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Influence of Change Management on Performance of Airlines in Kenya

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Abstract: Change is becoming an ever-present feature of organisational life. However, many change programmes do not achieve their intended outcomes. This study was done to assess the influence of safety management systems (SMS), leadership styles, organisational culture, and regulatory framework on the performance of airlines in Kenya. This study sought to fill this gap. The objective of the study was to determine how change management influences performance of airlines in Kenya. The study adopted a descriptive cross-sectional research design. The population of this study was forty-three airlines in Kenya. Stratified random sampling method was used to draw samples of the cases used for the study. The study used primary data collected using semi-structured questionnaires. The questionnaires were administered to the respondents through the drop and pick methods as well as through emails where meetings were constrained by the Corona virus disease of 2019 (COVID-19) pandemic. Descriptive statistics such as mean and frequency distribution were used to analyse the data. Due to considerable policy and structural changes that have taken place in the Kenyan aviation industry over the period 2009-2019, this study provided an empirical analysis of the impact of these policies on the overall performance of airlines in Kenya. More specifically, the impact of the various components affecting airlines organisational performance were analysed. This study will be relevant to policymakers because it will enable them to identify to what extent the safety management systems, leadership styles, organisational culture, and regulatory framework influence the performance of airlines. In turn, they will be able to effectively plan both short and long-term performance objectives for the development of airlines in the country. The study was limited to the airline industry in Kenya and, therefore, further research is recommended incorporating regional and international airlines as well as being conducted in other sectors of the economy. This study relied on primary data and, therefore, was limited to the responses received through the questionnaires. It only covered airlines in Kenya.

Keywords: Change Management, Safety Management System, Leadership Styles, Organisational Culture,
　　　　　　Regulatory Framework, Performance

1. Introduction

Air travel is undeniably the most contemporary and fastest way of transportation in today's world; it has unrivaled speed, which saves time, particularly in long-distance operations. Because air travel is so important to global economic growth, it has been implemented into all continents [1]. Therefore, it is paramount to make air transportation safe and secure since through it, people can easily access remote and inaccessible areas like deserts, forests, and mountains. To access remote areas, the various air transportation regulation bodies and governments came up with the formation of airstrips which

have become vital acting as emergency landing sites in case of aircraft-related problems [2].

Change management refers to the process, tools, and techniques to manage the people side of change to achieve the required business outcome [3]. Change management incorporates the organisational tools that can be utilized to help individuals make successful personal transitions resulting in the adoption and realization of change. Shift management affects employee efficiency before and after the transition [4]. In the cycle of transition, the employees' conduct is profoundly influenced by emotional responses. Once workers are exposed to the topic of transition they appear to be scared.

Sometimes, they take on a defensive and resistant role. It is important to remember that the workers have no positive view of improvement. Transition affects their daily tasks and is subject to a deviation from what they are used to doing. They feel threatened and their future unclear. This brings about mental and emotional instability, often with implications on their performance.

During the implementation of change, the workers are noted to have negative emotions and they struggle in finding how to adapt with the impacts of change. Resistance showed is deeply established in pre-conditioned and routine subjection that the representatives were recently presented to within the workplace [5]. Dicke led research in the United States and inferred that employees who are engaged in during a change management activity are probably to have increased buy-in and better execution. Views on approaches for change management identifies employee engagement as a primary feature for effectively implementing a change management plan [6].

The main roles associated with positive change management often share a clear employee engagement relationship. Communication is the most common of these functions followed by collaboration, information flow, trust, and effective problem solving. Some of these management changes include safety management changes, leadership changes, and communication changes. As a multidisciplinary practice, change management should begin with a systematic diagnosis of the current situation in order to determine both the need for change and the capability to change. The objectives, content, and process of change are specified as part of a change management plan. This should be done to assist in the change management implementation process [7, 8].

Donald conducted a study in South Africa and noted that organisations create change-related strain for their employees in two ways: first, the level of strain depends on the impact the change has on the individual's own job. This means high personal demands tend to translate into high strain. Second, if change has a significant impact on the work unit and that change is not managed well, in terms of fairness, this also tends to lead to experiences of personal strain. If change is not well managed it can result to high labour turn over and low production [9].

Change is becoming an ever-present feature of organisational life [10]. However, whilst many organisations appreciate the need for change, as many as 70% of the change programmes do not achieve their intended outcomes [11]. In response to the increasing importance organisational change, there is a growing body of literature looking at the concept and processes of change management and factors that contribute to its success.

Drawing from a wide range of disciplines and theoretical perspectives this literature has been described as abounding in complexities and containing many contradictory and confusing theories and research findings [12-14 Within the literature, one of the most influential perspectives within what are known as 'planned approaches' to change is that of Lewin who argued that change involves a three stage process: firstly, unfreezing current behaviour; secondly, moving to the new behaviour; and, finally, refreezing the new behavior [15].

This study aimed at distinctively examining how Safety Management Systems (SMS) led to the performance of airlines in Kenya. The leadership styles used in the airlines were examined by this research since they are significant in shaping the performance of airlines in Kenya. Regulatory framework are key determinants of the performance of airlines. Organisational culture was also assessed to establish how it influenced the performance of airlines in Kenya.

Presently, airlines globally are being perceived as convoluted organisations that are operated in a commercial business manner. The assumption that airlines are solely huge facilities and public utilities is diminishing fast. Through the influence of globalization and technological innovations and advances, the performance of airlines has continued to grow steadily across international borders; although some airlines have been reported to have recorded negative growth.

A study carried out by Lofguist in a three-year longitudinal case study of the Norwegian airport management and air navigation services provider found out that a fundamental mismatch between organisational culture type and change implementation method contributed to the premature collapse of a deliberate strategic change initiative [16].

Igwe et. al., in their study on impact of change management on selected manufacturing firms in South East Nigeria, used bar graphs and pie charts to analyse data. The finding of this study revealed that change management was effective in improving the level of performance in the selected organisations in South East Nigeria [17].

A critical review of literature on change management on employees' performance carried out established that there is a relationship between change management on employees' performance and the general environment affecting change. The reviewed literature used the tables, bar graphs, linear graphs, and pie charts to analyse data [18].

The technological advancements go hand in hand with the incorporation of the factors studied in this research. For instance, poor leadership styles fused with advanced technology automatically translated to undesired performance of the airlines. This study narrowed down to how four determinants namely SMS, regulatory framework, leadership styles, and organisational culture influenced the performance of airlines in Kenya.

1.1. Safety Management Systems

SMS is an all-inclusive management ideology adopted by the International Civil Aviation Organisation (ICAO) in 2001. SMS was adopted to ensure aviation corporations and aerodromes comply with the local civil aviation regulations. The management system includes policies, procedures, plans, and responsibilities set to manage critical safety risks. According to Remawi, Bates, and Dix [19], all airlines especially international airlines should ensure that they conduct their operations efficiently and safely to avoid any error during daily operations, therefore, mitigating the risks of disasters.

In 2006, ICAO published a manual that defined the procedures of safety management. The printed manual provides basic guidelines to all international civil aviation authorities of the certification of every single airline in their jurisdiction [20]. Any civil aviation authority despite the sovereignty of the states is mandated to adopt these guidelines or notify ICAO should it not be in a position to comply.

The components and process workflow of SMS include safety management policy, safety risk management, safety assurance, and safety promotion. A safety management policy must be effectively developed and communicated in the airlines. Safety policies must illustrate how safety management principles will be fused into the aviation organisational culture; with clear definition of how SMS will be successful, and the positive performance of the airlines will be recorded. The safety policy includes policy statement, organisational structures, and procedures. Policy statements are formal documents written by the top management communicated to all stakeholders and employees [20].

The policy statement prompts all stakeholders to commit themselves to the implementation of SMS. The policy statement document also comprises an assurance that top management is keenly monitoring safety performance. All employees are encouraged by the written document to report any safety issues they feel are inappropriate.

The organisational structure in the safety policy will be relied upon to provide guidance on how to achieve and maintain the set safety objectives. Airlines utilize formal SMS that uses the cross-functional safety committee. Airlines should appoint safety managers who are tasked with the formulation and maintenance of the SMS. The appointed safety managers should be ranked high enough to the top management to facilitate easy and swift communication with the top airline administrators. Procedures outline the processes in which the airlines identify and remedy risks that may arise. The safety procedures are flexible, and they occasionally change as they adapt to the changing risks [21].

Safety risk management is a formal process within the SMS composed of describing the system, identifying the hazards, assessing the risk, analysing the risk, and controlling the risk [22]. There are numerous risks that the aviation industry faces daily, therefore, eliminating all risks is an impossible task. However, the risks can be mitigated tremendously through safety risk management techniques. These techniques include hazard identification, risk assessment, and risk mitigation and the implementation of appropriate control and recovery measures. The safety risk management process describes the systematic application of management policies, procedures and practices to the activities of communicating, consulting, establishing the context, and assessing, evaluating, treating, monitoring, and reviewing risk [23].

The SMS is fully understood and trusted by all employees thanks to the safety promotion. As a result, safety promotion refers to methods and procedures that guarantee that staff are taught and competent to carry out their safety management responsibilities, as well as allowing for communication of safety problems among operational people and with management [24]. It is essential that the entire staff at airlines are trained to establish a culture of safety to allow them to communicate effectively.

Safety assurance translates to all planned and systematic actions necessary to afford adequate confidence that a product, a service, an organisation or a functional system achieves acceptable or tolerable safety [25]. Internal safety meetings, internal audits, and corrective actions assure the employees that the SMS set objectives are being met. Meeting SMS objectives motivates the employees to continue implementing SMS, therefore reducing the risks.

1.2. Leadership Styles

Leadership is the sum total of shared responsibility of all those in authority and requires contribution at all levels. Leadership as the process of influencing people to get the desired outcomes [26]. Leaders are the ones who stimulate, motivate, and recognize their employees in order to get work done and achieve the desired results [27]. There are as many leadership styles as there are leaders. However, these styles have been evolving and have been diversified from the Lewin's leadership styles to the recent transformational and servant leadership styles. There are many ways to lead people due to the different personalities of people. To attain success in different organisations, effective leadership styles should be exercised.

A leader is defined as a person with the responsibility to influence one or more followers and directing them to achieve a set objective. While doing so, the leader has to be aware of the strength of each of his follower and identify the areas to be improved [28]. A leader should be able to change his or her leadership style based on the situation in order to be more effective, focus on supporting the followers and build their trust and respect [29].

According to a study conducted by Groves and Larocca, the most preferred types of leadership by businesses are transformational and transactional leadership [30]. However, there are other forms of leadership that can be employed in business fields including the airlines. Transformational leadership is more like visionary leadership, in which leaders motivate their employees to exceed certain expectations [31, 32]. A transformational leader usually leads employees by providing them a vision. He is more of a charismatic leader and tries to inspire people through his vision and charisma. Burns introduced the concept of transformational leadership. He identified that transformational leaders modify the beliefs and attitudes of the employees by inspiring them. They provide their employees a vision and motivate them in achieving particular goals [33].

Transformational leaders help their followers to accomplish the organisational goals and mission by working with them and through them. They encourage their followers by affecting their beliefs, values, attitudes, and behavior [34, 35]. Transformational leaders inspire their supporters so that it goes past the prizes and trades. Transformational leadership theories give proof, that when a pioneer utilizes

transformational leadership style, it brings about the passionate connection of the adherents or workers towards the pioneer. The nature of transformational leader can be decided by the effect produced by the leader on the followers. Workers create trust and regard towards the transformational leader and they are willing to show remarkable conduct to satisfy their leader's desires [36].

When a leader is worried more with the attainment of goals, transactional leadership becomes more useful. A transactional leader uses carrot and stick approach to achieve those goals [37]. The main concern for transactional leaders is the attainment of task which they accomplish by giving rewards to those who complete. They use positive and negative reinforcements to achieve the desired results. Transactional leadership has been used as a corrective approach, and has two dimensions: contingent reward; and management by exception (active and passive) [38]. Contingent reward means that leader uses rewards and promotions in order to get the desired results from their followers. In management by exception, leaders take corrective actions, when things go wrong and out of control. It is also of two types: management by exception active and management by exception passive. Management by exception active suggests that leader proposes the anticipation behaviour. The leader with transactional leadership style tries to solve the problem before they are likely to occur. In management by exception passive, leader does not anticipate the forthcoming problem, but takes actions when problems occur.

Some leaders adopt a laissez-faire leadership style where a leader does not provide feedback to their followers. A leader with this style of leadership avoids making decisions. They are usually reluctant to take actions and avoid situations, in which, there are chances to encounter problem. They also do not even use rewards or other tools to satisfy the needs of their followers. As a result, the employees get dissatisfied, unproductive and inefficient in their work.

1.3. Regulatory Framework

A regulation is an industrial, international or national rule or a form of authority or laws which can affect, limit influence or direct activities of stakeholders in an industry [39]. Regulation is treated as synonymous with law. Regulations are rules or norms adopted by government and backed up by some threat of consequences, usually negative ones in the form of penalties while a regulatory framework on the other hand, refers to a system of regulations and the means used to enforce them. They are usually established by industry regulators to regulate the specific activities. Regulatory framework is also the due process of regulation surrounding a single topic that entails all of the relevant legislative documents (acts, regulations, annexes) and describes the agency or body responsible for administering the framework [40]. Regulations in the aviation industry play a crucial role since they influence the economic development of the airlines. Before 1970, the institutional regulations in the aviation industry were rigid policies that prevented market forces to shape the business environment. After 1970

the policies were relaxed making the regulations more flexible, and the industry liberalized to enable market forces to carve the aviation business environment [41]. This liberalization of the aviation industry has played a significant role in the improved performance of airlines recorded globally.

A study on the effect of policy and regulatory framework on the performance of private public partnerships in Kenya revealed that policy and regulatory framework led to improvement in organisational performance by creating a level of playing field for organisations engaged in the procurement field [42]. Policy and regulatory framework also led to improvement in transparency, openness, improved ethical standards, impartiality as well as improving decision making.

In Kenya, the enforcer of aviation regulations is the Kenya Civil Aviation Authority (KCAA). The body was formed on 24th October in 2002 by the Parliament Civil Aviation Act of 2002. The main mandate of the regulatory body was economic regulation of air services and development of civil aviation. The regulatory body was also tasked with regulation and oversight of aviation safety and security, training of aviation personnel and provision of air navigation services. KCAA is responsible for enforcing the Operation of Aircraft Regulations law which was passed by the Kenyan Parliament under the Civil Aviation Act.

The Operation of aircraft regulation is an example of a regulation being implemented by airlines in Kenya. The regime interprets the general guidelines in the operations of the day to day practices in the airlines [43]. Some of the regulations that KCAA is enforcing include (a) operation of aircraft regulations, (b) personnel and licensing regulations and, (c) air operator and administration regulations.

Operation of aircraft regulations, the Civil Aviation Act; legal notice 126 outlined the regulations that govern the operation of aircraft for commercial air transport [44]. The regulation guides the operation requirements, maintenance requirements, passenger handling and flight crew requirements of registered airlines in Kenya. Personnel licencing regulations, according to the KCAA's 2013-2017 Strategic Plan [45], outline the personnel licencing role which is concerned with the aircraft registration, aviation personnel licencing, surveillance and air training organisation certification. Under the Civil Aviation Act; legal notice 95 lays the guidelines for personnel licencing within airline firms in Kenya [46]. Personnel licencing regulations focus on licencing and certification, training and testing as well as the rating and authorization of personnel within the aviation sector.

Air operator and administration regulations as outlined in the Civil Aviation Act, in legal supplement 92, calls for regulations targeting air operator certification and administration requirements [47]. The legal supplement outlines the key areas of the regulation into; certification requirements, flight operations management and safety and security management.

1.4. Organisational Culture

Organisational culture is an idea in the field of organisational studies management which describes the psychology, attitudes, experiences, beliefs and values (personal and cultural values) of an organization [48]. Hill and Jones treat organisational cultures as those values, norms and standards that are part of the collective consciousness of an organization [49]. In this way, culture is highly intangible and may be indefinable or unspoken. Culture encompasses a way of working within an organisation that may be difficult to articulate to an outsider.

Schein argued that organisational culture is comprised of three components: artifacts, espoused values and beliefs and habits. Artifacts are the most visible level and includes everything one can see, hear or feel when encountering a new group of people, such as the language, the environment, the technology, the architecture or the observable rituals [50]. Artifacts also include processes within the group. In addition, they are represented in clothing, manners of address, stories told about the organisation, its published list of values as well as ceremonies. The most important point to be made about this level of culture is that it is both easy to observe and very difficult to decipher.

Language is deemed to be the most fundamental aspect of organisational culture. It includes the vocabulary, symbols and jargon used by the organisation's incumbents. Through this system the organisation communicates its outlook, behavioural expectations and beliefs. Language not only influences the way people behave at work, but also impacts the types of processes and company rituals employees create. In aviation, like other communities of practice, is dependent upon communication to function, that is, to socially disseminate and advance the sphere of operation.

Espoused values contain values, norms and rules that provide the operating principles to guide members of the organisation in their behaviour. Every group or organisation reflects the assumptions, beliefs and values about what is right or wrong as well as what will work or not, of someone, mainly the founder. Those individuals, identified as leaders, influence the group to adopt a certain approach to problems, but the group does not have a common understanding or shared knowledge yet. Initially, it is only a proposition from the leader; but it is only after some mutual action and joint observation of the successful outcome of the action that the proposal is transformed into a shared belief or value and ultimately into a shared assumption.

Beliefs and habits are the basic underlying assumptions governing the core of the organisational culture model and consists of unconscious beliefs taken for granted. Beliefs about the environment, human nature, organisations and people's relationship to each other are parts of the basic underlying assumptions. Basic assumptions have become so taken for granted that one finds little variation within a social unit. This shows the ultimate power of culture, as our basic assumptions define how we react emotionally to what is going on and what actions to take in various kinds of situations. We feel comfortable around people with a similar set of assumptions, the so-called mental map or thought world, and vulnerable in situations with people who share different assumptions, as we are likely to misinterpret or misperceive their actions.

1.5. Organisational Performance

The act of a firm comparing the actual results of the company to the prior set goals and objectives is the process that makes up the organisational performance [51]. Organisations are striving to use balanced scorecard (BSC) to measure their organisational performance. These are; financial focus, customer focus, internal business processes and organisational learning and growth.

In financial focus, the financial performance has continuously been significant to oversee and quantify and is generally viewed as the utmost main component in many organisations' strategies [52]. Most organisations' financial goals are to increase profits, increase cash flows and increase growth in terms of sales. This consists of costs or measurement involved, in terms of rate of return on capital employed and operating income of the organisation.

Customer focus measures the level of customer satisfaction index and ranking, proportion of transactions to first time clients, client recommendations and original merchandise deals to new customers. Customer focus in an organisation is one of the key measures of performance. This viewpoint allows an organisation to focus on the market in which they choose to prosper. By choosing the correct market section, a business is able to develop strategies that maximize its output to ensure financial success.

Internal business processes entail efficiencies and effectiveness in the operations of an organization [53]. It includes aspects of measures such as the time taken to process an order of a customer from the time it is placed to the time of delivery, yearly number of stock out for a given sales demand, timely distributions as measured in terms of total distributions done by an organisation and the time taken by an organisation to launch a new product in the market [54].

Learning and growth perspective of the sustainable balance scorecard entails employee development [53]. Learning and growth will include capacity building on the employees and various trainings an organisation undertakes on its employees in order to prepare them with necessary information and abilities to undertake work assignments in a changing environment [55].

The study adopted the balanced scorecard since it focuses attention of management on a few performance measures and bridges different functional areas while including both financial and non-financial measures [56]. In this project, the performance of airlines in Kenya was used as a dependent variable. The research examined to what extent each of the four independent variables namely; SMS, leadership styles, organisational culture and regulatory framework influenced the dependent variable.

1.6. Airlines in Kenya

The airline industry in Kenya has been growing fast during the last decade [57]. The aspect of competition is now crucial for the operators who are within the airline industry. Kenya has a total of 43 listed airlines with the Kenya Air Operators Association (KAAO), which is an umbrella body whose purpose is to promote, foster and protect the interests of those engaged in civil aviation and associated industries in Kenya [58].

The Kenya Civil Aviation Authority (KCAA) is the regulatory body that govern all aviation related businesses in Kenya. In line with Kenya's Vision 2030 blueprint, the Government aims at making Kenya the aviation hub in the African region through construction and modernization of aviation facilities and targets annual capacity of 45 million passengers. Key projects includes: reconstruction of terminal two at JKIA; construction of Green Field Terminal, second runway and associated facilities at JKIA; improvement of terminal and airside capacity at Kisumu International Airport, improvement of safety and support operations at Moi International Airport; modernization of Air Navigation Services Phase II & III and construction, rehabilitation and maintenance of Airstrips and Airports [59].

According to the International Airlines Transport Association (IATA), which is the trade association for the world's airlines, over 4.7 million passenger journeys were made to Kenya, with aviation and tourism representing USD 3.2 billion in Gross Domestic Product (GDP). It accounts for 4.6% of Kenya's GDP and supports 410,000 jobs. Over the next 18 years the Kenyan market could more than double in size, resulting in an additional 11.3 million passenger journeys, over 449,000 more jobs, and a USD 11.3 billion boost to GDP by 2037 [60].

The COVID-19 pandemic has had a huge impact on aviation and air travel industry globally. Many governments put in stringent measures in order to control the novel COVID-19 spread. Of these measures included the restricting of internal travel with governments advising their citizens to consider essential travel only when necessary. In 2020, the COVID-19 pandemic delivered the largest shock to air travel and the aviation industry since the Second World War. Previously, the adverse impacts on aviation of the 9-11 terrorist attacks and the 2007–08 global financial crisis were thought dramatic. But neither had an impact that compares with what is estimated to be a 66% decline in global revenue passenger kilometres (RPKs) in 2020 [61].

In Kenya, tourism remains the third largest contributor to GDP after agriculture and manufacturing. For instance, the number of international visitor arrivals increased by 0.4% to 2,035.4 thousand in 2019 whereas tourism earnings grew by 3.9% from Kshs 157.4 billion in 2018 to Kshs 163.6 billion in 2019 [62]. However, the outbreak of the COVID-19 and its subsequent declaration as a global pandemic by the World Health Organisation threw all these positive projections into disarray [63].

The performance of the African aviation industry is still lagging behind the rest of the world. Air transportation in most African countries is almost nine times more dangerous as compared to the global industry's average level according to the African Development Bank (AfDB) report [64]. This requires a robust safety management system that is integrated into the overall strategic business objectives of an organisation within an expanded industrial business context that can anticipate changes in an operative environment while balancing safety with economic goals.

A study on Chinese Aviation Industry on effects of human, technical and operating factors on aviation safety concluded that airworthiness of aircraft and air navigation services enhanced airline service [65]. Singh, Sharma, Chadha, and Singh examined moderating effects of multi group on safety performance in India and concluded that safety management systems and human factors enhanced the safety performance of airlines [66].

In South Africa, a study was conducted to explore the relationship between different leadership styles and project success in the construction industry. Pearson Product-moment correlation coefficient was used whereas the current study used regression analysis. Findings from the study revealed that there was a positive relationship between transactional leadership and project success. The results also revealed that there was no relationship between laissez faire leadership style and construction project success [67].

The general objective of this study was to establish how change management influences the organisational performance of airlines in Kenya. Specifically, the objectives were to; Determine the influence of SMS on the performance of airlines in Kenya; Ascertain the influence of leadership styles on the performance of airlines in Kenya; Evaluate the influence of organisational culture on the performance of airlines in Kenya and; Find out the influence of the moderating effect of regulatory framework on the relationship between change management variables (SMS, leadership styles organisational culture) and the performance of airlines in Kenya.

2. Literature Review

2.1. Introduction

Literature review surveys scholarly source materials that are relevant to a researcher's thesis/problem and/or a particular issue or theory. It also provides a critical analysis that summarizes and synthesises the source materials while also demonstrating how a person's research pertains to or fits within the larger discipline of study. Literature review surveys books, scholarly articles, and any other sources relevant to a particular issue, area of research, or theory, and by so doing, provides a description, summary, and critical evaluation of these works in relation to the research problem being investigated [68]. Literature reviews provide an overview of sources a researcher explored while researching a particular topic and demonstrate how the research fits within a larger field of study.

This chapter reviews the literature on SMS, leadership styles, organisational culture and regulatory framework regimes as they are variables that affect the organisational performance of airlines in Kenya both positively and negatively. The researcher in this chapter also reviews various theories related to the topic as well as the variables under study.

2.2. Theoretical Review

Theoretical literature review helps to establish what theories already exist, the relationships between them, to what degree the existing theories have been investigated, and to develop new hypotheses to be tested. Often theoretical review is used to help establish a lack of appropriate theories or reveal that current theories are inadequate for explaining new or emerging research problems. The unit of analysis can focus on a theoretical concept or a whole theory or framework [69].

Theoretical framework consists of concepts and, together with their definitions and reference to relevant scholarly literature, existing theory that is used for your particular study [70]. The theoretical framework must demonstrate an understanding of theories and concepts that are relevant to the topic of your research paper and that relate to the broader areas of knowledge being considered.

There are extensive theoretical approaches related to change management (SMS, leadership styles, organisational culture and regulatory framework) that can be employed in the analysis of organisation performance of airlines in Kenya. Such theories include systems theory, contingency theory, theory of regulations, and configuration theory.

2.2.1. Systems Theory

Lincoln perceived management of organisation through the systems theory [71]. Systems theory is a complex idea that involves understanding and gathering information about systems that entail small organisations all the way up to global entities. One definition about systems theory expressed by popular researchers is that it is undertaken by members of an organisation to achieve organisational purposes, takes place in teams or small groups, is distributed widely throughout the organisation, and embeds its outcomes in the organisation's system, structures and culture [72].

Systems theory is an interdisciplinary study of systems external link as they relate to one another within a larger, more complex system. The key concept of systems theory, regardless of which discipline it's being applied to, is the synergy it creates, that is the whole is greater than the sum of its parts. What this means is that when holistically examining how smaller systems come together to affect the greater complex system, certain characteristics of the whole, the complex system, cannot be easily explained or rationalised when looking singularly at any one of its subsystems or its parts.

Systems theory seeks to explain and develop hypotheses around characteristics that arise within complex systems that seemingly could not arise in any single system within the whole. This is referred to as emergent behaviour. If a complex system expresses emergent behaviour that means it has characteristics its properties do not display on their own.

The main assumption of systems theory is that a complex system is made up of multiple smaller systems, and it is the interactions between these smaller systems that create a complex system as it is known. It assumes that certain underlying concepts and principles can be applied universally in different fields, even if these fields have evolved separately. This assumption is a crucial factor in systems theory because it is this reasoning that enables people like social workers and psychologists to employ systems theory in a way that benefits those they are assisting.

The application of safety management within airlines has increased steadily over the last decade. Some examples are the ICAO safety management guidelines in aviation [73] and The Civil Aviation Act on Safety Management Regulations. Also theorizing on what safety management is, or should be, it has accumulated on one hand, a wide array of fairly broad safety management practices and concepts are studied, ranging from safety culture to accident investigation [73-75]. Safety management systems (SMS) theory, on the other hand, seems to be a somewhat more specifically oriented towards the organisation's management and control processes [76]. This theory anchored the safety management systems variable. The theory was relevant to the study because the components of the SMS are closely interlinked to each other.

2.2.2. Contingency Theory

Fred Edward Fiedler introduced the contingency theory of leadership in his seminal 1964 essay, a contingency model of leadership effectiveness. The contingency hypothesis emphasizes the relevance of a leader's personality as well as the context in which he or she functions. This theory applies to the leadership style. Many leadership contingency theories postulate that specific variables related to the environment that the leadership is being offered determine the best-suited leadership style for the situation at hand. These contingency theories propose that there is no particular leadership style that is best in all situations. The author of Fiedler contingency theory came up with the theory in 1958 in his work leader attitudes and group effectiveness. The theory states that there is no favourable style of leadership; instead the effectiveness of the leader and leadership style being employed is based on the situation at hand.

Fiedler conceived leadership commitment as fixed and can be measured using a scale he formulated named the Least Preferred Co-Worker (LPC) [77]. To get results from the scale co-workers were asked what they openly thought about their colleagues they have least enjoyed working with. The workers were required to record the scores of all the featured factors in the scale and the final score summed up. The highest scorers were regarded as a relationship-oriented leader. If one's scores were low then, they were regarded as a task-oriented leader.

In his theory, Fiedler concludes that the task-oriented leaders customarily viewed their least performing co-workers negatively thus the low score. However, according to Fiedler, these leaders are very effective at completing tasks by quickly

organizing groups and delegating tasks to get the job done. The high scorers, relationship-oriented leaders, view their co-workers positively. According to Fiedler, these types of leaders focus more on personal connections thus avoiding conflicts. Their ability to manage conflict makes them the best type of leaders at making complex decisions regarding organisations.

There are many studies that have been conducted to disapprove the contingency theory by Fielder. One of these studies was conducted by Richard Waters who concluded that the LPC scale was subjective; he further pointed out that the traits and characteristics of leaders are wholly dependent on contexts [78]. According to Waters, even Fiedler accepted the fact that the LPC score is only valid for groups that are supervised closely and not open teams with their supervisors distant.

This theory anchored the leadership styles variable as used in this study. The theory was relevant to the study because the different leadership styles used by different managers within the different airlines were compared and their influence on the organisational performance analysed through regression analysis.

2.2.3. Theory of Regulation

This theory in general tries to explain how the world operates in a value-free way. Positive theory of regulation attempt to express what is that is; the transformation, the abolishment, the emergence and the institutional of sector-specific regulation [79]. The theory involves a lot of stakeholders and market players since it explains the market power of an industry. The theory also involves the government since it is the main regulator; it tends to describe why restrictions on government discretion may be necessary for the sector to provide efficient services for customers.

The theory concludes that governments as the main regulators are interested in reducing information asymmetries and line up their interests with market operators. The theory further deduces that consumers yearn for protection from market power in the existence of ineffectual competition. The desire for protection trickles down to the market operators since they desire protection from their rivals according to the positive theory of regulation.

Regulations increasingly shape the structure and conduct of civil aviation industries and also influence flight safety. Some researchers argue that in industries, such as aviation, electricity, railways, telecommunications, banking, and pharmaceuticals, regulation is the single biggest uncertainty affecting capital expenditure, corporate image, and risk management [80].

The theory advocates for the efficiency rationale which has not been in several industries like, the trucking and the taxi industries that have been regulated without any efficiency rationale regulation. The theory fails to explain why firms support regulation if providing normal profits is the only thing that regulation does [81]. This theory anchored the regulatory framework which the researcher used as a moderating variable in this study. This was relevant to the study because the researcher was establishing the effect of regulatory framework on organisational performance.

2.2.4. Configuration Theory

This theory conceived by Doty and Huber [82], identifies how the environment of an organisation influences its performance. In the current study the environmental dimension will be reflected through the civil aviation regulations. The proponents of the theory indicate that the environmental influence on the organisation has motivated many researchers to examine the connection between environmental effects and the organisation performance. The main tenets of the configuration theory are the fit concept, configurational thrift, equifinality thinking, and discontinuity of transition.

The fit concept holds that operations strategies fit with integrative measures to result into better firm competitiveness. It assumes that each organisational dimension, such as structure, reward systems, and resources allocation process, must constitute an internally consistent organisational form. Moreover, organisation strategy cannot be effectively implemented unless there is consistency between the strategy and each organisational dimension.

The equifinality principle holds that it is possible to attain the same goals irrespective of the starting point. This means that organisations can utilize different regulatory combinations to achieve better performance within the sector. A key idea of the configuration approach is that there is a limited number of firm types that can be equally successful (equifinality). However, configurations are dynamic, that is they can change in a process that can be described as a punctuated equilibrium [83].

The configurational thrift holds that there is a limit of the successful configurations that an organisation can partake. Essentially, the organisational configurations can be perceived as systems, comprising groups of attributes, which reflect organisational states and processes, as well as the associated external characteristics. The consistency between all these factors will determine the level of performance.

The concept of fit and equifinality helped in guiding how the civil aviation regulations can be harnessed to result into aviation sector growth. This theory anchored the organisational culture variable. This is because organisational culture creates the environmental effect which influence the organisational performance.

2.3. Empirical Review

Empirical review is based on observed and measured phenomena and derives knowledge from actual experience rather than from theory or belief. It derives conclusions based on experience, which can be directly visualised or indirectly observed with the help of experiments. Normally, the analysis is performed by quantifying the results and the inference is drawn. In an ideal world, a research should not duplicate what other researchers have done but ought to clearly identify a gap which it pursues to address. This could be either contextual, conceptual, or methodological gap.

This section gives the empirical writings on change management and performance critiqued to build the research gap. The section is in order of the independent variables where global, regional, and local studies are deliberated. The empirical literature consisted of literature on other studies in the same field of study.

2.3.1. Safety Management Systems (SMS) and Performance

Safety comes at a price. All organisations have limited resources to devote to safety, and must deal continually with the conflicting goals of safety versus productivity, efficiency, or customer service objectives which ultimately determine profitability. Financial health in any business will be influenced not only by good management and internal efficiency, but also by the external economic environment in which the business operates.

A stated commitment to safety is necessary but not sufficient to enable safety improvements. The commitment must be supported by appropriate resourcing of technology and equipment, training and expertise, policies and systems that promote operational safety. The commitment to safety should be consistent and visible regardless of any financial pressure facing the organisation, whether internally or externally generated. The extent to which an organisation's financial health operates and is committed to safety will be apparent from information about the following decisions and practices.

Accidents are caused by human error; therefore, people must be trained to avoid these errors and reduce accidents [84]. In aviation industry, SMS is vital since offhand factors that lead to accidents are identified with ease and remedial actions recommended. SMS improves employees' satisfaction through the involvement process hence improving organisational performance. They affirmed that with effective SMS, the aviation industry faces a possible reduction in insurance premiums after control of safety risks.

Fernández-Muñiz, Montes-Peón and Vázquez-Ordás points out that firms with high accidents rates have registered low productivity and competitiveness. Sampling 455 Spanish firms, the study deduced that occupational safety management has a positive relation to the firm's productivity [85]. Thus, providing evidence to the assertion that safety management is linked to the performance of airlines.

Njeru [86] studied the effect of SMS on aviation firms in Kenya and indicated that safety policy, safety risk management, safety promotion and safety policy have a consequential effect on the organisational performance of airline. He further concluded that the effective employment of safety policies improves an organisation's performance since employees' awareness will be increased resulting in employee confidence and productivity.

2.3.2. Leadership Style and Performance

Research that explores ways in which leadership is linked to organisational performance has become more frequent in recent years, but it still suffers from shortcomings in the quality of the data set available for analysis [87, 88]. It is generally accepted that leaders can have a significant impact on the people in their orbit, through goal setting, motivation to achieve those goals, and other methods used to approach their daily tasks [89, 90].

Leadership styles have considerable impact on organisational performance. The leadership style influences the culture of the organisation which, in turn, influences the organisational performance. Klein et. al., proved this fact by using four factor theory of leadership along with the data collected from 2,662 employees working in 311 organisations. The organisational culture and performance are related to the type of leadership style [91].

A survey conducted by Vermeeren, Kuipers and Steijn [92] in Dutch with 6253 municipality employees indicated that job satisfaction acts as a mediating variable in the relationship between human resource management and organisational performance. Moreover, a stimulating leadership style has a positive effect on the amount of human resource practices used. Thus, leadership style influences the overall organisational performance.

In accordance to a research study by Iqbal, Anwar & Haider [93] on the effect of leadership styles on employee performance established that different leadership styles have contrasting influences on the performance of the employees. Leadership styles influence on the employees vary in duration and whether negative or positive. Consequently, the effectiveness of employees leads to enhanced performance of an airline.

Mureithi in her study on tertiary education institutions in Kenya revealed that leadership style is fundamental to the overall organisational performance. The set of organisations' goals and objectives can be achieved easily when the organisation is being led by a capable leader. A capable leader provides direction for the organisation and lead followers towards achieving desired goals. In similar vein, employees with high job satisfaction are likely to exert more effort in their assigned tasks and pursue organisational interests. The leadership styles employed by the leader influences the job satisfaction of the employees which is key to positive organisational performance [94].

Koech and Namusonge [95] in their research determined that managers in state corporations in Kenya should avoid using laissez-faire leadership style. Laissez-faire leadership style does not offer an opportunity for the leaders to guide their subordinates. Effective leadership styles should formulate reward and recognition systems to employees thus motivating them and improving the organisational performance.

2.3.3. Regulatory Framework and Performance

Regulations are formed by different types of actors, institution, and instruments which when utilized with different modes of co-ordination lead to the various organisational performance on businesses. Regulations are essential to the organisational performance of airlines in particular since they comprise of mechanisms of decision making, norms, the networks of actors and the different institutions that are involved in regulation [96].

The liberalized aviation industry due to the relaxed laws enforced by the regulations has had a huge impact on the tourism industry in some nations [41]. The relaxed laws have improved the organisational performance of firms in the aviation industry since the tourism areas have become more accessible and there has been an introduction of the free operation of charter carriers.

Regulations are fundamental for the soundness of operations of firms. With effective regulations, the management quality of firms improves leading to a positive organisational performance. The set laws and regulations are key since they help in close monitoring of an organisation therefore making it easy to come up with plans and strategically implement them [97]. Restrictions, tighter regulations, more capital and strong supervisions have a positive impact on the efficiency of an airline.

Some support services such as orbital debris monitoring and space weather forecast need to be coordinating effectively and transparently by clear set international rules [98]. With the set regulations then aviation operations will operate effectively in the new space age. An extension of the international regulatory framework by the international civil space regulatory would make the aviation industry more flexible to attract investors thus improving the overall organisational performance of airlines.

2.3.4. Organisational Culture and Performance

The global economy is changing rapidly and organisations are increasingly being forced to make changes in order to maintain a competitive edge. The aviation industry is one sector that has suffered tremendous turbulence in recent years. The difficulties experienced by this sector probably can be traced back to the terrorist attacks of September 11, 2001, which caused a substantial and immediate drop in demand for air travel [99]. However, airlines have also suffered from a number of key developments and shocks to the external business environment, including the novel COVID-19, the Severe Acute Respiratory Syndrome (SARS) epidemic, the Gulf War and the surging oil prices that accompanied it, and heightened competition among the legacy and low-cost carriers. All of these developments have caused airlines to consider ways to strategically lower their operating costs. In many cases, organisations have been restructured and rearranged with considerable knock-on effects on the cultures that pervade and predominate the workplace, with adverse consequences for employee performance.

Kaufman [100] notes that the restructuring that was undertaken by the US airline Delta acted as a kind of industry economics lesson, and that the size of pay and workforce reductions was linked in a sliding scale manner to the price of oil - the more oil went above $60 a barrel, the larger had to be the offsetting cuts in labour cost. This was tantamount to communicating to employees that their worth could be measured by the price of oil – the result of such action was disharmonious employee relations and a firm drop in employee performance.

In order to maintain or increase employee performance during such turbulent times, it is necessary for airlines to manage the organisational culture. While restructuring visible or tangible elements of organisation such as the product or service the company offers may be relatively straightforward, there are some aspects to organisations that are so fundamental that they form the organisation's very essence. This is what is meant by organisational culture. Managers in the industry must be cognisant of this concept because the culture of an organisation has an enormous impact on such issues as employee performance, staff loyalty and turnover, job satisfaction, workplace relations and corporate performance. Furthermore, the culture of organisations pervades the organisational structure, as well as all policies, procedures and working processes, which makes it resistant to change [101].

Given the importance of high performing employees to the success of aviation companies in the current economic context, the purpose of the proposed investigation was to examine ways in which airlines managed organisational culture over the period of the recent challenges in the industry, and whether, and to what extent, this influenced the performance in that sector.

2.3.5. Change Management, Regulatory Framework, and Performance

Change management is the effective management of a transition in company, ensuring that executives, administrators and front-line staff work together to effectively introduce the appropriate process, technology or organisational changes. 70 per cent of reform projects fail to accomplish their targets, mainly due to opposition from staff and lack of support from management. The change management goal is to incorporate these strategic changes in an effort to enhance organisational efficiency by reducing the impact on profitability, preventing excessive turnover or loss of valued workers, mitigating any negative effects on their clients and achieving the desired market results as quickly as possible [102]. The characteristics of organisational change are mainly categorized along the following two dimensions; radical versus incremental change and reactive versus proactive change.

Radical changes are defined as changes that have an impact on the whole system of the organisation and fundamentally redefine what the organisation is or change its basic framework, including strategy, structure, people, processes, and (in some cases) core values. Incremental change by nature requires less change management since employees take smaller steps from what they are comfortable with. Radical change, require more change management. Change can be reactive or proactive in nature. Reactive change is defined as change that is implemented in response to some external event and or serious internal operational and managerial problems. Proactive change is that where the company acts beforehand to put itself in a better position or avert potential future problems. Though this anticipatory approach to change is generally preferable, in practice most companies tend to take a reactive approach, usually as a consequence of the commonly

held view that there is no need for change if current performance is satisfactory [103].

During the change process, the behaviour of the employees is greatly impacted upon through emotional responses. When the change is introduced to the employees, they tend to fear and assume a defensive and resistant role. It's important to note that employees generally do not perceive change positively. It interferes with their routine activity as they are subjected to a deviation from what they are used to doing which make them feel threatened and insecure. This brings about mental and emotional instability, often implicating on their performance.

During the implementation of change, the employees are noted to have negative feelings and they 'scrabble' about in finding how to cope with the effects of change [104]. The resistance which is displayed is deeply rooted in pre-conditioned and routine subjection that the employees are previously exposed to within the work environment. This was a joint influence relationship between composite of change management (SMS, leadership styles, and organisational culture) and organisational performance.

The regulatory framework comprises of laws and regulations that regulate both public and private airlines and strive to professionalise aviation practice. In many countries today, the airline industry is no longer a preserve of the rich but has become an issue of public attention and debate, and has been subjected to reforms, restructuring, laws and regulations. ICAO has taken a leading role in the creation of guidelines and recommendations that have been adopted by countries and therefore used to create the regulatory framework.

There are industries in which regulatory changes are very rare and businesses do not have to worry about them too much while there are other heavily regulated industries which see regular updates and changes made to regulations. Such businesses need to have a mechanism in place that allows them to quickly adapt to upcoming changes and ensure compliance not with just the current regulatory framework but also the upcoming regulatory framework. Due to the nature of the aviation industry, the industry is one of the heavily regulated industries in the country, requiring regulation from a specialized agency of the United Nations referred to as ICAO [105]. This study sought to establish the moderating effect of regulatory framework in the relationship between change management and organisational performance of airlines in Kenya.

2.4. Summary of Research Gaps

Various studies have been undertaken on the aspect of change management. Thomas [106] conducted a study to examine the effects of change management on organisational performance in Nigeria telecoms industry. The research was in Nigeria and therefore a need to undertake a local study. Additionally, this study looked at the telecommunications industry while the present research will look at the aviation industry in Kenya. Wanza and Nkuraru [107] carried out a study on the influence of change management on employee

performance in Kenya. The study was done on a public university in the education sector whereas this research will be on the aviation sector.

Organisational performance is a major focus to firms especially airlines; therefore, the factors that influence the organisational performance need to be studied in depth. Moreover, with an in-depth analysis of the factors affecting the performance of airlines the decisions of the various levels of airline management will be effective and efficient. Besides, even though several studies have been conducted with the aim to ascertain factors that affect different business firm's performance on other sectors, this study will be conducted to specifically analyse the influence of change management on performance of airlines in Kenya. Hence the researcher was prompted to conduct this specific study focusing on four variables namely; SMS, leadership styles, organisational culture, and regulatory framework and how they influence the organisational performance of airlines in Kenya.

2.5. Conceptual Framework

A conceptual framework is the system of conceptions, assumptions, anticipations, views, and models that backs and informs your study [108]. It is a graphical demonstration of variables, displaying the link among different variables. The diagrammatic arrangement of the conceptual framework was grounded on SMS, leadership styles, and organisational culture (independent variables) and organisational performance (dependent variable) as well as regulatory framework (moderating variable) as shown in Figure 1.
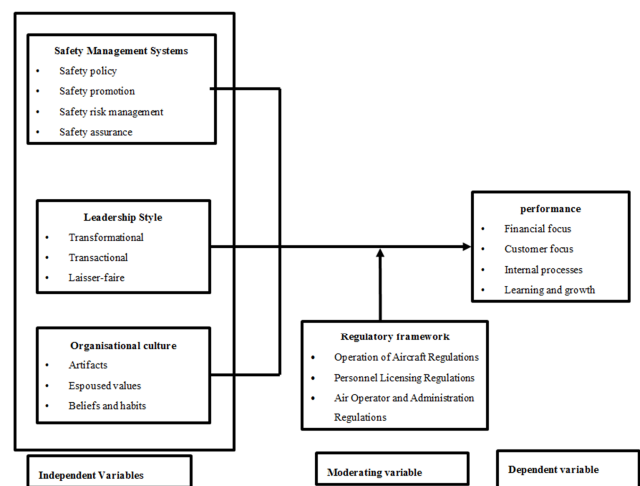

Figure 1. Conceptual Framework.

There are several components that influence the level of performance of airlines in a country; however, the researcher only focused on SMS, leadership styles, organisational culture, and the moderating effect of the regulatory framework. The question, therefore, was to determine whether the above components influenced the performance of airlines in Kenya.

3. Methodology

Research methodology describes the procedure by which a researcher goes about their work of describing, evaluating and predicting phenomenon. It aims at giving the work plan of research by providing for a way of choosing methods, materials, scientific tools and techniques relevant to the solution of the problem.

The research methodology involves the study of cause and effect relationships between various variables and helps in identifying behaviour, patterns and trends in certain variables. It also inculcates scientific and inductive thinking and promotes the development of logical habits of thinking and organisation.

This chapter describes the methodology that was used in undertaking the study. The section covers the research philosophy, the research design, the target population, and the type of data collected, data collection procedure, data analysis, model specification and statistical tests.

3.1. Research Philosophy

Research philosophy is acceptance about information of a situation and how it should be collected, evaluated and applied [109]. Research is a process of discovering knowledge and understanding of the world and turning this knowledge into an acceptable format in a discipline [110]. Research plays a significant role in expanding awareness and assumption about the ways in which scholars see the world.

The philosophical foundation of this study was positivism, where qualitative and quantitative data was used. Positivist philosophy hypothesizes that knowledge is grounded on facts and that no ideas or conceptions of any human being are put into consideration. This study thus adopted the positivist philosophy and tested hypotheses developed from within a given conceptual framework.

The study, therefore, sought to establish the influence of change management (SMS, leadership styles, and organisational culture) on organisational performance of airlines in Kenya. It also sought to ascertain how the moderating effect of regulatory framework influenced the relationship between the change management variables and organisational performance.

3.2. Research Design

Descriptive cross-sectional survey research design was adopted in this study. The best methods to collect information that demonstrate relationships are usually descriptive studies. Nassaji, further postulates that descriptive research methods are clearly structured with investigative questions [111].

Descriptive research designs are used to acquire information regarding the current status of circumstances to describe what exists with respect to variables in a situation, by asking individuals about their behaviour, perceptions, values, and attitudes [112].

This study therefore chose a descriptive research design. This was because the goal was to examine the influence of SMS, leadership style, organisational culture, and the moderating effect of regulatory framework on organisational performance of airlines in Kenya.

3.3. Population of the Study

Target population is a universal set of study of all members of real or hypothetical set of objects, events or people to which an investigator wishes to generalize the research result [113]. Target population is the whole number of units from which samples are selected for measurement and a full set of elements that provides the sample of the study. It represents the entire population for which a given study intends to examine.

The target population of this study consisted of managers and operational staff of forty-three airlines in Kenya. These were the airlines that were registered as members of KAAO. They provided data pertaining to the four variables namely; SMS, leadership styles, organisational culture, and regulatory framework.

3.4. Sampling and Sample Size Determination

There are many definitions of a sample, but according to Picardi and Masick [114], a sample is defined as the subject of a population that has been tabbed to represent characteristics of the whole population. Saunders et. al., posit that a sample is a set of participants selected to represent a population [109].

The researcher employed stratified proportion sampling since the population will be partitioned into groups depending on the size of the airlines to obtain a suitable unit representative of analysis. The data on the airlines was regarded as a heterogeneous population, therefore, it was split into fairly homogeneous groups; that was depending on the airlines' sizes [115].

Stratified proportion sampling is cost effective and the researcher was able to fast-track the process of data collection, therefore making it a viable sampling method for this study. Sample size for the study was determined using the Mugenda and Mugenda [116] formula.

$$n = \frac{z^2 pq}{d^2} = \frac{196^2 * 0.5 * 0.5}{0.05^2} \cong 384 \; respondents$$

where:

n is initial sample size,

z=1.96 if we use 95% Confidence level.

p is the percentage of the study phenomena in population, and

q=1-p.

d is the accepted bias for p in the sample.

The population of this study was 500 staff.

The sample distribution of the respondents is presented in Table 1.

Table 1. *Sample Size by Management Level.*

Job level	Number sampled	Respondents	Total
Middle-Level managers	27	58	464
Operational staff	235	15	120
Total	262	73	584

The sample size for this study is therefore

$$n = \frac{n_0}{1+\frac{N-1}{N}} = \frac{384}{1+\frac{384-1}{262}}$$

$n = 156$ respondents

The 156 respondents are presented in table 2.

Table 2. *Respondents by Management Level.*

Job level	Target population	Sample
Middle-Level managers	27	16
Operational staff	235	140
Total	262	156

3.5. Data Collection and Instruments

Data Collection is the procedure of gathering relevant data while data collection instruments are the instruments for measuring information on variables of interest, in a recognized systematic manner that enables one to answer declared research questions, test hypotheses, and weigh up outcomes. This study utilized primary data gathered using questionnaires. The data collection method is chosen because it offers an efficient method of collecting information within a very short time.

The questionnaires comprised of semi structured questions designed to capture the opinions of the respondents in regard to the study variables [117]. The questionnaire was coded using a five- point Likert-type key where 1=SD (strongly Disagree), 2=D (Disagree), 3=N (Neutral), 4=A Agree), 5=SA (Strongly Agree) to enable the researcher capture responses on the study variables. The questionnaire comprised of six sections. The first section comprised of the respondent's general information while all the other five sections focused on gathering information focused on the five objectives of the study. The questionnaire was arranged in terms of objectives.

3.6. Pilot Study

Pilot testing is the initial evaluation of the interview guide to find out its feasibility before embarking on the research project. Pilot testing the research instrument helps improve it and provides assurance that respondents understand the questions [118]. Pilot testing is an important step when carrying out research to ensure viability before rolling out large scale.

Pretesting was done as it avoids costly errors, and, therefore, the questionnaire was tested for its reliability and validity. This study was beneficial in formulating objectives concepts, setting up priorities, formulating operational terms and refining the final study design.

To ensure high precision 10% of the sample was subjected to the pilot study [119]. The participants of the pilot survey were picked through convenience sampling. These respondents did not participate in the final study. Therefore, a total of fifteen (15) questionnaires were analysed for the pilot analysis report.

3.7. Validity Test

Validity is a measure of the accuracy of the measurement items. It is important that the study research instruments be subjected to a panel of experts to assess if they capture all the items it is intended to measure and their expert opinion incorporated to ensure face validity. This study used both construct and content validity [120].

For construct validity, the questionnaire was segregated into several sections to ensure that each section addressed a specific objective, making sure that the instrument had questions in line with the study variables, and also ensured the same closely tied with the sub-constructs given in the conceptual framework for the study. Further, construct validity was assured by

For content validity, the researcher discussed the items in the instrument with the supervisors and other experts. Advice given by these professionals helped the researcher to determine the validity of the research instrument. The advice included suggestions, clarifications and other inputs which were used in refining the instrument.

3.8. Reliability Test

Reliability test is the measure of how relevant the measurement items are to the study [120]. Reliability is the precision and consistency of the results. A reliable instrument provides a similar score when the same test is administered twice or used in a similar group of respondents in the same context [121].

Reliability of the research instrument was ensured by having the questions framed correctly without ambiguity and leading questions. Questionnaires were tested on 10% of the sample population to determine relevance and effectiveness. The reliability of the questionnaires was measured statistically using Cronbach's alpha. Coefficient of 0.6 to 0.7 was within the limits of reliability while a coefficient of 0.8 and above would denote good reliability [122].

Since the researcher used Likert-type Scale, and items scored as continuous variables (for example, strongly agree to strongly disagree), then Cronbach Alpha provides a coefficient to estimate consistency of scores on an instrument. A Cronbach's Alpha score of 0.7 is considered to be acceptable reliability coefficient, however, lower thresholds are sometimes used in literature [123].

3.9. Data Analysis

According to Zikmund et. al., [124], data analysis involves comprehending and interpreting with the purpose of establishing reliable patterns and summarising significant facts discovered in the study. Saunders et. al. noted that raw quantitative data becomes visible and worthy when processing, analysing, and interpretation of data has been conducted. This means that the reason for data analysis is not only to test hypothesis but also provide appropriate responses to hypothetical statements.

Data was analysed by the use of descriptive statistics. Descriptive statistics are brief descriptive coefficients that summarize a given data set, which can be either a representation of the entire or a sample of a population.

Descriptive statistics are broken down into measures of central tendency and measures of variability [125]. Specifically, means, averages, and percentages were employed by the researcher.

The data analysis tools were simple tabulations and presentations of the report using Statistical Package for Social Sciences (SPSS) version 25. The data was presented using tables, charts, and graphs. Data was analysed using both qualitative and quantitative methods. Data was first coded and organised into concepts from which generalizations were made of the entire population. Data was then tabulated and frequencies calculated on each variable under study and interpretations made from the field findings. Percentages were then calculated and interpretation made.

3.9.1. Regression Model / Statistical Model

Multiple linear regression analysis was conducted to determine influence of change management on performance of airlines in Kenya. Regression analysis was also conducted to determine the influence of the independent variable on the change of the dependent variable. The performance of airlines in Kenya was regressed against the independent and moderating variables which were SMS, leadership styles, and organisational culture. The equation was expressed as follows:

$$Y_p = \beta_0 + \beta\ (X_1 + X_2 + X_3) + \varepsilon \qquad (1)$$

$$Y_p = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon \qquad (2)$$

Where:
Y_p=Performance of airlines in Kenya.
β_0=Constant (co-efficient of intercept)
X_1=Safety Management Systems
X_2=Leadership Styles
X_3=Organisational Culture
β_1 to β_3=Regression coefficient of three (3) variables
$\beta\ (X_1 + X_2 + X_3)$=Composite of Change management components
ε=error term

3.9.2. Moderated Multiple Regression Model

The researcher used moderated multiple regression to determine the approximate association effect and test the moderating effect of regulatory framework on the relationship between change management (SMS, leadership styles, and organisational culture) and the performance in airlines in Kenya. The test for significance of regression in the case of multiple linear regression analysis was carried out using the analysis of variance. The test was used to check if a linear statistical relationship existed between the independent variables and the dependent variable. It was significant to fit a regression model with an interaction effect (the product of X and M values) included in the previous model 1 to obtain model 2. The R-square changed from the SPSS software output was then checked if it was statistically significant or not.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_1 M + \beta_5 X_2 M + \beta_6 X_3 M + e \quad (3)$$

Where:
Y=Organisational performance
β_0=a regression constant or intercept
β_i=is the coefficient for X_i=1, 2, 3, 4
X_1=Safety Management System
X_2=Leadership Styles
X_3=Organisational Culture
M=Regulatory Framework (Moderating Variable)

3.10. Pretesting for Multiple Regression Assumptions

Hypothesis testing starts with the assumption of no difference between groups or no relationship between variables in a population. This is referred to as the null hypothesis. It is always paired with an alternative hypothesis, which is the research prediction of an actual difference between groups or a true relationship between variables. Statistical research depends on precise suppositions regarding the concepts adopted in the scrutinisation. Where the suppositions are not met, the findings may not be reliable which would lead to type1 error (false positive) or type 2 error (false negative).

Type 1 error occurs where the null proposition is true but it is rejected. It occurs when a researcher validates a statistically significant difference even though there is none. Type 2 error occurs where the null proposition is untrue and the researcher successively neglects to decline it [126]. Two assumption of regression exists: assumptions prone to violation and those, which are not prone to violation. This study addressed assumptions of multiple regression that are not prone to violation. Data analytic assessments such as normality, multicollinearity and homogeneity were undertaken to test for statistical assumptions and determine whether the data was correctly demonstrated.

Test of Normality

Normality assessment is undertaken to conclude if a dataset is correctly displayed by a normal spreading and to determine how possible it is for an unsystematic variable core to the dataset to be typically spread. Test of normality is key in a research because if the presumptions are false, it is difficult to deduct correct inferences from the data.

In this research, the researcher used Shapiro Wilk test to test for normality. If the p-value (significant value) > 0.05, then the data would be normally distributed, otherwise if the value was < 0.05, then the null hypothesis was rejected, implying that the data was not normally distributed.

In order to identify any misplaced values or glaring errors that would need to be modified, data screening was done. Before doing any statistical analysis, the variables of the study were tested for normality. The assumption was that the variables had a normal distribution. Ali et. al., [127] revealed that the suitability of the tests assumptions and use of statistical instruments were significant for statistical analysis. Stakeholder confidence is enhanced when data is verified and provides reliable analyses for formulation of policy.

Test of Linearity

Linearity is ascertaining whether the relationship between the explanatory variables (independent variables) and the

outcome variable (dependent variable) is linear. That is to say, a unit increase in explanatory variable is associated with a fixed increase in the outcome variable. The Pearson's correlation coefficient was used to test the linearity of the relationship between the variables.

Correlation coefficient shows the strength as well as the direction of the linear relationships. Negative correlation indicates an inverse relationship where an increase in one variable causes a decrease in the other while a positive correlation indicates a direct influence, where an increase in one variable causes an increase in the other variable.

Linearity was tested using analysis of variance (ANOVA) to determine the relationship between independent and dependent variables. Linearity test aimed at determining whether the relationship between independent variable (SMS, leadership styles, organisational culture), the moderating variable (regulatory framework), and the dependent variable (performance) were linear or not was done. If the deviation from linearity is > 0.05, then the dependent and independent variables were linearly dependent whereas if < 0.05 there is no linear relationship.

Test of Multicollinearity

According to Dougherty, multicollinearity is a state where independent variables exhibit very high inter-associations amongst themselves. If present in the data, the statistical inferences made about the data may not be reliable. Where multicollinearity exists, it can be corrected by removing a highly correlated variable (s) [128].

Multicollinearity test was conducted to test whether there was similarity between the independent variables. If the independent variables have any similarity, then there was a very strong correlation. This meant that multicollinearity would have occurred if a greater degree of relationship existed between the independent variables and therefore this could contribute to altering the outcomes of the study models.

This study corrected the problem by making sure that larger sample was used. This is because multicollinearity does not exist in large samples [129]. Multicollinearity was tested using variation inflation factors (VIF). A VIF value of 1-10 indicated no multicollinearity symptoms.

Homogeinity Test

It is defined as the assumption that any distribution or comparison of distributions shares the same level of variance within the particular group of data points. It is also referred to homoscedasticity. The importance of the assumption lies in the nature of the tests that compare between-group variability (usually the mean of each group) to the level of within-group variability (often expressed as the error term, the average mean square error/within, or weighted average standard deviation).

The assumption of homogeneity test is an assumption of the independent samples t-test and analysis of variance (ANOVA) stating that all comparison groups have the same variance. If the variances are not homogeneous, they are said to be heterogeneous. If this is the case, we say that the underlying populations, or random variables, are heteroscedastic (sometimes spelled as heteroskedastic).

The analysis of variance (ANOVA) was checked to reveal the overall model significance. In particular, the calculated F-statistic was compared with the tabulated F-statistic. A critical p-value of 0.05 was used to determine whether the overall model is significant or not. The individual regression coefficients were checked to see whether the independent variables (SMS, leadership styles, and organisational culture) significantly affected the performance of airlines in Kenya. A critical p-value of 0.05 was used to determine whether the individual variables were significant or not. The conclusion was based on the basis of p value where, if the p-value was less than 0.05 then it was concluded that the model was significant and was a good predictor of the dependent variable and that the results were not based on chance. If the p-value was greater than 0.05 then the model was not significant and could not be used to explain the variations in the dependent variable.

4. Results and Discussions

In this chapter the results of the study are presented and discussed with reference to the aim of the study, which was to determine the influence of change management on the performance of airlines in Kenya. It deals with the analysis and results of the data collected for the study. The detailed analysis focused on findings is presented based on the research objectives and research questions of the study succinctly.

First, it evaluates the response rate, respondents' demographic information, reliability and validity of the survey constructs. Secondly, the descriptive analysis of variables and diagnostic tests are presented. Finally, the chapter reviews the results of the correlation analysis and regression analysis.

Correlation analysis was performed in order to find out if there was a relationship between each of the change management components and performance of airlines in Kenya. Regression analysis was carried out to find out the moderating effect of the regulatory framework on the relationship between the change management variables and organisational performance of airlines in Kenya. The data analysed was collected using a questionnaire.

Response Rate

A total of 156 questionnaires were administered to 156 employees; however, 127 questionnaires were returned, which represent 81% of the target sample respondents. Scholars hold differing positions on the acceptable response rate, some believe 50% is adequate for analysis while others submit that a response rate of 50% is acceptable benchmark for analysis and publication but consider 60% as good and 70% as very good for analysis and publication, while in some quarters, it is averred that no absolute acceptable level of response rate [130]. Because of this, the response rate of this study was reasonable. The response across the airlines in Kenya is presented in Figure 2.

Distribution of Respondents

Of the respondents contained employees who were working on airlines that had been in existence as follows,

10.9% for less than 5 years, 27.4% between 5 to 10 years, 17.8% between 11 – 15 years, 36.3% between 15 to 20 years and 7.6% for over 21 years.

Table 3. *Composition of Respondents on Organisations Years of Existence.*

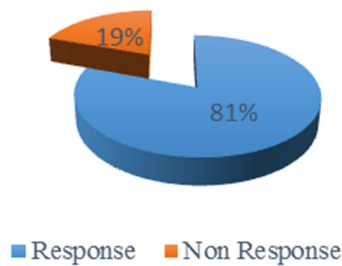|		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-5 years	14	10.9	10.9	10.9
	5-10 years	35	27.4	27.4	38.3
	11-15 years	22	17.8	17.8	56.1
	15-20 years	52	36.3	36.3	92.4
	21 years and above	10	7.6	7.6	100.0
	Total	127	100.0	100.0	

Figure 2. *Response Rate.*

The distribution of the respondents for this study showed a proper distribution which is symmetrical, as shown in Table 3. The respondents were categorized in terms of their employers' (airlines) number of years of existence. Table 3 above indicates that majority of the respondents worked for airlines that had been in existence for over fifteen (15) years and below twenty (20) years. This formed 36 percent of the total respondents. Those from airlines that had been in existence for the shortest period were from approximately 11% of the respondents while 7.6% was from airlines with over twenty years of existence.

Scope of Operations

The study obtained the of the scope of operations by the airlines served by the respondents based on group classification. The study found out that 28.4% of the respondents worked for domestic/national operations. 59.1% serving regional operations while 12.5% of the airlines served operations in East Africa and beyond.

Table 4. *The Airline's Scope of Operations.*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	domestic/national	36	28.4	28.4	28.4
	regional	75	59.1	59.1	87.5
	east Africa and beyond	16	12.5	12.5	100.0
	Total	127	100.0	100.0	

The study sought to find out the scope of operation of the airlines with the aim of ascertaining that all types of airline operations were represented in the study. The results in Table 4 indicate that airlines from the domestic or operating within the country contributed to 28% of the responses. The highest number of airlines served with the East Africa region representing 59.1% of the responses while the lowest was from airlines that served beyond the East Africa from the country. These findings generally show that the study gathered responses from diverse categories of scoped of operations within the airline industry in the country.

Products Offered by the Airlines

The study sought to establish the products/services offered by the airlines of the respondents, and the response is presented in Table 5. The results indicated that respondent's airlines offering chartered flights had the highest frequency of 56 (44.2%), which represents almost half of the total respondents.

Table 5. *Products offered by Airlines.*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	scheduled passenger service	25	19.8	19.8	19.8
	cargo flights	15	11.6	11.6	31.4
	chartered flights	56	44.2	44.2	75.6
	medivacs/emergency	31	24.4	24.4	100.0
	Total	127	100.0	100.0	

Table 5 above also presents the findings on type of products that were being offered by the airlines under study during the period of the research. A majority of the airlines offered chartered flights forming 44% followed by those airlines that offered emergency and medical evacuations at 24 percent. The service/ product that had the least offering in the market was the cargo freight businesses which contributed to 11.6 percent closely followed by the scheduled passenger airlines at 19.8%.

Validity Testing

The validity tests were conducted using both content and construct analysis. Content validity was measured by relying on the knowledge of people who were familiar with the construct being measured. These subject-matter experts were usually provided with access to the measurement tool and were asked to provide feedback on how well each question measured the construct in question. Their feedback was then

analyzed, and informed decisions made about the effectiveness of the research instrument.

Content analysis was conducted by experts in strategic management and the supervisor. The experts evaluated the tool and made recommendations accordingly. They both concurred that the research instruments (questionnaire) would measure the desired objective and could be used in the industry.

Construct validity refers to how well a researcher translated or transformed a concept, idea, or behaviour that is a construct into a functioning and operating reality, the operationalization. It also refers to the degree to which inferences can legitimately be made from the operationalisations in the study to the theoretical constructs on which those operationalisations were based [131].

Confirmatory Factor Analysis (CFA) was conducted to establish the construct validity of the data. In that regard, communalities were used to determine the loadings of each construct to the overall variable. Based on a recommendation by Field [132], factor loadings greater than.4 were adopted for valid constructs.

Diagnostic Tests

The data collected for the study was subjected to various tests without any bias. The nature of data collected for the study, being cross-sectional data only required diagnostics tests for a multivariate regression model. Multicollinearity and normality were carried out to determine that the variables under investigation met the minimum standard.

Multicollinearity refers to the phenomenon where one independent variable in the situation of a multiple regression model is linearly predicted from the analysis of the others with a certain degree of accuracy [126]. If multicollinearity is found in the data, the simplest solution is to identify the variables causing multicollinearity issues (i.e., through correlations or VIF values) and removing those variables from the regression.

A normality test is used to decide whether sample data has been drawn from a normally distributed population. There are several methods of assessing whether data are normally distributed or not. They fall into two broad categories: graphical and statistical. Normality plays a vital role in predicting the scores of the dependent variable and also in knowing the shape of the distribution.

Multicollinearity Test

Tolerance and Variance Inflation Factor (VIF) was used to find out the extent of collinearity among the independent variables. Multicollinearity occurs when there is an unacceptably high level of inter-correlation among independent variables to the extent that the effects of independent variables cannot be isolated [133]. The percentage of variance in the predictors that cannot be explained by other independent variables is known as tolerance, and the VIF is the inverse of tolerance, and it is calculated by using $VIF = 1/(1-R^2)$. The general rule of thumb, if VIF >4.0, there is a problem of multicollinearity, however, some scholars put the threshold to VIF>5.0 [133]. Previously, it has been argued VIF of 10 or higher automatically calls for

treatment of multicollinearity [134]. He premised his argument on the need to first take into consideration the factors that influence the variance of the regression coefficient.

Table 6. Multicollinearity Test.

Independent Variable	Tolerance	VIF
Safety management systems	0.924	1.082
Leadership styles	0.830	1.205
Regulatory framework	0.786	1.272
Organisational culture	0.789	1.333

This study adopted a benchmark of VIF=4.0. Tolerance values ranged from.747 and.924 while the VIF ranged between 1.082 and 2.367. Organisational culture had a VIF of 1.082, leadership styles 1.205, regulatory framework had a VIF 1.272 and SMS had a VIF of 2.367. All these results are presented in Table 6, which indicated that all the predictors' VIF value passed the test because they were less than the acceptable benchmark of 4.0. Since tolerance values were above 0.1 and VIF below 4, it was safe to conclude that there was no problem of multicollinearity with the data. Consequently, upon this result, and since the assumption of regression analysis was not violated, the study used linear regression model.

Normality Test

Another assumption of classical linear regression model is that data should be normally distributed. This study used the Kolmogorov-Smirnov test, also known as the K-S test, to determine whether the data collected on safety management systems, leadership styles, regulatory framework, and organisational culture was normally distributed or not. The K-S test is mostly used to assess the assumption of univariate normality by comparing the observed cumulative distribution of scores to the theoretical cumulative distribution for a normally distributed variable. It had been suggested that graphical methods such as Q-Q plot and histogram can be used along with the K-S test for robustness. The hypotheses for the K-S test are:

H0: The data is normally distributed

H1: The data is not normally distributed

The p-value determines the critical region. If the p-value >0.05, the null hypothesis is accepted, otherwise it was rejected. From the results obtained, the p-value (0.061) is higher than the alpha=0.05 level of significance; hence, the null hypothesis is accepted. The study, therefore, concluded that the data is normally distributed and thus fit for linear regression analysis.

Correlation Analysis

A statistical relationship between variables is referred to as correlation. It is a measure of how well the variables are related and to what direction and degree. Mugenda and Mugenda [116] surmised that correlation coefficient informs a researcher the magnitude and direction of the relationship between the two variables. The correlation ratio can detect almost any functional dependency, it indicates the strength of a linear relationship between variables, and however, its value generally does not completely characterize their relationship.

The nature of the data determines the measure to use.

In this study, the Pearson product-moment correlation was used. The result of correlation, represented by ρ is between -1 and +1. A result of -1 indicated that there was a perfect negative correlation between the two variables, while a result of +1 meant that there was a perfect positive correlation between the two variables, while 0 indicated no relationship at all [135]. Correlation can be high, moderate or low, depending on how close the value is to ±1, the bigger the coefficient, the stronger the association [116]. Pearson product-moment correlation was used to analyse the relationships between variables as well as the p-value of the significance of the relationship.

Correlation Analysis between Construct Safety Management System and Organisational Performance

The study sought to find out the relationship between SMS and organisational performance and to know whether or not there was a statistically significant relationship between the two variables at 95% confidence level. The Pearson Correlation results were presented in Table 7, and revealed that there was a meaningful positive relationship between SMS and organisational performance with R=0.213 and p-value of.004 (which was less than alpha=0.05 level of significance).

***Table 7.** Correlation Analysis between Construct Safety Management System and Organisational Performance.*

Correlations		Organisational Performance	SMS
Organisational Performance	Pearson Correlation	1	.213
	Sig. (2-tailed)		.004
	N	127	127
SMS	Pearson Correlation	.213	1
	Sig. (2-tailed)	.004	
	N	82	82

**. Correlation is significant at the 0.01 level (2-tailed)

With these results, it implies that there is a significant linear relationship between the SMS and organisational performance. Therefore, an improvement in SMS affected organisational performance positively. The result indicated that the relationship between SMS and organisational performance is very strong. The association was also found to be significant at 5% level of significance. This concurred with Agwu [136] who concluded that inculcation of employees' safety culture on the workforce at the task level in the Shell Bonny Terminal Integrated Project (BTIP) improved employees' safety practices at work thus enhancing their productivity, profitability and loss control.

Correlation Analysis between Construct Organisational

Correlation Analysis between Leadership Styles and Organisational Performance

This section sought to determine whether or not there was a statistical relationship between leadership styles and organisational performance. Table 8 showed Pearson's correlation coefficient between leadership styles and organisational performance being.563, p<0.05, two-tailed, tested at 5% level. The results showed a positive and significant relationship between leadership styles and organisational performance. This indicated that organisational performance was influenced by leadership styles.

***Table 8.** Correlation Analysis between Leadership Styles and Organisational Performance.*

Correlations		Organisational Performance	Leadership Styles
Organisational Performance	Pearson Correlation	1	.563
	Sig. (2-tailed)		.000
	N	127	127
Leadership Styles	Pearson Correlation	.563**	1
	Sig. (2-tailed)	.000	
	N	127	127

**. Correlation is significant at the 0.01 level (2-tailed).

The implication of the findings of the study concurred with the findings of Tangthong, Trimetsoontorn and Rojniruttikul [137] and that of Jani and Balyan [139]. With these results, it implied that there was a positive and significant relationship between leadership styles and organisational performance. This showed that organisational performance was affected by leadership styles. Therefore, an improvement in leadership styles positively affected organisational performance.

Culture and Organisational Performance

Pearson's correlation was checked to ascertain whether or not there is a statistical relationship between organisational culture and organisational performance. Table 9 shows Pearson's correlation coefficient between organisational culture and organisational performance being.611, p<0.05, two-tailed, tested at 5% level. The results were presented in Table 9.

Table 9. Correlation Analysis between Construct Organisational Culture and Organisational Performance.

Correlations		Organisational performance	Organisational culture
Organisational performance	Pearson Correlation	1	.611**
	Sig. (2-tailed)		.000
	N	127	127
Organisational culture	Pearson Correlation	.611**	1
	Sig. (2-tailed)	.000	
	N	127	127

**. Correlation is significant at the 0.01 level (2-tailed).

The results showed that there was a positive and significant relationship between organisational culture and organisational performance. This indicated that organisational culture positively affects and organisational performance. With these results, it implied that there was a positive and significant relationship between organisational culture and organisational performance. Therefore, an improvement in organisational culture would affect and organisational performance positively.

This concurred with Shahzad et. al., [140] on the study on the impact of organisational culture on organisational performance. After analysis of wide literature, it was found that organisational culture had deep impact on the variety of organisations process, employees and its performance. Their research showed that if employees were committed and had the same norms and value as the organisations, this increased the performance toward achieving the overall organisation goals.

Correlation Analysis on the Moderating Effect of Regulatory Framework on the Variables

According to Wagana et. al., [141], a moderating variable influences the relationship between the dependent variable and the independent variable. The direction and magnitude of the relationship depends on the value of the moderator. The moderating variable (regulatory framework) was examined based on new KCAR's as emerging issues within the aviation industry. Regulatory framework is seen as a product of the reforms being advanced by ICAO.

To test the moderating effect of regulatory framework on the relationship between change management (SMS, leadership styles and organisational culture), and organisational performance of airlines in Kenya, the study performed moderated multiple regression analysis. The moderating effect of the variable (interaction term) was analysed by interpreting the R^2 change in the models obtained from the model summaries and by interpreting the regression coefficients for the interaction term obtained from the coefficients tables.

Moderating Effect of Regulatory Framework on the relationship between Safety Management and Organisational Performance.

A moderator variable influences the relationship between the dependent variable and the independent variable. The direction and magnitude of the relationship depends on the value of the moderator [135]. This study identified regulatory framework as a moderator variable affecting the relationship between change management components (independent variables) and organisational performance (dependent variable) of airlines in Kenya. The study performed regression analysis to test the moderating effect of regulatory framework on the relationship between SMS and organisational performance of airlines in Kenya.

Table 10. Correlation Analysis for the Moderated SMS Variable.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.689a	.475	.473	.32434

ANOVAa						
Model		Sum of Squares	df	Mean Square	F	Sig.
2	Regression	28.523	1	28.523	271.144	.000b
	Residual	31.559	126	.105		
	Total	60.082	127			

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
3	(Constant)	1.636	.093		17.652	.000
	SMS moderated	.141	.009	.689	16.466	.000

a. Dependent Variable: organisational performance
b. Predictors: (Constant), SMS moderated

The moderating effect of the regulatory framework variable (interaction term) was analyzed by interpreting both R^2 change and regression coefficients for the interaction term in the models. This study used regulatory framework as a

moderating variable to study how it influenced the relationship between safety management system (independent variable) and organisational performance (dependent variable) in airlines in Kenya.

Table 10, Model 1 showed the influence of regulatory framework on the relationship between safety management systems and organisational performance. It showed R=0.689, R^2=0.475, p=0.000<0.001. The value of R^2 indicated that 47.5% of the variance in the organisational performance can be accounted for by regulatory framework and safety management systems.

The interaction terms between safety management system and organisational performance were examined to test the effects in this study. Table 10 revealed that there was a meaningful positive relationship between SMS and organisational performance with R=0.213 ($R2$=0.045) and p-value of.004 (which is less than alpha=0.05 level of significance). This model was found to be significant (R^2 change=0.43) showing the presence of moderating effect. This

meant that the moderating effect of regulatory framework contributed to 43.1% variance in the organisational performance. This concurred with Delautre et. al., [141] on the study on the influence of regulations on the safety record of the Aframax Tankers. The study identified that the introduction of key regulations explained the declining trends of accident/incident rates. It was noted that the focus of their study was aimed at regulations which prevented accidents/incidents taking place, and not at regulations intended to mitigate the consequences of accidents.

Moderating Effect of Regulatory Framework on the relationship between Leadership Styles and Organisational Performance.

Using the moderating variable (regulatory framework) to study how it influenced the relationship between leadership styles (independent variable) and organisational performance (dependent variable) in airlines in Kenya, a moderated multiple regression was carried out. The table below showed the results from the study.

Table 11. Correlation Analysis for the Moderated Leadership Styles Variable.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.553a	.305	.303	.37300

ANOVAa						
Model		Sum of Squares	df	Mean Square	F	Sig.
2	Regression	18.343	1	18.343	131.842	.000b
	Residual	41.739	126	.139		
	Total	60.082	127			

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
3	(Constant)	1.999	.101		19.812	.000
	Leadership styles moderated	.090	.008	.553	11.482	.000

a. Dependent Variable: organisational performance
b. Predictors: (Constant), leadership styles moderated

Table 11 showed the effect of regulatory framework on the relationship between leadership styles and organisational performance. Compared to the results from table 8, which showed that R=0.563, R^2=0.317, p=0.000<0.001, the value of R^2 indicated that 31.7% of the variance in the organisational performance can be accounted for by the leadership style. The interaction terms between leadership style and regulatory framework were examined to test the moderating effects in the study.

The results indicated that the inclusion of the interaction term resulted into an increase in R^2 by 0.012. Model 2 in Table 11 was reported to be significant at the 0.001 level of significance. However, this model was found to be insignificant (R^2 change=0.0012, p=0.119> 0.001) showing no presence of moderating effect. Putting it differently, the moderating effect of regulatory framework on leadership style failed to contribute to variance in the organisational performance. The results revealed that regulatory framework does not moderate the relationship between leadership styles and organisational performance.

Moderating Effect of Regulatory Framework on the relationship between Organisational Culture and Organisational Performance.

Using the moderating variable (regulatory framework) to study how it influenced the relationship between organisational culture (independent variable) and organisational performance (dependent variable) in airlines in Kenya, a moderated multiple regression was carried out. The table below showed the results from the study.

Table 12 showed the effect of regulatory framework on the relationship between organisational culture and organisational performance. The Model 1 showed R=0.743, R^2=0.550, p=0.000<0.001. The value of R^2 indicated that 55.0% of the variance in the organisational performance can be accounted for by regulatory framework and safety management systems. The interaction terms between safety management and regulatory framework were examined to test the moderating effects in this study. Table 9 revealed that there was a meaningful positive relationship between organisational culture and organisational performance with R=0.611

(R2=0.373) and p-value of.003 (which is less than alpha=0.05   level of significance).

Table 12. Correlation Analysis for the Moderated Organisational Culture Variable.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.743a	.552	.550	.29970

ANOVAa						
Model		Sum of Squares	df	Mean Square	F	Sig.
2	Regression	33.137	1	33.137	368.923	.000b
	Residual	26.946	126	.090		
	Total	60.082	127			

Coefficientsa						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
3	(Constant)	1.227	.101		12.183	.000
	Org culture moderated	.159	.008	.743	19.207	.000

a. Dependent Variable: organisational performance
b. Predictors: (Constant), organisational culture moderated

This model was found to be significant (R^2 change=0.177) showing a presence of moderating effect. This means that the moderating effect of regulatory framework on organisational culture contributed to 17.7% variance in the organisational performance. The findings contrasted with Bratianu et. al., [142] on their study on the role of legislation and organisational culture in leadership. The research results demonstrated that legislation and organisational culture are powerful shaping forces of academic leadership but they have to converge in order to create the necessary synergy of change.

Moderating Effect of Regulatory Framework on the relationship between Joint Independent Variables and Organisational Performance.

To test the moderating role of regulatory framework on SMS, leadership styles, and organisational culture, moderated multiple regression (MMR) was used. A moderator variable influences the relationship between the dependent variable and the independent variable. The direction and magnitude of the relationship depends on the value of the moderator [135]. This study identified regulatory framework as a moderator variable affecting the relationship between the independent variables and organisational performance (dependent variable) of airlines in Kenya.

The study performed regression analysis to test the moderating effect of regulatory framework on the relationship between change management and organisational performance of airlines in Kenya. Using moderated multiple regression (MMR) analysis in this study, the moderating effect of the variable (interaction term) was analysed by interpreting the R^2 change in the models obtained from the model summaries and by interpreting the regression coefficients for the interaction term obtained from the coefficients tables.

Table 13. Correlation Analysis for the Moderated Joint Variables.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.772a	.596	.592	.28525

ANOVAa						
Model		Sum of Squares	df	Mean Square	F	Sig.
2	Regression	35.835	3	11.945	146.805	.000b
	Residual	24.247	124	.081		
	Total	60.082	127			

Coefficientsa						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
3	(Constant)	1.185	.097		12.276	.000
	Org culture moderated	.121	.013	.568	9.465	.000
	SMS moderated	.084	.015	.411	5.736	.000
	Leadership styles moderated	-.032	.011	-.196	-2.956	.003

a. Dependent Variable: organisational performance
b. Predictors: (Constant), leadership styles moderated, organisational culture moderated, SMS moderated

The ANOVA test was performed to determine the significance of the models. The significant values for the first, second, and third model after moderation were all 0.000 which was p < 0.05 confidence level indicating that the models were

statistically significant. This concurred with the findings of Mrope et. al., [143] which indicated that compliance with rules and regulations has a significant impact on performance of public entities in Tanzania.

Overall Correlation Results

Pearson (r) correlation is the most widely used correlation statistic to measure the degree of the relationship between linearly related variables and was adopted in this study [144]. To measure the strength of the relationship, the value of the correlation coefficient varies between +1 (positive one) and -1 (negative one). When the value of the correlation coefficient lies around ± 1, then it is said to be a perfect degree of

association between the two variables. As the correlation coefficient value goes towards 0, the relationship between the two variables will be weaker [145]. Pearson Product moment correlation was used to determine the relationship between independent variables (SMS, leadership styles, and organisational culture) and the dependent variable performance as shown in Table 14.

The overall correlation analysis was carried out using SPSS version 25.0 and the results were presented in Table 14. The result indicated that there was no multi-collinearity among the independent variables; hence, all the variables were admissible to be used in the regression model.

***Table 14.** Overall Pearson Correlation Matrix.*

Correlations					
		Organisational performance	Safety management systems	Leadership styles	Organisational culture
Organisational performance	Pearson Correlation	1	.753**	.461**	.611**
	Sig. (2-tailed)		.000	.000	.000
	N	127	127	127	127
Safety management systems	Pearson Correlation	.753**	1	.460**	.435**
	Sig. (2-tailed)	.000		.000	.000
	N	127	127	127	127
Leadership styles	Pearson Correlation	.461**	.460**	1	.372**
	Sig. (2-tailed)	.000	.000		.000
	N	127	127	127	127
Organisational culture	Pearson Correlation	.611**	.435**	.372**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	127	127	127	127

**. Correlation is significant at the 0.01 level (2-tailed).

The first objective of the study was to establish the influence of SMS on organisational performance. Regression analysis was conducted to empirically determine whether or not SMS affected organisational performance. The results in Table 14 showed a relationship R=.753, which indicated a positive association between SMS and organisational performance. The relationship was significant, as supported by a probability value of 0.004 (p<0.05). This implied that the model applied could statistically and significantly predict the outcome variable. The study, therefore, rejected the research question, SMS does not influence organisational performance, at a 5% level and concluded safety management systems significantly affects organisational performance.

The second objective of the study was to establish the influence of leadership styles on organisational performance. Regression analysis was conducted to empirically determine whether or not leadership styles significantly determined the organisational performance. The results in Table 14 showed a relationship R=.461, which indicated a positive association between leadership styles and organisational performance. The relationship was significant, as supported by a probability value of 0.000 (p<0.05). This implied that the model applied could statistically and significantly predict the outcome variable. The study, therefore, rejected the research question, leadership styles do not influence organisational performance, at a 5% level and concluded that leadership styles positively impacts organisational performance.

The third objective of the study was to establish the role of

organisational culture on organisational performance. Correlation analysis was conducted to determine if organisational culture significantly determined organisational performance empirically. The results in Table 14 showed a relationship R=.611, which indicated a positive association between organisational culture and organisational performance. The relationship was significant, as supported by a probability value of 0.000 (p<0.05). This implies that the model applied could statistically and significantly predict the outcome variable. The study, therefore, rejected the research question, organisational culture does not influence organisational performance, at a 5% level and concluded that organisational culture has a significant influence on organisational performance.

This study also sought to establish the moderating effect of regulatory framework on the relationship between change management variables (SMS, leadership styles, and organisational culture) and organisational performance of airlines in Kenya. Table 13 provide a model summary indicating an R^2 value of 0.569 for the relationship between change management aspects (SMS, leadership styles and organisational culture) and organisational performance implying that 59.2% of the variations in organisational performance could be attributed to change management aspects. When regulatory framework was included as a variable the R^2 value increased to 0.592 implying that 59.2% of the variations in organisational performance could be attributed to the moderating effect of the regulatory

framework on the change management independent variables. The results however revealed that regulatory framework does not moderate the relationship between leadership styles and organisational performance.

5. Findings, Conclusion, and Recommendations

This chapter consists of a summary of the findings of the research, conclusions relating to the research objectives, suggestions or recommendations on the influence of change management on the organisational performance of airlines in Kenya. Data relating to the objectives of study was collected and analysed and the findings are presented.

Findings were made based on the results on data received on the change management components (independent variables) under study namely; safety management systems, leadership styles, and organisational culture and their influence on organisational performance of airlines (dependent variable) in Kenya.

A moderating variable i.e. regulatory framework was also used and results tabulated depicting the moderating effect of regulatory framework and how that effect influenced the relationship between the independent variables (SMS, leadership styles, and organisational culture) and the dependent variable (organisational performance of airlines in Kenya).

5.1. Summary of Findings

These results indicated that despite the literature and theoretical frameworks available on the effective implementation of safety management systems, there was still a gap in the implementation. The researcher distributed questionnaires to 156 respondents which were computed as shown in chapter three sections 3 and 4; sampling design and sampling technique. A response rate of 81% was achieved which was favourable for the study. The airline characteristics of Kenya aviation sector most of the airlines were chartered flights thus forming 44.2% of the airlines. This was followed by 24.4% which were medivacs/ emergency operation, 19.8% which were scheduled passenger service and 11.6% which were cargo flights. The representation of the respondents indicated that, views concerning the factors influencing SMS on the performance of airlines, were represented by all airlines, and no single opinion can be attributed to a particular airline operation by scope.

The study found that majority of workers agreed that effective safety management system can improve organisational performance. There was a positive relationship between safety management and organisational performance in the airline industry in Kenya. Most of the respondents indicated that there is an effective communication mechanism and that they are trained on safety management. Frequent communication of safety to employees resulted into better performance of employees in their organisations.

The research studied how the independent variables namely

safety management systems, leadership styles, and organisational culture influenced the organisational performance of airlines in Kenya. The study concluded that there exists a significant positive relationship between change management and organisational performance in the airline industry in Kenya. Safety management systems, leadership styles, and organisational culture were found to influence organisational performance in airlines in Kenya. The study also found out that there was a positive and significant relationship between organisational culture and organisational performance. An improvement in safety management system or organisational culture affected organisational performance positively.

Using regulatory framework as a moderating variable, the researcher regressed the independent variables against the moderating variable to ascertain how the relationship between the variables impacted organisational performance. Regulatory framework when used as a moderating factor on safety management systems and organisational culture contributed to a positive influence on the organisational performance. However, it was concluded that regulatory framework had no significant moderating effect on the relationship between leadership styles and organisational performance in airlines in Kenya. Overall, the influence of regulatory framework as a moderating variable in this model was also found to be significant.

5.2. Conclusion

The study concluded safety management systems significantly affects organisational performance. The results showed a relationship R=.213, (R^2=0.045) which indicated a positive association between SMS and organisational performance. The relationship was significant, as supported by a probability value of 0.004 ($p<0.05$). The influence of regulatory framework as a moderating variable in this model was also found to be significant, with an adjusted R^2=0.473 (change in R^2=0.428) showing a presence of moderating effect. This meant that the moderating effect of regulatory framework on SMS contributed to 42.8% variance in the organisational performance.

The study concluded that leadership styles positively impacts organisational performance. The correlation model showed a relationship R=0.563, (R^2=0.316) which indicated a positive association between leadership styles and organisational performance. The relationship was significant, as supported by a probability value of 0.000 ($p<0.05$). This relationship when moderated by regulatory framework, however, showed insignificant moderating effect with an adjusted R^2=0.303. (Change in R^2=0.013) meaning only 1% of the variance was contributed by the moderating influence of regulatory framework and, therefore, was considered insignificant.

The study concluded that organisational culture had a significant influence on organisational performance. The correlation results showed a relationship R=0.611, (R^2=0.373) which indicated a positive association between organisational culture and organisational performance. The relationship was

significant, as supported by a probability value of 0.000 ($p < 0.05$). This implied that the model applied could statistically and significantly predict the outcome variable. The moderating effect of regulatory framework on the interaction showed a relationship R=0.743 with adjusted R^2=0.550 (change in R^2=0. 177). This meant that 17.7% of the variance in this relationship could be attributed to the moderating effect of regulatory framework. This was, therefore, considered to be a moderate influence of the outcome of the relationship.

The study in the overall concluded that regulatory framework plays a critical role in the running of aviation organisations and particularly airlines. The research also revealed that regulatory framework led to improvement in organisational performance by creating a level playing field for organisations that were engaged in the airline industry.

5.3. Recommendations

Basing on the study findings, this study offers some recommendations. This study recommends future researchers to replicate the same research in other African countries. This study premised its data on the Kenyan airline industry, even though this approach offers a more detailed and focused view of the industry, it might not be fitting for international comparisons hence the recommendation for other countries and regions.

This study suggests future authors to investigate others variables besides the variables already investigated. This study is among the pioneering study to explore the moderating effect of regulatory framework on the relationship between change management variables and organisational performance. It, therefore, recommends future studies to test moderating role of variables such as crew experience, fleet composition, and others on the relationship between change management and organisational performance.

This study recommends that future studies to incorporate secondary data. The study relied on primary data obtained from the respondents. The Kenyan airline industry through the government oversight authorities like KCAA and Kenya Airports Authority (KAA) have not made the data they collect from airlines public. This limitation forced the researcher to rely on primary data. The researcher suggests future studies to be done incorporating such secondary data.

5.4. Suggestion for Further Study

There is need to have a further study in other organisations to establish the influence that regulatory framework plays on the overall organisations performance. Change management fused with regulatory issues need to be evaluated in order to enable policy makers overcome the resistance the employees have towards change and embrace it in their working environment.

This study focused only on the moderating effect of regulatory framework on the variables. Future studies to ascertain the role of regulatory framework as an independent variable and its influence on organisational performance are recommended. Compliance is critical in the implementation of regulatory policies and future studies should be conducted to determine the effect this has on organisational performance of airlines.

While this approach has the advantage of presenting a more focused and detailed view, it does not help to provide international comparisons and cross-country empirical evidence. Hence, this study suggests that future authors extend the sampling to other countries and the duration of study from ten years to enable international comparisons and cross-country empirical evidence.

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