ASSESSING WHETHER ENVIRONMENTAL IMPACT IS A CRITERION OF CONSUMERS WHEN SELECTING AN AIRLINE.

Jamie McLachlan¹, Kieran James² and Bonnie Hampson³.

1. University of the West of Scotland.
2. University of the West of Scotland and University of Fiji.
3. University of Southern Queensland.

Abstract

The aim of this study is to gain insight as to whether environmental impact is a criterion of consumers when actually selecting an airline. Findings indicate that cost and convenience, followed by destinations on offer and departure airports, are the key criteria for consumers in airline ticket purchasing decisions. Airlines may continue environmental activity and disclosure for long-term strategic reasons although individual ticket purchase decisions do not appear to be based primarily on environmental considerations. The research fills a gap in the U.K. empirical literature by exploring whether consumers of airlines operating out of the U.K. consider environmental impacts when making actual ticket purchase decisions.

Introduction:

Throughout the Western world, the demand for greener products and services by consumers has been accelerating for several decades. Environmental Management Accounting (EMA) has become a vital part of business in recent years because of increased public awareness of environmental issues such as climate change; pollution; and the planet’s finite energy resources. EMA entails the identification, collection, analysis, and reporting of costs and savings in relation to a company’s environmental performance (ACCA, 2015). It is largely an internal process from which both financial and non-financial information can be obtained to improve decision making and eco-efficiency (ACCA, 2015). Companies throughout the world produce reports on their environmental impact in the form of standalone environmental reports or Corporate Social Responsibility (CSR) reports or they simply incorporate the information into their regular annual reports (Hooper and Greenall, 2005). This reporting occurs in response to the apparent or claimed demand for this information by key stakeholders (Hooper and Greenall, 2005). The quality of environmental reporting has been boosted through the identification of motivations for environmental reporting, such as: the enhanced ability to track progress against specific targets; facilitating the implementation of the environmental strategy; improved all round credibility from greater transparency and reputational benefits; cost savings identification; increased efficiency; enhanced business development opportunities; and enhanced staff morale (Kolk, 1999). Interestingly, the possibility of increased sales or profitability through increased market share is not typically identified as a key motive for environmental reporting.

Despite this, the demand for greener products and services has not been high enough to counter the rising use of fossil fuels such as coal, oil, and natural gas. The volume of Carbon Dioxide (CO₂) in the atmosphere has reached a
sustained level of over 400 parts per million (ppm) (NASA, 2017). The airline industry contributes pollution in several forms including high levels of fuel consumption; noise pollution; air pollution; and waste production (Air Transport Action Group, 2002; Beeken, 2002; Clancy, 2001; Middleton and Hawkins, 1999; Penner, 1999). The aviation sector in the United Kingdom (U.K.) is reported to be responsible for approximately 1-2% of global greenhouse gas emissions and over 7% of the U.K.’s CO₂ emissions (Sustainable Aviation, 2016). Hence, there is little ignorance of the environmental problem facing the industry with recognition growing that environmental responsibility must become a core promise, alongside safety and security, offered to the increasing number of passengers that fly each year (Anonymous, 2008). To maintain this core promise, and ensure that emissions do not rise in line with business activity, the aviation industry must implement strict and comprehensive EMA techniques and provide transparency and honesty to all stakeholders through reporting of their results. Kuo et al. (2012) produce results which suggest that the third highest users of environmental reports are consumers, which implies that in the 13 years since Kolk’s (1999) study, consumer attitudes have been changing regarding CSR.

This study focuses on consumers’ real-world behaviours as reflected in their decisions to use air travel and to ascertain the importance to consumers of the environmental impact of their decisions. Consumers are allegedly becoming increasingly environmentally conscious when purchasing products and services. Consequently, it is of interest to investigate whether these attitudes are extended to the selection of an airline for actual travel. Under investigation will be consumer demand for greener airlines; criteria when selecting an airline; and whether actual behaviour in private might sometimes conflict with claimed values.

This study draws upon Legitimacy Theory (Deegan and Unerman, 2011) which states that organizations repeatedly aim to ensure that they operate within the bounds and norms of their respective societies. Legitimacy Theory is helpful as it assumes that a social contract is formed between the organization and society which incorporates the expectations of the society as to how the organization should conduct its operations. This study also utilizes Stakeholder Theory (Freeman, 2010/1984). Stakeholder Theory has relevance to this study as it identifies the stakeholders of a company and the ways in which the company can address their needs. Stakeholders are defined as those individuals and groups who can affect the achievement of the organization’s objectives, and / or are affected by the achievement of the organization’s objectives (Freeman and Reed, 1983).

The use of both these theories is beneficial to this study as there is some correlation between Stakeholder Theory and Legitimacy Theory as Gray et al. (1995, p. 52) suggest:

“It seems to us that the essential problem in the literature arises from treating each as competing theories of reporting behaviour (see, for example, Arnold, 1990; Guthrie and Parker, 1990), when ‘stakeholder theory’ and ‘legitimacy theory’ are better seen as two (overlapping) perspectives on the issue which are set within a framework of assumptions about ‘political economy’.”

The findings of this study could be vital in allowing U.K. airlines to grasp a better understanding of what consumers are looking for when selecting an airline and their perceptions of the environmental impact of air travel. A greater understanding could create opportunities to attract new customers through adapting operations to meet the consumers’ main purchasing criteria. If the study finds that environmental impact is one of the key factors influencing consumers’ flight purchase decisions then airlines could strive to become the most eco-friendly airline in the market in order to boost revenue and profitability, whilst also experiencing the other benefits this would bring. However, if the opposite is discovered, it is vital airlines continue to develop and implement eco-friendly initiatives regardless of the lack of a straight-forward business case for it.

To further our understanding, this study poses the following two research questions:

**RQ1:** What factors are important for air travel consumers in selecting an airline to fly with?

**RQ2:** How much consideration do consumers give to the environmental impact of their planned travel before making a decision?

Consumers of six airlines, operating from the U.K., were selected for this research to investigate whether environmental impact is a criterion of consumers when selecting an airline.

The remainder of this article is structured as follows. The second section provides background and historical information on the U.K. aviation industry. The third section provides a literature review of Legitimacy and
Stakeholder Theories and their application to the aviation industry. The fourth section explains the research method; whilst the fifth section details the findings of the study. The sixth and final section concludes.

Background to U.K. Aviation (Airline) Industry:-
The civil aviation industry has arguably grown to become the most popular mode of touristic transport. Tourists are using air travel more frequently to get to and from their destinations. By 2002 the average journey length on a plane had almost doubled compared to the average journey length only 20 years previously (Air Transport Action Group, 2002). According to the International Air Transport Association (IATA) (IATA, 2016), global passenger volume was estimated to reach 3.6 billion passengers in 2016 whilst Sustainable Aviation (2016) believes that we can expect a rise of 150% in air traffic between 2010 and 2050. In the U.K. alone, passenger numbers are expected to grow to 218 million over the next 20 years (ADS Group, 2015).

Six airlines, operating from or out of the U.K., were selected for this research: British Airways; EasyJet; Monarch Airlines; Ryanair; Thomas Cook Airlines; and Thomson Airways. Each of these airlines was selected on its own individual merits, but we aimed to strike a balance between full-service carriers and low-cost airlines. British Airways was selected because it is the U.K.’s flagship carrier; whilst EasyJet and Ryanair were chosen due to their prominence in the U.K. civil aviation market. Thomas Cook and Thomson are popular carriers with U.K. holiday-makers wanting to travel to warm and distant climates. Finally, Monarch was selected as the final low-cost carrier to allow for a three-versus-three comparison.

British Airways:-
British Airways (BA) is the U.K.’s traditional flagship airline, and was shaped into its current form by several mergers which took place between 1924 and 1972. Boasting a fleet size of 268, the airline travels to a total of 183 destinations worldwide. BA carried 41,255 million passengers in 2015, earning combined total revenue of £11,333 million from passenger and cargo operations and this resulted in an operating profit of £1,239 million (Statista, 2017).

BA operates under a “Responsible Flying” scheme which encompasses almost every facet of the company to ensure that airplanes are running as eco-friendly, or “responsibly”, as possible. The U.K.’s flagship carrier outlines five key commitments under this scheme (British Airways, 2017): (a) to create sustainable and responsible communities; (b) to promote well-being and inclusion; (c) to conduct business responsibly; (d) to reduce British Airways’ environmental impact; and (e) to reduce waste and improve recycling. The information available within each section is reasonably detailed, particularly under the sub-headings of (d) and (e). Section (d) contains information such as the airline’s and industry’s commitment to tackle climate change. For example, it says:

“We support a cap on emissions from 2020, with the aim of reducing net carbon dioxide emissions by 50% in 2050” (British Airways, 2017).

It also details ways in which the company aims to tackle other forms of pollution such as noise and air quality. It aims to tackle noise pollution, which greatly affects home owners near airports, by actively replacing its aging fleet of aircraft:

“From 2013 we started replacing our older aircraft with a newer fleet e.g. the Airbus A380 produces a quarter of the noise of the Boeing 747-400 it replaces” (British Airways, 2017).

BA is evidently aware of the growing pressures surrounding environmental performance from all stakeholders. In an age where news travels fast, at the push of a button, the company cannot afford to be seen lacking in this area.

EasyJet:-
Founded in 1995, EasyJet, as a low-cost airline, operates over 800 routes through 30 countries utilizing over 250 Airbus aircraft. For the year to September 2016, the company reported that profits before tax had fallen by 27.9% to £495m, despite revenues of £4.67bn and passenger numbers increasing by 6.6% to 73.1m (EasyJet, 2016). EasyJet is reported as the world’s second largest airline carrying 56,312m international passengers.
EasyJet follows a similar path to BA in experiencing significant environmental and overall efficiency gains by introducing and maintaining a new technologically advanced fleet, which will increase fuel efficiency by up to 15% against those they replace (EasyJet, 2015a).

EasyJet list six sub-sections in the Environment section of its Corporate Responsibility website: carbon emissions; climate change; local air quality and noise; emissions reduction; efficient fleet; and waste management (EasyJet, 2015b).

Monarch Airlines:
Monarch Airlines operates as a low-cost, no-frills airline in the U.K. With a fleet of around 35 aircraft flying to around 40 destinations, it is without doubt one of the smaller low-cost airlines, carrying a significantly smaller number of passengers to fewer destinations compared to its competitors EasyJet and Ryanair. In 2015, passenger numbers were 5.7m, an 18.6% decrease on the previous year when volume reached 7m. Following completion of a takeover by Greybull Capital in 2014, the airline has returned to profitability by achieving pre-tax profits of £19.2m in October 2015 (Martin, 2016).

The airline affirms its dedication to operate in a manner which has lesser impact on the environment through adding to and renewal of its fleet of aircraft; providing a full “on-board recycling” programme; and making aircraft lighter and modifying the way in which they are flown so as to reduce fuel consumption (Monarch Airlines, 2017a, 2017b, 2017c). Reducing carbon emissions is Monarch’s top environmental priority. To achieve this, Monarch is also renewing its operating fleet with the aims of improving fuel efficiency by 14% and reducing noise levels by 40% (Monarch Group, 2017a, 2017b). The delivery and operation of the new aircraft is expected to reduce total operating fuel costs by up to 25% and total maintenance costs by 80% (Monarch Group, 2016).

Monarch claims to be the first U.K. airline to initiate a full on-board recycling scheme, as well as rigorous recycling schemes for its ground operations ensuring that materials such as paper, wood, plastic, cardboard, oils, and batteries are all recycled to the greatest extent possible (Monarch Airlines, 2017c).

Ryanair:
Founded in 1984, and headquartered in Dublin in the Irish Republic, Ryanair operates as a low-cost, no-frills airline. Flights operate to and from smaller regional airports rather than to and from the larger ones due to lower landing and handling charges. By 2006, passenger numbers swelled to 42.5 million, while revenues hit €1.256 billion. Four years later, in 2010, passenger volume reached 66.5 million and by 2015 was as high as 90.6m. The airline operates over 360 Boeing 737-800 aircraft flying to 32 countries in Europe, Africa, and the Middle East. In the U.K., Ryanair carries 40 million U.K. passengers and receives 28% of its profits from its operations out of Britain (Ryanair.com, n/d).

Ryanair advertises that it leads the way on environmental performance, claiming that: “Ryanair is Europe’s greenest, cleanest airline” and that it has been independently verified as the industry leader in environmental efficiency (Ryanair, 2017). However, at the time, figures from the Environmental Assessment Agency in the Netherlands and the European Commission stated that the airline’s emissions almost equaled those of the country of Cyprus, and dwarfed those of Ethiopia (a country of 85 million people) (eTurboNews, 2013). In what appears to be an industry trend, Ryanair is also renewing its fleet thereby slicing emissions by 31% per passenger. Between 2019 and 2023, the carrier will receive 200 Boeing 737-Max-200 aircraft which will reduce fuel consumption by up to 16% and reduce operational noise emissions by up to 40% per seat (Ryanair, 2015).

Thomas Cook Airlines:
After several re-brandings, Thomas Cook Airlines has emerged recently as a popular U.K. airline for holiday-makers, as well as being the world’s largest chartered airline. The airline’s fleet comprises between 50 and 60 Boeing aircraft with most scheduled flights operating on behalf of tour operators. Destinations include countries in Africa, America, Asia, and Europe. In 2015, passenger numbers were recorded as 10.6 million, with almost 54,000 flights.

Thomas Cook Airlines details its environmental impact reduction efforts through annual Sustainability Reports published on the website of its parent group, Thomas Cook Group PLC. Furthermore, it claims to be one of the most efficient airlines in Europe, stating in both its Annual Report 2016 and its Sustainability Report 2016:
“[We had] only 74.4g CO₂ per passenger kilometre, compared with an average for the five largest European airlines of 90.11g per passenger kilometre last year” (Thomas Cook Group, 2016a, p. 27, 2016b, p. 15).

The airline states its innovation in replacing heavy paper manuals with top of the range tablets, thereby allowing data to be recorded and stored electronically, reducing the weight of the aircraft and the masses of paper used during day-to-day operations. It advertises that it has re-trained its pilots to perform emission reducing techniques such as “continuous descent approaches” (Thomson Cook Group, 2017) and “single engine taxi-in / taxiing” (Thomas Cook Group, 2016b, p. 16, 2017). Other innovative efforts are employed such as trialling different coatings and paints on the aircraft’s outer bodies, to increase aerodynamics, and modifying its current aircraft with new “winglets and sharklets” so as to improve fuel efficiency (Thomas Cook Group, 2017). Thomas Cook Airlines appears to be the only airline in our sample which is not renewing its fleet.

Our research indicates that Thomas Cook Airlines is the only airline in our sample which publishes annual Sustainability Reports containing Standard Disclosures from the GRI G4 Sustainability Reporting Guidelines. It sets out in considerable detail information across areas such as “People”, “Planet”, and “Responsible Business” (Thomas Cook Group, 2016b).

However, despite the airline’s impressive approach to management of its environmental impact, its 2016 Sustainability Report makes clear that the airline failed to curb its rising fuel efficiency metric, primarily due to a decrease in load factor. Load factor is a key performance measurement indicator used across the aviation industry; it simply assesses the average capacity at which the airline has flown. It is determined by the ratio of passenger-kilometres travelled to seat-kilometres available. Each operational airline has a “break-even load factor”, a target load factor which must be met each flight to break even (avjobs.com, 1988). The industry average in 2015 was 79.7% (IATA, 2016). Therefore, the difference between profit and loss on a single flight could be the occupation, or not, of one single seat.

Finally, the airline boasts to be the first in the UK to be awarded ISO 14001 certification back in 2010, which the company states: “…demonstrates our continuing commitment to reducing our impact on the environment” (Thomas Cook Airlines, 2017).

Thomson Airways:-
Created from a long line of predecessor airlines, the Thomson Airways brand commenced operations in November 2008. This series of events ensured Thomson Airways became the world’s largest charter airline. The airline’s fleet of between 50 and 60 Boeing aircraft operates scheduled flights for holiday makers on behalf of tour operators. Destinations include countries in Africa, America, Asia, and Europe. In 2015, passenger numbers were recorded as 10.6 million, spread over almost 54,000 flights. Its parent company, TUI Group (TUI), recorded revenue of €20,011.6 million in 2015.

Environmental information regarding Thomson Airways’ operations, located on the TUI’s website, outlines a three-step plan for implementing environmental goals: “Step lightly, make a difference and lead the way” (TUI Group, 2016a, p. 8). The company states that input from both internal and external stakeholders was the key to the creation of such a scheme and this input has allowed it to set goals for each step. “Step lightly” involves reducing the environmental impact of travel across the whole company airplane fleet and, as such, aims to “operate Europe’s most carbon-efficient airlines and reduce the carbon intensity of our operations by 10% by 2020”. “Make a difference” ensures positive changes for people and their communities, with TUI aiming to deliver 10 million greener and fairer holidays by 2020. Finally, “lead the way” involves pioneering sustainable tourism and investing €10 million per year to enhance the positive impacts of tourism (TUI Group, 2016a, p. 8).

Of TUI’s total carbon footprint, Thomson Airlines’ contribution is around 80% which reflects the true impact of their operations (TUI Group, 2016a, p. 10). The company aims to reduce these emissions through several measures such as utilizing 14 of Europe’s largest Boeing 787 Dreamliner series. Thomson Airlines claims the aircraft emits less than 20% less CO₂ per passenger (TUI Group, 2015, 2016a, p. 18) and produces up to 60% less noise. In addition to the use of state of the art aircraft, the company also focuses on environmental management techniques to reduce its carbon footprint including responsible sourcing; waste management; and the introduction of electric vehicles for its ground operations (TUI Group, 2016b).
TUI offers a rival statement to that of Thomas Cook regarding average emissions per passenger-kilometre. The airline claims to be the most carbon efficient in Europe with an average of 66g of CO₂ emitted per passenger-kilometre (TUI Group, 2015). TUI compares Thomson Airways with the four largest budget and scheduled carriers across Europe. Therefore, it is likely that Thomas Cook was not considered by Thomson Airways when drawing the comparison. However, both airlines generally agree that the industry average is between 90-96g CO₂ per passenger-kilometre. Nevertheless, it can be concluded that it is extremely difficult to gauge the true carbon impact due to the variety of ways in which emissions are measured, calculated, and presented. Further conflict can be found between Thomas Cook Airlines and Thomson Airways/TUI Group as both airlines claim to be the first U.K. airline to be awarded ISO 14001 certification. Thomas Cook claims that it was the first to be ISO certified in 2010, whilst TUI claims that Thomson Airways first became certified (in 2009). Either way, the fact that both airlines have achieved certification is a major benchmark for the both the U.K. and the global aviation industry and shows evidence that airlines are pushing as best they can to be as green as possible.

Analysis:-
In analysing the information from these six airlines operating in the U.K., it is evident that all six are taking a serious approach to reducing their role in contributing to climate change. Key trends in environmental management are identified as upgrading, renewing or replacing the airline’s fleet in its entirety; the transition to electric powered ground vehicles; and the introduction of continuous descent approaches and single-engine taxiing. However, each airline has different methods for reporting its environmental policies and objectives with some presenting information in their Annual Reports and Accounts; some in a Sustainability or Corporate Social Responsibility (CSR) report; and some on a single page on their website. Particularly, Thomson Airways and Thomas Cook Airlines appear to be the stand out disclosers; whilst Monarch appears to be lacking in some areas. Having said this, Monarch is the only airline to include a “Carbon Calculator” for its customers, whereby flight data can be entered and the customer can view details such as miles covered; CO₂ emitted; and the cost in monetary terms to cover these emissions.

Advertising of airline environmental slogans tends to be included within the “Corporate Responsibility” sections of company websites or contained in Annual Reports, rather than being presented within the Key Customer oriented area. Any analysis should be wary of interpreting this as some form of relegation of the customer focus by the airlines. Rather, it could be said they are taking eco-efficiency more seriously than ever and hence consider it to be a corporate responsibility. An alternative interpretation to be considered is that, because environmental information is included in the Corporate Responsibility section, the target audience of environmental marketing has shifted from consumers to shareholders and other stakeholders. This interpretation is supported by the following comment from EasyJet: “Everyone who has a relationship with EasyJet expects the airline to act responsibly and continue to improve” (EasyJet, 2017).

Regardless, this issue highlights the complexity for customers seeking environmental information. It also raises the question of the airlines’ true commitment to provide all stakeholders with the necessary information in easily accessible ways. There is no doubt there is a focus to provide shareholders and investors with the relevant information regarding carbon impact; however, it may be an indication that less importance is now being placed on providing consumers with the same information. The area of focus here would be providing the consumer with a cost-benefit trade-off package; great experience; and overall lasting impression. If consumers are more focused on the deals on offer by an airline rather than the environmental impact of travel then profits could increase due to a higher load factor and, with a higher load factor, other statistics would also improve.

Literature Review:-
Noting the obvious marketing of environmental information by the airlines to satisfy stakeholder information needs, we chose to frame this study by Stakeholder Theory (Freeman, 2010/1984). Stakeholder Theory, and especially its normative branch, suggests that all companies should act in the best interests of all stakeholders. By also noting that an organization will usually claim that it is operating within the bounds and norms of its society we also consider Legitimacy Theory (Deegan and Unerman, 2011). Legitimacy Theory relies upon a social contract being formed between the organization and society and this contract incorporates the expectations of society about how the organization should conduct its operations. Rather than being treated as competing theories, Gray et al. (1995, p. 52) argue that there is some correlation or overlap between Stakeholder Theory and Legitimacy Theory. Both theories, according to Gray et al. (1995, p. 52), “are better seen as two (overlapping) perspectives of the issue which are set within the framework of assumptions about ‘political economy’”. Deegan (2002, p. 295) contributes to this view by
Stakeholder Theory ensures that values and morals are applied to the management of an organization (Freeman, 2010/1984). It identifies who the stakeholders of a company are and in which ways the company can address their needs. While the definition and range of stakeholders has developed over time, Freeman and Reed (1983, p. 91) define stakeholders as: “Any identifiable group or individual who can affect the achievement of an organization’s objectives or who is affected by the achievement of an organization’s objectives”. This definition is broad and consequently has left much scope for additional theorization and research. For example, Clarkson (1995) identifies the existence of two different sets of stakeholder groups – primary and secondary. According to Clarkson (1995, p. 106), a primary stakeholder group “is one without whose continuing participation the corporation cannot survive as a going concern”. By contrast, secondary stakeholder groups are “those who influence or affect, or are influenced or affected by, the corporation, but … are not engaged in transactions with the corporation and are not essential for its survival” (Clarkson, 1995, p. 107). Typical examples of primary stakeholders are the employees, consumers, shareholders, and investors; whereas secondary stakeholders often include local communities, banks, governments, and the media. As Clarkson (1995, p. 107) further explains: “The corporation is not dependent for its survival on secondary stakeholder groups. Such groups, however, can cause significant damage to a corporation”.

Stakeholder Theory today has two distinct branches: the normative or ethical branch and the managerial or positive branch. The managerial branch of Stakeholder Theory argues that corporate management are more than likely to attend to the expectations of powerful stakeholders first. The power of a stakeholder is determined by how brutally they can exert their influence upon the company (Mitchell et al., 1997). Gray et al. (1996, p. 46) believe this managerial branch to be more “organization-centred” and as such the organization will go to greater lengths to identify stakeholders of concern and satisfy their needs for the greater good of the business. The normative branch stands in conflict with the managerial branch in that all stakeholders have the right to be treated fairly by an organization under the normative branch and issues of stakeholder power are not directly relevant. Hasnas (1998, p. 32) states:

“When viewed as a normative theory, the stakeholder theory asserts that, regardless of whether stakeholder management leads to improved financial performance, managers should manage the business for the benefit of all stakeholders.”

From the business ethics perspective we might argue that the normative branch of Stakeholder Theory is the one which should be applied because it sets the highest standard of behaviour and the widest set of obligations. However, very often in the real-world, companies strive to maximize their reported profits (as the positive accounting theory of Watts and Zimmerman (1978, 1986, 1990) has postulated) and please their most powerful stakeholders.

**Application to the Aviation Industry:**

We will now apply Legitimacy Theory to the social and environmental disclosures of the aviation industry. As the bounds and norms of legitimacy change, as dictated by society, airlines must alter the ways in which they operate or are seen to operate. The bounds and norms of legitimacy can be viewed simply as the changing expectations of society, and are also visible in community reaction to tragic events which force a company to respond. A typical response would be through increased social and environmental disclosure in order to show society that things are changing. An example of this is detailed by Vourvachis et al. (2016) who investigated whether there were any improvements or changes in disclosure following catastrophic accidents suffered by airlines. The authors found that for three events the airlines appear to have responded with considerable increases in CSR disclosure. Only one event brought no change, which the authors suggest could be due to the company’s unwillingness to accept responsibility. The increases witnessed are a result of the companies seeking re-legitimation because of recent disasters which threatened their legitimacy.

It is also clear how Stakeholder Theory can be applied. The aviation industry has an array of stakeholders, both primary and secondary, such as employees; customers; shareholders; local communities; suppliers; competitors; government; and media. Airlines owe a great deal of care to both their primary and secondary stakeholders because
of their environmental impact. There is more pressure today for airlines to be as eco-friendly and as transparent as possible. Deegan and Unerman (2011, pp.350-351) claim that all stakeholders have a right to know how a company’s operations might affect them; this is true even if they later do not use the information. Companies meet this obligation through Annual Reports, CSR Reports, and other publications like sustainability reviews. Airlines emit pollution in many forms such as air, noise, and waste. For example, home owners within proximity of an airport suffer from the emissions such as those into the air and the noise that aircraft produce, whilst overall the globe suffers due to the heat-trapping behaviour of CO\textsubscript{2} released at altitude.

Overall, the underlying factor is that the way airlines report information and go about their day-to-day business has ultimately been influenced by the predictions of Stakeholder and Legitimacy Theories. Given this, this study uses Legitimacy and Stakeholder Theories in conducting research on assessing whether the environmental impacts of airlines are important to consumers when choosing their airline for travel purposes. Research on consumers’ perceptions of the importance of environmental impacts of the various airlines, and the impact of these perceptions on ticket purchase decisions, is lacking in the literature.

**Consumer Criteria when Selecting an Airline:-**
Consumers’ behaviour is influenced by the culture that surrounds them (Bhasin, 2017), with other factors including occupation, age, lifestyle, and personality also having some impact (Rani, 2014). With regards to tourism, the natural environment; income and discretionary wealth; personal safety; and travel costs are key factors influencing consumer travel behaviour (Hall, 2005).

Prior research finds that consumers are price-sensitive when it comes to air travel and therefore they would seek to fly with the cheapest airline at those times when it was entirely their choice (Barr et al., 2010; Belyaeva, 2015; Civil Aviation Authority, 2015). Consumers of air travel are more likely to travel with the airline they feel is the cheapest and safest, not the one which is the most environmentally friendly (Belyaeva, 2015). When selecting a flight, the price is also the most decisive factor for consumers, ahead of departure airport, with only 1% of the sample stating their choice of airline was concern for the environment (Civil Aviation Authority, 2015). This adds strength to Hall’s assertion that the cost of travel is a key factor in consumer travel behaviour, along with personal safety. With this being the case, it may be suggested that passenger preferences have little effect on influencing the company or industry to change or improve their environmental management (Lynes and Dredge, 2006). Instead, findings suggest that airlines are more likely to improve environmental management systems and accounting to reduce costs and improve their corporate image.

Barr et al. (2010) provide a comprehensive insight into the minds of those who frequently travel by air. After an investigation of three “cluster groups”, two of which were considered environmentally friendly and one less so, they conclude that flying kilometres should not be reduced in any way. As such, they would rather airlines use off-setting schemes or pay higher taxes; rather than reduce their frequency of flying. Even the most environmentally friendly group felt that their desires to visit and stay in exotic locations overruled their desires to reduce their flying frequency (Barr et al., 2010). However, the study did not assess whether the subjects would use their airline choices to reduce the impact.

**Research Method:-**
This study researches how the environmental disclosure levels of six leading U.K. airlines impact (or not) upon consumers’ actual air-travel choices. The study also investigates whether there is a correlation between high levels of disclosure and customer satisfaction.

To answer the research questions, data was gathered using a Likert-scale questionnaire containing 19 questions, using a five-point scale, ranging from “strongly agree” to “strongly disagree”. The use of the Likert scale allows different degrees of opinion to be gathered, although these can be subject to some inaccuracies due to social desirability, that is, the urge of participants to paint themselves in a positive light (McLeod, 2008). To limit this risk, full anonymity was guaranteed to participants. The essential distinguishing characteristic of using questionnaires as a research method is that they are designed to be completed without any direct interaction with the researcher, either in person or remotely (Rowley, 2014). The questionnaire was designed to determine clearly whether consumers of air travel were environmentally conscious *when making actual purchase decisions* and, if not, to clearly establish the most important factor(s) behind the decisions.
The questionnaire was distributed randomly to a total of 96 individuals, with a response rate of 73.96% or 71 participants. Of the 71 responses, 24 responses were recorded on paper whilst the remainder were provided online through data collecting software Qualtrics.

The questionnaire contained 19 questions in total, of which three were demographically orientated. The remaining 15 questions aimed to directly answer the research questions. To answer RQ1 – “What factors are important for air travel consumers in selecting an airline to fly with?” respondents were asked to identify their choice of airline; to determine the criteria they used in choosing an airline for travel purposes; and to offer their opinion as to the relative importance they placed upon each criterion. To answer RQ2 – “How much consideration do consumers give to the environmental impact of their planned travel before making a decision?” respondents’ opinions were sought in relation to their awareness and perceptions of airlines’ environmental schemes and environmental performance; and the relative importance respondents placed on airlines’ environmental schemes.

Data selected from the questionnaires were also supported by secondary data gathered through accessing the various websites of the airlines for background information, including financial data and annual passenger volumes as well information on environmental schemes.

The choice of the research method provided sufficient evidence to draw the conclusions outlined in the final section of this article. The questionnaire provided clear and unambiguous results about consumers’ criteria for selecting airlines and the relative importance or unimportance of environmental impacts when so doing.

Research Findings:-
Questionnaires were used to determine whether the environmental disclosure levels of six leading U.K. airlines impacted upon consumers’ actual ticket purchase decisions. There was a good demographic mix of questionnaire respondents. Of the 71 respondents, 35 were male and 36 were female, with 54.93% aged between 16 and 24 years, and only two respondents over the age of 55 years. Over 50% of respondents reported that they would continue to travel by air over the next 50 years. Given the youthfulness of participants, results likely represent the views of the aviation industry’s future consumers. Hence their opinions are likely to be highly valued by airlines. However, it should be noted that consumer habits are observed to change over time. For example, in the U.S.A., 73% of consumers were reported to be more concerned about the food they consume than they were five years previously due to greater knowledge of production processes and overall food safety (Elhadad, 2014). Therefore, regular study of current consumer trends is essential for businesses going forward. Whilst being regular fliers, 84.51% of respondents reported that they were most likely to fly solely for pleasure such as going on holiday, with the remainder reporting that they were likely to travel for both business and pleasure.

Respondents were largely engaged in employment or were full-time students. Only four respondents classed themselves differently, while one preferred not to declare her / his status. Of the respondents who were engaged in employment and subsequently enjoying higher levels of income than students, it could be expected that these individuals may have a lower sensitivity to higher prices for air travel from full-service carriers such as British Airways. However, data intended to answer RQ1 (Table 1) indicates that 15 of 25 respondents who were employed full-time indicated low-cost flights as the main reason they chose to travel with their last airline. Furthermore, 32 respondents who identified themselves as either engaging in part-time employment or full-time education opted for low-cost flights, providing a conclusion that levels of disposable income do not create the desire for consumers to
spend more on full-service carriers. Many would still rather fly with low-cost carriers such as Ryanair and EasyJet. This is given weight by the fact that 20 of 25 respondents in full-time employment have flown with Ryanair in the past or are booked to fly with the airline in the future. Fifteen (15) respondents from this group had also booked previously or plan to book in the future with EasyJet. Only 11 respondents reported to have done so with British Airways (Table 2).

The most important factor, undoubtedly, for consumers is the cost of air travel and being able to save as much money as possible in this area (Table 3). It could even be said that consumers are happy to sacrifice excellent customer service and their own safety in exchange for cheap flights. This is likely to be a result of the overall costs involved in travelling abroad on holiday such as accommodation, spending-money, and VISA fees. However, it could be said that naturally human beings seek the cheapest option when buying any product or service.

For the testing of RQ2, detailed respondents’ views were sought in relation to their awareness of airline environmental information, and the perceived importance of airlines’ environmental schemes for their actual decisions.

As a starting point, respondents were asked to rank themselves in terms of their views about the environmental impacts of air travel. Three respondents ranked themselves as entirely friendly; whilst 25 and 30 respondents reported themselves to be, respectively, mostly friendly and neither friendly nor unfriendly. Thirteen (13) respondents claimed to be mostly unfriendly or entirely unfriendly.

Respondents were asked to indicate the degree to which they were aware of the impacts that the airline industry has on the environment, including global warming (Table 4). Twenty-six (26) said that they “probably” knew; whilst only 11 said they “definitely” claimed to have knowledge of how aviation impacts the environment. Respondents were also asked whether the airlines’ environmental performance information was easy to access (Table 5). Only 14 respondents believed it was extremely easy or somewhat easy. Thirty (30) respondents believed it was neither easy nor difficult whilst 26 said it was somewhat difficult.
A review of industry literature produced no evidence to suggest that low-cost carriers have a higher environmental impact than full-service carriers. However, various airlines employ techniques to combat rising emissions through voluntary carbon-offsetting schemes and Air Passenger Duty (APD). Carbon-offsetting schemes are schemes under which travellers can pay money to offset their emissions. The total cost is calculated through miles travelled and the volume of CO₂ the miles travelled are expected to generate. Money raised is donated to green projects such as the mass planting of trees which are huge carbon absorbers. Of the airlines studied, only Monarch made available a carbon calculator where air travellers could manually insert information and produce the monetary value required to offset the footprint of their flight. BA introduced a donation scheme which contributes primarily to U.K. projects. The minimum donation is £1 with £5, £10, and manual options also being available. These options are prompted during the ticket purchasing process as an added extra. Such schemes are voluntary schemes which consumers may choose to participate in.

Respondents were quizzed on this aspect to ascertain their knowledge of such schemes. As shown in Table 6, 37 respondents reported that they possessed no knowledge of carbon-offsetting schemes. This result highlights the consumers’ gap in knowledge about the environmental schemes of airlines. Furthermore, when respondents were asked whether an increase in APD or some other form of tax or duty would cause them to consider other means of transport to reach their travel destination, the responses were an overwhelming “Definitely Yes” or “Probably Yes” (Table 7).
These results support the assertion that consumers of air travel are simply price-sensitive when selecting flights. Therefore, the environmental impact of travel is not a criterion of consumers when selecting an airline. Results clearly indicate a clear demand by consumers for low-cost air travel and, as a result, consumers appear content to sacrifice lower environmental impact despite reporting their awareness of how the aviation industry impacts upon the environment. Research results indicate a wide knowledge gap amongst participants about the various environmentally friendly schemes offered by the various airlines.

Not surprisingly, consumers of air travel are highly influenced by the price of flights and much less influenced by the reputation of the airline or the environmental impact of the airline. These results add weight to the findings reported by Barr et al. (2010); Belyaeva (2015); and Civil Aviation Authority (2015).

The results of this research might raise questions as to why airlines continue to implement environmental practices if few consumers allow environmental aspects to influence their actual ticket purchasing decisions. Regardless of these results, there are many benefits to adhering to strict environmental practices, polices, and benchmarks. Benefits such as cost savings, performance enhancement, and improvements in fleet life-cycle can be achieved along with higher shareholder and stakeholder satisfaction and legitimacy. Reductions in costs and expenses are especially important as these savings boost profitability and therefore could attract new investment in the company. From an environmental perspective, enhanced staff training may make staff more aware when it comes to waste management and recycling practices, leading to more recycled waste and lower wastage costs. It is expected that such results would directly impact upon customer satisfaction, thereby leading to growing revenues and profitability potentially leading to a greater market share within the airline industry. Therefore, by implementing, improving, and maintaining environmental practices and policies which produce cost savings and increased profitability, airlines are maximizing shareholders’ wealth.

Strict environmental practices and developments can also ensure improved flying performance. Developing and adhering to procedures such as new and more direct fly routes; adopting continuous descent operations; and single engine taxiing all produce varying benefits such as increased fuel efficiency; lower fuel costs; lower carbon emissions; lower noise pollution; and increases in legitimacy in society.
Increasing and maintaining legitimacy is vital for airlines given the ways in which airlines impact the environment and society in general. As dictated by Legitimacy Theory, companies will strive to ensure their activities are seen to be legitimate within society. Airlines’ actions such as reducing their carbon footprint and sympathizing and liaising with home owners close to runways and directly below approach flight paths are examples of actions designed to secure legitimacy. Mathews (1993, p. 26) states that society provides businesses with “legal standing and attributes” as well as the “authority to own and use natural resources and to hire employees”. Therefore, if an airline is not seen by society as being legitimate, then it might well lose its right to these resources. Companies with a bad reputation are viewed negatively by all aspects of society such as job-seekers who would most likely not want to be associated with a company viewed in such a negative light.

For space reasons the interviews we conducted with two of our study’s questionnaire respondents are not reported here. They basically confirm the questionnaire results.

Conclusion:-
This study examines the preferences of consumers when actually selecting an airline to establish whether the environmental impacts of airlines are considered when making their real-world purchase decisions.

Both primary and secondary data were collected to ensure a well-informed study. Primary methods included both a questionnaire which received 71 responses, of which 46 were received electronically and 24 by paper. Secondary data was collected using the Annual Reports of the six leading U.K. airlines, along with Corporate Social Responsibility and Sustainability reports to assess what airlines were currently doing to combat rising industry emissions.

There has been little research on consumer criteria when actually selecting an airline. Much of the research has been conducted overseas with prominent studies having been conducted in Russia (see, for example, Belyaeva, 2015) and Sweden (see, for example, Lynes and Dredge, 2006). However, we are not aware of any published research article which has studied the consideration placed by consumers upon environmental impacts of airlines. Nor has extant research endeavoured to establish an understanding of consumers’ opinions in this area. This study aimed to do that through identifying the key factors for consumers when making choices about airline travel and pin-pointing the importance, or otherwise, of the environmental impacts in these choices.

Respondents to the questionnaire answered 19 questions using a five-point Likert scale, ranging from “strongly agree” to “strongly disagree”. Respondents were asked to rank seven factors in order of importance to them when booking an airline ticket: cost of flights; customer service; destinations on offer; departure airports; environmental impacts; reputation; and safety record.

Analysis of the data obtained from these answers provided conclusive evidence that there is significant demand from consumers of U.K. airlines for low-cost air travel. Forty-seven (47) out of 71 respondents ranked cost of flights as the most important factor for them when selecting an airline; whilst 31 of 71 ranked environmental impact as the least important factor and a further 17 regarded it as the second least important.

Several potential reasons may be offered for our results. It is a crucial aspect of human nature to seek out the best deal to allow as small an impact on disposable income as possible. Another possible reason may be that consumers consider that air travel forms a significant cost of holiday or travel expenses which they can minimize through the use of low-cost services such as those provided by Ryanair, EasyJet, and Monarch. Finally, consumers may have little appetite for the added extras, such as in-flight entertainment, meals or the supply of pillows and blankets that full-service carriers such as BA offer. While consumers may desire these added extras on long-haul flights, it may be that, for the typical holiday flight from the U.K. to the Czech Republic, Italy, Portugal or Spain, consumers prefer low-cost, no-frills flights.

Our results show that consumers of air travel show disregard for the environmental impacts of their chosen airlines. This is despite respondents’ reports that they are knowledgeable about the environmental impacts of the aviation industry. Care should be taken in interpreting these results as apparent internal inconsistencies in responses across questions were observed. For example, 38.08% of respondents claimed that an airline’s environmental impact was important to them; with 56.3% reporting they were “probably not” or “definitely” not aware of such impacts. By contrast, 52.1% of respondents reported that they “definitely” or “probably” knew how the aviation industry
contributed to global warming (which is supposed to be a sub-set of total environmental impacts). This apparent inconsistency offers potential for future research.

Despite our results there are most probably benefits that accrue to airlines which continue to strive for environmental excellence. Ensuring strict environmental governance practices and enhanced performance and results will produce cost savings through increased fuel efficiency; lower airport fees; and the reduction of risk of government fines. Constant reduction of environmental impacts could also lead to worldwide recognition and awards and therefore a greater reputation. Furthermore (consistent with Legitimacy Theory and Stakeholder Theory), maintaining legitimacy and respecting the social contract are essential for airlines due to the impact that airlines can have from emitting greenhouse gases and excessive noise pollution. By striving to keep these low, and publishing their efforts and collected data to prove this, an airline will maintain its legitimacy and resources to operate in society.

Therefore, despite air-travel consumers maintaining a strong focus on low-cost air travel, airlines should not let this deter them from aiming at environmental excellence. Instead, they should be encouraged to continue to set environmental goals as this can reduce costs and improve image and legitimacy, which will allow them to provide lower-cost flights to both new and existing consumers.

References: