Master Thesis

Understanding the Ugandans’ Perceptions of Climate Change originating from Air Transport Carbon Emissions

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Abstract

It is undisputable that tourism has grown since the last decades and is the main source of foreign exchange for many developing markets. This growth is attributed to the technological advancement in the aviation industry which has eased transportation from one region to another. However, tourism contribution to carbon dioxide emissions through air transport is alarming with the sector contributing 40% of the overall carbon print in that if immediate remedies are not undertaken the earth system may go in a state where it may never recover and yet these remedies need to be undertaken by all global citizens. The aim of the thesis was to understand Ugandans’ perceptions concerning climate change originating from air transport carbon emissions. Qualitative research method was employed and open ended interviews were used. Thirty respondents were purposively sampled consisting of five categories. The findings revealed that the interviewed Ugandans have little knowledge about climate change originating from air travel and also possessed negative attitudes concerning reducing their air travel reductions in order to mitigate climate change moreover these were also enhanced by unrealistic cultural values. Therefore, if any tangible reduction is to be achieved in climate change emanating from aviation industry in Uganda there is need for realistic measures from both the governments and aviation sector so as to encourage individual behavioral changes.

Keywords: Climate Change, Knowledge, Air transport, Cultural Values, Behavioral Change and Attitudes.
# Table of Contents

Acknowledgement ............................................................................................................. ii
Abstract ................................................................................................................................. iii
1.0 Introduction .................................................................................................................... 1
   1.1 Research Gap ............................................................................................................. 2
   1.2 Purpose of the study ................................................................................................. 2
2.0 Literature Review .......................................................................................................... 3
   2.1 Tourism and climate change .................................................................................... 3
   2.2 Knowledge and Awareness ...................................................................................... 4
   2.3 Attitudes of Airline Travelers .................................................................................. 7
   2.3 Cultural Values ........................................................................................................ 10
   2.4 Pro-environmental behavior in air transport .......................................................... 12
3.1 Conceptual Framework ............................................................................................... 16
   3.2 Proposed Model of Ugandans perceptions towards Air Travel .............................. 17
4.0 Methodology ................................................................................................................ 19
   4.1 Methodological Positioning .................................................................................... 20
   4.2 Research Method ..................................................................................................... 20
   4.3 Data collection ......................................................................................................... 21
      4.3.1 Process of Data Collection .............................................................................. 22
   4.4 Study population and Sample size ......................................................................... 22
   4.5 Data analysis ........................................................................................................... 23
      4.5.1 Process of Data Analysis ................................................................................ 24
   4.6 Trustworthiness ....................................................................................................... 24
   4.7 Ethical Considerations ............................................................................................ 25
5.0 Results and Discussion ............................................................................................... 25
   5.1 First theme: Ugandans Knowledge and Awareness ............................................... 26
   5.2 Second theme: Feelings and perceptions of Ugandans ........................................... 29
   5.3 Third Theme: Ugandans and their cultural values .................................................. 32
6.0 Conclusions ................................................................................................................ 35
7.0 Limitations and Future Studies ................................................................................... 36
8.0 References .................................................................................................................. 37
9.0 Appendix .................................................................................................................... 45
   9.1 Interview Guide ....................................................................................................... 45
1.0 Introduction

The increased human activities and the accelerated use of fossils fuels has destabilized the earth by contributing to climate change and irreversible changes to the ecological systems of biodiversity (Hall, 2015). Steffen et al., (2015) identified nine thresholds in the planetary boundaries that should not be crossed or otherwise the earth would be in danger. Fanning and O’Neill, (2016) show however that the three of these thresholds have already crossed the boundaries i.e. climate change, biodiversity loss and biochemical flows. It becomes imperative, therefore, that sustainable measures are implemented to regulate damaging human activities. Otherwise the planet is likely to shift into an undesirable state from which it and may never recover because the earth system is complex and interlinked in that transgression of any boundary at the local level eventually affects the entire globe (Lovelock, 2014).

Among a number of harmful activities, air travel contributes to about 40% of all tourism carbon gas emissions via fossil fuel usage which consecutively changes the global climate (Bows, Anderson, & Peeters, 2009). Gossling and Peeters (2007) found that a holiday involving air transport contributes between 60 – 90% to global warming, while Peeters, Szimba and Duijnsveld (2007) estimated that air travel within European Union was responsible for 70-80% of overall tourism emissions. Then a few years later Peeters & Dubois (2010) found out that air transport accounted for 72% of total carbon emissions from the tourism sector worldwide. Nevertheless, some difference in estimations, one can conclude that air travel is one of the major contributors to climate change.

The continuous growth of air travel should therefore be of concern to people and governments and yet the aviation sector is adamant and lacks a systematic approach or a plan on how the problem can be handled (Scott, Hall, & Gössling, 2016). In the meantime UNWTO (2016) forecasts that international tourism will reach 1.8 billion by 2030 compared to 1,235 million in 2016. Moreover one long haul return flight records a percentage higher than individual total domestic annual per capita CO2 emissions (Gössling, Haglund, Kallgren, Revahl, & Hultman, 2009).

Given the growing economy and increasing wealth among affluent Africans (McMichael, Barnett & McMichael, 2012), the United Nations World Tourism Organization (2011) estimated that the future outbound tourism will come from emerging markets and will be dominated by air travel. This fact simply translates into increasing air travel from those environmentally sensitive regions.

Air travel needs to be handled as a critical issue for the sake of the future of human species because its effects on climate change are likely to be irreversible which will eventually lead to wars especially in Africa (Scheffran & Battaglini, 2011), loss of species (Hall, 2010) and eventual extinction of human race (Latour, 2014). Emerging tourism markets such as many countries in Africa are increasing their air traffic despite being highly vulnerable to climate change (Nath & Behera, 2011). Much as anticipation of new aircraft engine technologies to reduce emissions are under way, they are not feasible in terms of real impact on emissions reduction by 2050 (Pennel, Lister, Griggs, Dokken, & McFarland, 1999).

In an attempt to offer more relevant approach some scholars have proposed that the immediate solution to carbon emissions from the air sector is change in consumer attitudes and behaviours (Chapman, 2007; Gossling & Peeters, 2007; Hall, 2011). This change of
attitudes needs to happen within the travel community if meaningful carbon emissions reduction is to be realized (Dillimono & Dickinson, 2015).

1.1 Research Gap
While fair amount of research has been published linking tourism, air transport and climate change (e.g. Dickinson, Robbins & Lumsdon, 2010; Randles & Mander, 2009; Cohen & Higham, 2011; Cohen, Higham, & Cavaliere, 2011; Gossling & Peeters, 2007; Gössling et al., 2007; Kempton, 1997), these studies tend to neglect the situation in emerging markets and potential impact of the outbound travel from those regions. In other words there is a substantial knowledge gap concerning emerging markets regarding air travel patterns and attitudes towards emissions (Higham, Cohen, Peeters & Gossling, 2013; Dillimono & Dickinson, 2015). This gap can be related to the general perception that populations of emerging markets rarely use air transport (Chambwera & Stage, 2010). This is however a misleading conclusion because the members of business class, academics and middle class from these emerging markets take more than three long haul flights each year (Heinz & O’Connell, 2013).

Uganda is an emerging market with increasing air traffic. The country is a landlocked country and air transport is of strategic importance to the nation since it acts as a gateway to the rest of the world (Civil Aviation, 2011). Uganda had suffered instability in the 1970s but the country has been politically stable since the early 1980s under the leadership of President Yoweri Museveni (Kreimer, Collier, Scott, & Margaret, 2000). There is economic development taking place across the country and has capacitated Ugandans to travel abroad for business and tourism purposes (Opolot, 2006). Likewise, the country’s airline market has been steadily growing since 1990s with expansion of the dominant airlines like Emirates, KLM, Turkish airline as well as the entry of new airlines like Qatar Air and Fly Dubai airline (Hussain, Nasser, & Hussain, 2015). Given the profit-making disposition of airlines, business would not expand routes to Uganda if it wasn’t booming. For instance in 2016 the country’s GDP was at 25.63 billion US dollars (Namukasa, 2013).

Most recently China has eased business ventures for developing countries because of it affordable goods for the developing markets (Yeebo, 2013) in that some businessmen from Uganda take up two trips every month to China. These trips are usually long haul and therefore have a greater contribution to carbon emissions comparable to ten short haul trips of six customers from Europe (Mckercher, Prideaux, Cheung & Law, 2010). Besides that most residents of Uganda tend to visit religious sites (in masses up to 600 people per group) in Israel and Mecca which are all long haul trips and are therefore dangerous to the environment (Asamoah-Gyadu, 2016). Moreover the country is still under developed and therefore depends heavily on developed countries for quality trainings for instance Makerere University one of the biggest universities in Uganda usually sends faculty members abroad for further trainings (Makerere University, 2012). This all shows that the region is likely to make significant contribution to carbon emissions.

1.2 Purpose of the study
Despite Uganda’s growing economy and air transport market, research has not taken into consideration the consequence of increasing air travel in East African region. Scarcity of knowledge about the potential contribution of emerging markets to air traffic in general was noted during the Freiburg 2012 workshop by Higham et al. (2013) that “lines of inquiry need to be extended to the emergent middle world regions where rapidly expanding middle classes
are fueling increases in aero-consumption”. (pg. 962) Likewise, attitudes, cultural values and knowledge within the population relate to the people’s behaviors need to be understood in order to effectively encourage pro-environmental choices among the travelers from Uganda.

Given the scarcity of research and limited knowledge how travelers from Uganda relate to air travel, this thesis project aims to gain a better understanding of how Ugandan travelers feel and think about air transport and its overall effect on climate change.

The following research objectives were undertaken to achieve the aforementioned aim of this project:

1. To investigate how climate change knowledge and awareness shape Ugandans travel patterns.
2. To learn how the understanding about the dangers of air transport towards global climate change relates to attitudes of air transport travelers from Uganda.
3. To understand how Ugandan culture relates to Ugandans travel choices (air travel).

2.0 Literature Review

In this chapter the issue of climate change and tourism is presented followed by a comprehensive evaluation of previous scholars on four concepts that are the basis of this research that is knowledge, values, attitudes and pro environmental behaviours and air travel.

2.1 Tourism and climate change

The United Nations Tourism Organization (UNWTO, 1995) defined tourism as the actions which people are involved in places outside their home for less than a year for business, leisure and other purposes. The definition therefore includes everybody who travels and that is why it is a remarkable theme. Furthermore UNWTO (2010) defined a tourist as a person who leaves their usual home to visit a destination for less than a year for any reason such as holiday, recreation, business, health and other purposes. This definition encompasses a wide inclusion of travel typologies than the usual definitions of tourists which includes only people travelling for leisure purposes.

Different scholars define tourists differently but this study adopted the above UNWTO definition when referring to tourists or travelers which encompasses all people who travel for holidays, leisure, business and education purposes. Most studies on climate change and tourism tend to exclude business travelers from their equations (Mayor & Tol, 2008, Randles & Mander, 2009) yet tourism includes any person staying in a place which is not their usual residence for business, leisure and other purposes for less than a year. Brouwer, Brander, & Beukering (2008) research on Schiphol airport found out that of the 400 participants interviewed 40% of them travelled for business purposes and the rest travelled for leisure or the combination of both.

Whereas research by Dillimono & Dickinson (2015) revealed that middle class people and public servants in developing countries use a lot air travel as a mode of transportation and yet the trips taken are more grievous to the environment because of their long hauliness. Moreover Randles & Mander (2009) research on frequent flyers excluded business travelers but later discovered in the interviews that it was hard to distinguish between leisure and business trips because most travelers combined both.
Tourism is among the fastest growing industries in the world (Hall, 2015). Tourism and climate change have a very close relationship equated to siamese twins (Hoyer, 2000) in that change in climate brings about grievous effect on tourism destinations (Koenig & Abegg, 2010). What should be noted is that the effect of climate change on tourism is not one way in that the latter affects the former through huge contributions of carbon emissions (Gossling & Buckley, 2016). Tourism industry relies heavily on energy use and therefore the sector contributes 40% of carbon emissions through air travel (Becken, 2007).

UNWTO recognizes the relationship of climate change and tourism and therefore periodically organizes conferences and workshops on how to mitigate carbon emissions arising from tourism (UNWTO, 2016). Gossling & Peeters, (2007) found out in their research that a holiday involving air transport contributes between 60 – 90% to global warming while Peeters, Szimba & Duijnisveld (2007) also estimated that air travel in the European countries was responsible for 70-80% of overall tourism emissions in the European union. Then a few years later Peeters & Dubois (2010) found out that air transport accounted for 72% of carbon emissions from the tourism sector. The projected growth of air travel is of concern and yet there is miniate hope of the tourism industry growth reduction (Becken, 2007).

Globally air travel grows at a rate of 5-6% and is predicted to grow at a rate of 5% upward up to 2020 (Gossling & Peeters, 2007) as had earlier been evidenced by Annabel, Lane, & Kelay (2006) review which revealed that CO2 emissions from air transport between 1990 to 2050 would be between 400-1000% an indication that the emissions could rise more than 15% of the overall CO2 emissions. Recent research by Gossling & Peeters (2015) reveals that the global tourism system may need about c.16,700PJ of energy which would eventually deliver 1.12Gt CO2 confirming the above predictions. More to that carbon emissions from the aviation sector have continued to growth exceedingly due to the lack of commitment by the aviation sector which is adamant and doesn’t show any concern concerning what is happening in terms of climate change caused by carbon emissions and lacks a systematic approach and plan on how the problem can be handled and solved (Scott et al., 2016).

2.2 Knowledge and Awareness
Knowledge is the core foundation in which a person’s attitudes, perceptions and norms of possibilities to action are monitored to identify and decide between behavioral alternatives (Kaiser & Fuhrer, 2003). The Intergovernmental Panel on Climate Change (IPCC, 2007) recognized that there is an increasing acceptance of the climate change threat to people’s livelihoods and therefore argued that informing the public about the causes and its overall impacts of climate change is vital prerequisite for the public to alter their activities in order to curb climate change. The Department of Environment, Food and Rural Affairs (DEFRA, 2007) research also showed that public knowledge concerning climate change has improved over the years in that, in England only 1% of the entire public had not heard of climate change or global warming as some people referred to that phenomenon. Moreover a notion that global warming was a result of human induced activities was generally acceptance within the UK and USA. When prompted most respondents were able to point out the following causes i.e. destruction of forests, carbon emissions from transport and power station, a preposition that clearly indicates climate change awareness has increased (Hinds, Carmichael & Snowling, 2002).
However Norton and Leaman (2004) noted that when people were not provided with the checklist of the likely causes, their understanding of climate change causes tended to be limited. For instance 30% of British people pointed out carbon emissions as the main gas contributing directly to climate change while 18% from the USA acknowledged burning of fossils fuels as a cause of climate change. It is of concern how the public interprets these concepts of global warming and climate change because most surveys conducted concerning public attitudes and knowledge are usually based on climate change (Bibblings, 2004) while others use global warming (Norton & Leaman, 2004). Given the ambiguity of the meaning Poortinga, Pidgeon, and Lorenzoni (2006) combined the concepts of climate change and global warming to understand people’s attitudes and knowledge.

Corbett & Durfee (2004) found that even the media which is a big influence to people’s knowledge and awareness was using the two terms interchangeably. The distinction between the two concepts is important, because awareness and knowledge are likely to differ depending on the terminology used (Whitmarsh, 2009). Norton and Leaman (2004) explained that respondents tend to know the concept of global warming more than climate change and that the choice of terms can influences how the public evaluates climate change.

Hinds et al., (2002) research showed that there is a great familiarity among UK and USA citizens concerning global warming, climate change and greenhouse effect in that 99% pointed out that they have heard at least one of the above three terminologies, whereas climate change alone was acknowledged by 78%. Hangreaves, Lewis, and Speers (2003) noted that there was a low understanding of the general causes of global warming as people could not easily attribute it to their daily choices of their life activities and tended to blame it on big industries. Moreover, Whitmarsh (2009) found that people attributed global warming to human activities and also linked it to ozone depletion, greenhouse effect such as temperature increase and melting glaciers, whereas climate change was attributed to natural causes. In consequence, global warming attracted a lot more attention than climate change in which most respondents perceived that there wasn’t much that could be done since it is caused by natural processes.

However according to Boykoff and Boykoff (2004) low knowledge definitely influences individual behaviors negatively. For instance the journalist norm of balance had contributed to the low knowledge of climate change in the USA prestigious press in that they assume that climate change is not wholly due to human activities origins a preposition that was also found out by Corbett and Durfee (2004) that there is a growing number of opponents from the population because of the media generated image of uncertainty that climate change is not due to anthropogenic causes but an exaggeration of scientists.

Research by Patt and Dessai (2005) also shows uncertainty exists in the minds of people concerning climate change in that they perceive it as an issue exaggerated by scientists. The situation is even made worse by the media who most of the times are not in support of climate change phenomenon. And yet tourists perceptions and behavior are heavily influenced by media in that any reliable information by media maybe taken wholly as truth (Gossling et.al., 2012). The situation is further deteriorated by the green wash fatigue whereby people are not willing to give up their conservation habits claiming that their personal contribution cannot do much because anyway the majority of people are practicing unsustainable practices (Mckercher et al., 2010).
Annabel et al., (2006) research revealed that the UK residents recognized climate change concept but only a third of the population agreed that air transport was the main cause of climate change and this to some extent explains air transport continued growth among UK residents for the last decades. This perspective is in alignment with Gössling's et al (2006) or Shaw and Thomas's (2006) research where the respondents acknowledged climate change problem and attributed it to other aspects such as waste and land development but not to their travel behaviors. Only a small portion of 17% of holidaying tourists in Zanzibar in Gössling's et al.,(2006) study attributed climate change to greenhouse gases emanating from air transport.

Much as climate change awareness has increased in developed economies (Cohen, Higham, Gossling & Eijgelaar, 2016), levels of scientific knowledge discourse about climate change tend to vary between emerging markets and developed economies. For instance research by Akpan, Anorue and Ukonu (2012) found out that Nigerians interviewed had a poor reading culture and therefore have little knowledge about climate change. Moreover many of the interviewees indicated that much as they experienced problems such as pollution and gas flaring they didn’t relate them to climate change, while they acknowledged oil pollution through gas flaring they didn’t think that there was anything they could do about it because of their perception that it was due to the acts of nature. However, respondents who reported awareness of and knowledge of climate change attributed it to the ozone depletion and improper disposal of waste material but didn’t link it to CO2 emissions(Akpan et al., 2012).

In a study conducted among UK residents Annabel et al., (2006) found 29% of respondents still held a few misconceptions that climate change was caused by a hole in the ozone layer indicating that a small percentage tend to be confused about the real cause of climate change. Similar research in UK by Cohen and Higham (2011) learned that even though respondents were aware of climate change emanating from air transport, they were not willing to halt their trips all in the name of mitigating climate change.

Related attitudes were also present among the respondents in the study conducted in Australia and New Zealand showed that respondents demonstrated knowledge about climate change but were unwilling to change their habits (Becken,2004). Dickinson, Robbins, Filimonau, Hares, & Mika (2013) conducted similar study in Poland and found that Polish respondents had understanding of climate change but stressed that the effect of air transport was exaggerated.

Similar issue was also found by Cohen and Higham (2011) were respondents suggested that if climate change was a critical issue it would have attracted a lot of publicity in the media indicating that media coverage was important in impacting people’s perceptions, attitudes and behaviours. Moreover Cohen and Higham (2011) research further revealed that consumers awareness and concern over air travel contribution to high carbon emissions has increased but most people were not willing to completely leave air travel, instead the solution could be to reduce the number of flights signifying slow but gradual change of social norms in developed economies.

Recent research by Higham, Cohen, Cavaliere, Reis, & Finkler (2016) revealed that much as people were aware of climate change they tended to report that limited infrastructures was making it hard for them to change their travel behaviours in that air transport between European countries was cheaper than trains which are generous to the environment and therefore proposed that governments need to subsidize train fares to encourage change in
consumption patterns. Similar conclusion was also made by Cohen et al., (2016) in which they suggested that much as people have climate change knowledge they were restricted by lack of systems provisions to choose alternatives to air travel.

As concluded at the 2014 Freiburg conference in Germany not only does consumers behaviors need to change but also those of policy makers and industry stakeholders in order to bridge the science policy gap which tends to be wide in that policy makers tend not to accept the science discoveries concerning climate change climate change and its future effect on the earth’s systems. In conclusion past studies have noted that much as consumers have knowledge about climate change but are not willing to change their attitudes and behaviours voluntarily.

2.3 Attitudes of Airline Travelers
Kollmus and Agyeman (2002) define altitudes as a lasting feeling about an object, person or issue and which can either be positive or negative while Reisinger and Turner (2003) explain it as a representation of thinking and acting in a way towards an object, person and usually based on experience gained through learning and acquisition of knowledge. Eagly and Chaiken (1993) elaborates that attitudes are judgments to an object or aspect which may either be positive or negative and Fishbein and Ajzen (2010) point out attitudes play a vital role in influencing people’s behaviours. Moreover Myers (1980) had earlier pointed out that attitudes are, “a favorable or unfavorable evaluative reactions towards something or someone, exhibited in one’s beliefs, feelings or intended behavior”

Becken’s (2007) research shows a clear relationship between attitudes and behaviours whereby unfavorable attitudes negatively influence pro environmental behaviours. This is in line with Cohen and Higham (2011) research which revealed that individuals with positive environmental attitudes were willing to change their travel behaviours in order to mitigate climate change than those with negative attitudes as they portrayed “I don’t care” attitudes. One notably reason that limited attitude change pointed out by Mckercher, Prideaux, Cheung, & Law (2010) research revealed that people lived in denial and had a perception that their individual behavioral change would not achieve much in terms of climate change phenomenon. More to that Cohen and Higham (2011) revealed that people claimed that they were practicing positive environmental behaviours in other areas (i.e. home, use of bicycles) and therefore didn’t want to be interfered concerning their freedom of flying.

Research by Wymer (2010) as well as Burns and Cowlishaw (2014) revealed that the public perceive that airlines already have measures of climate change and therefore they do not need to input their individual effort towards the same cause whereby a good scenario is usually portrayed by airlines in that they are defensive and don’t communicate to customers what is really happening and at times give false information that they are using bio fuels which is not the case in other wards they use a lot of green washing. Air travel attitudinal change may be difficult because of the consumer’s belief that it is their right to travel even to the extent that even environmentally sensitive tourists may not be willing to alter their travel pattern (Gossling et al., 2013). The benefit delivered from travelling in the plane such as its swiftness has led to the majority of people not willing to give up airline travel even for shorter distances despite climate change issues associated with it (Mckercher, et.al.,2010). Recent research shows that eco labels don’t even influence customer behaviors at all (Gossling & Buckley,2016).
Kroesen (2013) research further found out that there is no relationship between environmental awareness and attitudinal change but denial of personal contribution and apportioning blame on others was the limiting attribute to attitudes change. While information and environmental education are vital to encourage behavior or attitude change they are not sufficient, as pointed out by Becken (2004) that green tourists who care about the environment pointed out that they feel guilty about their travel patterns and that planting a tree would ease their consciousness and was a cheap way to feel better.

Research by Becken (2007) further revealed that tourists had a generic knowledge about climate change but seemed to reluctant to link their air travels to the global climate impact and expressed unbelief that unusual weather patterns of the years were due to accelerated use of renewable energy source of which air transport was the biggest contributor. Moreover some respondents perceived climate change as a non-pressing global problem, that instead issues of poverty and famine were more pressing and needed immediate solutions than climate change (Becken, 2007).

Cohen et al., (2011) show that a big percentage of respondents pointed out their individual endeavors were not sufficient to mitigate climate change but there was need for policy makers like governments and aviation industry to actively participate in climate change a proposition which was also found out by the recent research by Higham et al., (2016) that most respondents pointed out that strong governments participation is necessary in order to lower carbon emissions since trends have shown that measures such as drink driving and congestion charges have achieved a progressive regulation even though opposed in the beginning although studies by Wymer (2010) and Hall (2013) indicate that such measures would be seen as a form of loss of freedom and would be strongly resisted by the aviation industry.

Recent research by Higham et al., (2016) shows that much as attitudinal change can be an immediate measure to reduce carbon emissions yet it can’t be effective in isolation in that there is need for a radical change in public provisions to easy or encourage behavior change a situation according to Dillimono & Dickinson (2015) that is a nightmare especially in developing countries whereby the public infrastructures are in a very bad shape hence limiting behavioral change.

Becken (2004) research revealed that a number of respondents expressed their view that they do not feel accountable for the GHG emissions caused by air travel and that mitigation was not a personal responsibility but instead were employing greener measures at home and therefore not willing to give up their travel habits a notion that is firmly established in travelers in that recent research by Dickinson et al., (2013) in Poland revealed also that the Polish people were instead willing to practice pro environmental measure which required low commitment like being green at home than giving up air travel, moreover also Hibbert, Dickinson, Gossling, & Curtin (2013) and Cohen, Higham, & Reis (2013) showed that most respondents pointed out that they were practicing sustainable practices at home instead of giving up air travel since the latter was taken as a level of social identity and a sense of pride.

Cohen et al., (2011) also found out that some air travel customers had a behavioral addiction towards air transport and were not willing to let go of their tourism personal benefits all in the name of mitigating climate change as one respondent said, “I know it matters, but I still do travel. I am a typical Norwegian, in this way of thinking. So it’s a cultural the way of
behavior, we have the money; we have started travelling and would like to see more” (Pg.1080)

Aviation dedication to climate change mitigation is questionable and has slowed attitudinal change amongst airline travelers in that the industry encourages its customers to frequently travel in order to earn mileage points yet hyper mobility should not be encouraged (Young, Higham, & Reis, 2014). However airlines have persistently informed customers that emissions will decline up to zero in future when the sector begins to use bio fuels yet there is a limited possibility of technological potential to reduce carbon emissions in air transport in other wards most of the proposed solutions are myths and unrealistic (Paul Peeters, Higham, Kutzner, Cohen, & Gössling, 2016) as Borup, Brown, & Konrad (2006) puts it that some statements in aviation industry are based on technological advancement expectations which at times are misleading and practically may not yield an tangible results since Nygren, Aleklett, & Hook (2009) research revealed that adjusting to other sources of fuel such as biogas maybe unsustainable because of the limitations associated with production. Therefore unrealistic and false targets by the aviation industry have negatively influenced the public and policy makers to wholly believe that carbon emissions from transport are under control yet it is just brain washing played by airline actors (Stefan Gössling & Cohen, 2014).

Research by Akpan et al., (2012) revealed most of the Nigerian respondents pointed out that climate change was mythical and therefore a fork story as one respondent had this to say, “part of the seeming fairy tale on foreign media is that Africa, as in the case of the global financial crisis, would be the worst hit when climate change Armageddon happens”(Pg.2) and moreover a few Nigerians who acknowledge the climate change dilemma attributed it to the ozone depletion and improper disposal of waste materials but didn’t link it to carbon emissions from air travel a perception that was earlier found out by Becken (2004) and Annabel et al., (2006) where some respondents attributed climate change to the hole in the ozone layer signifying that some portion of the public tend to be confused about the detailed cause of climate change and this therefore affects their attitudes negatively in which Read, Bostrom, Morgan, Granger, Fischhoff, & Smuts (1994) and Kempton (1997) had earlier indicated that such misconception leads to people investing their efforts in futile activities such as stopping their use of aerosol cans.

More to that Annabel et al., (2006) research also showed that despite high awareness of climate change in the public, the level of concern is low among the people as most of them perceive it as uncertainty occurrence which has many years to take place and some even suggest that by that time some technological developments would be introduced to curb climate change, and all this places limitations on the preparedness to change attitudes and behaviours towards climate change.

Much as Burgess et al., (1998) research showed that people’s attitudes do not change due to lack of climate change knowledge this was refuted by many scholars e.g. Kollmus & Agyeman, (2002), Becken, (2007), Patt & Dessai, (2005),Mckercher et al., (2010) and Burns & Cowlishaw, (2014)whoarguethatpeoplehaveknowledgeaboutclimatechangebutunwillingto changetheirattitudesdueto variousreasonssuch as denialofclimatechange phenomenon(Patt & Dessai, 2005), unseriousness of climate change issues by the media (Stefan Gössling & Cohen, 2014), misleading information from aviation industry (Burns & Cowlishaw, 2014), freedom mentality in customers psyches (Gossling et al., 2013), reliable and timely transport of airlines (Mckercher et al., 2010), cultural aspects (Eden, 1993, Gössling & Cohen, 2014). As Kroesen (2013) research shows there is no relationship between environmental
awareness and attitudinal change but denial of personal contribution and apportioning blame on others was the limiting attribute to change attitudes.

If attitudinal change is to take place in airline customers there is need for government intervention (Chapman, 2007). Much as governments realize their role in mitigating climate change they are reluctant and keep on extending deadlines for example in the issue of carbon trading schemes (Higham et al., 2016) and are also limited by their political ambitions whereby political parties that promise reduction of carbon emissions usually face voter reduction and are not re-elected in office for example in Higham, Cohen, Cavaliere, et al., (2016, Pg. 9) research, one respondent said, “I remember when the green party was running for the first time in the election phase before that they had this climate expert and she was saying publicly that people should only take a long haul trip every three or four years , there was a public outcry and they lost several percentage points of their potential voters because of that.” Governments also have false hope that technological innovation will solve the climate change phenomenon however research by Gossling et al., (2010) shows that proposed measures such as use of bio fuels may not bring about the desired solutions due it’s limitations in production.

Moreover research by Higham et al., (2016) shows that government’s encouragement of voluntary attitudinal change has not been successful and therefore there is need for governments to formulate policies to mitigate climate change. Hall (2013) argues that social marketing can be an effective tool to nudge people to change their attitudes and behaviors whereas Peattie & Peattie, (2009) showed that social marketing is only effective for a short period of time as individuals usually go back to their old habits especially after the steering period.

One way in which airlines can influence customers to engage in green strategy is through voluntary carbon off setting where each passenger is held accountable for his/her carbon emissions however this strategy is still low and lacks support from mass media (Kim, Yun, Lee, & Ko, 2016). However Mc kercher et al., (2010) points out that voluntary off setting will not offset carbon emissions alone there is need of some strict measures or policies from government to mitigate climate change.

The most practical way of achieving attitudinal change as shown by Thaler & Sunstein (2008) research is the use of behavioral economics where people’s psyches are changed without them feeling that their freedoms are being encroached. This was supported by Gossling et al., (2013) research which showed that compulsory government policies can easily bring about attitudinal and behavioral change but recent studies by Higham et al., (2016) and Dillimono & Dickinson, (2015) show that even though government policies can do much to encourage behavioral change they need to play their part by providing good public infrastructure to easy the process of changing behaviors and habits.

2.3 Cultural Values
Cultural values shape individuals actions, feelings and their thoughts (Schwartz, 2006). Knafo, Roccas, & Sagiv (2011) emphasized that cultural values frame individuals’ perceptions on what the world is like, should be and the kind of behavior that is appropriate. Therefore individuals use cultural values as a reference point for evaluating their feelings, behavior and thoughts (Triandis, 2004). Fiske (2000) research found that cultures provide its
members with order on how to control their environment providing them with a sense of what other members of the community think and feel, how they judge and also react in certain circumstances and therefore shapes the coordination of the social life in a community.

Adger et al., (2012) found that cultural values are important in understanding on how communities can be supported or enlightened to understand both mitigation and adaptation to climate change since what some communities hold as “dear” will change due to the changes in the climate moreover risks are global and very few cultures will therefore escape the influences of climate change whether developed countries or emerging nations. Besides different societies have their various beliefs on how they view the environment and this influences them on how to interpret climate change, because of cultural values people may not be willing to take in new information that contradicts with their cultural values (Persson, Sahlin, & Wallin, 2015).

Hulme (2008) emphasizes that climate change is a new challenge in the overall world views and belief systems which in the long run will lead to value changes since some parts of the world view climate change as a result of supernatural hand of God than attributing it to the anthropogenic activities, a preposition that needs to be addressed through legitimacy. Moreover more effects of climate change such as increased temperatures and other direct and indirect impacts of climate change are likely to be catalysts for change in values, world views and beliefs (O’Brien & Wolf, 2010).

Smit & Wandel (2006) notes that interventions towards climate change have always focused on infrastructure and technological changes that reduce vulnerability to climate change impacts but a few strategies have been implemented towards cultural value change yet the later is vital in influencing behavioral change moreover outcome oriented approaches usually ignore local factors and yet may be perceived by locals as vital. However O’Brien & Wolf (2010) points out that while incorporating values in climate change a critical ethical question arises, “whose values counts” and “who decides” a preposition that makes cultural values cumbersome to influence because almost all societies consider their cultures superior.

Steg, Perlaviciute, & Van der Werff (2014) point out, that values are very important in the study of pro environmental behaviours since they are culturally shared and therefore different individuals react differently in face of value conflicts as many cultures perceive air travel differently and therefore attach values to flying differently. Randles & Mander (2009) found out in their research that air transport was taken as a form of a higher social status in the community in that reduction of flying in such a community would be seen as a lower standard or quality of living. Moreover cultural aspects in terms of travel behavior especially in European countries is another setback in that travel culture is embedded in children at a young age and therefore difficult to change at an adult age (Eden, 1993, Gössling & Cohen, 2014).

Barr and Prillwitz (2012) found that whether a person changes their air travel patterns all depends on their personal values and costs met in acting pro environmentally aligning with the benefits to the environment and to the society if using alternative means of transport would conflict with costs such as perceived low quality of life, lower social status, relaxing on holiday, experiencing new cultures, financial costs as well as time costs then such measures would not be held implying that people with strong self enhancement values may end up not being pro environmental.
Bohler, Grischkat, Hausteins and Hunecke (2006) used Schwartz’s four order value types in their study and found that personal values had an influence on travel behaviours in that long haul travelers possessed the highest levels of openness to change as well as self enhancement values and therefore not willing to act pro environmentally. Similar findings were also found by Poortinga, Steg & Vlek (2004) study which revealed that respondents who had openness to change values preferred high transport energy use. Moreover research carried on by Stern (2000) and Dietz et al., (2005) found that self transcendent versus self enhancement were relevant to environmental domain in that individuals with self transcendent values are likely to act pro environmentally compared to the self enhancement individuals who are likely not to alter their actions and behavior in favor of the environment. Moreover Schwartz (1992) had earlier emphasized that value structures are similar across many countries in the world and found an extensive division of the value system.

Steg & Vlek (2009) also found that pro environmental behaviours are closely related to individual environmental values in that in some situations people may resist acting environmentally and preferring to value other things such as time, money, and comfort above the environment. Moreover findings by Thogerson and Olander (2002) had found earlier that sustainable consumption was influenced by self-transcendence values in that changing people’s behaviours depended on the person’s priorities as far as universalism values were concerned in that people who prioritized universal values tended to be more willing to take environmental choices. Similarly De Groot and Steg (2009) findings revealed that committed environmentalists prioritized altruistic values over egoistic values while non environmentalists scored low on altruism.

Research by Dietz, Fitzgerald and Shwom (2005) revealed that cultural values raise unanswerable questions of why the climate change matters in terms of whom, who wins, looses and in that case whose values count. Schwartz (1999) had earlier noted that opposing values can bring about conflicts for instance self enhancement values may contradict with self-transcendence value. Dietz et al., (2005) pointed out a cultural values clash where the people supporting the drilling oil and gas reserves in the previously ice covered areas in the Arctic may be in conflict with those who want to turn the area into an international conservation area. Moreover De Groot & Steg. (2010) revealed that a conflict between biospheric and altruistic values can occur for instance when individuals make a choice to buy organic products or then they vote for a green party and that therefore there is need to distinguish different domains of self transcendence values.

Values can therefore result in conflicting environmental attitudes. Internal conflict can encourage shifting the blame to others or living in denial as shown by Becken (2007) as tourists may end up shifting the blame on governments, aviation industry and international organizations (Cohen, Higham, & Cavaliere, 2011). Other strategies adopted by travelers is the assertion of practicing good environmental behaviours at home (Becken, 2007); doubting the magnitude of climate change phenomenon and perceiving it as the exaggeration of scientists hence sticking to their values that have negative effects to the environment (Randles & Mander, 2009).

2.4 Pro-environmental behavior in air transport
Gossling et al.,(2013) identified out that if the current air consumption patterns continue to grow the carbon emissions may exceed more than 150% between the years of 2005 and 2035, a scenario that will be disastrous to the global climate. Moreover Hergesell & Dickinson
(2013) found that the emergence of low cost air travel has encouraged or promoted air travel behavior and has led travelers to disregard other forms of transportation such as rail, a transport mode that is generous to the environment. Yet historically air travel was limited to a small segment of the wealthy and other travelers who used to travel from one continent to another, but with the introduction of low cost carriers travelers travel within the country using air transport has increased (Hergesell & Dickinson, 2013).

Hyper mobility is another phenomenon which is the consequence of low fares which to some extent are cheaper than other slow modes of transport such as trains, cars and cruise ships (Kroesen, 2013). For instance (Shaw & Thomas, 2006) research in the UK found out that cheapness of air travel has increased air traffic in that the people who could not afford air transport before because of it high prices could now use the it without an felt pinch in their finances hence increasing both international and short break holidays. The situation is not about to get better with the increased traffic from emerging markets an area that has not been thoroughly researched in academia (Dillimono & Dickinson, 2015).

Annabel et al., (2006) research revealed that the UK residents recognized climate change concept but only a third of the population agreed that air transport was the main cause of climate change and this to some extent explains air transport continued growth among UK residents for the last decades. This perspective was in alignment with Gössling, Bredberg, Randow, Sandstrom, & Svensson (2006) and Shaw & Thomas, (2006) researches where the respondents acknowledged climate change problem and attributed it to other aspects such as waste and land development but not to their travel behaviors, only a small portion of 17% of holidaying tourists in Zanzibar in Gössling et al.,(2006) research attributed climate change to green house gases emanating from air transport while in Shaw & Thomas (2006) a few respondents who acknowledged the contributions of climate change were not willing to change their behaviors claiming that individual behavioral change could not combat the huge problem of climate change. Becken (2007) and Cohen et al.(2011) also found out that tourists felt that climate change mitigation was not their personal responsibility but for governments. More to that Gössling, Haglund, Kallgren, Revahl, & Hultman (2009) found out that many Swedish citizens acknowledged their individual contribution to climate change though they placed much blame to aviation industry, government and intergovernmental organizations.

Böhler, Grischkat, Haustein, & Hunecke (2006, p.667) noted that much as tourists are aware of their contribution to climate change problem they tend to live in denial; “the motivation for the long haul traveler to get into contact with foreign cultures, to explore foreign landscapes or to exhibit a lifestyle different from the mainstream population might be stronger than the realization that air travel causes environmental damage”. This was later confirmed by Becken (2007) findings which showed that tourists considered flying as their freedom and therefore were not willing to give it up their travel behaviors all in the name of climate change but were willing to practice good environmental behaviors at their home of residence.

The need for travelers to change their behaviors is a perquisite that should be practiced by all global travelers that should be voluntary and driven by forces such as social marketing and raising awareness, a role that should be employed by regulatory bodies in form of compulsory schemes such as travel taxes and quotas (Becken, 2007). In addition Mckercher et al.,(2010) points out that education and awareness are very vital in achieving behavioral change yet, “there is currently little acceptance of the need to change”(Pg.314). Earlier research by Burgess, Harrison, & Filius (1998) on pro environmental behavior suggested that if people have knowledge about the environment, then their concern would increase hence
influencing behavioral change, a notion that was criticized by Kollmus & Agyeman (2002) who claimed that there is a very big gap between knowledge and behavioral change and this was later confirmed by Becken (2007) research which confirmed that there is a weak relationship between climate change knowledge influencing change of behavior. However, Barr, Shaw, Coles, & Prillwitz (2010) argue that practical measures are required in order to reduce air consumption behaviours so as to reduce the air travel impact on carbon emissions that eventually leads to climate change.

Hall, Scott & Gossling (2013) recognized that tourists who practiced conservation measures at homes were not voluntarily willing to change their travel behaviors. This dichotomy was termed as dissonance by Cohen, Higham & Reis (2013) where the travelers were not willing to change their flying behavior for environmental reasons, as their personal benefit and happiness were more important than environmental sustainability. Earlier research by Barr et al., (2010) also revealed that there was a difference between behaviors of sustainability at home and unsustainable behavior of travel that, “those who are the most conscious about the environment accept that flying is contributing to climate change and are not willing to reduce their flying habits significantly” (pg.480). Moreover the interviews conducted by Juvan & Dolnicar (2014) revealed that respondents pointed out that travel especially for holidays was a much sought activity and were not willing to give it up all in the name of saving the environment and mitigating climate change, a preposition that was also found out by Kim et al., (2016).

Kroesen (2013) research further found out that there is no relationship between environmental awareness and behavioral change but denial of personal contribution and apportioning blame on others was the limiting attribute to behavioral change and all this aligns with the cognitive dissonance as posed by Soutar & Sweeney (2003) that there is no uniformity in cognitive dissonance in that it varies at different extents for instance children who adapt air travel behaviors when they are young will tend to be rigid concerning behavioral change in that the greater the discomfort(dissonance) the greater the intensification of action and vice versa.

Furthermore Böhler, Grischkat, Haustein, & Hunecke (2006, p.667) noted that much as tourists are aware of their contribution to climate change problem they tend to live in denial; “the motivation for the long haul traveler to get into contact with foreign cultures, to explore foreign landscapes or to exhibit a lifestyle different from the mainstream population might be stronger than the realization that air travel causes environmental damage”. This was later confirmed by Becken (2007) findings which showed that tourists considered flying as their freedom and therefore were not willing to give it up all in the name of climate change but were willing to practice good environmental behaviors at the home of residence.

Mckercher et al., (2010) also noted that reducing travel patterns among air travel consumers is a difficult task because of the selfish nature of humans and the inconveniences caused by practicing sustainable measures. This travel behavior has also been accelerated by the internet when people are enticed to visit different appealing destination around the globe (Urry & Larsen, 2011) as noted by Wymer (2010) that the globalised world has definitely increased global networks and links signifying that it is now possible to have friends, acquaintances and relatives around the world. Moreover Hibbert, Dickinson, & Gossling (2013) noted that if a person wants to alter their travel behavior there are restraints especially when they have friends and family members in different continents and the quickest means of travel in such scenario is air travel.
Cohen & Higham (2011) also argued that society places individuals who travel regularly on a high social status and this has ended up in influencing traveler’s behavior in favor of air transport, moreover Cohen & Gossling (2015) stated that, “where mobility patterns turn into an object of admiration, they become a signifier of social status and thus a social necessity shaping what might be termed as liquid identities” (Pg.3). Cohen et al., (2013) also found that distance travelled was taken as a way of raising social stature of an individual in that respondents pointed out that if the economic status changed they would definitely engage in long haul trips for instance one participant said that, “If her financial circumstances were to change, that she would probably not be able to resist taking tourism trips via long haul air travel – say I won a load of money tomorrow – I would probably go to New Zealand” (Pg993).

Becken (2007) pointed out that long distance air travel is less price elastic than short distance travel because the alternatives are limited in the former, in that even if travelers have knowledge about climate change they are likely not to change their behaviours especially if they have to fly for long distances to visit friends and go for vacations. Moreover Larsen & Guiver (2013) stated that, “Most seek to minimize the time and cost of their holidays and flying currently offers the best way of doing this. Coupled with the knowledge from the analysis that many tourists desire distance in the form of experience and meeting that which is different, which they associate with long physical distances, this strongly suggests that voluntary travel behavior change is unlikely”

Several studies (e.g. (Becken (2007); Barr et al., (2010); Doran, Hanss, & Larson (2015) found that there is an outright denial of travelers of the effects of air travel on climate change and therefore not willing to change their behaviours. Becken (2007) pointed out that travelers generalize the need for behavior change (e.g. “we need people to travel less” (pg.358) rather than referring to one’s self yet decisions to change behaviors need to start from the personal level. What should be noted knowledge doesn’t lead to behavioral change for instance research by Barr et al., (2010) revealed that the most environmental conscious travelers were willing to accept higher taxes on air travel but not to alter or reduce flying habits arguing that when they fly it is so vital that such trips can’t be cancelled all in the name of mitigating climate change.

Hall (2013) pointed out that social marketing is vital in enhancing behavioral change in air transport. The goal of social marketing should be to enhance citizens to make voluntary decisions as individuals without being coarsed moreover with this strategy cognitive biases are exploited in order to manipulate the choices of people which in the long run changes their behaviors (Hall, 2013). Moreover Higham, Cohen, Peeters, & Gossling (2013) show that social marketing has been used before to change vices such as smoking and binge drinking though the interventions result in unsustainable behavior change since individuals usually go back to their old behaviours especially when the steering factors are reduced or removed.

Mckercher et al., (2010) argue that governmental involvement and intervention is vital in order to create sustainable behavioral changes in air transport. This preposition was also supported by Hall et al., (2013) that universal climate change policies and regulations would be the best alternatives for achieving behavioral change in air travel. Moreover Kroesen (2013) argued that governments have a key role in enhancing behavioral change in air travel and stated that, “For example instead of (or in addition to) taxing air travel governments could become much more active in directly affecting the chain of production by providing incentives to develop more sustainable aircraft technologies. In addition, the double stance
toward consumption could be countered by developing codes of “appropriate” flying behavior for civil servants. By showing leadership on this issue the currently ambiguous line between “good” and “bad” (too much) consumption would become clear. The codes may be (voluntarily) adopted by businesses and eventually seep through to people’s private lives” (Pg.287).

Although government policies can mitigate carbon emissions their effectiveness is slow (Chapman, 2007b). Governments and tourism industry have not placed a lot of emphasis on devising ways of mitigating climate change phenomenon in that they seem to be reluctant with continued failure to bring about the emissions trading schemes by periodically extending deadlines (Higham, Cohen, Peeters, et al., 2016). Though governments tend to rest on the assurance that a solution will be got through technology solutions it is evident that the proposed measures such as use of bio fuels may not bring about the desired solutions due to its limitations (Gossling, Hall, Peeters, & Scott, 2010). Becken (2007) research showed that many respondents blamed the governments for not doing enough in terms of climate mitigation such as regulation policies, enforcement and information assimilation.

3.1 Conceptual Framework

Brotherton (2015) described a conceptual framework as a helpful structure that identifies various factors, variables in accordance to the thesis’s aim that is usually grouped and categorized in a systematic way. Therefore conceptual framework explains the core constructs and concepts to be studied and their relationships. In this research emphasis is given to Uganda’s perceptions on climate change originating from air transport carbon emissions and the Theory of Planned Behavior (TPB) was chosen as an appropriate theoretical base for this study.

The Theory of Planned Behavior (TPB) is one of the extensively used theories in predicting behavior intentions by psychologists (Collins & Carey, 2007). In pro-environmental studies many researchers used it as a theoretical basis to understand consumer’s intentions to perform environmental friendly behaviors (e.g. Lam, 1999; Bamberg & Schmidt, 2001; Chen & Tung, 2010). To begin with the theory of planned behavior, explains why certain behaviors are portrayed by people. According to this theory an individual’s performance of a specific behavior is usually determined by his/her intentions to perform such a behavior, which is usually determined by three factors i.e. the person’s attitude, subjective norms and the perceived behavior control (Fishbein & Ajzen, 1975). Ajzen (1991) also points out that those three constructs (attitude, subjective norm and perceived planned behavior control) influence a person’s behavioral intentions indicating that most behaviours people engage in are entirely under control and therefore rational. Further Ajzen (1991) stresses that a person’s personality, age, occupation, gender have no direct impact or influence on behavioral intention.

The theory was used by Juvan and Dolnicar (2014) and findings showed that there was gap between attitudes and actual behaviors and therefore was hard to predict behaviors basing on people’s attitudes. Moreover Annabel et al., (2006) argued that the theory is insufficient to investigate complex issues such as environmental attitudes and climate change phenomenon associated with aviation. More evidence of the theory’s inability to explain travel behaviors is elaborated by scholars such as (Becken, 2007; Cohen & Higham, 2011; Gossling et al., 2012) hence it’s attainability of the term attitude – behavior gap. Moreover past researchers suggested that personal feelings of moral obligation need to be considered while examining
the person’s willingness to perform certain behaviours (Gorsuch & Ortberg, 1983), a preposition which was supported by Ajzen (1991) that perceived moral obligations should be considered in order to increase TPB predictive power as far as pro environmental context is concerned.

Several studies have also made an effort improve this theory by adding constructs (Kaiser & Scheuthle, 2003) in order to explain attitudes depending on their case studies. This thesis project incorporated the constructs such as knowledge and cultural values to explain the people’s attitudes and intentions of air transport in Uganda, as it is not enough to explain attitudes using the original TPB constructs (attitude, subjective norm and perceived planned behavior control because it leaves a gap in this particular topic of understanding Ugandans perceptions towards climate change originating from air transport.

3.2 Proposed Model of Ugandans perceptions towards Air Travel

Knowledge is the core foundation in which a person’s attitudes, perceptions and norms of possibilities to action are monitored to identify and decide between behavioral alternatives (Kaiser & Fuhrer, 2003). In this proposed model the researcher shows that knowledge is vital in influencing intentions to use air travel. When Ugandan travelers lack grounded knowledge they end up engaging in habits and activities which affects the climate negatively such as denial, green wash fatigue and delegation. Knowledge can be acquired through different aspects such as awareness campaigns, influence of the media and social networking. Kollmus & Agyeman (2002) pointed out that people are willing to change behaviors especially when they have knowledge and awareness that their behaviors pose threats to others and yet they have options to reduce such happenings. Burgess, Harrison, & Filius (1998) in their pro environmental behavior research findings suggested that if people have knowledge about the environment then their concern would increase hence influencing behavioral change.
However research by Patt & Dessai (2005) shows uncertainty exists in the minds of people concerning climate change in that they perceive that it is an issue exaggerated by scientists and the situation is even made worse by the media who most of the times are not positive in climate change phenomenon. And yet tourists perceptions and behavior are heavily influenced by media in that any reliable information by media maybe taken wholly as truth (Gossling et.al., 2012). The situation is further deteriorated by the green wash fatigue whereby people give up their conservation habits claiming that their personal contribution cannot do much because anyway the majority of people are practicing unsustainable practices (Mckercher et al., 2010). Moreover the outcome of denial is delegation where people tend to remove the feeling of guilt and tend to apportion blame on others (Annabel et al., 2006).

Garvil, Marell, & Nordlund (2003) also pointed out that habits also influence people’s choice of air transport despite climate change knowledge and awareness, in that it is difficult to change their travel attitudes and behaviours especially if individuals have used air transport from an early age or work for organizations that regularly sponsors their workers for meetings. Social networking is another aspect that can increase individuals awareness and knowledge concerning climate change (Hall, 2013), moreover Annabel et al., (2006) elaborates that people should be given a wide range of options for change in social networking since in behavioral change, provision of various opportunities or options for change is vital.

Attitude is a psychological emotion whether positive or negative that usually arises when an individual engages in certain behaviors (Eagly & Chaiken, 1993). In the TPB model attitude is a person’s evaluation (either positive or negative) of performing a certain behavior. In the proposed model the researcher shows that Ugandans attitudes are fundamental in influencing their perceptions in that their feelings and opinions are vital in influencing their travel decisions in that if they are negative then it limits their climate change mitigation both at individual and national levels. Moreover Taylor & Todd (1995) noted that when individuals have a negative attitude then their behavioral intentions will also be negative and vice versa. Becken (2007) research shows a clear relationship between attitudes and behaviours whereby unfavorable attitudes negatively influence pro environmental behaviours.

This is in line with Cohen & Higham (2011) research which revealed that individuals with positive environmental attitudes were willing to change their travel behaviours in order to mitigate climate change than those with negative attitudes as they portrayed “I don’t care” attitudes. One notably reason that limited attitude change pointed out by Mckercher, Prideaux, Cheung, & Law (2010) research revealed that people lived in denial and had a perception that their individual behavioral change would not achieve much in terms of climate change phenomenon. More to that Cohen & Higham (2011) revealed that people claimed that they were practicing positive environmental behaviours in other areas (i.e. home, use of bicycles) and therefore didn’t want to be interfered concerning their freedom of flying.

Ajzen (1991) defined cultural values as social pressures felt by a person concerning a certain behavior or conduct. Therefore cultural values are perceived opinions that other community members have that influence the individuals’ decision making in otherwards the person’s feeling of social pressure from other people of the community. When studying Ugandans perceptions to climate change originating from air travel the researcher proposed that cultural aspects in Uganda such as social status, prestige, career progress self enhancement and social pressure influence Ugandans to engage in air travel. Many scholars (e.g. Taylor & Todd (1995); Tonglet, Phillips and Read (2004) ; Han, Hsu and Sheu (2010) asserted that there is a
positive relationship between people’s cultural values and behavioral intention in that the more positive values people have, the stronger their intentions to act. Moreover Fiske (2000) found that cultures provide its members with order on how to control their environment providing them with a sense of what other members of the community think and feel, how they judge and also react in certain circumstances and therefore shapes the coordination of the social life in a community.

Cultural values for instance affect the understanding of the scientific evidence of climate change and is viewed differently in all cultures worldwide (Persson, Sahlin & Wallin, 2015). Moreover Randles & Mander (2009) found out in their research that air transport was taken as a form of a higher social status in some communities and reducing number of flights in such a community would be seen as a lower standard or quality of living. Values can therefore cause conflict towards environmental attitudes and this results at times shifting the blame to others or living in denial (Becken, 2007) and tourists may end up shifting the blame on governments, aviation industry and international organizations (Cohen, Higham, & Cavaliere, 2011).

Perceived behavioral control refers to an individual’s perception of the possible difficulties when trying to carry out a specific behavior. The external elements or factors such as time, money, chance (e.g. sponsorship), distance may not be under direct control of individuals (Ajzen, 1991). In Uganda there is lack of inadequate infrastructure to substitute for air travel especially when people are travelling outside the country and therefore are constrained by factors such as distance, time, money and chance because some of them usually travel on sponsored tickets. Moreover the more abilities individuals have to control opportunities to perform a certain behavior, the more chances for engaging in such behavior.

Gossling et al., (2013) findings showed that compulsory government policies can easily bring about behavioral change in air travel moreover recent research by Higham et al., (2016) shows that much as behavioral change can be an immediate measure to reduce carbon emissions yet it can’t be effective in isolation in that there is need for a radical change in public provisions to easy or encourage behavior change in air transport a situation according to Dillimono & Dickinson (2015), is a nightmare especially in developing countries in that the public infrastructures are in a very bad shape hence limiting behavioral change. Moreover Kollmus & Agyeman (2002) revealed that locus of control of individuals greatly influence them in that those with a strong locus of control tend to believe that actions can bring about change while people with an external locus of control tend to feel that their actions are insignificant and that change need to be initiated by powerful agents.

Therefore the researcher pointed out that three elements in the TPB were inadequate in influencing Ugandans perceptions, nevertheless proposed four aspects i.e. knowledge, cultural values, attitudes and perceived behavior which need to work hand in hand in order to mitigate air travel related climate change in Uganda.

4.0 Methodology

Methodology is a detailed plan that guides the research and a process that guides the researcher to answer the research questions and be able to fulfill the objectives (Botterill & Platenkamp, 2012). It provided a framework to collect data and conduct analysis to achieve the research objectives pointed out above.
4.1 Methodological Positioning
A good understanding of the philosophical assumption of research is essential for the overall success research process as it enables the researcher to construct ideas and beliefs that form the research such as how a research question is formulated and the research objectives to answer. This research subscribes to the philosophy of social constructivism. Social constructivism is based on the view that the world is socially constructed by people’s views, thoughts, perceptions and interactions (Brotherton, 2015). Moreover meanings are not imparted on individuals but are formed through social interactions with other members of the society (Lincoln, 1995) and also through cultural and social norms (Marshall & Rossman, 2010).

With the aim of this study being the exploration of Ugandans perceptions of air transport impact on climate change, this study relied heavily on the participants’ views on and understanding of climate change as a result of air transport, moreover these subjective views are usually negotiated socially and historically. Brotherton (2015) pointed out that social constructivism is the appropriate philosophy to study the issues of knowledge and attitudes. For instance on average a Uganda traveler views about air travel are different from those travelers who originate from developed countries because in Uganda, citizens who can afford to travel usually demonstrate economic well being and high social status (Namukasa, 2013).

Rubin & Rubin (2005) pointed out that in a community people share meanings which are influenced by understandings held by friends, peers and different group members in which they belong. Those multiple realities of the respondents are reported using forms of evidences in themes using actual words of different individuals and presenting perspectives in that the researcher sought to understand the respondents in the “world” in which they live and work. These subjective meanings are derived from multiple experiences (Cresswell, 2013) and the researcher looked for the complexity of views rather than narrowing the meaning into a few categories or ideas.

While interviewing the researcher ensured that open ended questions were broad and general so as to construct meanings out of the situation by carefully listening to respondents about their perceptions on climate change phenomenon. Moreover Cresswell, (2013) points out that in social constructivism the researchers are aware on how their own background influences their interpretation and usually place themselves in the research which enables them to analyze information flows from their own historical, personal and cultural experiences. Since the researcher grew up in Uganda her own background shaped the interpretation of findings and therefore made sense of the meanings of what other Ugandans perceive about climate change hence an interpretive approach.

4.2 Research Method
There are two notably distinct research approaches i.e. qualitative and quantitative methods (Brotherton, 2015). Neuman (2011) states that there is need to strive to collect data scientifically and also inspect patterns in the data so as to be able to explain the social life of the respondents. According to Vael (2011) the purpose of quantitative research is to numeralise the problem in order to be able to count issues so that the findings can be applicable to a broader population. In quantitative method the emphasis is on operationalizing constructs (variables) in a quantitative way to be able to generalize to the population study while on the other hand qualitative methods are utilized to understand deep meanings of
phenomenon and data is collected in form of pictures, symbols and words (notes) (Brotherton, 2015).

Hennink, Hutter, & Bailey (2011) provided a list on when to do a qualitative research under the following scenarios; i) seek to understand the communities beliefs, opinions and their emotions ii) clarify respondent’s views and their behaviours iii) when the researcher seek to understand the decision process of people iv) need to comprehend the social interactions of community members by understanding what is valuable to such a community v) and when perception about a certain population is sought. Marshall (1996) also states that qualitative method is the best method to use when the researcher wants to understand complex psychological issues and to answer questions of how and why.

Moreover many scholars who conducted studies to understand people’s attitudes and behaviours towards climate change as a result of air transport, used qualitative studies because it hard to understand people’s perceptions and attitudes of people using quantitative methods since perceptions and attitudes are embedded in people and requires interaction with them in order to derive meaningful meanings (e.g. Akpan, Anorue, & Ukonu, 2012; Cohen, Higham, & Cavaliere, 2011; Cohen, Higham, Gossling, & Eijgelaar, 2016; Cohen, Higham, & Reis, 2013; Dickinson, Robbins, Filimonau, Hares, & Mika, 2013; Dillimono & Dickinson, 2015). This study also employed qualitative method because the method enabled the researcher to capture, describe, display and preserve meanings from the perspective of Ugandans who travel by plane and the method was more appropriate that quantitative method because the researcher would be able to understand complex psychological issues of Ugandan travelers.

For instance Akpan et al., (2012) and Dillimono and Dickinson (2015) who carried out research in Africa used in depth interviews and they pointed out that they opted for this choice because they would be able to capture subjective meanings of the respondents when using surveys. On the other hand, Annabel, Lane, & Kelay (2006) used quantitative research to examine public attitudes towards climate change and transport behavior in United Kingdom. However the authors pointed out that the method was not a best approach in understanding perceptions and attitudes because it was hard to derive meaningful findings in that surveys overstate respondents concern and some topics generate socially desirable responses and proposed that similar research should be done using qualitative methodology. Moreover in all the literature reviewed the researcher found that all scholars used qualitative method in collecting data except Annabel et al., (2006). It was therefore concluded that the best method to understand Ugandans perceptions concerning climate change would be qualitative method using interviews.

4.3 Data collection
According to Brinkmann & Kvale (2015) there are three different typologies i.e. informal conversational interview, standardized open ended interview and the general interview guide approach. The formal conversational interview relays on observation and the interviewee may not even know that they are being observed while in the general interview guide the researcher has an interview guide that guides on the questions to be asked however the order of questioning doesn’t matter so long as all the topics on the interview sheet are covered. In the standardized open ended interviews the interview sheet has carefully structured questions in that one question usually leads to another.
Open ended interviews were used in this research so as to get a good grasp of the travelers’ attitudes towards air travel in Uganda. The open ended questions ensure that nothing is left out during the course of the interview since at times in the general interview guide some vital questions are forgotten because of following a certain sequence and haphazardly asking questions (Cresswell, 2013). During literature review the researcher realized that many scholars (e.g. Cohen et al., (2011), Dickinson et al., (2013); Hibbert, Dickinson, Gossling, & Curtin (2013); Gössling et al., (2009) used open ended interviews to investigate climate change issue which confirmed that this was the appropriate method fit for this study.

However the researcher also recognizes that some past studies have used focus groups for instance Becken (2007) and Hares et al., (2010) to conduct research, though this method is good to get a cultural perspective through direct participation of community members, it is difficult for one to get deeper meanings of people’s perceptions and behaviours using this method. Therefore, the general purpose of this research would not be achieved if focus groups were used. Questionnaires were not used since the main concern of research was not numbers but to understand people’s behaviours and attitudes.

4.3.1 Process of Data Collection

I first contacted the respondents two weeks before beginning interviews. The respondents decided on the location of the interview as well as the time and date. The interview time varied across different respondents in that it took 20 minutes for some and up to 50 minutes for others. The interview was made up of four parts; the first part included general questions about climate change in order to get a general perspective of the study topic and therefore acted as a gate pass to the other parts. In the second part I asked questions that enlightened the researcher whether the respondents had knowledge and awareness concerning air related climate change while the third part focused on their attitude and perspectives towards the same. In the last section I asked questions concerning cultural values towards air related climate change in order to find out their cultural undertakings concerning the subject of the study.

Cresswell (2013) advises that when undertaking in depth interviews a recorder should be used since much can’t be captured when the interviewer is taking notes. While conducting interviews I used a recorder after getting consent from the respondent. However, not all the respondents agreed to be recorded so I took notes as I interviewed and then immediately after the interview I would review the notes captured when they were still fresh in my memory.

Much as the respondents were willing to participate in the study the researcher faced one major constraint in that majority of them tended to ask money from the researcher claiming that it could be a UNWTO based research and therefore the researcher was given a lot of money to spend. More to that most of them didn’t keep the appointment time in that some arrived after 40 minutes past the agreed appointed time which was a big setback and the researcher missed on some interviews and had to reschedule the appointments again.

4.4 Study population and Sample size

In the process of participant recruitment of participants it is vital to first define suitable population and also recognize strategies for choosing the right participants (Hennink et al., 2011). In qualitative studies sample size is relatively small because the main emphasis of this method is to gain a detailed understanding of the phenomenon in question. Hennink et al., (2011) also elaborates that respondents in qualitative research should possess distinctiveness
or experiences that can shed light on the phenomenon being studied. In order to achieve the relevant sample of the population the researcher used purposive sampling of Ugandans who regularly used air transport with the aim of understanding Ugandan’s perceptions on air transport and its effect on climate change. Boulton & Fitzpatrick (1997) stated that qualitative studies should be based on few participants so as to understand the issues being studied and efforts must be done to include diversity of respondents through purposive sampling.

The researcher purposively sampled people Ugandan citizens who regularly travelled abroad consisting of university lecturers, environment activists, business people, religious groups and airline staffs who are Ugandan citizens. Ten participants were initially chosen from each category and therefore totaling to fifty participants to be interviewed. These particular groups listed above were chosen because they are involved in air travel to an extent that some take up to eight long haul trips (Namukasa, 2013) per year especially the businesspeople and therefore gave the researcher the opportunity to understand deeply the attitudes, values and perceptions of Ugandans towards air transport using this chosen representative sample.

The researcher used Glaser and Strauss (1967) theoretical principle of saturation in order to get guidance on the number of interviews. Saturation according to Hennink et al., (2011) is a situation where information collected begins to be repeated, when such a scenario is reached then further data collection is not necessary. Thus, this research had proposed to interview fifty participants but the saturation point was reached at thirty respondents whereby only six respondents were interviewed per group totaling to thirty participants.

4.5 Data analysis

A good qualitative data analysis should be independent in that other trained researchers can analyze the data and come to the similar conclusion (Brotherton, 2015). Therefore interviews were transcribed and codes were developed for the purpose of analysis. Vael, (1997) defines codes as tags, names or labels while Brotherton (2015) points out that coding is the process of putting names and labels on the collected data.

According to Hennink et al., (2011) there are two types of codes i.e. inductive and deductive codes in that in the former coded information is from the research participants while in the later the information is prompted by the researcher from relevant theories and literature. Furthermore Flick (2007) points out that there are three types of coding i.e. theoretical coding, thematic coding and qualitative content analysis. In theoretical analysis is where data is analyzed with the perspective of a grounded theory while in thematic coding is used when the research issue encompasses a wide socially constructed behaviours or perspectives on a certain phenomenon. Lastly is the qualitative content analysis which is used in analysis of any data material no matter the context.

Thematic analysis was used in this study. According to Braun & Clarke (2006) thematic analysis is applicable to both social and behavioral sciences and better alternative for analysis of studies that need to understand why people behave or act in a certain way. Since the main purpose of the study is to understand the perceptions of Ugandan travelers this analysis was adopted. Furthermore Braun & Clarke (2006) assert that is flexible in that it allows developments and reorganizing of themes throughout the whole process of data analysis.
4.5.1 Process of Data Analysis
The researcher coded the data by identifying interesting features in the data. After the interviews I started by reading the scripts and listening to the recordings, and then made notes of the first catching impressions. Then I re-read the transcripts one by one and was very careful to read line by line. Then I used manually highlighters and colored pens to label relevant words, sentences and phrases noting differences, opinions and what I found was relevant to my research questions and aim. I decided that something was relevant basing on the following:

- a) It was repeated in several interviews
- b) It surprised the researcher
- c) The respondents emphasized that it was important
- d) The researcher had read something similar in the literature review
- e) The researcher was reminded of a certain concept in the conceptual framework
- f) The researcher thought it was a new discovery and was relevant to the research

In my analysis I was critical and made sure I stayed close to the data (transcripts) and coded plenty of the phenomena and ended up with a lot of codes. Then I went through all codes made in the previous step and in doing so I was able to create categories by combining two or more codes. Then I kept categories that were deemed important and grouped them into three themes. The themes and their connections are the main results of this study and portray the new knowledge from the perspective of Ugandan participants in the study.

4.6 Trustworthiness
Guba (1981) developed a model of achieving reliability and validity in qualitative studies and he pointed out four criteria such as credibility, transferability, dependability and confirmability.

Credibility refers to the realities of research in other words does the research achieve its aim. In order to achieve credibility interviews were conducted and ensure that all data was captured. Also with the sample study of this research the researcher was confident that the needed data was gotten since all the categories of interview participants were involved in air travel. Shenton (2004) points out the need to have trustworthy atmosphere in order to achieve credibility. The researcher was able to create this atmosphere by ensuring that participants were assured that there was no wrong or right answer and that personal opinion was what mattered. Then also the interviewees were asked permission to allow audio recordings and the purpose for the same was clearly stated, moreover the names of interviewees were not taken or recorded.

Transferability is where the data findings should be able to be tested by other researchers and proved to be similar to the original findings, a scenario which was criticized by Shenton (2004) because of the complexity of qualitative data that such a testing is not possible. Since the research questions were posed to find out whether Ugandans travels perceptions concerning air travel and its effect on climate change (much as the findings are not transferable) a general picture of Ugandan travelers was gotten and can be used by climate change activists to aid in action change in Uganda.

Dependability has similar characteristics with transferability. According to Shenton (2004) points out that if same participants were interviewed using similar method then the same
study results would be got. This was difficult to achieve since the main objective was to get a deeper understanding of people’s behaviors and attitudes, however the research findings can be depended on to get a lensal picture of Ugandan attitudes, values and behaviours towards air travel.

Lastly, Confirmability which Shenton (2004) argues that any research conducted to study feelings and action will lack the element of objectivity an opinion that the researcher doesn’t agree to. In order to achieve confirmability the interview guide can be accessible by whoever wants it, in that if the same interviews were carried out on the same respondents then similar research findings would be got hence attaining confirmability.

4.7 Ethical Considerations
According to Hennink et al., (2011) ethical considerations are different depending on the topic under research. More to that, every cultural setting has values that are ethical and the researcher needs to take into consideration of that. Much as in there is an umbrella view of what is ethical in research conduction, in some situations the researcher had to make assessment whether the decision is ethical or not and then weigh the consequences of such an action or decision (Hennink et al., 2011). However there are three core principles pointed out by Hennink et al., (2011) that show whether the research is ethically conducted i.e. respect of persons, benefice and justice. In respect of persons, people should not be forced to participate in research instead should participate willingly and should be respected in the course of the research while in benefice the research should minimize any risks to the research participants at any level and should not harm participants in any way. Lastly in justice the procedures of the research should be fair and not exploitative.

Basing on the above core principles of Hennink et al., (2011) the researcher ensured that ethical issues were observed by making sure that participants were respected in that they were informed about the intention of research and not forced to participate but requested to participate voluntarily. Since Africans are different especially on time keeping for instance, when they arrived an hour late the researcher would not comment on that since culturally they don’t keep time. Also the names of the interviewees were not written on the interview sheets or recorded. The names that appear in the discussion are not the real names of the respondents since the researcher disguised the real names of the respondents in order to respect their anonymity. Specific information that would reveal participants was definitely removed. The researcher also ensured that the research didn’t impose any risks to the participants or harm participants in any way (such as any personal comments) but would encourage them to speak their personal views. In this research the researcher also ensured that the aspect of justice was taken care by ensuring that the research procedures were fair and systematically followed.

5.0 Results and Discussion
This chapter is about the results analysis and discussion. Thirty respondents were purposively sampled for interviews with a bias on those who regularly used air transport to travel abroad and there was no restriction based on age, sex and occupation so long as the respondents were involved in using air transport. Respondents were from five groups’ i.e. university lecturers, environment activists, business people, religious groups and airline staffs who are Ugandan citizens on their perceptions towards climate change originating from air travel. Many codes
were gotten from transcripts and were grouped into three themes i.e. Knowledge and awareness, attitudes and cultural values as discussed below.

5.1 First theme: Ugandans Knowledge and Awareness
Awareness of climate change is vital in enhancing people to change their travel patterns. Some interviewed respondents had general knowledge about climate change but a majority of them acknowledged that they were not aware of climate change from air transport as a result of carbon emissions released to the environment by airplanes.

Some respondents were of the view that climate change was as a result of deforestation in that cutting of trees was a thrilling business in Ugandan and therefore a better option for people who never went to school and as result more than a quarter of Ugandan citizens are self-employed in logging of trees since the business doesn’t need a lot of capital and as a result many trees are being cut without replacement moreover people in Uganda use wood for building and a base for roofing, as Mugira said, “Climate change comes from deforestation because before when people had not occupied cities, there were many trees everywhere and the climate was steady but now people are so many in Uganda and have therefore cleared many forests in order to build”. Similarly Kembabazi pointed out that, “It is definite climate change is due to deforestation in Uganda and worldwide. For example in Uganda people are poor and they cook on charcoal and with increased populations the trees have to be cut down in order to have enough charcoal for people’s livelihoods”.

From the above statements it is clear that most respondents were of the view that climate change was caused by deforestation and had no idea that aeroplanes were contributing to carbon emissions in the atmosphere. Mostly they pointed out that Ugandans heavily depended on trees for survival such as cooking, building and occupation for illiterates since the only feasible occupation for them was logging of trees because it didn’t need them to have any training. Moreover, most respondents also pointed out that climate change was due to deforestation since in Uganda one couldn’t survive without cooking on charcoal because it is the cheapest method of cooking since electricity is very expensive.

Moreover, deforestation is also accelerated in the country due to corrupt forest officers who allow people to cut down trees after being given a small bribe. These findings were similar to the findings of Hinds et al., (2002) research conducted in United Kingdom and USA where a number of interviewees in the climate change survey pointed out that climate change was due to human induced activities like deforestation in that forests have been cleared in most parts of globe because of industrialization and overpopulation moreover also Akpan et al., (2012) findings in Nigeria, Africa revealed similar findings were half of the respondents blamed deforestation among the causes that were grossly responsible for affecting the climate negatively. Similarly also Hinds et al.,(2002) research showed that deforestation was blamed by some respondents that it was one of the major changes of climate change which was caused by ever increasing human populations and industrialization.

However not all the respondents were of the view those climate change was due to deforestation but some pointed out that it was due to the depletion of the ozone layer and improper disposal of waste. For instance, Sebuyizi said that, “Climate change is due to the depletion of the ozone layer and improper human practices like improper disposal of waste”. His perception was also supported by Kiconco who was of the view that, “It is undeniable that the depletion of ozone layer has done more harm than good to the environment and has
affected the climate for example I read in the papers that ice in Greenland is melting and therefore government worldwide need to work together to stop climate change.” This clearly shows that some respondents had false knowledge about climate change, though they tended to know that it existed they were not sure of causes of the phenomenon, a grave mistake which is likely to continue worsening climate change.

Similar proposition was also found out by Whitmarsh (2009) research which showed that people associated climate changes to global warming linking it to the depletion of ozone layer and temperature increases as well as the melting glaciers. Moreover people believed that these were natural processes and there wasn’t anything scientists could do about it. This was also found out in Kempton (1997) research on public perception on climate change where some respondents pointed out that it was due to the depletion of ozone layer which had been accelerated by intensive human activities. Annabel et al., (2006) also research revealed that some respondents attributed climate change to the hole in the ozone layer signifying that some portion of the public tend to be confused about the detailed cause of climate change in which Read et al., (1994) and Kempton (1997) had earlier indicated that such misconception leads to people investing their efforts in futile activities such as stopping their use of aerosol cans.

Other respondents were of the view that climate change was due to draining of wetlands due to overpopulation in Africa in that most people now have encroached on wetlands to create room for settlement because such lands are cheaper to buy, yet these wetlands are vital in proper functioning of the earth systems hence altering and changing the climate. For instance, Ainembabazi suggested that, “Climate change is due to reclamation of wetlands because now all the poor people in Uganda have settled in the wetlands, how we expect the climate not to change”. This perception was also pointed by Muwanguzi, “Draining of wetlands have caused more harm than good in that climate has changed whereby dry periods are so long and it is difficult now to depend on seasons to plant crops because the seasons keep in changing”.

This corresponds with Dillimono and Dickinson (2015) research in Nigeria about people’s awareness of climate change, which revealed that some believed climate change was due to encroachment on wetlands for settlement and as result dry seasons were rampant in the northern parts of Nigeria and people were even dying because of poverty. Similar findings were also presented by Corbett & Durfee (2004) whereby respondents pointed out that poverty especially in developing countries was responsible for climate change as some natural rejuvenation systems have been tampered with such as clearing of swamps. This perspective is also in alignment with Gösslind, Bredberg, Randow, Sandstrom and Svensson (2006) and Shaw and Thomas (2006) researches where the respondents acknowledged climate change problem and attributed it to other aspects such as waste and land development but not to their travel behaviors.

What should be noted is that some respondents were aware that airplanes were destroying the climate and they pointed the dangers of air travel but claimed that there wasn’t any cause for alarm because most Ugandans don’t use the airplanes and tended to dwell on other emissions from industries and the ever increasing use of old cars as the main cause of climate change and blaming the Ugandan government which they claimed was adamant on all these issues. Magara said, “Climate change is caused by carbon emissions that come from cars, industries and airplanes, but there is nothing to worry about as far as air travel is concerned about because most people in Africa don’t travel by planes and the in last global analysis it was
found that African region contributes minimal emissions when compared to other regions like Europe”. While interviewee Asiimwe similarly stated that, “Climate change comes from the carbon emissions released in the atmosphere that come from cars, industries and airplanes and the situation is becoming more grave because each time the number of old vehicles is increasing in Africa and more people are travelling by air but yet governments are adamant to propose viable solutions to stop this global monster called climate change”.

These perceptions are in line with Burgess et al., (1998) research that showed that people’s behaviors do not change due to lack of climate change knowledge but due to denial and shifting of blame. Moreover, many scholars argued that people have knowledge about climate change but unwilling to change their attitudes due to various reasons such as denial of climate change phenomenon (e.g. Kollmus & Agyeman, 2002, Becken, 2007, Patt & Dessai, 2005, Mckercher et al., 2010; Burns & Cowlishaw, 2014; Patt & Dessai, 2005). Much as governments realize their role in mitigating climate change they are reluctant and keep on extending deadlines for example in the issue of carbon trading schemes (Higham et al., 2016) and are also limited by their political ambitions whereby political parties that promise reduction of carbon emissions usually face voter reduction and not usually re-elected in office (e.g. Higham et al., 2016).

However, a small number of respondents didn’t have any knowledge concerning climate change and had a bias on issues to do with airplanes claiming those issues were so technical and it wasn’t any of their concern and most of them tended to brush off any information concerning climate change claiming that such issues were for scientists and scholars. For instance Nahurira pointed out that “I don’t have knowledge about climate change because all the information I know I read in the newspaper but I have not read anywhere that airplanes destroy the climate, maybe what I read about thrice was that when drain wetlands it affects the climate”.

This was in line with the findings of Patt & Dessai (2005) research which showed that uncertainty exists in the minds of people concerning climate change in that they perceive that it is an issue exaggerated by scientists and the situation is even made worse by the media who most of the times are not positive in climate change phenomenon. And yet people’s perceptions and behavior are heavily influenced by media in that any reliable information by media maybe taken wholly as truth (Gossling et.al., 2012). Similarly Ahimbisibwe pointed out that, I don’t know much about air related climate change, the only time I heard about it was on a whats up group I was on but I never took the issue seriously and I perceived that it was one of those confused university doctors who always know good for nothing information and where therefore trying to brag to others by trying to tell the rest of the group members that we need to reduce travelling using airplanes”. This is in line with Hall (2013) research which showed that social marketing can be an effective tool to nudge people to know and change their travel behaviors however Peattie & Peattie, (2009) research had earlier enlightened that social marketing is effective for a short period of time as individuals usually go back to their old habits especially after the steering period.

Earlier research by Burgess, Harrison, & Filius (1998) on pro environmental behavior suggested that if people have knowledge about the environment, then their concern would increase hence influencing behavioral change. This idea was criticized by Kollmus & Agyeman (2002), who claimed that there is a very big gap between knowledge and behavioral change. This was later confirmed by Becken (2007) research which confirmed that there is a weak relationship between climate change knowledge influencing change of
behavior. Among other reason, this is why Barr, Shaw, Coles, & Prillwitz (2010) argued that practical measures are required in order to reduce air consumption behaviors so as to reduce the air travel impact on carbon emissions that eventually leads to climate change.

5.2 Second theme: Feelings and perceptions of Ugandans
The need for travelers to change their behaviors is a perquisite that should be practiced by all global travelers, that it should be voluntary and driven by forces such as social marketing and raising awareness. In this theme most respondents pointed out that infrastructure limitation was a hindrance to their travel behavior change in that in Uganda there aren’t any reliable railways system and roads to connect travelers travelling from one country to another. Much as most them would love to change their travel patterns they could not do so because of unreliable infrastructures in Uganda and therefore the most viable means of travel abroad was air transport unlike in developed countries which had alternatives to air travel.

Moreover recent research by Higham et al., (2016) shows that much as behavioral change can be an immediate measure to reduce carbon emissions yet it can’t be effective in isolation in that there is need for a radical change in public provisions to easy or encourage behavior change in air transport a situation according to Dillimono & Dickinson (2015), is a nightmare especially in developing countries whereby the public infrastructures are in a very bad shape hence limiting behavioral change. Interviewee Magara had this to say, “Much I have knowledge about climate change I will not change my air travel patterns because I don’t have another alternative and moreover those conferences I attend are very vital because I connect to other professors and get projects because the money from Makerere is not enough to sustain me and my family since I heavily depend on project funds”.

While interviewee Gasumba also said that, It is true that air transport affects the climate but we don’t have alternatives to use in Uganda unlike in Europe where there are reliable trains that connects different countries but here in Africa the only means of connection from country to country is air transport, and even if one decided to use other alternatives like road transport it would be very tedious because of long distances and also risky because of many accidents due bus drivers who are not well trained and some of them use drugs when driving long distances”. This was similar to the findings of Higham et al., (2016) which revealed that much as people were aware of air transport climate change they were limited by infrastructures provisions in that air tickets between European countries were cheaper than trains which are generous to the environment and proposed that governments need to subsidize train fares to encourage change in consumption patterns.

This was also found out by Cohen et al., (2016) research which confirmed that much as people have climate knowledge they were restricted by lack of systems provisions to act as alternatives to air travel. Moreover Böhler, Grischkat, Haustein, & Hunecke (2006, p.667) noted that much as tourists are aware of their contribution to climate change problem they tend to live in denial; “the motivation for the long haul traveler to get into contact with foreign cultures, to explore foreign landscapes or to exhibit a lifestyle different from the mainstream population might be stronger than the realization that air travel causes environmental damage”. This was later confirmed by Becken (2007) findings which showed that tourists considered flying as their freedom and therefore were not willing to give it up their travel behaviors all in the name of climate change but were willing to practice good environmental behaviors at their home of residence.
However, respondents Mubangizi and Kediini had a different perspective from Gasumba and Magara which portrayed an aspect of denial and were of the view that even if they changed their travel attitude and started reducing their air travels it would not bring about any tangible positive change because other Ugandans would still continue using air transport. Interviewee Mubangizi stated, “I will continue using air transport because even if I stopped using it other Ugandans would still use the mode of travel and I don’t think my individual contributions can’t bring about any tangible results, so why waste time instead I will try to practice other good measures such as afforestation to mitigate climate change”

Moreover this was similar to Interviewee Kediini perspective who also said, “As for me I will continue travelling with air transport as long as live because climate change will affect future generation (if it all happens) and therefore since it is not about to happen why not enjoy and leave tomorrow to care of itself and moreover such issues should be acted on by government and policy makers because individual efforts can’t achieve much”. Moreover Becken (2007) research shows a clear relationship between attitudes and behaviors whereby unfavorable attitudes negatively influence pro environmental behaviors. This is in line with Cohen & Higham (2011) research which revealed that individuals with positive environmental attitudes were willing to change their travel behaviors in order to mitigate climate change than those with negative attitudes as they portrayed “I don’t care” attitudes.

One notably reason that limited attitude change pointed out by Mckercher, Prideaux, Cheung, & Law (2010) research was that people lived in denial and had a perception that their individual behavioral change would not achieve much in terms of climate change phenomenon. More to that Cohen & Higham (2011) revealed that people claimed that they were practicing positive environmental behaviors in other areas (i.e. home, use of bicycles) and therefore didn’t want to be interfered concerning their freedom of flying. Moreover Mckercher et al., (2010) also noted that reducing travel patterns among air travel consumers is a difficult task because of the selfish nature of humans and the inconveniences caused by practicing sustainable measures. This travel behavior has also been accelerated by the internet where people are enticed to visit different appealing destination around the globe (Urry & Larsen, 2011) as noted by Wymer (2010) that the globalized world has definitely increased global networks and links signifying that it is now possible to have friends, acquaintances and relatives around the world.

Besides that, other respondents tended to yield on the aviation’s role to mitigate climate change and their ability to introduce practical measures and believed in the information which was reported in the newspapers that the aviation industry would fix the problem technically. Moreover Okiidi said, “I think there is no cause for alarm because last week I read in the papers that the aviation industry was already trying to find alternative fuel that is generous for the climate, so I will continue using air transport because the problem is about to be resolved”. He was also supported by Kyomuhendo who also said that, “I will continue using air transport because I know that soon the problem will be rectified because the aviation industry is in the process of producing biogas fuels that are generous to the environment”.

This corresponds with Wymer (2010) and Burns & Cowlishaw (2014) findings illustrating that airline travelers tend to rely on the assumption that airlines are taking care of climate change and that they do not need to input their individual effort towards the same cause. Travelers tend to believe in a good picture portrayed by airlines in that they are defensive and don’t communicate to customers what is really happening and at times give false information.
about using bio fuels which is not the case in other wards they use a lot of green washing. In addition, Becken (2007) and Cohen et al. (2011) also found out that tourists felt that climate change mitigation was not their personal responsibility but for governments. In contrast, Gössling, et al. (2009) found out that many Swedish citizens acknowledged their individual contribution to climate change though they placed much blame to aviation industry, government and intergovernmental organizations.

A surprising perspective was given by some respondents who believed the notion of climate change was a new way of Europeans colonizing Africa and that was being magnified yet it was not a serious phenomenon. For instance Interviewee Kwiriza said that, “There is nothing wrong with using air travel I think Europeans are jealous that now Africans have started travelling and therefore they are scaring us so that we reduce on our travels for me as long as I live I will continue to travel in order to get goods for my business. Uganda is not like Europe where people don’t work and are still paid, for us here you have to work hard to feed both your family and ageing parents and as for me the only way I do that is to buy goods from China and then sell them expensively”. Ssempa had a similar view, “I will continue to travel, and I think climate change is a white wash ignited by Europeans and they want to colonize our minds, the problem is not there and climate is not changing that much for instance my friend in UK told me that they experienced heavy snow this winter.”

The study by Akpan et al., (2012) revealed that most of the Nigerian respondents pointed out that climate change was mythical and therefore a fork story as one respondent had this to say, “part of the seeming fairy tale on foreign media is that Africa, as in the case of the global financial crisis, would be the worst hit when climate change Armageddon happens” (Pg.2) This clearly reveals that Ugandans have wrong heresies that may end up affecting their commitment to climate change mitigation negatively, much as the African set up is different it is wholly wrong to feel that westerners are jealous of Africans and such heresies need to be uprooted from the grassroots otherwise the hope of saving the climate maybe miniate yet cooperation of all global citizens to mitigate climate change is required.

Nevertheless most religious tourists had completely different unrealistic altitudes concerning air travel whereby they attributed it to punishment from God stating that the world citizens had over sinned and therefore the earth would be further destroyed if its inhabitants didn’t change and that there was need for repentance so as to obtain mercy from God Almighty. For instance Nuwamanya said that, “Climate change is a punishment from God, we may try to blame air transport or deforestation but I think the earth is being destroyed because people have over sinned and the earth will be destroyed like Sodom and Gomorrah in the Bible, I even hear that in Europe they have legalized homosexuality and even wed homosexuals, God is very annoyed with the earth inhabitants and therefore passing judgment on the earth, how come that for all these years ago we never had problems with the climate. I will continue using air transport because to me it doesn’t hurt the climate but it is human kind sin that is hurting it”. This also in alignment with Natukunda,s perspective who also pointed out that, “We need to pray to Allah to rectify the problem but convincing me or other Muslims not to travel will be hard, because when we travel to Mecca we get rewards in the next world after we die, moreover our final home is the next world, so why mind a lot on this present world”.

This aligns with Eden (1993) who pointed out that religious aspects have a great influence on how people perceive climate change and need to be handled as critical issues and resolved at the grass root level, and Hulme (2008) emphasizes that climate change is a new challenge in the overall world views and belief systems which in the long run will lead to value changes
since some parts of the world view climate change as a result of supernatural hand of God than attributing it to the anthropogenic activities, a preposition that needs to be addressed through legitimacy, moreover Burns & Cowlishaw (2014) argued that people have knowledge about climate change but unwilling to change their travel patterns due to various reasons such as denial of the phenomenon.

5.3 Third Theme: Ugandans and their cultural values
Many of the respondents interviewed had different cultural perspectives when it came to air travel moreover majority of them took it as a God given privilege to travel in the airline as it changed their status in the Ugandan society. For instance Interviewee Ahabwe said, “Whenever I travel my friends and family usually send me what's up messages and on face book saying that iam lucky. Travelling by air is a form of prestige and you are taken as a high class citizen for example when I started travelling the Reverend in our church called me one Sunday and introduced me as a person whom God has lifted because I regularly use air transport and from that day I sit on the first row in church and iam also a committee member on the building project”. This was in alignment with Kiconco,s perspective who pointed out that, “Travelling is taken as a great privilege in Uganda because the majority of the population have not used air travel before and it is everybody’s dream to travel by air for instance I have a pastor friend and he told me that most of the people who come to him for counseling want to be prayed for to travel in the airplane and go and do kyeyo (old jobs) in Europe, U.S.A, Canada and Australia”.

All these perceptions are connected to the findings of Fiske (2000) argued that cultures are vital in understanding climate related issues and explained how members of the community think, feel and judge certain circumstances in that some communities need to be enlightened on the dangers of climate change and how it can be mitigated because some tend to uphold activities which are dangerous to the climate. Chirkov, Valery et al., (2005) extended this view to claim that extrinsic values such as popularity, respect and success influence people’s decisions and attitudes towards environmentalism. They concluded that in the study of pro environmental behaviors there is need to understand different cultures because different societies perceive air travel differently and therefore look for practical measures on how to mitigate climate change in such areas.

However, one interviewee, Kyomuhendo pointed out something different expressing beliefs that still existed among Ugandan cultures where airplanes are taken as supreme and believed that they possessed healing virtues in them and accorded much reverence in terms of healing some diseases, “In our society when you travel you are taken as a very important person for instance I come from Bududa, the Eastern part of Uganda where they believe that anything connected to the airplane heals measles for instance if a helicopter lands on any land like when the president used to visit Bududa immediately his helicopter left, people would rush to the ground to pick and keep the grass saying that such grass could heal measles when mixed with other herbs, and also one time my grandmother asked me for my shirts which I put on while travelling claiming that they can heal measles and that she can easily earn a lot of money by lending them to families with children suffering from measles”.

Smit & Wandel (2006) notes that interventions towards climate change have always focused on infrastructure and technological changes that reduce vulnerability to climate change impacts but a few strategies have been implemented towards cultural value change yet the later is vital in influencing behavioral change moreover outcome oriented approaches usually
ignore local factors and yet may be perceived by locals as vital. However O’Brien & Wolf (2010) points out that while incorporating values in climate change a critical ethical question arises, “whose values counts” and “who decides” a preposition that makes cultural values cumbersome to influence because almost all societies consider their cultures superior.

Some respondents also pointed out that travelling by air aided in career advancement in that people who tended to travel a lot by airplanes tended to be appreciated by Ugandan job market because it was believed by employers that such people were more exposed and would contribute much to the organization because of their association with people from developed countries perspective that has led most Ugandans to travel so as to upgrade their career, it is a culture that is strongly engulfed among the Ugandan job market. For instance Muwanguzi said, “Travelling in Uganda puts you on a high social status in that even when you attend the interview you are asked how many countries have you travelled to, for instance there was a scenario where I was on a hiring committee and two job competitors had reached the final stage and they all had similar qualifications and experiences and we decided to drop one person basing on his low travel experience outside the country and this actually portrays how travelling abroad is very important because people who travel to developed countries are taken to be more knowledgeable because of their interaction with westerners”.

Similar perspective was presented in the research of Cohen & Higham (2011), who argued that society places individuals who travel regularly on a high social status and this has ended up in influencing traveler’s behavior in favor of air transport. Cohen & Gossling (2015) stated that, “where mobility patterns turn into an object of admiration, they become a signifier of social status and upper ladder and thus a social necessity shaping what might be termed as liquid identities”(Pg.3). Cohen et al., (2013) also found that distance travelled was taken as a way of raising social stature of an individual in that respondents pointed out that if the economic status changed they would definitely engage in long haul trips.

Moreover business travelers had a total different perspective and pointed out that Ugandans tended to prefer goods made from abroad and that even if goods were of high quality and were made from local industries they tended to shun them hence necessitating business travelers to travel often outside the country. Sebuyizi the business man pointed out that, “I have thrilled in my business because I travel by air and bring goods from China because Ugandans don’t believe in goods that are made in Uganda or other African countries because culturally they believe that goods made in China are more durable even if such a factory shifted from China and got established here they would not buy goods, that is how my fellow country mates are and I have therefore to travel to get goods for them and they usually pay me good money even if at times they are of low quality”.

Similar perspective was also shared by Besigye who said, “Ugandans faith in abroad goods is embedded in their minds and therefore me as a business man I have to travel to China to bring them to them, I have saved a lot of money from my business and I have a potential to start an industry in Uganda but I know that I will not get market, can you imagine the Chinese who started a shoe making industry could not make profits and they had to go back to China. Even though the government gives tax holidays to foreigners we still don’t have many foreign investors in the industrialization sector because Ugandans don’t trust or like goods made locally in their country and will always buy goods imported from abroad even if they are of low quality”.
This perspective was closely related to the findings of Barr and Prillwitz (2012) who found that whether a person changes their air travel patterns all depends on their personal values and costs met in acting pro environmentally aligning with the benefits to the environment and to the society in that if using alternative means of transport would conflict with costs such as perceived low quality of life, financial costs as well as time costs then such measures would not be held implying that people with strong self enhancement values may end up not being pro environmental.

Similarly Steg & Vlek (2009) also found that pro environmental behaviours are closely related to individual environmental values in that in some situations people may resist acting environmentally preferring to value other things such as time, money, products and comfort above the environment. Moreover findings by Thogerson and Olander (2002) had found earlier that sustainable consumption was influenced by self transcendence values in that changing people’s behaviours depended on the person’s priorities as far as universalism values were concerned in that people who prioritized universal values tended to be more willing to take environmental choices. Similarly De Groot and Steg (2009) findings revealed that committed environmentalists prioritized altruistic values over egoistic values while non environmentalists scored low on altruism.

Religious travelers also claimed that travelling in Uganda was associated with spiritual blessings and people were willing to use all their life saving in order to travel to religious sites because they believed that the blessings which was gotten from such visit were internal and could not be bought with money. Moreover Interviewee Kyomuhendo stated that, “In Uganda it is every Christian’s dream to visit Israel whereby when you visit the holy land you can never remain the same because the heavens are open in Israel e.g. I know a woman who was barren for 15 years when they went to Israel and prayed on the wailing wall, after two months the couple got three children, I also heard of stories that Obama also went to the wailing wall before becoming a president of the USA, so as long as I live I will always go to Israel because I know that iam gathering blessings for the church, my children and also my grand children ”.

While Interviewee Natukunda said, “In Islam it is of great privilege to go to Mecca in that when you visit the holy place your name automatically changes to “Hajji” or “Hajati” and also every prayer that you make in Mecca is answered and that clearly explains why every time Kyambadde Tours and Travel Company takes thousands of Muslims to Mecca from Uganda. Moreover in our faith one is allowed to have four wives and you have to show them equal love and therefore when you go with your first wife, then you go with the second until you finish all of them and hence this explains why I travel frequently to Mecca”.

This is in line with Becken (2007) pointed out that long distance air travel is less price elastic than short distance travel because the alternatives are limited in the former, in that even if travelers have knowledge about climate change they are likely not to change their behaviours especially if they have to fly for long distances to visit friends and go for vacations. Moreover Larsen & Guiver (2013) stated that, “Most seek to minimize the time and cost of their holidays and flying currently offers the best way of doing this. Coupled with the knowledge from the analysis that many tourists desire distance in the form of experience and meeting that which is different, which they associate with long physical distances, this strongly suggests that voluntary travel behavior change is unlikely”
All this clearly reveals that air traffic is not about to reduce in Uganda and therefore there is need for sensitization about the dangers of air transport to the climate to the entire globe as there are many roadblocks limiting pro-environmental behaviors that are culturally embedded in Ugandans.

6.0 Conclusions

The aim of the study was to gain a better understanding of how Ugandan travelers perceive carbon emissions from air transport and its overall effect on climate change. The conceptual framework showed that four aspects i.e. knowledge, attitudes, cultural values and perceived behavior control are vital for constructive perceptions of Ugandans towards air related climate change. The study results indicated that all those aspects were relevant in understanding Ugandan travelers’ perceptions and therefore there is need for practical measures to be extended to Uganda in order to mitigate air transport related climate change.

From the study it was clear that awareness of climate change emanating from air transport was not high among the respondents selected for the study. Some respondents who had knowledge about the phenomenon tended to associate it with other factors such as deforestation, poverty, improper disposal of wastes and depletion of ozone layer. A few of them that attributed it to carbon emissions mentioned airplanes as one of the factors but tended to dwell more on carbon emissions from cars and industries as the main attributes of carbon emissions.

What should be noted is that air travel contributes to about 40% carbon emissions via fossil fuel usage yet the aviation sector is adamant about its contributions and even lacks a systematic approach on how the problem can be handled (Scott, Hall and Gossling, 2016), therefore there is need for policy makers to invest more research in Uganda before the problem is out of hand moreover (UWTO, 2016) predicted that there is going to be increased traffic from emerging regions which was confirmed in the study in that most respondents acknowledged that they are taking many trips abroad and were not ready to change their travel patterns.

Chapman (2007), Gossling and Peeters (2007), Hall (2011) all pointed out that the immediate solution to carbon emissions from the air sector is change in consumer attitudes and behaviours. This situation is crucial and there is need for immediate sensitization of Ugandans in order to rectify the problem because from the findings it was revealed that it is the dream of every Ugandan to travel by plane.

It was also found that one of the attributes that necessitated Ugandans to use air travel was distance in that they didn’t have any reliable infrastructures to travel abroad, a strong constraint that was pointed out in Higham et al., (2016) that air travel reduction is mythical because there aren’t reliable alternatives to the same, there is need for governments to look into this issue of infrastructures in that much as people are willing to reduce their air travel patterns but they are restricted by barriers which they can’t handle single handily. The aspect of denial was also found among the Ugandan respondents whereby some claimed that much as they were willing to change but their contribution would be insignificant because other Ugandans could continue travelling. This was similar to a number of climate change scholars who found similar findings implying that individuals efforts cannot bring about the desired reductions in air travel but there is need for policy makers to intervene before the situation is out of hand.
One surprising facet gotten in this study was when some respondents pointed out that western countries wanted to control and subject them to their perceptions. Others also pointed out that Europeans wanted to encroach on Uganda again as it was in past years of colonialism. Such attitudes and perceptions need to be rectified at the grass root level because when such travelers have those perceptions then it will be very difficult to alter them in future and the situation will be out of hand yet as predicted by UNWTO (2016) more traffic will come from emerging regions. Moreover Akpan et al., (2012) pointed out in their research that Nigerian respondents perceived climate change issues as mythical and more of a folk story, this clearly shows the kind of unseriousness that the climate change phenomenon has received in Africa, and more so it reveals that Ugandans have beliefs that may negatively affect their commitment to climate change mitigation.

Cultural values was another phenomenon that was gotten in the study as most respondents pointed out that travelling by air was a form of prestige and it changed their status in the society in that some of them even said that for one to progress in their career they needed to have travelled by air. To make matters worse some believed that climate change was a punishment from God and there was nothing that could be done. Moreover some respondents had beliefs that would make climate change mitigation difficult for instance some respondents had belief that air travel could heal diseases such as measles. With such perceptions there is need for serious interventions in such emerging regions if tangible reductions are be realized in climate change originating from air transport moreover Smit and Wandel (2006) noted that many interventions towards climate change have always focused on infrastructure and technological changes yet a few have been implemented towards cultural values yet the latter is vital in influencing behavioral change.

7.0 Limitations and Future Studies

The research made several new interesting contributions to the tourism field however it was not void of limitations. To begin with only respondents who had ever used air transport were legible to participate in the study yet perceptions can be gotten from all people even if they are not involved in the activity hence the study could have missed out on some more new interesting ideas from non air transport participants. Another clear limitation of the study was that some respondents were already biased and took the subject as something that was being over exaggerated by scholars and scientists.

A further limitation was that the study sample included only 30 respondents to represent the entire population of Uganda which is made up of 38 millions moreover study results may not represent the perceptions of all Ugandans and therefore the results portray a surface level examination of the study topic. For the future directions of research it would be better if both quantitative and qualitative methods of research would be used because in the former perceptions of many respondents can be got, in addition all Ugandans irrespective of whether they have ever travelled by air planes could be included since all Ugandans are potential air travelers because every Ugandan dream is to use air travel at one time.
8.0 References


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9.0 Appendix

9.1 Interview Guide

1. What is your age/gender?
2. What is your highest level of education?
3. What is your occupation or primary source of income?
4. When travelling outside Uganda what means of transport do you use?
5. How many times have you used air travel in the last 12 months?
6. Would you consider using other means of transport. If not, why?
7. Do you know about the global climate change challenge?
8. What brings about climate change?
9. What do you know concerning air transport related climate change?
10. How did you know about it e.g. study, news, environmental sensitization etc.
11. If yes, have you changed your travel altitudes as a result of the knowledge you have?
12. If no, would increase in information regarding the impact of air travel cause you to travel less by airplanes?
13. What would your response be concerning air travel be if tickets became more expensive than they are currently?
14. What do you think you can do as an individual to reduce carbon emissions from air transport?
15. What kind of cultural values are attached to air transport amongst Ugandans?
16. Culturally does your participation in air travel change your status quo among the Ugandan community?
17. If yes, do these cultural values influence your air transport decisions?
18. In your view what kind of solutions could be effective in promoting pro-environmental travel patterns?