).
- Brelje, Benjamin and Martins, Joaquim R. R. A.(2019). Martins. Electric, Hybrid, and Turboprop Fixed-Wing Aircraft: A Review of Concepts, Models, and Design Approaches. *Progress in Aerospace Sciences* 104: 1-19, available at: https://www.researchgate.net/publication/327085495_Electric_hybrid_and_turboprop_fixed-wing_aircraft_A_review_of_concepts_models_and_design_approaches ,Accessed in (10 Feb 2022).
- Brougham, D., & Haar, J. (2017). Smart Technology, Artificial Intelligence, Robotics, and Algorithms (STARA): Employees' perceptions of our future workplace, *Journal of Management & Organization*, 24(2), 239-257.
- Chen, Y. S. (2010). The drivers of green brand equity: Green brand image, green satisfaction, and green trust. *Journal of Business Ethics*, 93(2), 307-319.
- Chikita, M. (2012). Analyzing the impact on consumer satisfaction, behavior and attitudes by using eco-friendly practices and products in Surfers Paradise/Gold Coast city hotels, Australia. Dissertation Submitted to the University of Applied Science Haaga-Helia.
- Collis, J., & Hussey, R. (2014). *Business Research: A Practical Guide for Undergraduate and Postgraduate Students*, Fourth edition, Jill Collis & Roger Hussey. ed., Basingstoke: Palgrave Macmillan.
- Davison, L., Littleford, C., Ryley, T.(2014), Air travel attitudes and behaviours: the development of environment-based segments. *J. Air Transport. Manag.* 36, 13–22. <https://doi.org/10.1016/j.jairtraman.2013.12.007>.

- EgyptAir.(2022)." About EgyptAir", Available at:<https://www.EgyptAir.com/en/about-EgyptAir/Pages/Sustainability.aspx>, Accessed at 6/25/ 2022.
- Graham, B., Vowles, T., (2006), Carriers within Carriers: A Strategic Response to Low-cost Airline Competition. *Transport Reviews* 26, 105-126.
- Gupta, M., Agarwal, K. (2012), Concern about GM: legend or myth. *Journal of research in finance and marketing*, 2(9), 10-21.
- Hagmann, C., Semeijn, J., & Vellenga, D. B. (2015). Exploring the green image of airlines: Passenger perceptions and airline choice. *Journal of Air Transport Management*, 43, 37-45
- Halim, Osman and Solaiman, 2015, Green Marketing: A Marketing Mix Point of View, Available at:http://dspace.unimap.edu.my/bitstream/handle/123456789/40027/IJBT_Vol_5_Feb_2015_7_87-98.pdf?sequence=1, Accessed: (10 sep 2022).
- Han, H., Yu, J., Kim, W.(2019), Environmental corporate social responsibility and the strategy to boost the airline's image and customer loyalty intentions. *J. Trav. Tourism Market.* 36 (3), 371–383.
- Hof, M. (2012). Questionnaire evaluation with factor analysis and Cronbach's Alpha: an example. In seminar in Methodology and Statistics.
- Hwang, J., Lyu, S.(2020). Relationships among green image, consumer attitudes, desire, and customer citizenship behavior in the airline industry. *Int. J. Sustain. Transp.* 14 (6), 437–447.
- IATA. (2020)." IATA Carbon Offset Program" , available at: <https://www.iata.org/en/programs/environment/carbon-offset/>, Accessed in (25 jan 2022).
- Ivy, J. (2008). A new higher education marketing mix: the 7Ps for MBA marketing. *International Journal of Educational Management*, 22(4), 288-299.
- Khoo, H. L., and Teoh, L. E. (2014). A bi-objective dynamic programming approach for airline green fleet planning. *Transp. Res. D Transport Environ.* 33, 166–185.
- Koo, B., Curtis, C., & Ryan, B. (2021). Examining the Impact of Artificial Intelligence on Hotel Employees through Job Insecurity Perspectives, *International Journal of Hospitality Management*, 95.
- Kotler, P., & Keller, K.L. (2013). *Marketing Management*. 14th Edition. Pearson Education.
- Kronholm, R., Kalvas, T., Koivisto, H., Laulainen, J., Marttinen, M., Sakildien, M., & Tarvainen, O. (2019), Spectroscopic study of ion temperature in minimum-B ECRIS plasma. *Plasma Sources Science and Technology*, 28(7), 075006.
- Lam, J. S. L., & Li, K. X. (2019). Green port marketing for sustainable growth and development. *Trans- port Policy*, 84, 73–81.
- Lenzen, M., Sun, Y. Y., Faturay, F., Ting, Y. P., Geschke, A., & Malik, A. (2018). The carbon footprint of global tourism. *Nature climate change*, 8(6), 522-528.
- M.D., P., & Akhil, A. (2017). Green Marketing to Meet Consumer Demands and Sustainable Development-Challenges and Opportunities.Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2980024 , Accessed in (20 sep 2022).
- Manjunath, G., & Manjunath, D. G. (2017). Green Marketing and Its Implementation in Indian Business Organizations, available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3057932, Accessed in (16 Oct 2022).
- Mayer, R., Ryley, T, Gillingwater, D. (2013). Passenger perceptions of the green image associated with airlines, Loughborough University
- Mayer, R., Ryley, T. and Gillingwater, D. (2019). Passenger perceptions of the green image associated with airlines.
- Mayer, R., Ryley, T. and Gillingwaterb, D. (2014). The role of green marketing: Insights from three airline case studies, *The Journal of Sustainable Mobility*, Volume 1, pp. 46-72
- Mayer, R., Ryley, T., & Gillingwater, D. (2012). Passenger perceptions of the green image

- associated with airlines. *Journal of Transport Geography*, 22, 179-186
- Mohammad, H. I. (2015). 7PS marketing mix and retail bank customer satisfaction in northeast Nigeria. *British journal of marketing studies*, 3(3), 71-88.
 - Park, E. (2019). Corporate social responsibility as a determinant of corporate reputation in the airline industry. *Journal of retailing and consumer services*, 47, 215-221.
 - Qureshi, A. (2019). " Green Marketing: The Challenges Business Face When Going Green", Available online at <https://blueandgreentomorrow.com/features/green-marketing-the-challenges-businessesface-when-going-green/> ISSN NO : 1869-9391.
 - Rajagopal. (2016). Sustainable growth in global markets: Strategic choices and managerial implications. Springer.
 - Randles, S., Mander, S. (2011). Aviation, consumption and the climate change debate: 'Are you going to tell me off for flying?' *Technology Analysis & Strategic Management* 21, 93-113.
 - Regeringskansliet. (2019). Biojet för Flyget. Februari, Available at: <https://www.regeringen.se/493238/contentassets/6d591e58fd9b4cad8171af2cd7e59f6f/biojetfor-flyget-sou-201911>, Accessed in (27 aug 2022).
 - Rice, C., Ragbir, N. K., Rice, S., & Barcia, G. (2020). Willingness to pay for sustainable aviation depends on ticket price, greenhouse gas reductions and gender. *Technology in Society*, 60, 101224.
 - Roland Berger. (2020). Electric flight just over the horizon, Available at: <https://www.rolandberger.com/en/Insights/Global-Topics/Electric-Propulsion/>, Accessed in (27 aug 2022).
 - Sarkar, A. (2012). Evolving Green Aviation Transport System: A Holistic Approach to Sustainable Green Market Development, *American Journal of Climate Change*, Vol.1, pp. 164-180
 - Shaw, S., Thomas, C., (2006). Discussion Note: Social and Cultural Dimensions of Air Travel Demand: Hyper-Mobility in the UK? *Journal of Sustainable Tourism* 14.2, 209-215.
 - Song, Y., Ori-McKenney, K. M., Zheng, Y., Han, C., Jan, L. Y., & Jan, Y. N. (2012). Regeneration of Drosophila sensory neuron axons and dendrites is regulated by the Akt pathway involving Pten and microRNA bantam. *Genes & development*, 26(14), 1612-1625.
 - Sveriges Riksdag. (2019). Minskning av flygets miljöpåverkan genom reduktionsplikt för flygbränsle. Stockholm, available at: https://www.riksdagen.se/sv/dokument-lagar/dokument/motion/minskning-av-flygetsmiljopaverkan_genom_H7021405, Accessed in (15 Mar 2022).
 - Szuster, D. (2019). Green Marketing, a case study of British Airways, *Worldwide Journal of Multi-disciplinary Studies*, Vol.1, pp.52-77.
 - Thomas, R. K. (2008). Health services marketing: a practitioner's guide. Springer Science & Business Media.
 - Thummala, V., & Hiremath, R. B. (2022). Green aviation in India: Airline's implementation for achieving sustainability. *Cleaner and Responsible Consumption*, 7, 100082.
 - Winter, S. R., Thropp, J. E., & Rice, S. (2019). What factors predict a consumer's support of environmental sustainability in aviation? A multi-model analysis. *International Journal of Sustainable Aviation*, 5(3), 190-204.
 - Wong, L. J., Sia, J. K. M., & Ling, T. H. Y. (2020). Airline passengers' perceived sacrifice and green practices adoption behaviours. *Asian Journal of Business Research*, 10(3), 85-110.
 - Wu, H. C., Cheng, C. C., & Ai, C. H. (2018). An empirical analysis of green switching intentions in the airline industry. *Journal of Environmental Planning and Management*, 61(8), 1438-1468.
-

تقييم ممارسات التسويق الأخضر تأثيرها على رضا عملاء مصر للطيران

المستخلص

تعد صناعة الطيران في سياق النقل مساهمًا كبيرًا في تغير المناخ العالمي، لذلك، بدأت العديد من شركات الطيران في تنفيذ استراتيجيات ومبادرات التسويق الأخضر لتعزيز الاستدامة وتقليل تأثيرها البيئي. تهدف هذا البحث إلى تقييم تأثير التسويق الأخضر على عملاء مصر للطيران، ولتحقيق ذلك استخدام هذا البحث المنهج الوصفي التحليلي باستخدام أداة الاستبيان. وكانت العينة من المسافرين في مصر للطيران (550) استبانة تم توزيع (508) استبانة صالحة فقط للمعالجة الإحصائية للبيانات. وتم تحليل نتائج الاستبانة باستخدام المنهج الوصفي، وتحليل الثبات، وتحليل المعاملات، وتحليل ارتباط بيرسون، وتوصل البحث إلى عدة نتائج أهمها؛ أن تسويق الطيران الأخضر هو أفضل وسيلة لتقليل بصمته الكربونية وتعزيز الوعي بتغير المناخ في سياق النقل المستدام؛ توجد علاقة إيجابية معنوية بين رضا المسافرين واستخدام التسويق الأخضر. ومن ثم أوصى البحث بضرورة قيام شركة مصر للطيران بتطوير التسويق الأخضر. يجب على مصر للطيران الإعلان عن تسويقهم الأخضر في موقعهم الإلكتروني ووسائل التواصل الاجتماعي. ينبغي عليهم تدريب موظفيهم على التسويق الأخضر. يتضمن تطوير التسويق الأخضر العديد من الميزات التي تعمل على زيادة عدد المسافرين وجذب الآخرين، مما يعزز رضا العملاء.

الكلمات الدالة

التسويق الأخضر،
الطيران الأخضر،
مصر للطيران،
المستهلك الأخضر،
الوقود الحيوي