FACTORS INFLUENCING AIR SAFETY PERFORMANCE IN KENYA: A CASE OF KENYA AIRWAYS LIMITED IN NAIROBI COUNTY

By

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A Research Project Submitted In Partial Fulfillment Of The Requirements For The Award Of The Degree Of Master Of Arts In Project Planning And Management Of The University Of Nairobi

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DECLARATION

This research project report is my original work and has never been submitted for an award or degree in any other University.

Signed..... Date..... 17/11/2016.....

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This research project report has been submitted for examination with my approval as the University

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DEDICATION

I dedicate this research project to my lovely husband Gibson Wachira and son Enzi Maina for their support and bearing with me during this process. I will remain forever grateful.

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ABBREVIATION& ACRONYMS

ATS - Air Transport System

CRM - Crew Resources Management

EASA - European Aviation Safety Agency

FAA - Federal Aviation Administration

KQ - Kenya Airways

SMS - Safety Management Systems

SEPT - Safety and Emergency Procedure Training

USFAA - US Federal Aviation Administration

ABSTRACT

The purpose of this study is to examine factors influencing air safety performance in Kenya. The objectives of this study are: To assess how the implementation of air safety curriculum influences airline safety performance, to establish how the capacity of instructors influences airline safety performance, to evaluate how management support on air safety training influences airline safety performance and to assess how re-current training influences airline safety performance. The Literature review focused on all the above mentioned objectives. The research project employed a survey design. This design was appropriate for this study because it necessitated collection, organization and summarizing data from a sample for conclusions. Descriptive statistics and inferential statistics were used to analyze the data. Frequencies were used to analyze all the four sections of the questionnaire. Summary measures of central tendency (mean) and dispersion (standard deviation) was calculated. The study revealed that there was a positive significant relationship between implementation of the air safety curriculum and air safety performance. The study further revealed that there was a positive significant relationship between capacity of instructors and airline safety performance. The study also revealed that there was a positive significant relationship between air safety performance and management support for training. Finally the study revealed there was a positive significant relationship between re-current training and airline safety performance. The study recommends the need for Kenya Airways to enhance the training curriculum content which is considered to be very important to organizations in the airline industry as they guide the manner in which training is carried out. A well researched training curriculum that seeks to incorporate research findings drawn from need assessment improves professional skills that enhance airline staff to work more efficiently. The study also recommends the need to ensure that training instructors are well equipped with requisite skills so as to be able to effectively calibrate and standardize their own skills. The study further recommends the need for the management to equip employees with suitable resources, tasks as well as abilities to design, classify, employ and gauge their work, so that they can be able to carry out necessary action in order to fully optimize their contributions to the organization in a manner that is valuable to air safety performance. Finally the study recommends the need for management to offer good leadership. This means therefore that there is need to balance between effective leadership experiences, combined with valuable management skills, which can enhance air safety performance

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The aviation industry has been undergoing various improvements for the last few years. These changes have com e about as a result of the key players in the industry applying the reactive "fly-crash-fix-fly" approach. This approach has also experienced modifications and transformed into an intensive accident investigation as occasioned by massive changes in technology, operational procedures as well as advance training (Stolzer et al 2008).

The new approach is anchored on the principle of improving air safety performance while at the same time reducing human injury, loss of life, as well as damage to the environment. This can be well achieved through proactive Safety Management Systems (SMS) in the airline industry. In a bid to maintain technical improvements as well as mitigating human error and organizational factors, there have been efforts to put in place new regulations and training while at the same time making improvement on lessons which have learned from accident and incident investigations.

The aerospace entails two most important perspectives these are the traditional perspective and the modern perspective (ICAO DOC 9859). The traditional perspective safety management approach is one which is described to be the one which normally responds to events that already occurred. This kind of approach is considered to be very important when it comes to technical errors events which are not usual. The modern or evolving approach to safety management mainly focuses on identification of hazards before they appear in incidents or accidents. This therefore involves taking corrective actions in order to reduce such risks. The predictive method is also considered to be one additional method for higher safety management level. This method is important when it comes to capturing the system performance during operations while at the same time it helps in the identification of potential future problems with the use of various methods such as data mining or modeling. As adapted from AC 120-92, safety management system is structured upon four basic

components of safety management: policy, safety risk management, safety assurance as well as safety promotion. The US Federal Aviation Administration (USFAA) considered these four basic components to be the four important pillars necessary for an effective safety management system (Stolzer 2008).

Globally studies have been carried out to examine factors affecting air safety performance. Kerzner (2010) argued that training has a positive relationship with air safety performance Wright and Geroy (2011) on the other hand argued that management support for training as well as organization resources have a positive relationship on air safety performance while Thang, et al, (2010) suggested that researchers studying training and performance need to consider the impact of various dimensions of employee training programs such as training curriculum, trainer characteristics as well as management support. It is from this background, that the study found it pertinent to analyze how factors such as trainer characteristics, training curriculum, management support as well as recurrent training on the link between employee training and air safety performance.

1.1.1 Air Safety Performance in Kenya

Air safety performance can be defined in a number of ways because it entails a number of elements that include the safety organization and management, safety equipment and measures, accident statistics, safety training and evaluation, accident investigations as well as safety training practice (Wu et al., 2008).

One the other hand ISO defines safety as the freedom of unacceptable risk, were risk is a combination of the probability of occurrence of harm and the severity of the harm (ISO, 1999). This definition makes safety to look very subjective because given that whatever is acceptable to one group of people is likely not to be unacceptable to another group of people.

This study looks at air safety performance from the perspective of “the quality of safety-related work”. This can be described to mean the efforts that are put in place by any particular unit of organization in order to achieve safety. This however excludes the financial risks that are likely to occur in the business transactions. This therefore means that

safety performance is not by any means a subset of the total performance of an organization (Wu et al., 2008).

In case of airline safety, the severity of the harm is described by ICAO's definition of an accident as an occurrence resulting in fatalities, serious injuries or severe damage to the aircraft (ICAO, 2001). It is in line with this that this study will look at air safety as being the absence of an unacceptable accident probability, while on the other hand safety will be described to be the accident probability which is achieved when relating it to the accident probability and which is considered acceptable. Therefore, air safety performance indicators are required to provide a clear indication of the probability of an accident.

1.1.2 Kenya Airways Limited

Kenya Airways (KQ) Ltd was established in February 1977 after the break away of East African Community that jointly owned the East African Airways. It was by then a parastatal wholly owned by the government of Kenya. However in 1986 through Sessional Paper No.1 of 1986 on 'Economic Management for Renewed Growth', the government for the first time spelt out its intention to divest from corporations which could be run better by the private sector. In 1991 a new board was appointed with a mandate to commercialize and prepare the airline for privatization. During its 1993/1994 financial year Kenya Airways reported its first profit .In May 1995 Kenya Airways settled on KLM as its strategic partner and the following year they offered an initial public offer for its shares. From that moment Kenya Airways has recorded significant growth in all fields. Its route network and fleet growth has seen it expand to its current status of commanding over 40 fleets and operating in more than 65 destinations worldwide.

Safety is one of KQ core and critical value and it's clearly stipulated in the mission statement. The airline has invested in safety training for its employees most of which are mandatory trainings for cabin and pilots as regulated by Kenya Civic Aviation Authority. Crew Resource Management training is a safety management training that was introduced in 2005. It's a two day sit-in course that is mandatory and examinable for crew, flight dispatchers and engineers who are joining the airline. Thereafter, crew attend one day

yearly refresher course which is not examinable rather it's an open forum where crew give their views and feedback on how best CRM is being practiced onboard (Kenya Airways, 2016). Other mandatory safety trainings undertaken during initial training and thereafter yearly refresher training include Safety Emergency and Procedure Training (SEPT), First Aid and Ditching.

1.2 Statement of the Problem

The airline industry has been under immense pressure over the few past years with regards to performance. Kenya Airways for instance has recorded losses for the last two consecutive years something which has no gone down well with a number of stakeholders in the industry. Although immense pressure has been on the financial performance, air safety performance is also a key area that needs serious consideration. This is also informed by the fact that for the last three decades, the effective management of available resources has been catchy-cry of aviation. Initially, the reference was to aspects of operational safety following the catastrophic mismanagement of resources that led to aircraft accidents (Brent .J. Hayward, 2000). The conventional wisdom of the early 1980s suggested that around 70% of aircraft accidents were attributable to human error. This thinking has gradually matured to a realization that human factor is inevitable as they are involved in conceiving, designing, constructing and maintaining the aviation system. Indeed, most accidents and incidents are not caused by a single human error, but by a combination of multiple errors and factors. Therefore the focus should be on how all aspect of human resources can be manage to avert catastrophic errors. It is from this background, that the study found it pertinent to analyze how factors such as trainer characteristics, training curriculum, management support as well as recurrent training on the link between employee training and air safety performance.

In Kenya there exists a gap in research given that most studies done on airline safety performance have been done in other jurisdictions with no particular study done on Kenya for example Njeru (2015), carried out a study on airline safety in Kenya and established that personnel professional qualifications have a major effect on aviation safety as the KCAA had inadequate qualified safety oversight inspectors and technical safety staff. The study also revealed that the percentage of training execution in the organization was low as the

organization appeared inadequately committed towards staff development. This study therefore sought to fill in the research gap by examining the factors influencing air safety performance in Kenya.

1.3 Purpose of the Study

The purpose of this study was to determine factors influencing air safety performance in Kenya with a focus on Kenya Airways Limited in Nairobi County.

1.4 Objectives of the Study

The objectives of this study were:

1. To assess how the implementation of air safety curriculum influences airline safety performance.
2. To establish how the capacity of instructors influences airline safety performance
3. To evaluate how management support on training influences airline safety performance.
4. To assess how re-current training influences airline safety performance.

1.5 Research Questions

The study sought to achieve the above objectives through the following questions:

1. How does curriculum implementation influence airline safety performance?
2. How does the capacity of instructors influence airline safety performance?
3. How does management support on training influences airline safety performance?
4. To what extent does re-current training influence airline safety performance?

1.6 Significance of the Study

The Management team may use the findings as the base upon which to review company safety management and safety culture in Kenya Airways. Of key importance to the company would be an evaluation of their current management and training Model. Kenya Airways would be able to establish gaps that hindered effective implementation of the training

programmes. The study will also enable Kenya Airways adopts a new safety approach taking cognizes of the current dynamics of technology.

The findings may also be used by other organizations especially in the air transport and medical field where training is being practice to review their current implementation structures. It may also enable such organizations review their training models to enhance their effectiveness. The findings of the study would also be of great reference to KCAA in setting the training standards in commercial air transport industry of Kenya. The findings would also enable them evaluate their training guide by incorporating emerging issues. The findings of this study may enrich existing knowledge and hence may be of interest to both researchers and academicians who seek to explore and carry out further investigations. It may provide basis for further research.

1.7 Delimitations of the Study

As delimitation, the researcher engaged the services of a research assistant who is not a staff member to collect primary data. She trained the assistant to ensure that accountability, accuracy, transparency and objectivity were upheld. Due to the sensitivity of the data to be gathered from the selected population, the data was thoroughly de-identified and treated as proprietary. Respondents were assured of anonymity and therefore no information was revealed that would jeopardize the identity of the sample population involved with the study.

1.8 Limitations of the Study

The researcher is an employee of Kenya Airways which is the institution where data was obtained. There is therefore risk of bias in data collection because the researcher might not desire to display the weaknesses of her place of work.

Secondly the study focused on Kenya Airways alone which is run differently from other airline companies in Kenya. Thus the findings of this study may not be a true reflection of the other airline performances.

1.9 Assumptions

The researcher assumed the following while conducting the research

1. The selected respondents provided honest answers when approached.
2. The information put forward by respondents was factual
3. Perceptions of the airline safety performance were given equal value during data collection

1.10 Definitions of Significant Terms

Air Safety Performance: This means to verify the safety performance of the airline company and to validate the effectiveness of safety risk controls (Reason, 2009).

Airline Crew: This is defined as a group of people who operate an airplane but excluding the captain and pilot (Kennedy, 2009).

Capacity of Instructors: Refers to the specific ability of an instructors (Reason, 2009, p. 195).

Management Support: Refers to the support given by the management of the organization to lower cadre employees (FAA, 2004a, p. 2).

Re-Current Training: This is a refresher or a reminder of things learned in other, earlier training (Reason, 2009, p. 195).

Statistical Package for Social Sciences. (SPSS): A software package applied in the analysis of data. It will provide with the frequencies and percentages to establish pertinent factors.

Training Curriculum: This includes the composition of the course content that is being taught for any particular training program (Stolzer et al., 2008).

1.11 Organization of the Study

Chapter one provides a background of the problem. This includes a brief background of the organization of study as well as a background on air safety performance. The chapter also presented the problem statement as well as the study objectives. In addition the study presented the significance of the study as well as the scope of the study and also the limitations and delimitations of the study. Chapter two provides literature review organized

in terms of the research objectives. The first part presents literature review on how training curriculum influences air safety performance. This is followed by literature on capacity of instructors and then management support and finally re-current training and how each of them affects air safety performance. The chapter also presents a theoretical review as well as an empirical review and finally summary of reviewed literature. In chapter three, research design, methodology, as well as the data type and the data collection instruments are explained. Chapter four provides the process, techniques and procedures adopted to analyze, present and interpret data gathered using the questionnaires. The chapter elaborates quantitative data analysis, cross tabulation tables, percentages and mean. Chapter five presents a summary, discussion, conclusions, and recommendations following in that order.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents a review of literature on the various concepts of the study as well as the study objectives. The first part presents literature review on how training curriculum influences air safety performance. This is followed by literature on capacity of instructors and then management support and finally re-current training and how each of them affects air safety performance. The chapter also presents a theoretical review as well as an empirical review and finally summary of reviewed literature.

2.2 Air Safety Performance

Air safety performance can be defined in a number of ways because it entails a number of elements that include the safety organization and management, safety equipment and measures, accident statistics, safety training and evaluation, accident investigations as well as safety training practice (Wu et al., 2008).

One the other hand ISO defines safety as the freedom of unacceptable risk, were risk is a combination of the probability of occurrence of harm and the severity of the harm (ISO, 1999). This definition makes safety to look very subjective because given that whatever is acceptable to one group of people is likely not to be unacceptable to another group of people.

This study looks at air safety performance from the perspective of "the quality of safety-related work". This can be described to mean the efforts that are put in place by any particular unit of organization in order to achieve safety. This however excludes the financial risks that are likely to occur in the business transactions. This therefore means that safety performance is not by any means a subset of the total performance of an organization (Wu et al., 2008).

2.3 Training Curriculum and Airline Safety Performance

Training is considered to be among the most important components whenever airline safety performance is mentioned. In the same view, training curriculum is considered to be at the core of any training program which relates to air safety performance. Saleem and Mehwish (2011) define a training curriculum to be an organized format of training that is normally used to guide a training program for any organization. A training curriculum also provides direction with regards to how trainers can impact skills and sensations to other members of the organization. A training curriculum is that platform that makes it really possible for the trainers and learners to execute the training program in a very effective. This is achieved when both the trainer and the students are able to carefully follow the set out training program.

Training curriculums are considered to be very important to organizations in the airline industry as they guide the manner in which training is carried out so as to improve professional skills that help airline staff to work more efficiently. It is through the training curriculum that airline employees are able to effectively enhance their knowledge (Kennedy, 2009).

It is important to have a good training curriculum so that students can have a good manual to enable them grab enough knowledge and learning outcomes. A training curriculum can therefore be regarded as being a backbone within the training program. In this view a training curriculum if well incorporate into the training program by the trainers it plays a very important within the training program on air safety. Additionally it is essential for any organization in the airline industry to invest in a good training curriculum. This will go a long way in creating a very good trainer's prospective on the methodologies while at the same time ensuring maximum outcomes through the training program (Shah and Rehana, 2011).

There are a number of studies that have been carried out to examine the influence of the training curriculum on air safety performance. Undoubtedly it has been established that indeed there is a positive relationship between the training curriculum and air safety performance. Shah and Rehana (2011) sought to examine the role of training curriculum on

air safety performance. In this study it was established that a good and high quality training curriculum is related directly to the improvement in air safety performance. Olaniyan and Ojo (2008) further carried out a study seeking to establish the influence of a training curriculum on air safety performance. This study established that the training curriculum is very important because it increase air safety performance and also improves the good quality of work by airline employees.

Bowra et al. (2011) in their study established that there are quite a number of factors which contribute to air safety performance. The findings however established that the training curriculum was the most important factors influencing airline safety performance. Tharenou, Alan and Celia (2007) argue further that the, main aim of a training curriculum is to enhance air safety performance. On their part Aguinis and Kraiger (2009) put oward an argument that having a good training curriculum improves the overall quality of services and further enhances air safety performance.

Thang and Drik (2008) have also avowed that in order for an organization to enhance on air safety performance the main determinant is the training curriculum. This means therefore that it is not the training passé' that enhances airline safety performance but rather the training curriculum, this therefore calls for more investment into the training curriculum if indeed organizations are keen on enhancing their airline safety performance. ALDamoe et al. (2012) on their part argued that air safety performance is through training but most importantly this comes as a result of having a good training curriculum. Olaniyan and Lucas (2008) are of the belief that a training curriculum training will contribute positively to the capacity of employees and thus make them to perform optimally which in the end will lead to improved air safety performance of the organization

2.4 Capacity of Instructors and Airline Safety Performance

Air safety performance is also influenced by the capacity of instructors who are in charge of the various training programmes. It means therefore that for any training program to be successful, the instructors need to be equipped with the requisite skills and knowledge so as to effectively transfer the same skills to other employees. In the airline industry, course instructors who are dealing with air safety training courses need to have the requisite

capacity for them to be able to effectively guide their students throughout the training process and assessment of training programmes (Kanki et al., 2010).

Instructors, supervisors, as well as check pilots also require special training so as to be able to effectively calibrate and standardize their own skills. In the event that instructors are not well equipped with the requisite skills, it follows that they will not be able to effectively transfer knowledge to their students and this will without doubt lead to poor performance. On the contrary however if instructors, have a good grasp of the training module and are well equipped with requisite skills it follows that air safety performance will be enhanced (Salas & Maurino, 2010).

Kanki et al., (2010) opines that debriefing and critiquing skills are very essential tools for instructors, supervisors, as well as check pilots. This means that instructors who have such skills will be able to gauge the effectiveness of their training skills once they receive feedback from their students. These feedback mechanisms also help to improve on certain areas which might have been ignored or left out knowingly or unknowingly and thus enables instructors to develop mechanism of ensuring all aspects of training are understood by the student. This in the end will enhance air safety performance (Kanki et al., 2010).

Air safety instructors are also required to have good communication skills in order to effectively pass across ideas. Communication is very vital for any training program because it is through communication channels that messages are transmitted from one person to another. In the event that one fails to have good communication skills it is likely that instructions from the trainer to their students will not be clear and this will go a long way in incomplete feedback from the studentss (Naval Aviation Schools Command, 2008). Communication in most circumstances is regarded to be a non-technical that reflects on culture and policy of a particular airline, and which can therefore be enhanced through training (Flin et al., 2008). It follows therefore that air safety performance can be enhanced if indeed instructors possess good communication skills relevant for the fight industry (Salas & Maurino, 2010).

Effective communication can be viewed in terms of the ability of instructors to have clarity, accuracy, timeliness, as well as usefulness. Flin et al. (2008) describes such an occurrence to

be explicitness which therefore plays an important role in ensuring that the instructors are able to effectively pass the message without having any minimizing ambiguity. This helps to enhance air safety performance given that the airline industry does not allow room for ambiguity in communication, because a small mistake can result into very dire consequences. It means therefore that good instructor will most definitely pass down this good trait to the students and this will in the end enhance air safety performance (Flin et al., 2008).

Finally Studies have been carried out to examine the influence of instructor's capacity on air safety performance. In a number of these studies, it has been revealed that indeed the capacity of instructors to communicate effectively enhances air safety performance. Similarly performing aircrew has been seen to be communicating verbally less frequently as compared to events when they are carrying out normal flight operations (Orasanu, 1993).

2.5 Management Support and Airline Safety Performance

Management support on training is one key ingredient towards a successful learning environment in any particular organization. Management support can come n various forms this includes employee empowerment which is considered to be very crucial when it comes to air safety performance (Spreitzer and Mishra 2002). This is because the ability of managers to authorize its workforce to manage elements of their adjacent job surroundings is considered to be a very strong parameter when it comes to air safety performance. In addition management support that allows for autonomy of employees decision making is very pivotal to air safety performance as it allows employees an opportunity to apply their understanding and skills. This therefore goes a long way in ensuring that employees are able to improve their work motivation and by so doing they end up enhancing air safety performance.

Management support can also be seen through providing employees them with the requisite, materials in line with abilities to design, in order for them to effectively to carry out necessary action in order to fully optimize their contributions to the organization in a manner that is very much valuable to air safety performance (Ahmad and Oranye, 2000).

Thirdly it is important for mangers to entrench a safety culture in the organization. This goes a long way in ensuring every level of management support a safety culture in which communication is promoted while at the same time ensuring that employees are encouraged through appropriate questioning. Secondly it is very important that managers need to make it perfectly clear in pilots' manuals, as well as every phase of pilot training, which is appropriate when it is important that managers need to allow employees to question their decisions so as to remover negative repercussions when it comes to appropriate questioning of one pilot's decision or action by another pilot (Kanki et al., 2010).

Management decisions rely mostly on the feedback that is given by the students who are undergoing the various trainings (Kirkpatrick, 2012). To this end, if the learners are not happy with the training program, then it follow that managers can chose to either terminate the entire training or put in place mechanisms to enhance the training program. It is the desire of managers and supervisors to ensure that employees are able to benefit from the various training programs. Similarly it is also the desire of the managers to ensure that employees enjoy the various training programs in their organization. In the same regard, considering that training is not cheap. Besides, is a very expensive affair given that massive resources, manpower and money, are directed towards successful training programs. This means therefore that airline companies yearn for these investments to be worthwhile. This will go a long way in reducing time wastage and assets on training, potentially leading to pessimistic attitudes (Kanki et al., 2010).

Management can also come in form of good leadership. This means therefore that there needs to be a balance between effective leadership experiences, combined with valuable management skills, which can enhance air safety performance. Managers also need to ensure that there is effective communication flow, as one way of supporting air safety performance. This also goes a long way in ensuring that the communication channels are open at all times to facilitate information exchange (Jones, 2010). In addition there is need for the management to ensure that there is clear and consistent communication so as to ensure there is an engaged workforce. Management support needs to be seen in the manner in which managers how respect to lower echelon employees while at the same time respecting their

input. It is important for mangers to share power with their employees through participative decision making so that they would feel sense of belongingness thereby increasing their engagement in realizing it and in the end it will enhance air safety performance (Baumruk, 2004).

2.6 Re-current Training and Airline Safety Performance

Air safety training is considered to be a very essential component when it comes to air safety performance. To this end, it needs to be included in the recurrent training requirement. Recurrent training should form part of the backbone of any organization that is serious on matters to do with air safety performance. Learners need to undergo re-current training so as to be always up to the task on matters to do with air safety, because it is through such training programmes that learners are not left behind in the event that therer are new trends in the operating procedures that have to be conceptualized by the employees(Kanki et al., 2010).

Recurrent training with performance feedback is very much important to any air safety company. This is because it enables training participant to acquire newly improved skills while at the same time be in a position to receive feedback on how effective their initial training was. Feedback is very important to the employees as well; as to the trainers especially if that feedback emanates from self-critique as well as from peers, who work in strict coordination from a facilitator who is very much equipped with special training in assessment and debriefing techniques (Gunther & Tesmer, 2011).

Feedback mechanisms can also add value to the air safety performance programme for any airline company. This is because feedback is what informs the trainers on any content that was left out during the training activities as well as the various gaps that need to be filed by the training course. Effective feedback mechanism therefore makes it easy for the trainers to note the distance that is yet to be covered by the training program and thus enable trainers to underscore how best to tackle such under comings and thus create room for new ideas to be introduced into the training program (Nicklas 2007). This therefore forms the basis for re-current trainings so as to be able to enhance the performance of the airline companies and ensure that there is high air safety performance.

2.7 Theoretical Framework

2.7.1 Experiential Learning Theory Kolb's (1984),

The study adopted the Experiential Learning Theory Kolb's (1984), (ELT) which is based in psychology, philosophy, and physiology. According to him experiential learning has a very important influence on the leadership of the organization while at the same time enhancing organization development this is achieved through the various principles of the learning organization. One basic assumption of this theory is that learning takes place via combination of grasping and transforming experience.

This theory has a four-stage learning cycle: the first stage is the concrete experience (CE) which is followed by the abstract conceptualization (AC) and then the third one is reflective observation (RO), and finally the fourth one is the active experimentation (AE). In specific terms the concrete experiences (experiencing) is what brings about the observation as well as the reflection (reflecting). This goes a long way in ensuring that such concepts are internalized and further integrated into abstract which will in the end result into behavioral experimentation (Yeganeh & Kolb, 2009). This theory is very relevant to this study given that training is considered to be an essential part of organization learning. Looking at the second stage of the learning cycle the training curriculum fits in this stage as it is the backbone of air safety performance. The capacity of the trainer falls under the first stage of the learning cycle which is the concrete experience. The management support and the re-current training fall under the third stage of the learning cycle.

2.7.2 Social Learning Theory of Leadership

The social learning theory of leadership states that people can learn through observation and direct experience (Bandura, 1977). In this theory the main assumption is that behaviors forms a function of consequences and the perceptions that people have on the consequences (Luthans, 1997). It follows therefore that there is a central influence of the social learning theory with the use of models. According to Bandura (1977) in most cases people display learned behavior, either deliberately or inadvertently through the influence of models. He further states that a good example is much better than a consequence of unguided actions.

In some cases people form ideas by simply making certain observations and in future occasions such information serves as a guide for action (Bandura, 1977). The social learning theory is made up of a number of elements such as motivation, emotion, cognitions and social re-enforcers. According to Harrison (2011), social learning theory ties to transformational leadership behaviours in the form of motivation, observation as well as modeling. This theory is very relevant to this study given that training is considered to be an essential part of organization learning. The capacity of the trainers for example entails the experience of the instructors and this therefore forms part of the learning process where students can learn from direct experience of the instructors. Secondly, learning through observation as outlined in this theory can be lined to the aspect of management support and the training curriculum. Finally re-current training can be linked to this theory of leadership given that learning through direct experience calls for re-current training at all times through feedback assessment as well as monitoring and evaluation.

2.8 Conceptual Framework

The study will be guided by the conceptual framework as shown in Figure 2.1 relating the dependent and independent variables.

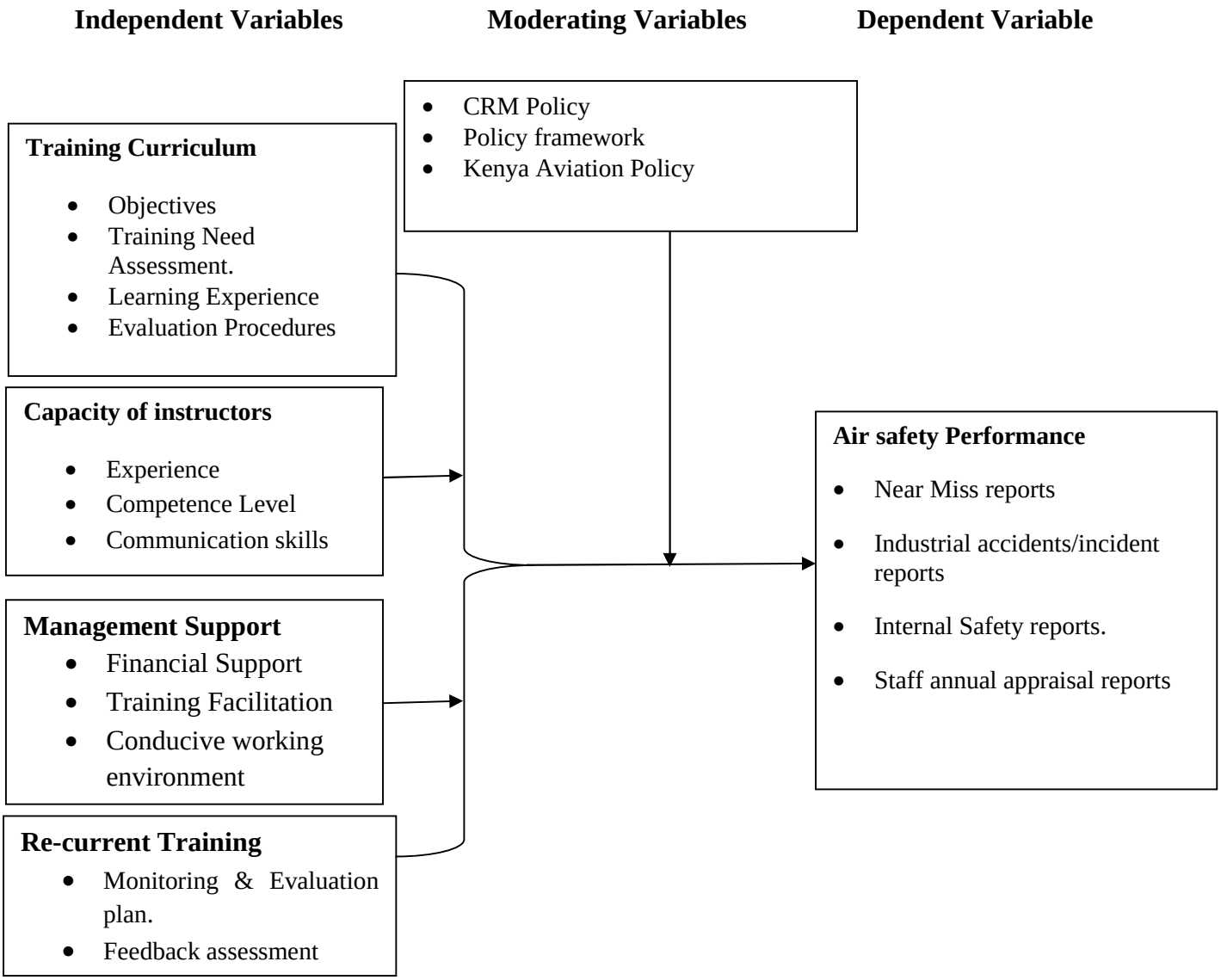

Figure 2.1: Conceptual Framework

In the framework, there are certain factors influencing crew safety performance. For this study, three factors are considered as the independent variables. Crew safety performance is the dependent variable that is affected by the independent variables as shown above.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the strategy that was used to collect the information required for the study and covers the following: the research design of the project, the population size under study, methods that were used in data collection as well as the methods of data analysis.

3.2 Research Design

The research project employed a descriptive survey design. The justification for using this research design was that the design allows for gathering primary data based on communication with a representative sample of individuals. Additionally this research design helps in establishing the current status of the population under study. Another justification was that descriptive research design provides respondents with an opportunity to describe the phenomenon under study (Bryman and Bell, 2011).

3.3 Target Population

The target population for this study consisted 1200 Kenya Airways crew who are based in Nairobi. Of the target population 800 are cabin crew and 400 cock pit crew (Source; HR records). Nairobi was selected as the study site due to proximity to the researcher, time available for research and budgetary constraints.

3.4 Sample Size and Sampling Procedure

This subsection presents the sampling procedure adopted in this study as well as the sample size. Sampling method is process used to select the sample from the population. According to Kombo and Tromp (2006) a sample is a small part of the population from wich one can use to make inferences from.

3.4.1 Sampling Procedure

The researcher used stratified and then simple random sampling techniques. The population was stratified in two groups; Pilot and cabin crew and then sample population was randomly selected in each group.

3.4.2 Sample Size

A total of 150 respondents were used through a random sampling generated from a computer program using the formula below:

$N=p\%*q\ \%*(z/e\%)^2$

Where; *a* is the z score

b is the margin of error

p and *q* are the estimate proportions

Pilots: (400/1200) x 150= 50

Cabin Crew: (800/1200) x 150= 100

This study worked with a sample size of 150 respondents.

3.5 Research Instrument

This study employed a structured questionnaire in line with the study objectives and contained both structured and open ended questions. The use of questionnaire was appropriate as they were dropped and picked at a later date especially for respondents who were not readily available. Some questionnaires were email to respondents who filled and responded back.

According to Mugenda and Mugenda (2003) questionnaires are considered ideal for the study because they are easy to use and are considered less costly in comparison to other data collection tools.

3.5.1 Pilot Testing

Pilot testing involved conducting a preliminary test of data collection tools and procedures to identify and eliminate problems. Piloting enables the researcher to make changes where necessary and also adjust the questionnaire before the actual process of data collection

where questionnaires are administered to the respondents. The pilot testing for this study was undertaken with Kenya Airways team in Safety department.

3.5.2 Validity of Instruments

The questionnaire was pre-tested on 5 respondents randomly picked from the target population with the purpose of establishing the accuracy and appropriateness of the questions. The pre-testing ensured ambiguous statements were removed or re-worded. The questionnaires were then revised to conform to the results of the pre-testing and to ensure that accurate data was collected.

3.5.3 Reliability of Instrument

Carmines and Zeller, (1979) describes the reliability of a research instrument as the extent to which the instrument is able to bring about the same results even if there are repeated trials. This study will employ the Split-Halves method and use the Spearman-Brown prophecy formula, whereby:

$$Pxx'' = 2Pxx'/1+Pxx'$$

Where Pxx'' is the reliability coefficient for the whole test and Pxx' is the split-half correlation.

3.7 Data Analysis Techniques

The questionnaire was administered to sampled respondents either through self or researcher administered methods. In the self-administered method, questionnaires were hand-delivered to respondents who were requested to complete the questionnaires themselves which were picked later by the researcher. The researcher also in some circumstances used the questionnaire to interview the respondents to help in further explaining the items in the questionnaire.

The data was edited for accuracy, uniformity, consistency, completeness and then arranged to enable coding and tabulation before the final analysis.

This being a sample study, descriptive statistics and inferential statistics was used to analyze the data. Frequencies were used to analyze all the four sections of the questionnaire. Summary measures of central tendency (mean) and dispersion (standard deviation) was calculated. These tools of analysis were successfully used by Mwaura (2002) and Ngigi (2003) in similar studies.

3.8 Ethical Considerations

In the context of research, according to Saunders, Lewis and Thornhill, (2001), "… ethics refers to the appropriateness of your behavior in relation to the rights of those who become the subject of your work, or are affected by it". In this study, the informed consent of participants was sought after. They were informed in advance on the nature and importance of the study and further offered the choice of whether to participate or not.

The study upheld the right to privacy. The identity of the participants was not disclosed in any way. Furthermore, the nature and quality of participants" performance was kept strictly confidential. Such confidentiality or anonymity offered to participants enhanced positive impact in ensuring more open and honest responses.

The researcher was honest on her part. Data has not in any way manipulated to support a particular conclusion.

3.9 Operational Definition of Variables

OBJECTIVES	RESEARCH QUESTIONS	VARIABLES	INDICATORS	MEASURE SCALE	TOOLS OF ANALYSIS	TYPE OF ANALYSIS
To assess how the implementation of air safety curriculum influences airline safety performance.	How does the curriculum implementation influence airline safety performance?	Curriculum	• Objectives • Training Need Assessment. • Learning Experience • Evaluation Procedures	Nominal ordinal	Percentage	Descriptive

To establish how the capacity of instructors influence airline safety performance	How does the capacity of instructors influence airline safety performance?	Capacity	• Competence Level • Level of academic qualification • Communication Skills	Nominal Ordinal	Percentage	Descriptive
To evaluate how management support on training influences airline safety performance.	How does management support on training influences airline safety performance?	Management Support	• Financial support • Training facilitation • Conducive working environment	Nominal Ordinal	Percentage	Descriptive
To assess how re-current training influence airline safety performance	To what extent does re-current training influence airline safety performance?	Re-Current Training	• Monitoring & Evaluation plan. • Feedback assessment.	Nominal Ordinal	Percentage	Descriptive

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This presents data analysis as well as well as the interpretation. The chapter elaborates quantitative data analysis, cross tabulation tables, percentages and mean. This was attained through the following specific objectives. The first part presents findings on the demographic information while the second subsection focus on the findings on the influence of the training curriculum on air safety performance followed by findings on capacity of training instructors on air safety performance, thereafter findings on how management support of the training curriculum on air safety performance

4.2 Demographic Information

4.2.1 Response Rate

Out of 150 questionnaires which had been administered to the interviewees, 100 were returned for analysis indicating 67 percent response rate. A response rate of 60% and above is considered good enough. Irungu (2007) and Ongore (2008) in their study were able to achieve a response rate of 74 percent and 87.5 percent respectively. This therefore implies that the response rate was good enough.

4.2.2 Background Information of respondents

The following subsection presents a summary of findings with regards to the background information. This includes age of the respondents, gender, years of experience as well as the highest level of education.

4.2.2.1 Age of the Respondents

Table 4.1 presents findings with regards to the age of the respondents.

Table 4.1: Age of Respondents

Age of the Respondents	Frequency	Percent
21-30 Years	12	12%
31-40 Years	34	34%
41-50 Years	32	32%
Above 50 Years	22	22%
Total	**100**	**100%**

As illustrated in Table 4.1, majority of respondents who participated in the study (34%) were of the age 31-40 years, closely followed by respondents of age 41-50 years at 32%. The rest of the respondents at 12% were of age 21-30 years and those above 50 years represented 22%. This could imply that majority of employees who work as airline crew in the aviation industry of Kenya are middle aged. For pilots, the probable reason being their retention and promotion is determined by the flying hours they have achieved. Cabin crew seniority and promotions are largely influenced by number of years they have flown and therefore could be the reason their retention at work is high.

4.2.2.2 Gender of the Respondents

Table 4.2 presents findings with regards to the gender of the respondents.

Table 4.2: Gender of Respondents

Gender	Frequency	Percent
Female	29	29
Male	71	71
Total	**100**	**100**

Table 4.1 reveals that the percentage of male respondents was 71% of while the female respondents accounted for 29%. This indicates that majority of the respondents were male. The findings also indicate that at Kenya Airways there are more male employees as compared to their female counterparts.

4.2.3 Level of Education

Table 4.3 presents findings with regards to the level of education of the respondents.

Table 4.3: Respondents Level of Education

Level of Education	Frequency	Percent
Certificate	12	12
Diploma	28	28
Undergraduate	54	54
Post-Graduate	4	4
Others	2	2
Total	**100**	**100.0**

Table 4.3 indicates that 54% of the respondents from Kenya Airways have undergraduate qualifications, as their highest education level. 28% reported that they had attained a Diploma as their highest level of education while 12% have certificate qualifications. Those who reported as having attained a postgraduate or any other qualifications as their highest education level made up 6% of the respondents.

4.2.2.3 Number of Years Worked in the Organization

Table 4.4 presents findings with regards to the number of years worked in the organization.

Table 4.4 Years of Experience

Years of Experience	Frequency	Percent
1-3 Years	45	45
4-7 Years	17	17
8-11 Years	30	30
Above 11 Years	8	8
Total	**100**	**100.0**

Table 4.4 reveals that 45 percent of the respondents had worked for 1-3 years at the organization while 17 percent had worked for 4-7 years as 30 percent having worked at the organization for 8-11 years as the remaining 8 percent had worked for 11 years and above. The findings imply that most of the respondents had massive experience in the industry owing to their number of years in the organization.

4.3 Implementation of Air Safety Curriculum and Airline Safety Performance

The first objective of the study was to assess how the implementation of air safety curriculum influences airline safety performance. The following subsection presents findings with regards to this aspect of the study. Table 4.5 reveals that majority of the respondents agreed that air safety management trainings offered in KQ are consistent and standardized, trainings offered on air safety management are relevant to their work and the training objectives are well spelt out.

The methods used in air safety training are interactive, contemporary and participatory. Employees are frequently consulted through surveys on how best to improve air safety training. They are frequently evaluated on their competence in air safety management. Non- technical concepts such as communication skills are vital in air safety management training. The trainings offered by KQ on air safety management emphasize more on preventative measures. KQ has adopted exhaustive and all inclusive training models in air safety management.

Inclusion of Threat Error Management in the CRM curriculum has helped to enhance safety performance. After every training in air safety management, employees are given a chance to ask questions. Feedback and suggestions on how to improve air safety training is acted upon

Table 4.5: Implementation of air safety curriculum and airline safety performance

Statement	Mean	Standard Deviation
Air safety management trainings offered in KQ are consistent and standardized?	**3.74**	**1.114**
Trainings offered on air safety management are relevant to my work?	**3.42**	**1.243**
The training objectives are well spelt out.	**3.61**	**1.120**
The methods used in air safety training are interactive, contemporary and participatory.	**3.65**	**1.097**
People are frequently consulted through surveys on how best to improve air safety training.	**3.51**	**1.229**
Employees are frequently evaluated on their competence in air safety management.	**3.5**	**1.287**
Non- technical concepts such as communication skills are vital in air safety management training?	**4.04**	**0.993**
The trainings offered by KQ on air safety management emphasize more on preventative measures?	**3.62**	**1.317**
KQ has adopted exhaustive and all inclusive training models in air safety management?	**3.55**	**1.330**
Employees believe the SHELL model adapted by Kenya Airways for CRM training is relevant and relates to their work.	**3.72**	**0.907**

Table 4.6 shows that the R square value of the model was .367 indicating that 36.7 percent of air safety performance is influenced by implementation of the air safety curriculum.

Table 4.6: Model Summary for Implementation of air safety curriculum and airline safety performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.606[a]	.366	.361	1.52790

a. Predictors: (Constant), Implementation of air safety curriculum

Table 4.7: ANOVA for Implementation of air safety curriculum and airline safety performance

Table 4.7 reveals that there was a significant relationship between implementation of the air safety curriculum and air safety performance with the F value of 56.913.

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	132.861	1	132.861	56.913	.000[b]
	Residual	228.779	98	2.334		
	Total	361.640	99			

a. Dependent Variable: Air safety performance

b. Predictors: (Constant), implementation of the air safety curriculum

The coefficients table 4.8 shows that there was a positive significant relationship between implementation of the air safety curriculum and air safety performance with a beta of .395 and a T-value of 7.544. These findings imply that implementation of the air safety curriculum influences air safety performance.

Table 4.8: Coefficients for Implementation of air safety curriculum and airline safety performance

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		

1	(Constant)	1.723	1.290		1.336	.185
	implementation of the air safety curriculum	.395	.317	.606	7.544	.000

a. Dependent Variable: Air safety performance

4.4 Capacity of Instructors and Airline Safety Performance

The second objective of the study was to establish how the capacity of instructors influences airline safety performance. The following subsection looks at the findings of this aspect which the study sought to establish. Table 4.9 reveals that the capacity of instructors influences airline safety performance. This is also affirmed by respondents stating that employees at Kenya Airways are adequately trained in emergency procedures. They know the proper channels through which questions regarding safety procedures should be routed. Similarly emergency drills are conducted as prescribed. Task assignments are always cross-checked and verified while crew members are well trained to cope with fatigue. In the same regard air safety training requirements, design and delivery resources are well identified as the training material is well prepared and developed to support learning.

Table 4.9: Capacity of Instructors and Airline Safety Performance

Statement	Mean	Standard Deviation
Employees are adequately trained in emergency procedures.	4.25	**0.882**
	4.45	**0.725**
Emergency drills are conducted as prescribed.	3.91	**1.041**
Our training has prepared the crew to work as a well co-ordinated team in an emergency.	3.15	**1.347**
Task assignments are always cross-checked and verified.	3.62	**1.305**
Crew members are well trained to cope with fatigue.	4.09	**0.978**
Air safety training requirements, design and delivery resources are well identified.	4.11	**0.912**
Training material is well prepared and developed to support learning.	4.23	**0.875**
Air safety training is well integrated with other elements of flight crew training such as customer services, company policy and other interfaces where appropriate.	3.96	**0.883**
Instructors create a conducive climate for learning through confidentiality, clarifies training objectives and methods, ascertain and support learner's need.	4.19	**0.754**

Table 4.10 shows that the R square value of the model was .516 indicating that 51.6 percent of the airline performance is influenced by capacity of instructors.

Table 4.10: Model Summary Capacity of Instructors and Airline Safety Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.719[a]	.516	.511	1.33596

a. Predictors: (Constant), Capacity of Instructors

Table 4.11 reveals that there was a significant relationship between capacity of instructors and airline safety performance with the F value of 104.624.

Table 4.11: ANOVA for Capacity of Instructors and Airline Safety Performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	186.731	1	186.731	104.624	.000[b]
	Residual	174.909	98	1.785		
	Total	361.640	99			

a. Dependent Variable: Air safety performance

b. Predictors: (Constant), Capacity of Instructors

The coefficients table 4.12 shows that there was a positive significant relationship between capacity of instructors and airline safety performance with a beta of .911 and a T-value of 10.229. These findings imply that the capacity of instructors influences airline safety performance

Table 4.12: Coefficients for Capacity of Instructors and Airline Safety Performance

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.356	1.112		3.017	.003
	Capacity of Instructors	.911	.285	.719	10.229	.000

a. Dependent Variable: **Airline Safety Performance**

4.5 Management Support and Airline Safety Performance

The third objective of the study was to how management support on training influences airline safety performance. This is presented in the following subsection of the study. Table 4.13 shows that the manager's style in Kenya Airways encourages people to give their best. Employees valued as a person at Kenya Airways. There is also consistency in what Kenya Airways stand for and how they act. Employees at Kenya Airways believe team members trust each other and live by Kenya Airways shared values. It is safe to voice ones opinions in Kenya Airways. Employees believe that KQ is doing a good job of responding to changes in the market place. They believe that taking advantage of flexible work options will not have a negative impact on my ability to be successful within KQ. Employees at Kenya Airways are involved in decisions that affect their work and are consulted whenever there is a change. KQ management ensures employees are frequently trained on air safety management. The training materials on air safety management training are current and relevant.

Table 4.13: Management Support and Airline Safety Performance

Statement	Mean	Standard Deviation
The manager's style in Kenya Airways encourages people to give their best.	4.04	**0.712**
I feel valued as a person at Kenya Airways	3.98	**1.111**
At Kenya Airways, there is consistency in what we say we stand for and how we act	3.77	**1.284**
I believe my team members trust each other and live by Kenya Airways shared values	3.62	**1.347**
It is safe to voice my opinions in Kenya Airways	3.97	**1.304**
I believe that KQ is doing a good job of responding to changes in the market place?	4.00	**0.883**
I believe that taking advantage of flexible work options will not have a negative impact on my ability to be successful within KQ?	4.22	**0.851**
I am involved in decisions that affect my work?	4.20	**0.822**
I am consulted whenever there is a change in the SOP's?	3.87	**1.317**
KQ management ensures I am frequently trained on air safety management?	4.27	**0.621**

Table 4.14 shows that the R square value of the model was .400 indicating that 40 percent of the airline safety performance is influenced management support.

Table 4.14: Model Summary for Management Support and Airline Safety Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.401[a]	.400	.031	1.88182

a. Predictors: (Constant), Management Support

Table 4.15 reveals that there was a significant relationship air safety performance and management support for training with the F value of 4.122.

Table 4.15: ANOVA for Management Support and Airline Safety Performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14.597	1	14.597	4.122	.004[b]
	Residual	347.043	98	3.541		
	Total	361.640	99			

a. Dependent Variable: Airline Safety Performance

b. Predictors: (Constant), Management Support

The coefficients table 4.16 shows that there was a positive significant relationship between air safety performance and management support for training with a beta of .594 and a T-value of 4.030. These findings imply that the air safety performance is influenced by management support for training.

Table 4.16: Coefficients for Management Support and Airline Safety Performance

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.716	2.089		1.778	.001
	Management Support	.594	.588	.401	4.030	.004

a. Dependent Variable: Airline Safety Performance

4.6 Re-Current Training and Airline Safety Performance

The third and final objective of the study was to assess how re-current training influences airline safety performance. This subsection presents findings with regards to how this aspect was answered by the respondents.

Table 4.14 shows that the R square value of the model was .400 indicating that 40 percent of the airline safety performance is influenced by re-current training.

Table 4.14: Model Summary for Re-Current Training and Airline Safety Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.401[a]	.361	.353	1.75945

a. Predictors: (Constant), Re-Current Training

Table 4.15 reveals that there was a significant relationship between re-current training and airline safety performance with the F value of 18.822.

Table 4.15: ANOVA for Re-Current Training and Airline Safety Performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	58.266	1	58.266	18.822	.000[b]
	Residual	303.374	98	3.096		
	Total	361.640	99			

a. Dependent Variable: Airline Safety Performance
b. Predictors: (Constant), Re-Current Training

The coefficients table 4.16 shows that there was a positive significant relationship between re-current training and airline safety performance with a beta of .305 and a T-value of 4.338. These findings imply that airline safety performance is influenced by re-current training.

Table 4.16: Coefficients for Re-Current Training and Airline Safety Performance

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.577	1.971		.293	.770
	Re-Current Training	.305	.508	.301	4.338	.000

a. Dependent Variable: **Airline Safety Performance**

Table 4.17 shows that senior officers should encourage crewmember questions during normal operations and in emergencies. Even when fatigued, employees perform effectively during critical times of operation. In the same regard asking for assistance makes one appear incompetent. The organization's rules should not be broken - even when the crewmember thinks it is in the company's best interest. The study also concludes that a debriefing and critique of procedures and decisions after critical situations is an important part.

Table 4.17: Re-Current Training and Performance

Statement	**Mean**	**Standard Deviation**
Re-fresher trainings on air safety management are regularly conducted.	3.97	**1.110**
Continuous reinforcement and feedback on air safety is regularly done.	4.01	**0.882**
The objectives of refresher training on air safety management are well defined.	3.87	**1.347**
Performance feedback on air safety management is encouraged for the purpose of reviewing and amplifying training components	4.18	**0.885**
Role play and taped feedback on experience of air safety management is practiced during refresher training.	3.99	**1.279**
Refreshers trainings are often conducted by a line crew	4.18	**0.623**
Improved skills and knowledge are acquired during refresher trainings.	3.67	**1.221**
Simulators and training devices such as video tapes are used during refresher trainings	3.81	**1.239**
Most air safety management refresher trainings are examinable.	3.92	**1.271**

CHAPTER FIVE

SUMMARY OF FINDINGS, DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter consists of four sections. The first section was on the summary of the findings which was followed by a section on the discussion of the findings and thereafter a section on the conclusions made from the findings. The chapter also presented recommendations from improvement as well as the policy implications.

5.2 Summary of findings

The study revealed that there was a positive significant relationship between implementation of the air safety curriculum and air safety performance with a beta of .395 and a T-value of 7.544. These findings imply that implementation of the air safety curriculum influences air safety performance. The study further revealed that there was a positive significant relationship between capacity of instructors and airline safety performance with a beta of .911 and a T-value of 10.229. These findings imply that the capacity of instructors influences airline safety performance. The study also revealed that there was a positive significant relationship between air safety performance and management support for training with a beta of .594 and a T-value of 4.030. These findings imply that the air safety performance is influenced by management support for training. Finally the study revealed there was a positive significant relationship between re-current training and airline safety performance with a beta of .305 and a T-value of 4.338. These findings imply that airline safety performance is influenced by re-current training.

5.3 Discussion

5.3.1 Implementation of Air Safety Curriculum and Air Safety Performance

The study revealed that there was a positive significant relationship between implementation of the air safety curriculum and air safety performance with a beta of .395 and a T-value of 7.544**.** Training is considered to be among the most important components whenever airline safety performance is mentioned. In the same view, training curriculum is considered to be at the core

of any training program which relates to air safety performance. Saleem and Mehwish (2011) define a training curriculum to be an organized format of training that is normally used to guide a training program for any organization. A training curriculum also provides direction with regards to how trainers can impact skills and sensations to other members of the organization. A training curriculum is that platform that makes it really possible for the trainers and learners to execute the training program in a very effective. This is achieved when both the trainer and the students are able to carefully follow the set out training program.

These findings imply that implementation of the air safety curriculum influences air safety performance. The findings agree with Bowra et al. (2011) who argued that there are quite a number of factors which contribute to air safety performance however the training curriculum is definitely the most essential one. Thang and Drik (2008) argued that for an organization to improve on air safety performance this is determined by the training curriculum, definitely not the training passé' and this therefore requires that organizations need to invest more on having a good training curriculum so as to enhance the safety performance by the employees. ALDamoe et al. (2012) claimed that air safety performance is through training but most importantly this comes as a result of having a good training curriculum. Olaniyan and Lucas (2008) believe that having good training curriculum training enhances the employees' capacity to contribute the optimal air safety performance of the organization.

Finally the findings also agree with a number of studies that have been carried out to examine the influence of the training curriculum on air safety performance. Undoubtedly it has been established that indeed there is a positive relationship between the training curriculum and air safety performance. Shah and Rehana (2011) sought to examine the role of training curriculum on air safety performance. In this study it was established that a good and high quality training curriculum is related directly to the improvement in air safety performance. Olaniyan and Ojo (2008) further carried out a study seeking to establish the influence of a training curriculum on air safety performance. This study established that the training curriculum is very important because it increase air safety performance and also improves the good quality of work by airline employees

5.3.2 Capacity of Instructors and Airline Safety Performance

The study further revealed that there was a positive significant relationship between capacity of instructors and airline safety performance with a beta of .911 and a T-value of 10.229. These findings imply that the capacity of instructors influences airline safety performance. Air safety performance is also influenced by the capacity of instructors who are in charge of the various training programmes. It means therefore that for any training program to be successful, the instructors need to be equipped with the requisite skills and knowledge so as to effectively transfer the same skills to other employees. In the airline industry, course instructors who are dealing with air safety training courses need to have the requisite capacity for them to be able to effectively guide their students throughout the training process and assessment of training programmes (Kanki et al., 2010).

Instructors, supervisors, as well as check pilots also require special training so as to be able to effectively calibrate and standardize their own skills. In the event that instructors are not well equipped with the requisite skills, it follows that they will not be able to effectively transfer knowledge to their students and this will without doubt lead to poor performance. On the contrary however if instructors, have a good grasp of the training module and are well equipped with requisite skills it follows that air safety performance will be enhanced (Salas & Maurino, 2010).

The findings agree with Kanki et al., (2010) who opines that debriefing and critiquing skills are very essential tools for instructors, supervisors, as well as check pilots. This means that instructors who have such skills will be able to gauge the effectiveness of their training skills once they receive feedback from their students. These feedback mechanisms also help to improve on certain areas which might have been ignored or left out knowingly or unknowingly and thus enables instructors to develop mechanism of ensuring all aspects of training are understood by the student. This in the end will enhance air safety performance (Kanki et al., 2010).

The findings also affirm that indeed managers also need to ensure that there is effective communication flow, as one way of supporting air safety performance. This also goes a long way in ensuring that the communication channels are open at all times to facilitate information

exchange (Jones, 2010). In addition there is need for the management to ensure that there is clear and consistent communication so as to ensure there is an engaged workforce. Management support needs to be seen in the manner in which managers show respect to lower echelon employees while at the same time respecting their input. It is important for mangers to share power with their employees through participative decision making so that they would feel a sense of ownership thereby increasing their engagement and in the end it will enhance air safety performance (Baumruk, 2004).

Finally the findings also affirm that effective communication can be viewed in terms of the ability of instructors to have clarity, accuracy, timeliness, as well as usefulness. Flin et al. (2008) describes such an occurrence to be explicitness which therefore plays an important role in ensuring that the instructors are able to effectively pass the message without having any minimizing ambiguity. This helps to enhance air safety performance given that the airline industry does not allow room for ambiguity in communication, because a small mistake can result into very dire consequences. It means therefore that good instructor will most definitely pass down this good trait to the students and this will in the end enhance air safety performance (Flin et al., 2008). Finally Studies have been carried out to examine the influence of instructor's capacity on air safety performance. In a number of these studies, it has been revealed that indeed the capacity of instructors to communicate effectively enhances air safety performance. Similarly performing aircrew has been seen to be communicating verbally less frequently as compared to events when they are carrying out normal flight operations (Orasanu, 1993).

5.3.3 Management Support and Air Safety Performance

The study also revealed that there was a positive significant relationship between air safety performance and management support for training with a beta of .594 and a T-value of 4.030. Management support on training is one key ingredient towards a successful learning environment in any particular organization. Management support can come n various forms this includes employee empowerment which is considered to be very crucial when it comes to air safety performance (Spreitzer and Mishra 2002). This is because the ability of managers to authorize its workforce to manage elements of their adjacent job surroundings is considered to be a very strong parameter when it comes to air safety performance. In addition management support that allows for autonomy of employees decision making is very pivotal to air safety performance as it

allows employees an opportunity to apply their understanding and skills. This therefore goes a long way in ensuring that employees are able to improve their work motivation and by so doing they end up enhancing air safety performance.

These findings imply that the air safety performance is influenced by management support for training. Management decisions regarding training are often based on feedback provided from trainees (Kirkpatrick, 2012). If there exists a general feeling that the training seems not adding value to the participants or organization, it may be subject to termination. It is the desire of managers and supervisors to ensure that employees are able to benefit from the various training programs. Similarly it is also the desire of the managers to ensure that employees enjoy the various training programs in their organization. In the same regard, considering that training is not cheap and requires massive resources, manpower and money, airlines companies yearn for training investments to be worthwhile hence there should be process in place to measure Return on Investment. This will go a long way in reducing time wastage and assets on training, potentially leading to pessimistic attitudes (Kanki et al., 2010).

Finally the findings affirm that management can also come in form of good leadership. This means therefore that there needs to be a balance between effective leadership experiences, combined with valuable management skills, which can enhance air safety performance. Managers also need to ensure that there is effective communication flow, as one way of supporting air safety performance. This also goes a long way in ensuring that the communication channels are open at all times to facilitate information exchange (Jones, 2010). In addition there is need for the management to ensure that there is clear and consistent communication so as to ensure there is an engaged workforce. Management support needs to be seen in the manner in which managers how respect to lower echelon employees while at the same time respecting their input. It is important for mangers to share power with their employees through participative decision making so that they would feel sense of belongingness thereby increasing their engagement in realizing it and in the end it will enhance air safety performance (Baumruk, 2004).

5.3.4 Re-Current Training and Air Safety Performance

Finally the study revealed there was a positive significant relationship between re-current training and airline safety performance with a beta of .305 and a T-value of 4.338. Air safety training is considered to be a very essential component when it comes to air safety performance. To this end, it needs to be included in the recurrent training requirement. Recurrent training should form part of the backbone of any organization that is serious on matters to do with air safety performance. Learners need to undergo re-current training so as to be always up to the task on matters to do with air safety, because it is through such training programmes that learners are not left behind in the event that therer are new trends in the operating procedures that have to be conceptualized by the employees(Kanki et al., 2010). These findings imply that airline safety performance is influenced by re-current training. Recurrent training with performance feedback is very much important to any air safety company. This is because it enables training participant to acquire newly improved skills while at the same time be in a position to receive feedback on how effective their initial training was. Feedback is very important to the employees as well; as to the trainers especially if that feedback emanates from self-critique as well as from peers, who work in strict coordination from a facilitator who is very much equipped with special training in assessment and debriefing techniques (Gunther & Tesmer, 2011).

The findings are in line with a number of studies that have been carried out to examine the influence of the training curriculum on air safety performance. Undoubtedly it has been established that indeed there is a positive relationship between the training curriculum and air safety performance. Additionally Shah and Rehana (2011) established that a good and high quality training curriculum can be directly related to the improvement in air safety performance. Olaniyanand Ojo (2008) further established that the training curriculum is very important because it increase air safety performance and also improves the good quality of work by airline employees.

Finally the findings affirm that indeed feedback mechanisms can also add value to the air safety performance programme for any airline company. This is because feedback is what informs the trainers on any content that was left out during the training activities as well as the various gaps that need to be filed by the training course. Effective feedback mechanism therefore makes it easy for the trainers to note the distance that is yet to be covered by the training program and

thus enable trainers to underscore how best to tackle such under comings and thus create room for new ideas to be introduced into the training program (Nicklas 2007). This therefore forms the basis for re-current trainings so as to be able to enhance the performance of the airline companies and ensure that there is high air safety performance.

5.4 Conclusions of Study

The study concludes that implementation of the air safety curriculum influences air safety performance. This is because air safety management trainings offered in KQ are consistent and standardized, trainings offered on air safety management are relevant to respondents' work, the training objectives are also well spelt out.

The study further concludes that the capacity of instructors influences airline safety performance. This is also affirmed by respondents stating that the manager's style in Kenya Airways encourages people to give their best. Employees are valued as a person at Kenya Airways. The study also concludes that the air safety performance is influenced by management support for training. Additionally the study concludes that employees at Kenya Airways are adequately trained in emergency procedures. Finally the study concludes that airline safety performance is influenced by re-current training. Senior officers should encourage crewmember questions during normal operations and in emergencies.

5.5 Recommendations

i. The study recommends the need for Kenya Airways to enhance the training curriculum content which is considered to be very important to organizations in the airline industry as they guide the manner in which training is carried out. A well researched training curriculum that seeks to incorporates research findings drawn from need assessment improves professional skills that enhance airline staff to work more efficiently. It is through the training curriculum that airline employees are able to effectively enhance their knowledge.

ii. The study also recommends the need for organizations to invest more on having a good training curriculum so as to enhance the safety performance by the employees. This is because air safety performance is through training but most importantly this comes as a result of having a good training curriculum. Additionally having good training curriculum

training enhances the employees' capacity to contribute to the optimal air safety performance of the organization.

iii. The study also recommends the need to ensure that training instructors are well equipped with requisite skills so as to be able to effectively calibrate and standardize their own skills. In the event that instructors are not well equipped with the requisite skills, it follows that they will not be able to effectively transfer knowledge to their students and this will without doubt lead to poor performance.

iv. The study further recommends the need for the management to equip employees with suitable resources, tasks as well as abilities to design, classify, employ and gauge their work, so that they can be able to carry out necessary action in order to fully optimize their contributions to the organization in a manner that is very much valuable to air safety performance.

v. Finally the study recommends the need for management to offer good leadership. This means therefore that there is need to balance between effective leadership experiences, combined with valuable management skills, which can enhance air safety performance. A large component of good leadership in aircrew coordination is the ability to balance the workload with the resources of a crew. There is need for Team leaders to take on more responsibility to ensure the team achieves the mission in a safe and effective manner.

5.6 Suggestions for Further Research

The study recommends the need for additional studies to be conducted on the factors influencing air safety of performance management systems in Kenya but with focus on another organization. This will give a divergent view point and therefore the findings from such a study will be able to provide a clear picture of the industry factors affecting air safety performance. There is also the need to carry out a study of examining the success factors on implementation of air safety performance measurement systems.

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APPENDICES

APPENDIX 1

UNIVERSITY OF NAIROBI
COLLEGE OF EDUCATION AND EXTERNAL STUDIES
SCHOOL OF CONTINUING AND DISTANCE EDUCATION
DEPARTMENT OF EXTRA-MURAL STUDIES
NAIROBI EXTRA-MURAL CENTRE

Your Ref:
Our Ref:
Telephone: 318262 Ext. 120

Main Campus
Gandhi Wing, Ground Floor
P.O. Box 30197
NAIROBI

8th August 2016

REF: UON/CES/NEMC/24/075

TO WHOM IT MAY CONCERN

RE: FAITH KIMOTHO – REG NO L50/77689/2009

This is to confirm that the above named is a student at the University of Nairobi, College of Education and External Studies, School of Continuing and Distance Education, Department of Extra- Mural Studies pursuing master of arts in Project Planning and Management.

She is proceeding for research entitled "factors influencing air safety performance in Kenya". A case of Kenya Airways Limited in Nairobi County.

Any assistance given to her will be appreciated.

CAREN AWILLY
CENTRE ORGANIZER
NAIROBI EMC

UNIVERSITY OF NAIROBI
P. O. Box 30197
08 AUG 2016
NAIROBI
NAIROBI EXTRA MURAL CENTRE

APPENDIX II

Questionnaire

Instructions: Please respond to the following questions and where applicable, mark the relevant box with a tick (√) or the scale provided.

Confidentiality: The responses you provide will be strictly confidential. No reference will be made to any individual(s) in the report of the study.

PART A: BACKGROUND INFORMATION

A1 – Respondents Profile

1. What is your gender?

[ ] Male [ ] Female

2. In which of the following age brackets do you belong?

[ ] 21-30 years [ ] 31-40 years [ ] 41-50 years
[ ] Above 50 years

3. What is your education level (state the highest level?)
[ ] Certificate [ ] Diploma [ ] Undergraduate

[ ] Post Graduate [ ] Other _____

4. How many years have you worked with the company?

[ ] Less than 1 year [ ] 1-3 years [ ] 4-7 years
[ ] 8-11 years [ ] Over 11 years

5. When were you last time promoted?

[ ] Less than 1 year [ ] 1-3 years [ ] 4-7 years
[ ] 8-11 years [ ] Over 11 years

PART B: CURRICULUM IMPLEMENTATION

Please answer by writing beside each item the letter from the scale below.

A	B	C	D	E
disagree strongly	disagree slightly	neutral	agree slightly	agree strongly

1. Air safety management trainings offered in KQ are consistent and standardized?
2. I believe trainings offered on air safety management are relevant to my work?
3. The training objectives are well spelt out.
4. The methods used in air safety training are interactive, contemporary and participatory.
5. I am frequently consulted through surveys on how best to improve air safety training.
6. I am frequently evaluated on my competence in air safety management.
7. Non- technical concepts such as communication skills are vital in air safety management training?
8. The trainings offered by KQ on air safety management emphasize more on preventative measures?
9. KQ has adopted exhaustive and all inclusive training models in air safety management?
10. I believe the SHELL model adapted by Kenya Airways for CRM training is relevant and relates to my work.
11. Inclusion of Threat Error Management in the CRM curriculum has helped to enhance safety performance.
12. After every training in air safety management, I am given a chance to ask questions
13. Feedback and suggestions on how to improve air safety training is acted upon?

Comments……

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PART C: MANAGEMENT SUPPORT

Please answer by writing beside each item the letter from the scale below.

	A	B	C	D	E
	disagree strongly	disagree slightly	neutral	agree slightly	agree strongly

1. The manager's style in Kenya Airways encourages people to give their best.
2. I feel valued as a person at Kenya Airways
3. At Kenya Airways, there is consistency in what we say we stand for and how we act
4. I believe my team members trust each other and live by Kenya Airways shared values
5. It is safe to voice my opinions in Kenya Airways
6. I believe that KQ is doing a good job of responding to changes in the market place?
7. I believe that taking advantage of flexible work options will not have a negative impact on my ability to be successful within KQ?
8. I am involved in decisions that affect my work?
9. I am consulted whenever there is a change in the SOP's?
10. KQ management ensures I am frequently trained on air safety management?
11. The training materials on air safety management training are current and relevant?

12. There is greater adherence to SOP's among multi-cultural crews
13. Language differences in multi-cultural crews are a threat to safety.
14. There is less cohesiveness among multi-cultural crews.
15. I enjoy working with multi-cultural crews.

Comments……

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ii)

Please describe your personal perception of the quality of teamwork with each of the groups listed below. Please indicate in your own opinion by writing beside each item a letter from the corresponding scale.. (***If you have not worked with a particular group, leave the item blank.)***

A	B	C	D	E
Very Low	Low	Adequate	High	Very high

1. Cockpit crew
2. Cabin Crew
3. Engineers.
4. Turn Around Co-ordinators
5. Passenger Service
6. Crew scheduling
7. Operations control (dispatch)
8. Load control
9. NAS (Catering Services)
10. Air traffic control centre
11. Kenya Airport Authority (KAA)
12. Kenya Civic Aviation Authority (KCAA)
13. Flight Ops Management
14. Flight Ops Training department (if relevant).
15. KQ safety department.
16. Cargo Service

PART D. CAPACITY OF AIR SAFETY INSTRUCTORS

Please answer by writing beside each item the letter from the scale below.

A	B	C	D	E
disagree strongly	disagree slightly	neutral	agree slightly	agree strongly

1. My colleagues are adequately trained in emergency procedures.
2. I know the proper channels through which questions regarding safety procedures should be routed.
3. Emergency drills are conducted as prescribed.
4. Our training has prepared the crew to work as a well co-ordinated team in an emergency.
5. Task assignments are always cross-checked and verified.
6. Crew members are well trained to cope with fatigue.
7. Air safety training requirements, design and delivery resources are well identified.
8. Training material is well prepared and developed to support learning.
9. Air safety training is well integrated with other elements of flight crew training such as customer services, company policy and other interfaces where appropriate.
10. Instructors create a conducive climate for learning through confidentiality, clarifies training objectives and methods, ascertain and support learner's need.
11. Instructors uses LOFT exercises designed to maximize air safety training objectives
12. Roles,rules and expectation are clarified to learners and are encouraged to get involved.
13. Instructors occasionally conduct one on one coaching/debrief of crew as appropriate.

14. Group learning and Team work is encouraged through team work exercises and demonstration.
15. Learners' progress is monitored and review individually or collectively.
16. Learners' are encouraged to assess their own individual and team performance.
17. Instructors' encourages feedback on their performance
18. Instructors' keep abreast of developments from regulators, trade press and other information platforms
19. Instructors ensure learners' signs the attendance sheet.

PART E. RECURRENT TRAINING

Please answer by writing beside each item the letter from the scale below.

A	B	C	D	E
disagree strongly	disagree slightly	neutral	agree slightly	agree strongly

1. Re-fresher trainings on air safety management are regularly conducted.
2. Continuous reinforcement and feedback on air safety is regularly done.
3. The objectives of refresher training on air safety management are well defined.
4. Performance feedback on air safety management is encouraged for the purpose of reviewing and amplifying training components
5. Role play and taped feedback on experience of air safety management is practiced during refresher training.
6. Refreshers trainings are often conducted by a line crew
7. Improved skills and knowledge are acquired during refresher trainings.
8. Simulators and training devices such as video tapes are used during refresher trainings
9. Most air safety management refresher trainings are examinable.

Comments……

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PART E. GENERAL FLIGHT MANAGEMENT

Please answer by writing beside each item the letter from the scale below.

A	B	C	D	E
disagree strongly	disagree slightly	neutral	agree slightly	agree strongly

1. Senior officers should encourage crewmember questions during normal operations and in emergencies.
2. Even when fatigued, I perform effectively during critical times of operation.
3. Asking for assistance makes one appear incompetent.
4. The organization's rules should not be broken - even when the crewmember thinks it is in the company's best interest.
5. I am normally consulted on matters that affect the performance of my duties.
6. When my workload is high I ask for assistance.
7. Leaders who encourage suggestions from crew members are weak.
8. My decision making ability is as good in emergencies as in routine conditions.
9. A debriefing and critique of procedures and decisions after critical situations is an important part.

THANK YOU FOR YOUR TIME AND COOPERATION