



College of Business and Economics
Master of Business Administration Program

Factors Affecting Organizational Performance During the COVID-19
Pandemic: The Case of Ethiopian Airlines

A Research Project Submitted to the School of Graduate Studies of
Addis Ababa University in Partial Fulfillment of the Requirement for the
Degree of Master of Business Administration in Management

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April, 2022

Addis Ababa, Ethiopia

DECLARATION

I, Helen Meley, hereby declare that the thesis entitled “Factors Affecting Organizational Performance during the COVID-19 Pandemic: The Case of Ethiopian Airlines” was carried out by me under the supervision of Dr. Asres Abitie, Department of Management, Addis Ababa University, as part of the MBA program. I further declare that this thesis is my original work and has not been submitted to any other university for the award of any degree. All sources were noted, referenced, and included in the list of references. This thesis is submitted in partial fulfillment of the requirements for the Degree of Master of Business Administration (MBA) in Management in College of Business and Economics at Addis Ababa University.

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Date_____

Advisor’s Approval

This is to certify that the declaration made by the candidate is correct to the best of my knowledge as an advisor.

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Thesis Advisor

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This is to certify that the thesis entitled, “Factors Affecting Organizational Performance during the COVID-19 Pandemic: The Case of Ethiopian Airlines” is an original piece of work carried out by Helen Meley under the supervision of Asres Abitie (PhD), and submitted in partial fulfillment of the requirements for the degree of Master of Business Administration in Management. It complies with the regulations of the university and meets the accepted standards with respect to originality and quality.

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Acknowledgement

First and foremost, I want to express my gratitude to God Almighty for providing me with good health, patience, wisdom, and the ability to work on this paper. It wouldn't be possible without his blessings.

I am deeply grateful to Addis Ababa University's female scholarship program for supporting my education.

I would like to express my heartfelt gratitude to my advisor, Asres Abtie (PhD), for his guidance, patience, motivation, and unreserved advice that has helped me to enrich this study.

I am also very grateful to my husband and daughter for their motivation and support in completing this study. My mother deserves special recognition for her prayers and encouragement.

Abstract

This study has tried to assess factors affecting the performance of Ethiopian airlines during the COVID-19 pandemic. The type of research design that has been undertaken in this study was descriptive and explanatory. The selected approach for this research is quantitative method. The research has used primary data type. Five-point Likert scale questionnaire was used to collect data from employees of Ethiopian airlines head office. From 16, 002 employees of Ethiopian airlines, the determined sample size was 390. In this study the researcher has used Convenience sampling method because of its ease of use for a population which is too large. After the data was collected it was analyzed by using both descriptive and inferential statistics tool. Statistical Package for Social Science (SPSS) version 20 was used to analyze quantitative data from questionnaire questions. Descriptive statistics tools were used to find out whether the COVID-19 pandemic was having a negative effect on each of the independent variables (working environment, organizational culture, employee motivation, training, and leadership) and the dependent variable (organizational performance). The descriptive statistics has revealed that all the independent variables and dependent variable were negatively affected by the COVID-19 pandemic. Pearson's correlation and Multiple Linear Regression model were used to determine the relationship between the independent variable with the dependent variable. The correlation analysis result indicated that there was positive relationship between each of the independent variables with the dependent variable. The result of regression analysis implied that COVID-19 pandemic has affected Organizational Performance of Ethiopian Airlines negatively and this is due to changes the pandemic has caused on Working Environment ($B=0.398$, $P=.00$), followed by Organizational Culture ($B=0.218$, $P=.00$), Employee's Motivation ($B=0.168$, $P=.004$), and Leadership ($B=0.140$, $P=.00$) of the company respectively. The pandemic has also affected training programs that used to be provided by the airlines negatively but its contribution to the change on Organizational Performance has shown to be non-significant ($B=0.065$, $P=.157$). Owing this, the study concludes that Working environment, Organizational culture, Employee motivation and Leadership predicts Organizational performance of Ethiopian airlines during the COVID-19 pandemic, therefore the airlines should give due attention to the changes the pandemic is causing on each of these factors.

Key words: COVID-19 pandemic, Organizational performance, Working environment, Organizational culture, Employee motivation, Training, Leadership

Acronyms

BLS: Bureau of Labor Statistics

BTS: Bureau of Transportation Statistics

CASK: Cost per Available Seat Kilometers

CDC: Center for Diseases Control

COVID-19: Coronavirus disease 2019

EAL: Ethiopian Airlines

GDP: Gross Domestic Product

ICAO: International Civil Aviation Organization

IATA: The International Air Transport Association

NGO: Non-Governmental Organization

RPK: Revenue Passenger Kilometers

WHO: World Health Organization

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CHAPTER ONE

1. INTRODUCTION

1.1. Background of the study

In December 2019, an outbreak of pneumonia of unknown origin was reported in Wuhan, Hubei Province, China. Pneumonia cases were epidemiologically linked to the Huanan Seafood Wholesale Market. COVID-19 is defined as illness caused by a novel coronavirus called severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The global spread of SARS-CoV-2 and the thousands of deaths caused by coronavirus disease (COVID-19) led the World Health Organization to declare a pandemic on 12 March 2020. To date, the world has paid a high toll in this pandemic in terms of human lives lost, economic repercussions and increased poverty (Ciotti, M., Ciccozzi, M., Terrinoni, A., Jiang, W. C., Wang, C. B., & Bernardini, S., 2020).

In Ethiopia, from 3 January 2020 to 24, January 2022, there have been 462, 107 affirmed cases of COVID-19 with 7,244 passing. On March 13, 2020, the Ethiopian Federal Ministry of Health has affirmed a coronavirus illness (COVID-19) case in Addis Ababa, Ethiopia. The case, which was declared on the 13th of March 2020, is the first one to be reported in Ethiopia since the beginning of the outbreak in China in December 2019 (WHO homepage, 2021).

In a relatively short time, the COVID-19 pandemic has become the most catastrophic global health threat since the Spanish Flu a century ago. The new corona virus has now infected almost every continent, country, and territory on the planet. Although some governments have taken harsh measures to slow the disease's spread, such as strict travel restrictions, border closures and lockdowns. To slow the transmission of the COVID-19 virus, WHO and governments urge social distancing, hand cleanliness, mask wearing, and other protective strategies. As a result, COVID-19 is a significant public health emergency, but it's much more than that. It's a systemic shock having immediate, medium-term, and long-term implications. Many large and small businesses have closed, tens of millions of people have lost their jobs, global supply networks have been disrupted, health care has been badly stretched, and economic capacity has been severely stressed because of the pandemic. (WHO, 2020).

Most governments have implemented restrictive measures in response to the worldwide coronavirus crisis in order to contain the pandemic and reduce the number of deaths. Air traffic suspension is one of the most effective restrictive tactics in terms of decreasing global mobility in the short term, but it also has a significant socioeconomic impact in the long and near term. The worldwide COVID19 pandemic has brought the air transportation industry to a standstill in just a few months, with demand for both domestic and international travel plummeting. The COVID-19 Coronavirus outbreak, as well as the precautionary measures taken to prevent it from spreading, has had a significant influence on global human travel. This resulted in a decrease in domestic and international air passenger traffic volumes; similar effects have been observed in several regions around the world. This has direct implications for the aviation industry as well as indirect consequences for several sectors of the economy and society at large (Iacus, S. M., Natale, F., &

Vespe, M., 2020). In April 2020, international air travel witnessed a dramatic decline, with year over year accessible seat kilometers falling by over 90% (Suau-Sanchez, P., Voltes-Dorta, A., & Cugueró-Escofet, N., 2020).

Although there is still a lot of ambiguity about how long the COVID19 epidemic will last and how long it will take for air travel to recover, many experts agree that the consequences will be long-term. According to industry experts, recovery will take at least three to six years (Sobieralski, 2020). The outbreak of COVID-19 has resulted in major changes in the way service firms operate, altering employees' daily routines and activities (Narayanamurthy, G., & Tortorella, G. 2021).

According to Shen, H., Fu, M., Pan, H., Yu, Z., & Chen, Y., (2020) on their study about the impact of COVID-19 pandemic on firm performance, their study showed that the COVID-19 outbreak has had a severe detrimental influence on organization performance, lowering investment sizes and lowering overall income. For the industries affected by the pandemic, such as tourism, catering, and transportation, there is a significant decline in corporate performance in the first quarter of 2020. The pandemic has also had a negative influence on these industries' operations, output, and sales.

According to Ethiopian Airlines annual report (2020), The Pandemic has adversely affected the overall operations, particularly the major revenue source - the passenger market of the airlines. The international traffic has reduced almost to 10 percent; this has damaged the financial books of the airlines. That said, fighting the virus, they had continued working very hard to maximize revenue from cargo business and passenger repatriation charter flights.

This research has tried to discover the factors affecting the performance of Ethiopian airlines during the COVID-19 pandemic. The researcher believes that the result of this study will have a practical significance by enabling stakeholders to focus on measures and policies to implement to tackle the negative effects of the pandemic.

1.2. Problem statement

The COVID-19 pandemic has wreaked havoc on the business world in unprecedented and historic ways, with ramifications felt all across the world. Organizations and people battle with the virus's consequences as the new reality of the epidemic settles in (Howe, D. C., Chauhan, R. S., Soderberg, A. T., & Buckley, M. R., 2020).

Because of the epidemic, demand for travel fell over the world, forcing several large carriers to declare bankruptcy. Many businesses have shut down completely. Because of the pandemic, the airline industry has been the hardest hit, and Ethiopian Airlines is no exception. The airline's most important revenue generator, passenger service, saw the majority of its pay decrease, forcing it to halt several planes and operate at only 10% of capacity. Ethiopian faced a massive financial load as a result of unavoidable charges such as plane and infrastructure installments, as well as bank advance reimbursements (Euro control, 2021).

The epidemic has had, and continues to have, devastating consequences for practically all airlines. As of early April 2020, global flight counts have decreased by approximately 80%. The challenges from both the demand and supply sides hit an already vulnerable industry hard, with a long tail of weaker airlines leading to a dramatic rise in the number of airline bankruptcy filings (Pearce, 2020).

Organizations are confronting new business issues as a result of the COVID-19 crisis, with individual employees adapting to new modes of working and interpersonal interactions and relationships being drastically impacted. The issue for today's enterprises is to manage improvisation processes at all levels at the same time. Leadership has been brought to the fore in both political and organizational settings during the COVID-19 crisis (Bailey, K., & Breslin, D., 2021).

The purpose of this study was to find out the factors affecting the performance of Ethiopian airlines during the COVID-19 pandemic. Literature review have been performed to find out the factors which determine organizational performance. According to researchers such as Hal G. Rainey and Paula Steinbauer (1999), Musmuliana & Mustaffa, (2012), Brewer & Coleman Selden (2000), K. CHANDRASEKAR (2011), Elina Cara (2020), the major determinant factors of Organizational performance are Working environment, Organizational culture, Employee motivation, Training and Leadership. After finding out the factors, the pandemic's effect on each of these factors and their relationship with organizational performance of the airlines was analyzed.

From the above perspective the following questions are stated to study the factors affecting performance of the airlines during the COVID-19 pandemic. This research has tried to answer the following questions:

- How does Working environment influence Ethiopian airline's Organizational performance during the COVID-19 pandemic?
- How does Organizational culture influence Ethiopian airline's Organizational performance during the COVID-19 pandemic?
- How does Employee motivation influence Ethiopian airline's Organizational performance during the COVID-19 pandemic?
- How does Training programs influence Ethiopian airline's Organizational performance during the COVID-19 pandemic?
- How does leadership influence Ethiopian airline's Organizational performance during the COVID-19 pandemic?

1.3. Objective

1.3.1. General Objective

- Assess factors affecting performance of Ethiopian airlines during the COVID-19 pandemic.

1.3.2. Specific Objective

- To assess the relationship between Working environment and Organizational performance during the COVID-19 pandemic.
- To assess the relationship between Organizational Culture and Organizational performance during the COVID-19 pandemic.
- To assess the relationship between Employee Motivation and Organizational performance during the COVID-19 pandemic.
- To assess the relationship between Training programs and Organizational performance during the COVID-19 pandemic.
- To assess the relationship between Leadership and Organizational performance during the COVID-19 pandemic.

1.4. Significance of the Study

This study is a micro level investigation of an organization; hence the findings of the study are believed to be primarily significant to the organization. However, as Ethiopian airlines plays high role in Ethiopia's development and contributes to the growth of GDP of the country (Temesgen, 2006), studying the factors that affect the performance of the organization during the Covid-19 pandemic is important for the organization as well as the country.

1.5. Scope of the Study

Conceptually: Limited to assessing factors affecting performance of Ethiopian airlines during the COVID-19 pandemic.

Geographically: Data was collected from employees of Ethiopian airlines, Though Ethiopian airlines has offices in multiple countries and regions of Ethiopia, due to limited budget and resource available to the researcher, Ethiopian airlines main office at Bole international airport have only been considered for the study.

Methodologically: Descriptive and Explanatory research design, quantitative research approach, descriptive statistics, Pearson's correlation, and multiple linear regression analysis have been used to analyze the data collected from employees of the airlines.

1.6. Organization of the Study

The research paper has five chapters; the first chapter includes background of the study, statement of the problem, research questions, objective, significance and Scope of the study. The second chapter is a literature review which is related to the study area and it gives a detail description of the study phenomenon by relating other scholar papers on the area. The third chapter is all about methodology of the study in which research design, research approach and method, sources of data, sampling techniques and procedure, method of data collection and analysis and the like are included. In the fourth chapter the collected and analyzed data is discussed and interpreted. And the last chapter contains summary, conclusion, recommendation, references, and annex.

CHAPTER TWO

2. LITERATURE REVIEW

The literature review has two parts: the first part is the theoretical literature review, and the second part is the empirical literature review. The theoretical literature focuses on some theories regarding factors which are determinants of organizational performance and the empirical literature review shows some of the previous literatures written on determinants of organizational performance and studies on the effects of the pandemic on the airlines industry's performance.

2.1. Theoretical Literature Review

2.1.1. Organizational Performance

Performance is doing something in the right way or doing something successfully using knowledge as distinguished from merely possessing it (Acs, Z. J., Arenius, P., Hay, M., & Minniti, M., 2004).

Performance of an organization can be measured, and it can be defined as all aspects of performance that are relevant for the existence of organization as a whole and success as the way the organization carries its objectives into effect. The success and continuity of an organization depend on its performance, which may be defined as "the way the organization carries its objectives into effect". Every person in an organization contributes to the company's objectives via his or her activities. A good manager keeps track of the performance of the system he or she is responsible for by means of performance measurement (PM), (Flapper, Fortuin, & Stoop, 1996).

2.1.2. Factors That Affect Organizational Performance

The multitude of factors identified as relevant determinants of organizational performance results is extensive. However, this study will take into consideration factors known to exercise considerable influence on the organizational performance of public institutions based on literature.

Employee Motivation

Managers use employee motivation as one of their tactics for improving effective job performance among employees. Motivation is a fundamental psychological phenomenon. Motivating is a managerial technique for influencing behavior based on an understanding of how people think. The process of arousing, energizing, directing, and maintaining behavior and performance is known as motivation. (Luthans, 1998).

Motivation is a powerful instrument that reinforces behavior and encourages people to keep doing what they're doing. To put it another way, motivation is an internal desire to meet an unmet need and attain a certain objective. It's also a process that starts with a physiological or psychological demand and leads to a goal-oriented performance. (Martin, D. C., & Bartol, K. M., 1998).

Rewards, social recognition, performance feedbacks, good leadership, and establishing and implementing employee training programs are all non-financial variables that have a beneficial influence on motivation. (Dobre, O. I., 2013).

Working Environment

Working environment is the physical dimension of the organization in which staff perform relevant functions as well as the non-physical context and social dynamics in which individuals interact and exercise their core functions (Jain, R., & Kaur, S., 2014).

Another definition describes the work environment as the organizational dimension that encompasses all aspects affecting employees' minds and bodies (Jain, R., & Kaur, S., 2014). However, there are other defining elements of what constitutes the work environment of an organization, such as patterns of delegation of competencies, authority, roles and control (Musmuliana & Mustaffa, 2012). Other determining factors in the work environment include coordinating interactions between key stakeholders in the organizational context (Musmuliana & Mustaffa, 2012), communication channels, and dissemination of guidance between employees and their managers (Musmuliana & Mustaffa, 2012; Robbins, S. P., DeCenzo, D. A., & Coulter, M., 2008).

The phrase "workplace performance" refers to a work environment whose primary goal is to clearly promote work performance and change it into one that maximizes employee productivity. (Musmuliana & Mustaffa, 2012).

The physical and behavioral components of the working environment can be separated. The physical environment is made up of components that relate to the ability of office workers to physically connect with their surroundings. The behavioral environment consists of elements that pertain to how successfully office occupants engage with one another and how the office environment might influence an individual's behavior. The physical environment has two key components that affect occupant productivity: office layout and office comfort, while the behavioral environment has two main components: interaction and distraction (Haynes, B. P., 2008).

Organizational Culture

Organizational culture is one of the most relevant components of an organization, despite the ownership status of an organization (whether it is publicly, privately or co-owned), (Desson & Clouthier, 2010). Culture is concept that traces its ancestry to the field of anthropology (Tharp, 2009).

There is no single exhaustive definition of the term "culture" that is universally acceptable by researchers in the various disciplines that analyze it as a concept. Generally, culture is defined very broadly, simply describing a "social process" (Tharp, 2009).

Similar to definitions of culture itself, those of organizational culture are as well numerous, broad and varied (Tharp, 2009). Desson & Clouthier, (2010) Culture is defined as an organization's personality; capable of guiding the thought and activity of its members at work, and fundamental to the values, beliefs, attitudes, and interpersonal conduct of crucial actors, which defines how an

organization functions. Organizational culture is the character of an organization, and that character interacts and communicates the mind set and behavior of an organization which eventually leads to good or bad performance (Schein, 1984).

Many scholars have studied the properties, levels, dimensions and characteristics of organizational culture from different perspectives. In early works, Hofstede (1991) segregated culture into four dimensions (1) collectivism vs. individualism, (2) power distance (3) uncertainty avoidance and (4) masculinity vs. femininity. Whereas Denison (1990) has grouped culture into four traits: (1) mission, (2) adaptability, (3) involvement and (4) consistency. Later on Schein (1992) outlined three levels of culture (1) explicit behavior, (2) signs and (3) shared values. Fjortoft and Smart (1994) differentiate organizational cultures on the basis of dynamism and externalism.

Training

On-the-job training is defined as a set of activities organized by an organization to improve on-the-job knowledge and abilities or change members' attitudes and behavior in ways that are in line with the organization's goals and job needs. (Musmuliana & Mustaffa, 2012). There are other definitions that are given regarding training and development as a single concept. One defines training and development as the process by which people acquire or absorb skills and knowledge that enhance their effectiveness. They do this in a variety of ways, such as: guidance and leadership, headship, organization, and influencing others (Musmuliana & Mustaffa, 2012).

The amount of training completed by an individual can be used to measure the effectiveness of training. The benefits of training and the necessity of engaging in training are two more significant training factors to consider when evaluating the efficacy of this technique. Gathering knowledge that is important for workers to amass, knowledge that supports in performing job activities correctly and effectively, are key training and development objectives. (Truitt, 2011).

Leadership

The ability to foresee, plan, organize, command, coordinate, and ensure that maximum control is attained in all of the organization's processes is known as Leadership (McDonald, 2010; Prasad & Gulshan, 2001).

Planning, organizing, directing, coordinating, and controlling are all interrelated processes in management. (Prasad & Gulshan, 2001; Wren, Bedeian, & Breeze, 2002). One of the most important factors influencing performance is Leadership. (Aguinis, 2013; Aucoin, 1990).

Leadership is also responsible for developing and behaving according to a set of operating values that specify the organization's desired culture, climate and behaviors. The process of creating change and implementing a new ideology for the organization is a critical step in the change process. A new shared vision replaces the old ways, the old rules, habits, symbols, myths, traditions, mindsets, and assumptions (McGivern, M. H., & Tvorik, S. J. (1997).

2.2. Empirical literature review

2.2.1. Factors Affecting Organizational Performance

Musmuliana & Mustaffa, (2012) conducted a research on factors influencing organizational performance, the aim of the study was to examine the performance of Metro Specialist Hospital and to find out the most significant factors that influence the performance of the Hospital. The researcher had analyzed four factors that influence organizational performance which are staff motivation, working environment, training and skill development, and management involvement. Research findings revealed that there was significant relationship between working environment, training and skill development, staff motivation and management involvement with organizational performance.

Brewer & Coleman Selden (2000), conducted a research with the title ‘Assessing and Predicting Organizational Performance in Federal Agencies’ with the aim of finding out which elements of performance are most important across the twenty-three largest federal agencies in the US. Agency level factors which include all components of organizational culture: efficacy, teamwork, protection of employees and concern for the public interest has been analyzed thus the research finding has shown that organizational culture is a powerful predictor of organizational performance in federal agencies. Based on the research result the leadership/supervision and staff motivation factors are also related to employee perceptions of organizational performance.

Hal G. Rainey and Paula Steinbauer (1999), conducted a research to develop elements of a theory which result an effective government organizations. The research draws on the literature and research on effective government organizations to select and develop conceptual elements of a theory to explain their effectiveness.

Based on the research’s findings:

- ✓ Effective government agencies have a strong organizational culture, effectively linked to mission accomplishment, the more effective the leadership of the agency, the more effective the agency.
- ✓ More effective leadership is characterized by more stability, multiplicity, commitment to mission, effective goal setting, and effective administrative and political coping.
- ✓ Effective government agencies have high levels of motivation among their members, including high levels of public service motivation, mission motivation, and task motivation.

K. CHANDRASEKAR (2011), have studied Workplace environment and its impact on organizational performance in public sector organizations, the research was done to understand the performance level of employees due to the work environment, and also aimed at suggesting few interactions to provide better work environment at Public Sector Organizations. Important factors that the researcher analyzed to study the impact of workplace environment on performance are goal setting, performance feedback, Role congruity, defined process, workplace incentives,

supervisor support, mentoring/coaching, opportunity to apply, job aid, environmental factors, and physical factors. The researcher concluded the workplace environment plays a vital role on performance of public sector organizations.

Elina Cara (2020), had conducted a research to find out factors influencing organizational performance. Four factors which are: work environment, training and development, management and organizational culture effect on organizational performance were analyzed. A sample of 162 local government employees were surveyed to carry out this research. The research has revealed that work environment, training and management are important determinants of organizational performance.

2.2.2. Organizational Performance During the COVID-19 Pandemic

Huayu Shen, Mengyao Fu, Hongyu Pan, Zhongfu Yu & Yongquan Chen (2020), have conducted a research to find out the impact of Covid-19 pandemic on firm performance. The research used financial data of some Chinese companies and studied the impact of COVID-19 on corporate performance. The research showed that COVID-19 has a negative impact on firm performance. According to the study, the negative impact of COVID-19 on firm performance is more pronounced when a firm's investment scale or sales revenue is smaller and the negative impact of COVID-19 on firm performance is more pronounced in serious-impact areas and industries such as tourism, catering, and transportation.

Fu, M., & Shen, H. (2020), have conducted a research on how COVID-19 has affected the corporate performance in the energy industry. The financial data of some companies in China's energy industry from 2014 to 2020 were selected as the research samples and the economic impact of the pandemic was quantitatively analyzed and the impact on the energy industry was evaluated. The research showed that COVID-19 is having a negative impact on the performance of companies of the energy industry.

2.2.3. The Aviation Industry During the COVID-19 Pandemic

Dube, K., Nhamo, G., & Chikodzi, D. (2021), conducted a research on COVID-19 effect and prospects for recovery of the global aviation industry. According to the researchers, the COVID-19 pandemic ushered a wave of economic decline across the world due to disruptions in the supply and demand chain for the travel market. The study examined potential recovery pathways from the global aviation industry following the severe negative impacts of the COVID-19 pandemic. Using archival and secondary data mainly from Flightradar24, ICAO, IATA and EUROCONTROL. The study found that the pandemic inflicted a heavy toll on global aviation, which resulted in ratings downgrades, liquidation and bankruptcy of several airlines and airports due to severe cash burn instigated by travel restrictions. The study recommended that as the sector opens, it does so in a responsible manner, which puts measures that protect travelers, reduce costs, increase efficiency, and ensure a quality customer experience anchored on employees' health and customer safety.

Xue, D., Liu, Z., Wang, B., & Yang, J. (2021), conducted a research to study the impacts of COVID-19 on aircraft usage and fuel consumption. It was a case study on four Chinese

international airports at Beijing, Shanghai, Guangzhou, and Wuhan to investigate the short-term and medium-term impact of COVID-19 on flight volume, aircraft usage, fuel consumption, and aircraft emissions from commercial flights. The impact of the pandemic on medium and long-term air travel demand, airlines' financial performance, Long-term impacts on the environment and sustainability and resilience of air transportation systems were analyzed. The research has revealed that the COVID-19 pandemic has caused a global lockdown and significantly reduced flight volume since January 23, 2020, also the pandemic has negatively impacted the financial performance of the airlines, and they have switched to smaller aircraft for flight plans to improve financial performance in response to the reduced number of passengers. And according to the study it took 2–6 months for flight volume to recover in China, depending on the severity.

Anna-Livia Boullé, Tommaso Celani, Camilla Palange and Paolo Accogli (2021), have written performance report of Lufthansa airlines using the BSC as a measuring tool during the Covid-19 pandemic. Their report indicated that Lufthansa airlines has been affected by the restrictions on flight with a fall in Traffic Revenue of 68% year on year; Total Revenue fell by 63%; from 36 in 2019 to 13.5 billion EUR. The group was able to contain expenses, with a reduction of 44% compared to the previous year due to the high level of variable cost in the airline industry, notably expenses on fuel mounted to -72%; fees -60%, external services of repair -40% and indirect and external staff to -59%. Leading to total expenses of 20 billion EUR in 2020 compared with 37 billion in 2019 The overall impact on Earnings was a loss of 5 billion EUR, -40% compared to 2019. Investment spending was also reduced to 1.2 billion EUR a reduction of 64% from 3.6 billion of 2019. According to the report, COVID-19 pandemic has also affected the share price of Lufthansa, during March 2020 the share price dropped to 50%. The aspects of corporate responsibility were significantly affected in the reporting year by the dramatic impact the coronavirus pandemic made on global air traffic and thus also on the Lufthansa Group. Many activities and initiatives could not be carried out as planned or could only be continued in restricted form. The report has also revealed that due to COVID-19 pandemic Lufthansa has cancelled 95 percent of all flights and incurred losses of 1 million euros per hour in 2020.

2.2.4. Airlines Filed for Bankruptcy Amid the Pandemic

The crossfire from both the demand and supply sides wreaked havoc on an already frail industry, with a long tail of weaker airlines contributing to a dramatic rise in bankruptcy filings. The table below contains an incomplete list of airlines that declared bankruptcy between March and early July 2020. It comprises both small and young airlines, such as Miami Air International and Level Europe GmbH, both of which have a fleet of six aircraft, as well as long-established and large airlines, such as LATAM, which has a fleet of 315 aircraft (Czerny, A., Fu, X., Lei, Z., & Qum, T., 2020).

Table 1: Airlines filed for bankruptcy amid the pandemic

Airline	Service starting date	Bankruptcy application date	Fleet Size
Flybe	1979	2020.03.05	63
Miami Air International	1990	2020.03.24	6
Trans States Airlines	1982	2020.04.01	45
Compass Airlines	2007	2020.04.05	56
Ravn Air	1948	2020.04.05	73
Braathens Regional Airlines	1976	2020.04.06	14
Germanwings	1997	2020.04.07	33
South African Airways	1934	2020.04.16	39
Virgin Australia	2000	2020.04.21	98
LGW	1980	2020.04.22	15
German Airways	1980	2020.04.22	20
Air Mauritius	1972	2020.04.23	14
Avianca	1919	2020.05.10	102
LATAM	1919	2020.05.10	315
Thai Airways	1988	2020.05.27	80
Level Europe GmbH	2017	2020.06.18	6
NokScoot	2015	2020.06.26	7
Aeromexico	1934	2020.06.30	68
Avianca Brasil	1998	2020.07.06	10

Source: Compiled by the Institute for Aviation Research (2020)

2.3. Research Gap

Very few researches have been performed to assess the factors that affect the performance of an organization during the COVID-19 pandemic. Researchers like Uayu Shen, Mengyao Fu, Hongyu Pan, Zhongfu Yu & Yongquan Chen (2020), Fu, M., & Shen, H. (2020) have assessed the performance of some selected organizations during the COVID-19 pandemic, but their study only focused on evaluating the financial related performance by analyzing financial data. This research tries to assess the factors that affect organizational performance during the COVID-19 pandemic at Ethiopian airlines by evaluating the pandemic's influence on five selected factors which are determinants of organizational performance.

Based on literature review, to the researcher's knowledge and observation, there is no empirical study conducted to assess factors affecting performance of the selected airlines during the COVID-19 pandemic. So, this study will have its own contribution for comprehensiveness of the subject area in advance.

2.4. Hypothesis

Based on the literature review, the following hypotheses have been constructed:

H₀₁: Working environment does not have relationship and significant effect on Organizational Performance during the COVID-19 pandemic.

H₀₂: Organizational Culture does not have relationship and significant effect on Organizational Performance during the COVID-19 pandemic.

H₀₃: Employee motivation does not have relationship and significant effect on Organizational Performance during the COVID-19 pandemic.

H₀₄: Training programs does not have relationship and significant effect on Organizational Performance during the COVID-19 pandemic.

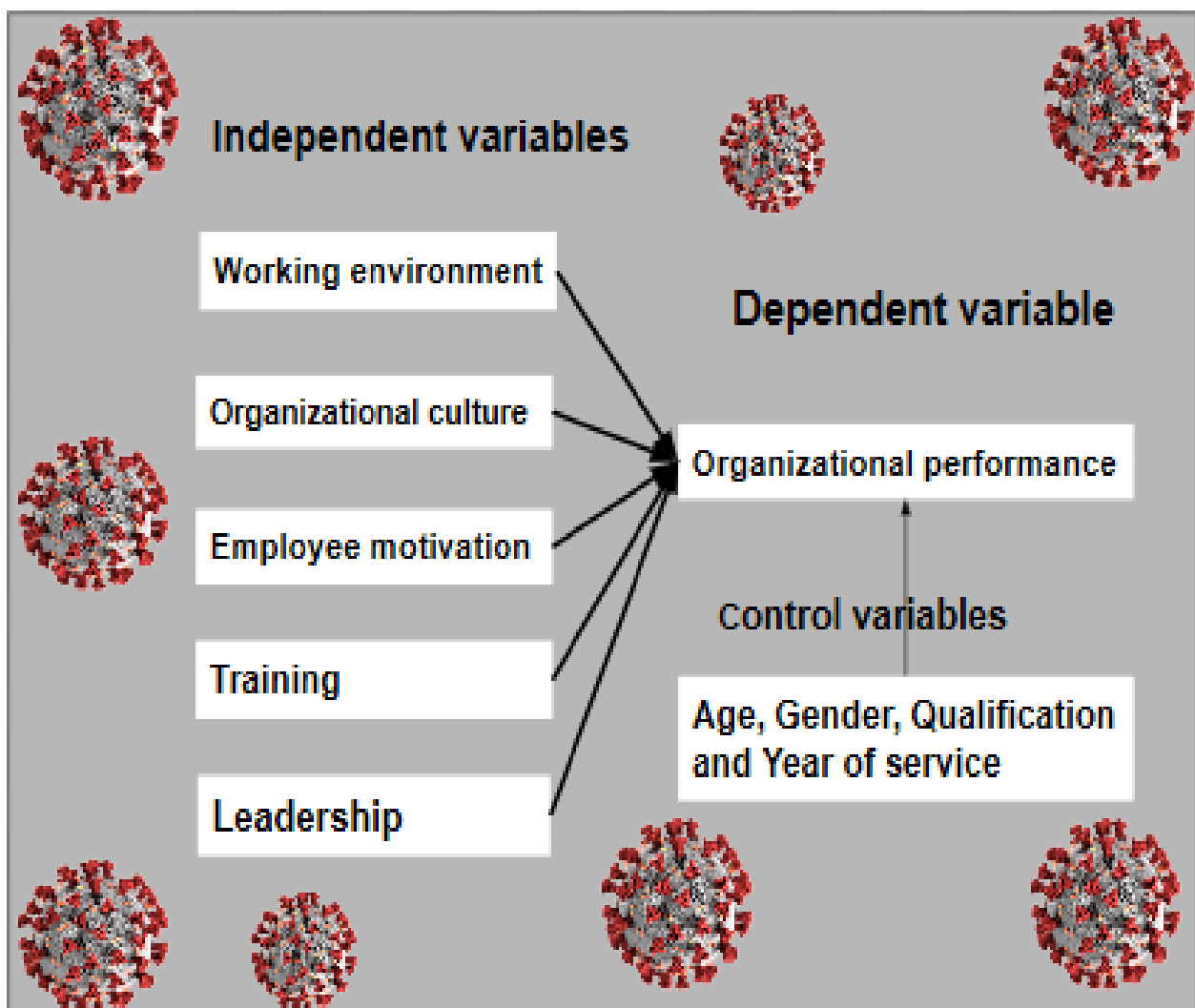
H₀₅: Leadership does not have relationship and significant effect on Organizational Performance during the COVID-19 pandemic.

2.5. Conceptual Framework

Conceptual framework explains the main variables to be studied, the key factors, or variables and the assumed relationship among them (Vaughan, R., 2008).

Based on literature, the conceptual framework shown in the figure below was used for this study. The framework depicts Organizational performance as dependent variable and factors which determines organizational performance which are Organizational culture, work environment, employee motivation, training, and Leadership as independent variables. Age, Gender, Qualification, and year of service are used as control variables in order to evaluate their significance in predicting the dependent variable.

Figure 1: Conceptual framework



Source: Own Literature review (2022)

CHAPTER THREE

3. RESEARCH DESIGN AND METHEDODOLOGY

This chapter will present the design and methods that has been used to study the factors affecting the performance of Ethiopian airlines during the COVID-19 pandemic.

3.1. Research Design

A research design is an arrangement of settings for data collection and analysis that seeks to combine relevance to the study goal. In fact, the research design is the conceptual framework for conducting research; it is the blueprint for data collection, measurement, and analysis. (Kothari, 2004).

According to Robson (2002), the three main purposes of research are exploratory, descriptive, and explanatory. Explorative research is defined as the pursuit of new ideas, the examination of the environment, the formulation of questions, or the illumination of a phenomenon. Explanatory study seeks to find a solution to a specific situation or problem, usually through causal links. Finally, descriptive research is a sort of research that focuses on explaining the nature or state of the current situation in as much detail as possible.

The type of research design that has been undertaken in this study was descriptive and explanatory type. The motive of this research was assessing the factors that affect organizational performance during the COVID-19 pandemic, so the researcher has found the descriptive and explanatory research design to be more suiting to attain the objective of the study and answer the research questions.

3.2. Research Approach

Quantitative research aims to measure something precisely. Quantitative approaches are used in business research to measure consumer behavior, knowledge, views, and attitudes. These approaches provide answers to queries such as how much, how often, how many, when, and who. Although survey is not the only quantitative researcher's methodology, it is the most common (Copper, Donald R., 2003)

This study has followed quantitative research approach, it has involved collecting, analyzing, and integrating quantitative data from survey questions.

3.3. Population and Sampling

3.3.1. Population

The target population for this study are employees of Ethiopian airlines. Based on Ethiopian airlines fact sheet report (2021), there are 16,002 employees.

3.3.2. Sample Size

Taking a sample is how most researchers come to findings regarding huge groups. A sample is a portion of the population that has been chosen to represent the entire population. The sample should ideally be representative, allowing the researcher to make reliable estimates of the greater population's thoughts and behavior. Samples are chosen to reflect the population's relevant characteristics (Adcock, C. J., 1997).

The researcher has been able to adopt a mathematical formula for the purpose of determining the sample size. Yemane (1967), has suggested the following mathematical formula for determining sample size.

$$n = N / 1 + N(e)^2$$

N: is the total number of employees at Ethiopian airlines.

e: is the error or confidence level, a confidence level of 95% is going to be applied to ensure accurate result from the sample. Based on this, the error term would equal to 0.05.

$$n = 16,002 / 1 + 16,002(0.05)^2$$

$$n = 390$$

From the above computation, the sample size is 390 but 10% of the sample size was added for expected unreturned and incomplete questionnaires (Israel, G. D., 1992).

$$n = n + 10\% \text{ of } n$$

$$= 390 + 39$$

$$= 429$$

3.3.3. Sampling Technique

Convenience sampling is the most commonly used sampling method. The sample is chosen on the basis of the convenience of the investigator. Often the respondents are selected because they are at the right place at the right time. The advantages are that it is most commonly used, less expensive and there is no need for the list of all the population elements (Acharya AS., Prakash A., Saxena P. & Nigam A., 2013).

The researcher has used Convenience sampling method while choosing respondents because the population was too large, and the list of the population elements were not available.

3.4. Data Collection

The researcher has used primary data source. Structured questionnaires were used to collect primary data from Ethiopian airline's head office.

Table 2: Response frequency

Description	Frequency
-------------	-----------

Sample size	390
Questionnaire distributed	429
Valid responses	377
Response rate	96.6% of the sample size

Source: Own Survey (2022)

After pre-testing, the structured survey questionnaire was administered for a total of 429 employees. Out of these, only 377 (96.6% of the sample size) provided full response to the questions. The employees included in the sample were those willing to fill the questionnaire. Response rate of 50% is adequate, 60% is good, and 70% or above is very good (Babbie, 1990). So, the response rate is very good.

3.5. Research Instrument

Both descriptive and inferential statistics tools were used to analyze the data collected from the survey questionnaire. Pearson's Correlation Analysis was used for measuring the association between variables of the study. Multiple Linear Regression was applied to observe the relation between the independent and dependent variables. The researcher has also used statistical Package for data analysis (SPSS) software version 20 for the analysis.

3.6. Reliability and Validity

3.6.1. Reliability Test

According to Kothari (2004), if the results of a measuring instrument are consistent, it is considered dependable. Cronbach's alpha is a reliability coefficient. It is widely employed as a measure of a psychometric test score's internal consistency or reliability for a group of examinees. Cronbach's Alpha was used to determine the instrument's reliability.

According to Zikmund, Babin and Griffin (2010), scales with coefficient alpha between 0.8 and 0.95 are considered to have very good quality, scales with coefficient alpha between 0.7 and 0.8 are considered to have good reliability, and coefficient alpha between 0.6 and 0.7 indicates fair reliability.

Table 3: Cronbach's Alpha

Variables	N of Items	Cronbach's Alpha	Reliability
Working Environment	4	0.881	Very Good Reliability
Organizational Culture	4	0.725	Good Reliability
Employee Motivation	4	0.907	Very Good Reliability
Training	4	0.793	Good Reliability
Leadership	4	0.642	Fair Reliability
Organizational Performance	4	0.859	Very Good Reliability
Overall	24	0.824	Very Good Reliability

Source: SPSS output (2022)

The reliability of the construct items was evaluated using Cronbach's coefficient alpha. The result of the reliability test for each of the independent and dependent variables are 0.881, 0.725, 0.907, 0.793, 0.642 and 0.859, which exceeds the minimum acceptable cut-off point. This suggested that the internal reliability in this study was acceptable.

3.6.2. Validity Test

Content validity involves the degree to which the study is measuring what it is supposed to measure. More simply, it focuses on the accuracy of the measurement (John, A., Hafiz, T.A., Khan, and R.R. & David, W., 2007).

Sample questionnaires were administered before distributing the finalized one for 15 respondents to get comments about the clarity of instructions, clarity of the questions and the layout of the questionnaire and adjustments were made to the questionnaire items based on the comments of the respondents.

Researchers such as Hal G. Rainey and Paula Steinbauer (1999), Musmuliana & Mustaffa, (2012), Brewer & Coleman Selden (2000), K. CHANDRASEKAR (2011) and Elina Cera (2021) are few of the researchers who have studied factors which are determinants of Organizational Performance. Based on literature, five factors were selected to study about Organizational Performance which are Working environment, Organizational Culture, Employee Motivation, Training and Leadership.

The questionnaire which is used for this research was originated by Fisher (1997) for Organizational Culture related questions, Mohapatra & Srivastava (2003) for Working environment related questions, Khan (2010) for Training related questions, Bartram (2005) for Leadership related questions, Brewer & Seldan (2000) for Organizational performance related questions that was later modified by Cera E. (2021). These questions were also modified by the researcher to the context of the COVID-19 pandemic.

3.7. Model Specification

The Multiple Linear Regression equation for this study is presented below:

$$OP = \alpha + \beta_1 WE + \beta_2 OC + \beta_3 EM + \beta_4 TR + \beta_5 LD + E$$

OP= Organizational performance of Ethiopian airlines (Dependent Variable)

WE =Working Environment

OC = Organizational Culture

EM = Employee Motivation

TR = Training

LD = Leadership

E = Factors unconsidered or missed by the researcher

α = Constant

While β_1 , β_2 , β_3 , β_4 and β_5 are the coefficients of slope of regression model the independent variables respectively.

3.8. Ethical Considerations

Ethical consideration of confidentiality and privacy was kept throughout every step while conducting this study. A guarantee was given to the respondents that their responses would be collected for academic research purposes and kept strictly confidential. In addition to this, their participation in the study was based on their consent. The respondents were completely free to stop filling the questionnaires whenever they felt discomfort. The researcher would not personalize any of the responses of the respondents during data presentations, analysis, and interpretation.

CHAPTER FOUR

4. DATA PRESENTATION, ANALYSIS, AND INTERPRETATION

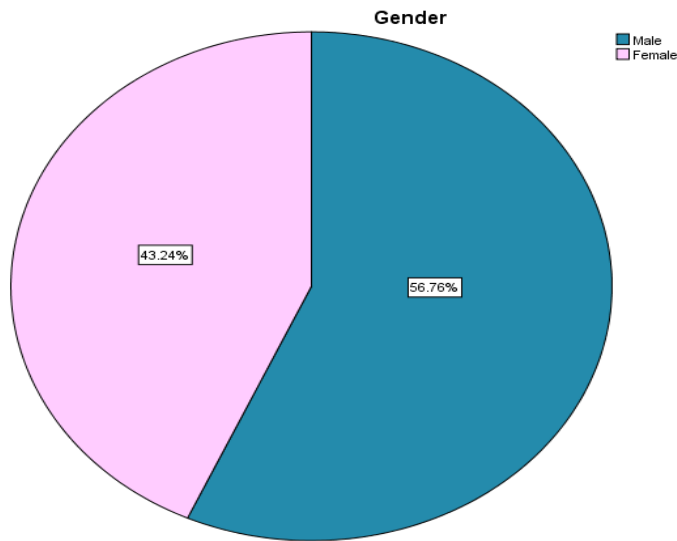
4.1. Introduction

This chapter focuses on the presentation, analysis, and interpretation of questionnaire data and contains the respondent's profile, correlation analysis, overall Ethiopian airlines organizational performance during the COVID-19 pandemic and multiple linear regression analysis. A total of 429 questionnaires were distributed and only 377 questionnaires were properly filled out and collected. Since this is sufficient to make the analysis, the discussions below are made on these groups of respondents. The collected data was analyzed by using statistical package for social science (SPSS) version 20 software to answer the research questions.

4.2. Demographic Characteristics of the respondents

4.2.1. Gender Composition of Respondents

Figure 2: Gender composition of respondents

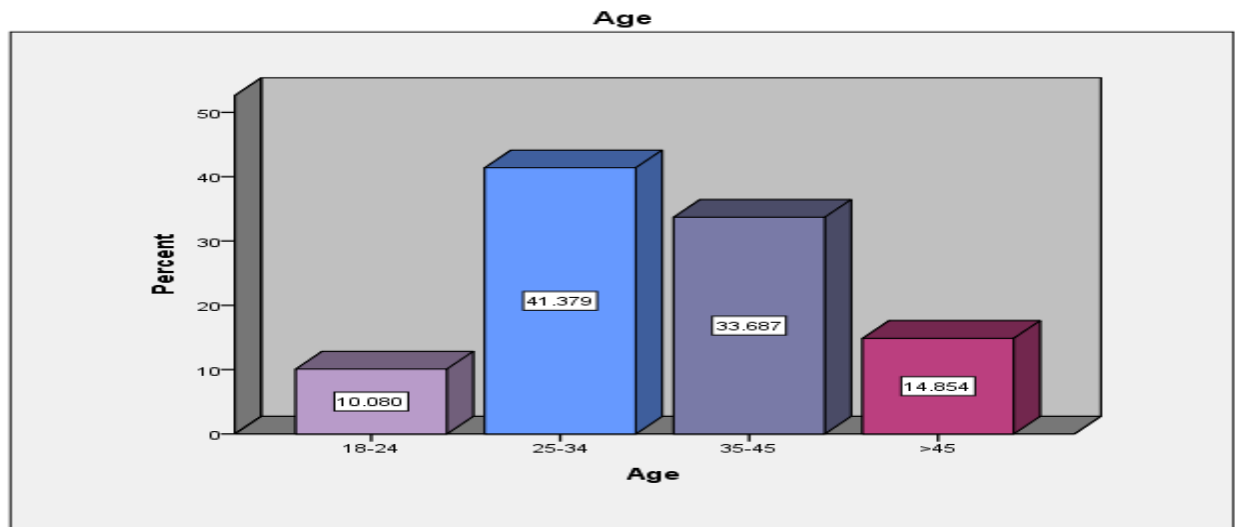


Source: Own Survey (2022)

As shown in the above table, 214 (56.8%) of the respondents fall into the category of male. This is followed by 163 (43.2%) of the respondents are in the category of Female. It indicates that there is a relatively higher number of male respondents.

4.2.2. Age Composition of Respondents

Figure 3: Age of respondents

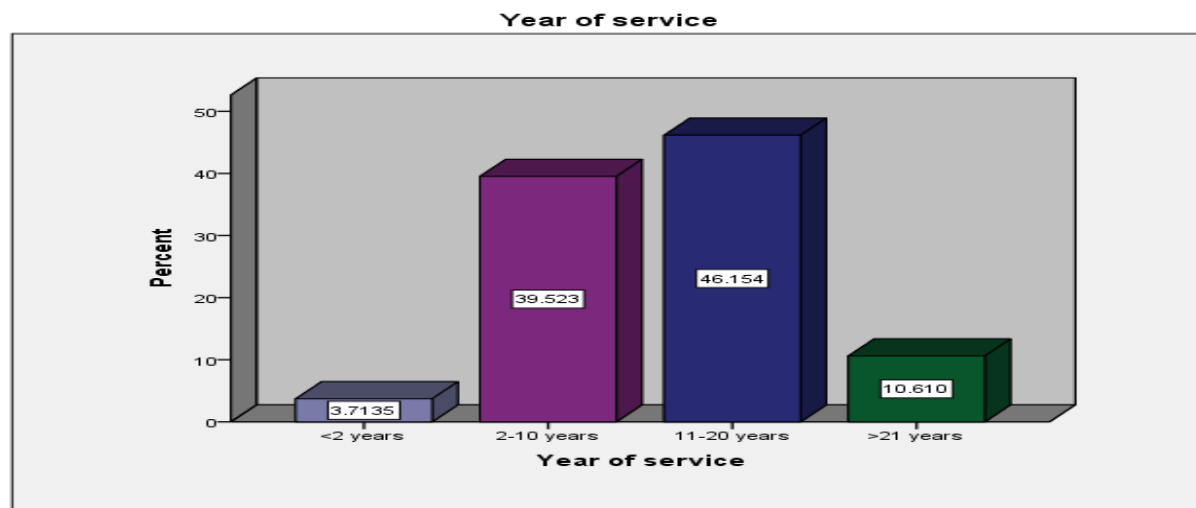


Source: Own Survey (2022)

As it can be seen from the above table, the majority of the respondents are within the age category of 25-34 years (41.4%). The remaining percentages of the age categories 35-45, greater than 45 and 18-24 were about 33.7 %, 14.9% and 10.1% respectively. It indicates that the greatest number of respondents were young.

4.2.3. Service Year of Respondents

Figure 4: Service year of respondents

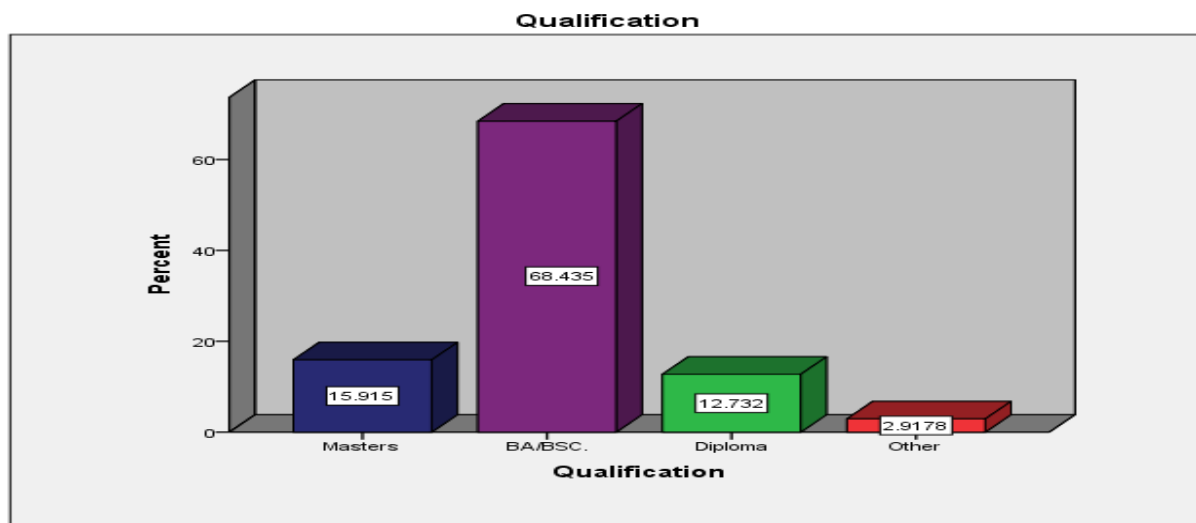


Source: Own Survey (2022)

As shown from the above table, majority of the respondents 174(46.2%) have 11-20 years of experience at the organization. While, 149(39.5%), 40(10.6%), and 14(3.7%) of them were in the category of 2-10 years, greater than 21 years, and less than 2 years respectively. This shows that majority of the respondents have enough work experience at the airlines to understand the effect of COVID-19 pandemic on the airline's performance and business operating activities. Therefore, they can give relevant data to the research.

4.2.4. Qualification of Respondents

Figure 5: Qualification of respondents



Source: Own Survey (2022)

As it can be viewed from the above table, the majority of the respondents have BA/BSc. 258 (68.40%) followed by those who have master's degree 60 (15.9%), with diploma 48(12.7%) and with other certifications 11(2.9%) respectively. The above finding indicates that most of the respondents had attained a different level of education and since they are literate, they can understand and fill the questionnaires.

4.3. Descriptive Statistics Analysis

A 5-point Likert scale [(1) = strongly disagree; (2) = disagree; (3) = neutral; (4) = agree and (5) = strongly agree] response framework was used for the structured questionnaire, whereas the mean scores computed were divided in to five ranges in reporting the results. Accordingly, a mean score of [1.0 – 1.5), [1.5 – 2.5), [2.5 - 3.5), [3.5 – 4.5) and [4.5 – 5.0) respectively stands for Very Low, Low, Average, High, Very High.

4.3.1. Working Environment of the Organization During the COVID-19 Pandemic

Table 4: Working environment during the COVID-19 pandemic

Working Environment	N	Minimum	Maximum	Mean	Std. Deviation
1. The pandemic's negative effect on Safety of employees.	377	2.00	5.00	4.73	.60
2. The negative effect of COVID-19 related safety rules on employee's performance.	377	1.00	5.00	4.43	0.88
3. The pandemic's negative effect on work/life balance.	377	1.00	5.00	4.12	1.00
4. The pandemic's negative effect on communication between colleagues and managers.	377	1.00	5.00	4.5	0.85
Valid N (listwise)	377			Grand mean= 4.45	Average Std. Deviation = .83

Source: Own Survey (2022)

The above Table indicates descriptive statistics analyzing the negative effect of COVID-19 pandemic on work environment, the mean agreement level of respondents is 4.45 with standard deviation of 0.83. This tells us that the general employee rating towards the negative effect of the COVID-19 pandemic is significantly high. Majority of the respondents have agreed that the COVID-19 pandemic has negatively affected their safety at work, their performance due to COVID-19 related safety rules, employee's work/life balance and their level of communication with their colleague and managers.

4.3.2. Organizational Culture of the Organization during the COVID-19 Pandemic

Table 5: Organizational Culture during the COVID-19 pandemic

Organizational Culture	N	Minimum	Maximum	Mean	Std. Deviation
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1. The pandemic's negative effect on employee's sense of cooperation and teamwork.	377	1.00	5.00	4.28	.98
2. The pandemic's negative effect on the organization's ability to ensure the safety of its employees from arbitrary decisions.	377	2.00	5.00	4.43	.79
3. The pandemic's negative effect on the organization's ability to promote a high level of ethical standard and public interest.	377	2.00	5.00	4.36	.83
4. The pandemic's negative effect on Organizational communication.	377	2.00	5.00	4.50	.79
Valid N (listwise)	377			Grand Mean = 4.39	Average Std. Deviation = 0.85

Source: Own Survey (2022)

The above table shows descriptive statistics analyzing the negative effect of COVID-19 pandemic on Organizational culture. The mean agreement level of respondents is 4.39 with standard deviation of 0.85, this tells us that the general employee rating towards the negative effect of the COVID-19 pandemic on Organizational Culture is significantly high. Majority of the respondents have agreed that the COVID-19 pandemic has negatively affected their sense of cooperation and teamwork, the airlines ability to ensure their safety from arbitrary decisions, the airlines ability to promote high level of ethical standard and public interest and organizational communication.

4.3.3. Employee Motivation During the COVID-19 Pandemic

Table 6: Employee Motivation during the COVID-19 pandemic

Employee Motivation	N	Minimum	Maximum	Mean	Std. Deviation
1. The pandemic's negative effect on employee's motivation to come to workplace.	377	2.00	5.00	4.65	.69
2. The pandemic's contribution on causing employee's to fear about losing their job.	377	1.00	5.00	4.52	.83
3. The pandemic's negative effect on opportunities to grow and progress within the company.	377	2.00	5.00	4.65	.65
4. The pandemic's negative effect on employee's ability to focus and work hard.	377	2.00	5.00	4.55	.79

Valid N (listwise)	377			Grand Mean = 4.59	Average Std. Deviation = 0.74
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Source: Own Survey (2022)

The above Table shows descriptive statistics analyzing the effect of COVID-19 pandemic on Employee Motivation. The mean agreement level of respondents is 4.59 with standard deviation of 0.74, this tells us that the general employee rating towards the negative effect of the COVID-19 pandemic on Employee Motivation is significantly high. Majority of the respondents have agreed that the COVID-19 pandemic has negatively affected their motivation to come to their work place, increased fear of losing their job, negatively affected their opportunities to grow and progress within the organization also their ability to focus and work hard at their job.

4.3.4. Training Programs During the COVID-19 Pandemic

Table 7: Training programs during the COVID-19 pandemic

Training	N	Minimum	Maximum	Mean	Std. Deviation
1. The pandemic's negative effect on the level of trainings that used to be offered.	377	1.00	5.00	4.70	.75
2. The pandemic's negative effect on employee's motivation to attend training sessions.	377	1.00	5.00	4.51	.99
3. The pandemic's negative effect on employee's opportunity to practice their knowledge and skill.	377	2.00	5.00	4.57	.76
4. The pandemic's negative effect on medium of training sessions and its effect on performance.	377	1.00	5.00	4.38	1.04
Valid N (listwise)	377			Grand Mean = 4.54	Average Std. Deviation = 0.88

Source: Own Survey (2022)

The above Table shows descriptive statistics analyzing the effect of COVID-19 on training and development programs. The mean agreement level of respondents is 4.54 with standard deviation of 0.88, this tells us that the general employee rating towards the negative effect of the COVID-19 pandemic on Training and development programs is significantly high. Majority of the respondents have agreed that the COVID-19 pandemic has negatively affected the level of training and development programs that used to be provided by the organization, their motivation to attend training programs, their opportunity to practice their knowledge and skill at their work place also the pandemic has negatively affected their performance due to changes to modes of trainings provided by the organization.

4.3.5. Leadership at the organization During the COVID-19 Pandemic

Table 8: Leadership at the airlines during the COVID-19 pandemic

Leadership	N	Minimum	Maximum	Mean	Std. Deviation
1. The pandemic's negative effect on the management's performance.	377	1.00	5.00	4.66	.78
2. The pandemic's negative effect on employee's level of communication and relationship with managers.	377	1.00	5.00	4.29	1.13
3. The pandemic's negative effect on manager's capability to supervise employees closely.	377	1.00	5.00	4.02	1.31
4. The pandemic's negative effect on team coordination and team performance.	377	1.00	5.00	4.28	1.16
Valid N (listwise)	377			Grand Mean = 4.31	Average Std. Deviation = 1.09

Source: Own Survey (2022)

The above Table shows descriptive statistics analyzing the effect of COVID-19 on Leadership of the organization. The mean agreement level of respondents is 4.31 with standard deviation of 1.09, this tells us that the general employee rating towards the negative effect of the COVID-19 pandemic on the leadership of the organization is significantly high. Majority of the respondents have agreed that the COVID-19 pandemic has negatively affected the performance of the managers, the level of communication and relationship with their managers, the manager's ability to supervise them closely also team coordination and team performance has been negatively affected by the pandemic.

4.3.6. Organizational Performance During the COVID-19 Pandemic

Table 9: Organizational performance during the COVID-19 pandemic

Organizational Performance	N	Minimum	Maximum	Mean	Std. Deviation
1. The pandemic's effect on productivity of each operating unit.	377	2.00	5.00	4.46	.87
2. The pandemic's effect on the performance of employees.	377	1.00	5.00	4.48	.99
3. The pandemic's effect on the ability of the organization to retain essential employees.	377	1.00	5.00	4.45	.92
4. The pandemic's effect on the ability of the organization to provide quality service to customers.	377	1.00	5.00	4.54	.95
Valid N (listwise)	377			Grand mean = 4.48	Average Std. Deviation = 0.93

Source: Own Survey (2022)

The above Table shows descriptive statistics analyzing the effect of COVID-19 on Organizational Performance. The mean agreement level of respondents is 4.48 with standard deviation of 0.93, this tells us that the general employee rating towards the negative effect of the COVID-19 pandemic on Organizational Performance is significantly high. Majority of the respondents have agreed that the COVID-19 pandemic has negatively affected the productivity of their respective operating unit, the performance of their colleagues within their team, the organization's ability to retain essential employees and the ability of the organization to provide quality service to customers.

4.4. Inferential Statistics

As attested in the preceding section, in addition to descriptive statistics employed for data analysis this study also demands inferential statistics to address objectives of the current study.

But, before carrying Pearson product moment correlation and regression analysis, assumption to use them must be tested. Therefore, assumptions of Pearson product moment correlation and classical linear regression model were tested by conducting various diagnostic tests for the specified models. The diagnostics that were carried out are discussed as follows:

4.4.1. Diagnostics Tests

According to (Field, 2013), to run linear regression, checking critical assumptions is essential and it is helpful to conclude the population under study. In this regard, the following preliminary analysis (Regression diagnostics) was conducted to verify the assumptions which are: linearity, normality, multicollinearity, homoscedasticity, and autocorrelation test.

Assumption1: Linearity

According to Hayes, A. F., Glynn, C. J., & Huge, M. E., (2012), the relationship between the independent and dependent variable needs to be a linear function to conduct linear regression analysis. As a result, the linearity of the relationship between independent and dependent variables was tested using SPSS V20 software and the scatter plot from the test indicated linear relationship between the dependent variable and independent variables (see appendix II).

Assumption 2: Normality

As Ghasemi & Zahediasl, (2012), noted that the assumption of normality is important in research while using regression and helpful to generalize the results of the analysis beyond the sample collected.

Normality tests can be seen in the data distributed when the curve does not pass through either the left or the right (Ghasemi & Zahediasl, 2012). The kurtosis and skewness values were examined using SPSS V20 to ensure that the data was normal. The degree to which cases are grouped towards one end of an asymmetric distribution is measured by skewness. In general, the further the skewness value deviates from zero, the less likely the data are to be regularly distributed (Field, 2016). Kurtosis measure the level of peak in a histogram. The high peak has positive kurtosis, while the flatter distribution has negative kurtosis.

Histograms are an excellent tool to see if the data is normally distributed. The variable values are represented on the X-axis, while the frequency is represented on the Y-axis. A normal distribution is a distribution of data that clusters around the mean. The test indicated a normal distribution of the data (see appendix II).

Assumption 3: Multicollinearity Test

According to McClelland, G. H., Irwin, J. R., Disatnik, D., & Sivan, L. (2017), most regression programs can compute variance inflation factor (VIF) for each variable, and as a rule of thumb; VIF above 5.0 shows problems with the Multicollinearity test.

Erik Mool (2014), also underline that values for “Tolerance” below 0.1 indicate serious problems, although several statisticians suggest that value for “Tolerance” below 0.2 are worthy of concern. Multi co-linearity of the regression analysis refers to how strongly interrelated the independent variables in a model are. As we can see from the following table, the tolerance values are 0.650, 0.789, 0.738, 0.800 and 0.782 for each independent variables (Work environment, Organizational

Culture, Employee Motivation, Training and Leadership) which are above 0.10 and the variance inflations factors (VIF) values are also 1.538, 1.267, 1.355, 1.250 and 1.279 respectively. Therefore, in this study, the table below shows that the Variance Inflation Factors (VIF) and tolerance fall within the acceptance range (VIF = 1 - 10, tolerance = 0.1 – 1.0).

Table 10: Test of Multicollinearity

Model	Collinearity Statistics	
	Tolerance	VIF
Work Environment	0.650	1.538
Organizational Culture	0.789	1.267
Employee Motivation	0.738	1.355
Training	0.800	1.250
Leadership	0.782	1.279

Source: SPSS output, 2022

Assumption 4: Homoscedasticity Test

Homoscedasticity is the extent to which the data values for the dependent and independent variables have equal variances (Olvera & Zumbo, 2019). At each level of the predictor variables, the variance of the residual terms should be constant. It means that the residuals at each level of the predictors should have the same variance, therefore, checking for this assumption is helpful for the fitness of the regression model. In this regard, to plot the homoscedasticity test, as supported by Erik (2014), the researcher has plotted the standardized residuals, or error (ZRESID) on the Y-axis and the standardized predicted value of the dependent variable based on the model (ZPRED) on the X-axis. Thus, the scatter plot shows that the majority of the point are concentrated around zero (0) which shows that there is no violation of homoscedasticity (see appendix II).

Assumption 5: Autocorrelation Test

Autocorrelation is an assumption that the errors are linearly independent of one another. The value of Durbin-Watson statistics ranges from 0 to 4. The residuals are considered independent (not correlated) if the Durbin-Watson statistic is around 2, a value towards 0 indicates positive autocorrelation and value towards 4 indicates negative autocorrelation.

The Durbin-Watson statistics was run to test the autocorrelation in the residuals and the result indicated that there was no such problem among the variables since the value is 1.245.

4.4.2. Correlation Analysis

Correlation analysis determines to explore the strength as well as the direction of the relationship between the study variables specifically, Work Environment, Organizational Culture, Employee Motivation, Training and leadership (independent variables), and Organizational performance which is the dependent variable.

In order to understand the relationship between the variables, the researcher have used Cohen's (1988) classification of the strength of relationship.

Table 11: Correlational strength determination

Correlation strength	Positive Value	Negative value
Weak	R=0.10 to 0.29	R= -0.10 to -0.29
Medium	R=0.3 to 0.49	R=-0.30 to -0.49
Strong	R=0.50 to 1.0	R= -0.50 to -1.0

Source: Cohen (1988)

In this study, Pearson's product-moment correlation coefficient- Person's r is used to determine the relationship between independent and dependent variables. As it can be seen from the above table the range of possible correlation coefficient value is from +1 to -1. Zero correlation indicates the absence of relationship between the variables. A negative relationship indicates that the scores change in the opposite direction and a positive relationship indicates that the scores change in the same direction for both variables.

Table 12: Correlation analysis

		Work Environm ent	Organizatio nal Culture	Employee Motivatio n	Trainin g	Leaders hip	Organiza tional Performa nce
Work Environme nt	Pearson Correlati on	1					
	Sig. (2- tailed)						
	N	377					
Organizati onal Culture	Pearson Correlati on	.429**	1				
	Sig. (2- tailed)	.000					
	N	377	377				
Employee Motivation	Pearson Correlati on	.435**	.263**	1			
	Sig. (2- tailed)	.000	.000				
	N	377	377	377			
Training	Pearson Correlati on	.317**	.097	.349**	1		
	Sig. (2- tailed)	.000	.059	.000			

	N	377	377	377	377		
Leadership	Pearson Correlation	.372**	.259**	.320**	.326**	1	
	Sig. (2-tailed)	.000	.000	.000	.000		
	N	377	377	377	377	377	
Organizational Performance	Pearson Correlation	.618**	.453**	.426**	.301**	.423**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	377	377	377	377	377	377
**. Correlation is significant at the 0.01 level (2-tailed).							

Source: SPSS output (2022)

The above table shows that there is a strong positive correlation between Work environment and organizational performance ($r=0.618$, $p<0.01$), which means when the Working Environment of the airlines is negatively affected by the COVID-19 pandemic, Organizational performance of the airlines decreases, or it will also be negatively affected.

There is a medium positive correlation between Organizational Culture and Organizational performance ($r=0.453$, $p<0.01$), which means when the Organizational Culture of the airlines is negatively affected by the COVID-19 pandemic, Organizational Performance of the airlines decreases, or it will also be negatively affected.

There is also medium positive correlation between Employee Motivation, Training and Leadership with Organizational Performance ($r= 0.426$, $P<0.01$), ($r= 0.301$, $P<0.01$) and ($r= 0.423$, $P<0.01$). Which indicates when Employee Motivation, Training and Leadership are negatively affected by the pandemic, so is Organizational Performance. Based on the above result, it is possible to conclude that all the independent variables are positively correlated to the dependent variable at a significant level.

4.4.3. Multiple Linear Regression Analysis

Regression analysis is a systematic method that can be used to investigate the effect of one or more predictor variables on dependent variable. That is, it allows us to make statements about how well one or more independent variables will predict the value of a dependent variable.

4.4.4. ANOVA analysis

Table 13: ANOVA test

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	596.660	9	66.296	37.524	.000 ^b
	Residual	648.406	367	1.767		
	Total	1245.066	376			

a. Dependent Variable: Organizational Performance

b. Predictors: (Constant), Year of service, Organizational Culture, Training , Gender, Qualification , Leadership, Employee Motivation, Age, Work Environment

Source: SPSS output (2022)

The analysis of variance (ANOVA) indicates the overall significance and acceptability of the model from a statistical perspective. As it can be shown from the above table, the significance value is 0.00 which is less than 0.05, thus the model is acceptable. Also as $F=37.524$ and $p=0$, we can conclude that our regression model results in significant prediction of the dependent variable. Also, the p-value indicated that the variation explained by the model is not due to chance.

Table 14: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.692 ^a	.479	.466	1.32920	.479	37.524	9	367	.000	1.245

a. Predictors: (Constant), Year of service, Organizational Culture, Training , Gender, Qualification , Leadership, Employee Motivation, Age, Work Environment

b. Dependent Variable: Organizational Performance

Source: SPSS output (2022)

As shown in the above table, the five independent variables which are training, employee motivation, leadership, organizational culture and working environment plus the control variables which are age, gender, qualification and year of service explains 46.6 % ($\text{Adjusted } R^2 = 0.466$) of the dependent variable (Organizational Performance). This suggests that 46.6 % of the change on Organizational performance during the pandemic clearly depends on the negative effect of the

pandemic on the independent variables, while the remaining 53.4 % is determined by other unaccounted factors in this study.

Table 15: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	.205	1.229		.167	.868		
Work Environment	.398	.047	.397	8.497	.000	.650	1.538
Organizational Culture	.218	.046	.202	4.760	.000	.789	1.267
Employee Motivation	.168	.058	.128	2.910	.004	.738	1.355
Training	.065	.046	.060	1.417	.157	.800	1.250
Leadership	.140	.036	.165	3.872	.000	.782	1.279
Age	.068	.090	.033	.759	.449	.769	1.300
Gender	-.022	.140	-.006	-.155	.877	.975	1.025
Qualification	.049	.111	.017	.444	.657	.943	1.060
Year of service	-.072	.111	-.028	-.647	.518	.734	1.363

a. Dependent Variable: Organizational Performance

Source: SPSS output (2022)

From the above table, we can easily compare the relative contribution of each of the different variables by taking the beta value under the unstandardized coefficients. The higher the beta value, the strongest its contribution becomes. Accordingly, work environment (B=.398) makes the strongest unique contribution to explaining the dependent variable (Organizational performance) in which the results revealed that, a one unit increase or positive change in Working Environment would lead to a 0.398 unit increase the level Organizational Performance and followed by Organizational Culture (B=.218), then Employee Motivation (B=.168). On the other hand, training and Leadership are contributors to explaining the dependent variable with beta values of 0.065 and 0.14 respectively. The relationship between dependent and independent variables will be declared as statistically significant if the p value of the independent variable is below 0.05 and otherwise insignificant (Greenland et al., 2016), when we see the statistical significance of each variable

from the above coefficients table, Working Environment (P. = .00), Organizational Culture (P = .00), Employee Motivation (P = .004), and Leadership (P. = .00) have a statistically significant contribution (P<0.05) for the prediction of the dependent variable while Training (P. = .157) which refer that Training has statistically less effect to make any significant prediction.

Control variables Age, Gender, Qualification, and year of service are also included to the regression analysis to evaluate their significance in explaining the dependent variable. Age, gender, qualification, and year service have P-value of 0.449, 0.877, 0.657 and 0.518 respectively, which indicates that all this control variables have statistically less effect to make any significant prediction of the dependent variable (Organizational Performance).

4.4.5. Regression Mathematical Model

The equation of multiple regressions on this study is generally built on around two sets of variables, namely dependent variables (Organizational Performance) and independent variables (training, employee motivation, leadership, organizational culture and working environment). The basic objective of using regression equation on this study is to make the researcher more effective at describing, understanding, predicting, and controlling the negative effect of COVID-19 pandemic on Organizational Performance at Ethiopian Airlines.

Variables of the study

Table 16: Variables of the study

Independent Variable	Control variables	Dependent Variable
Working Environment	Age	Organizational Performance
Organizational Culture	Gender	
Employee Motivation	Qualification	
Training	Year of service	
Leadership		

Source: Own Literature Review (2022)

$$OP = \alpha + \beta_1 WE + \beta_2 OC + \beta_3 EM + \beta_4 TR + \beta_5 LD + E$$

OP= Organizational performance

WE = Work environment

OC = Organizational Culture

EM = Employee Motivation

TR = Training

LD = Leadership

E = Factors unconsidered or missed by the researcher

α = Constant

While β_1 , β_2 , β_3 , β_4 and β_5 are the coefficients of slope of regression model for the independent variables respectively.

Therefore, based on the result in the regression coefficient table 15 and accordingly to the above general mathematical equation, the estimated regression model of this study for Ethiopian airlines is presented below:

$$OP = 0.398 WE + 0.218 OC + 0.168EM + 0.140 LD$$

From the above regression equation, it is possible to interpret that, the effect of COVID-19 pandemic on Organizational Performance increases by 0.398 as the Working Environment is affected by the pandemic in one more unit, by 0.218 when Organizational Culture is affected by the pandemic in one more unit, by 0.168 when Employee's Motivation is affected by the pandemic in one more unit, by 0.140 when the Leadership is affected by the pandemic in one more unit. According to the analysis, the change which is caused by the pandemic on all independent variables except Training has caused significant effect on Organizational Performance of the airlines.

4.5. Hypothesis Summary Table

Table 17: Hypothesis testing

No	Developed Hypothesis	β Coefficient and significance	Test Result
1.	(H ₀₁) Working environment does not have relationship and significant effect on Organizational Performance during the COVID-19 pandemic.	$\beta = 0.398$ P = 0.00	Rejected
2.	(H ₀₂) Organizational Culture does not have relationship and significant effect on Organizational Performance during the COVID-19 pandemic.	$\beta = 0.218$ P = 0.00	Rejected
3.	(H ₀₃) Employee Motivation does not have relationship and significant effect on Organizational Performance during the COVID-19 pandemic.	$\beta = 0.168$ P = 0.04	Rejected
4.	(H ₀₄) Training does not have relationship and significant effect on Organizational Performance during the COVID-19 pandemic.	$\beta = 0.065$ P = 0.157	Accepted
5.	(H ₀₅) Leadership does not have relationship and significant effect on Organizational Performance during the COVID-19 pandemic.	$\beta = 0.140$ P = 0.00	Rejected

4.6. Discussion of Major Findings

The major objective of this study was to find out the factors affecting performance of Ethiopian airlines during the COVID-19 pandemic. Researchers such as Hal G. Rainey and Paula Steinbauer (1999), Musmuliana & Mustaffa, (2012), Brewer & Coleman Selden (2000), K. CHANDRASEKAR (2011), Elina Cera (2021) are few of the researchers who have studied factors which are determinants of Organizational Performance. Based on literature, five factors were selected to study about Organizational Performance which are Working environment, Organizational Culture, Employee Motivation, Training and Leadership.

Structured questionnaires have been distributed in order to find out whether the pandemic has affected the working environment, the organizational culture, employee motivation, training programs and leadership of the airlines negatively. The mean agreement level of respondents to the negative effect of the pandemic on working environment, the organizational culture, employee motivation, training programs and leadership of the organization were 4.45, 4.39, 4.59, 4.54 and 4.31 respectively, the general employee rating towards the negative effect of the COVID-19 pandemic on the five factors listed above is significantly high. Which means Majority of the respondents have agreed that the COVID-19 pandemic has negatively affected their working environment, the organization's culture, their motivation, the training programs and the leadership of the organization. Additional questions are also asked to respondents in order to find out whether the pandemic has affected Organizational performance of the organization negatively. The mean agreement level of respondents was 4.48, which means majority of the respondents have agreed that the pandemic has negatively affected the organizational performance of the airlines. Huayu Shen, Mengyao Fu, Hongyu Pan, Zhongfu Yu & Yongquan Chen (2020), have conducted a research to find out the impact of Covid-19 pandemic on organizational performance, the research showed that COVID-19 pandemic have a negative impact on organizational performance. According to the study, the negative impact of COVID-19 on firm performance is more pronounced in serious-impact areas and industries such as tourism, catering, and transportation.

A positive correlation indicates a direct positive relationship between two variables. A negative correlation, on the other hand, indicates an inverse, negative relationship between two variables (Ruud et. al. 2012). The researcher has performed correlation test in order to find out whether the pandemic's effect on the dependent variables (working environment, organizational culture, employee motivation, training programs and leadership) have a positive or negative relationship with Organizational Performance. Pearson's correlation test revealed that all the independent variables have positive relationship (positively correlated) with the dependent variable. Which means when the pandemic's effect on working environment increases, its effect on Organizational Performance also increases, the same is true for all the other independent variables which are positively correlated with Organizational Performance.

Finally, multiple linear regression analysis was performed in order to investigate the effect of the predictor variables (Working environment, Organizational Culture, Employee Motivation, Training and Leadership) on the dependent variable (Organizational Performance). The research

has revealed that working environment ($B=0.398$) is more significant in predicting the dependent variable (organizational performance), then followed by organizational culture ($B=0.218$), employee motivation (0.168) and leadership ($B=0.140$) respectively. According to the study, working environment, organizational culture, employee motivation and leadership have a positive relationship and significant effect on organizational performance during the pandemic, whereas training has a positive relationship with organizational performance but not significant enough to make an effect, which means the pandemic's effect on training programs of the airlines has not caused a significant change on organizational performance. The study has also revealed that the control variables which are respondent's age, gender, year of service and qualification does not have significant effect on organizational performance. Based on the study, it is possible to conclude that the change which is caused by the pandemic on all of the independent variables except Training has caused significant effect on Organizational Performance of the airlines.

CHAPTER FIVE

5. SUMMARY OF MAJOR FINDINGS, CONCLUSION, AND RECOMMENDATION

5.1. Summary

The objective of the study was assessing the factors affecting the performance of Ethiopian airlines during the COVID-19 pandemic. The following basic research questions were addressed in the study:

- How does Working environment influence Ethiopian airline's Organizational performance during the COVID-19 pandemic?
- How does Organizational culture influence Ethiopian airline's Organizational performance during the COVID-19 pandemic?
- How does Employee motivation influence Ethiopian airline's Organizational performance during the COVID-19 pandemic?
- How does Training programs influence Ethiopian airline's Organizational performance during the COVID-19 pandemic?
- How does leadership influence Ethiopian airline's Organizational performance during the COVID-19 pandemic?

About 429 questionnaires were distributed based on the determined sample size plus 10% of the sample size and 377 useful responses were used for data analysis which makes the response rate 96.6%. The respondents were required to express their perception of the effects of COVID-19 pandemic on organizational performance through questionnaires which consisted of 6 dimensions.

To measure the effect of the pandemic on organizational performance, which was the dependent variable of this study, the original scale measurement originated by Fisher (1997) for Organizational Culture related questions, Mohapatra & Srivastava (2003) for Working environment related questions, Khan (2010) for Training programs related questions, Bartram (2005) for Leadership related questions, Brewer & Seldan (2000) for Organizational performance related questions that was later modified by Cera E. (2021) was used after the researcher also modified it to the context of the COVID-19 pandemic. Employee motivation related questions from own literature review comprising four items was also used. A 5-point Likert scale [(1) = strongly disagree; (2) = disagree; (3) = neutral; (4) = agree and (5) = strongly agree] response framework was used for the structured questionnaire, whereas the mean scores computed were divided in to five ranges in reporting the results. Accordingly, a mean score of [1.0 – 1.5), [1.5 – 2.5), [2.5 – 3.5), [3.5 – 4.5) and [4.5 – 5.0) respectively stands for Very Low, Low, Average, High, Very High.

Data collected from respondents were analyzed using Statistical Package for Social Science SPSS software. The demographic profiles of target respondents were analyzed using descriptive analysis such as frequency, percentage, and tables to measure the variability of collected data.

Pearson's Correlation Analysis was used for measuring the association between variables of the study. Multiple Linear Regression was also run to investigate the effect of the independent variables (Working environment, Organizational Culture, Employee Motivation, Training and Leadership) on the dependent variable (organizational performance). The study came up with the following major findings after investigating the collected data:

- About 214 (56.8%) of respondents fall into the category of male. This was followed by 163 (43.2%) of the respondents in the category of Female. Majority of the respondents were within the age category of 25-34 years (41.4%). Followed by the age group of 35-45, greater than 45 and 18-24 at 33.7 %, 14.9% and 10.1% respectively. About 174(46.2%) have 11-20 years of experience in the organization. While 149(39.5%), 40(10.6%), and 14(3.7%) of them were in the category of 2-10 years, greater than 21 years, and less than 2 years respectively. Also, majority of the respondents have BA/BSc. 258 (68.4.0%) followed by those who have master's degree 60 (15.9%), with diploma 48(12.7%) and with other certifications 11(2.9%) respectively.
- The mean agreement level of respondents on the negative effect of COVID-19 pandemic on Working environment was 4.45 mean and standard deviation of 0.83, Organizational Culture has mean of 4.39 and standard deviation of 0.85, Employee motivation has mean of 4.59 and standard deviation of 0.74, Training has mean of 4.54 and standard deviation of 0.88, Leadership has mean of 4.31 and standard deviation of 1.09, Organizational performance has mean of 4.48 and standard deviation of 0.93, which shows the general respondent's rating towards the negative effect of the COVID-19 pandemic on the independent and dependent variable was significantly high. Which means Majority of the respondents have agreed that the COVID-19 pandemic has negatively affected their working environment, the organization's culture, their motivation, the training programs, leadership and performance of the organization.
- The correlation between independent variables (working environment, Organizational culture, Employee motivation, Training and Leadership) with dependent variable (organizational performance) was conducted using Pearson Correlation. Based on the study result, there was a strong positive correlation between Work environment and organizational performance ($r=0.618$, $p<0.01$) and there was a medium positive correlation between Organizational Culture, Employee Motivation, Training and Leadership with Organizational performance by ($r=0.453$, $p<0.01$), ($r= 0.426$, $P<0.01$), ($r= 0.301$, $P<0.01$) and ($r= 0.423$, $P<0.01$) respectively. Which indicates when Working Environment, Employee Motivation, Training and Leadership are negatively affected or changed by the pandemic, so is Organizational Performance. Based on the above result, it is possible to conclude that all the independent variables are positively correlated to the dependent variable at a significant level.

- The independent variables and control variables were regressed against Organizational performance, and the analysis explains 46.6 % (adjusted $R^2 = 0.466$) of the dependent variable (Organizational Performance). This suggests that 46.6 % of the pandemic's negative effect on Organizational performance clearly was due to the independent variables which are considered in this study, while the remaining 53.4 % was determined by other unaccounted factors in this study.
- Working environment with $B=0.398$ is most contributor in predicting the dependent variable (organizational performance), then followed by organizational culture ($B=0.218$), employee motivation ($B=0.168$) and leadership ($B=0.140$) respectively. When we see the statistical significance of each variable, Working Environment ($P = .00$), Organizational Culture ($P = .00$), Employee Motivation ($P = .004$), and Leadership ($P = .00$) have a statistically significant contribution ($P<0.05$) for the prediction of the dependent variable. While Training with $P = .157$ indicates that, it has statistically less effect to make any significant prediction. Based on the result of the study, it can be concluded that the pandemic's negative effect on Organizational Performance of the airlines is mostly contributed due to the changes the pandemic has caused on Working Environment then by Organizational Culture, Employee motivation and Leadership respectively, but the change on training programs is not a significant contributor. Working environment, organizational culture, employee motivation and leadership have a positive relationship and significant effect on organizational performance during the pandemic, whereas training has a positive relationship with organizational performance but not significant enough to make an effect.
- Control variables Age, Gender, Qualification and year of service were also included to the regression analysis in order to evaluate their significance in explaining the dependent variable. Age, gender, qualification and year service have P-value of 0.449, 0.877, 0.657 and 0.734 respectively, which are >0.05 and this indicates that all this control variables have statistically less effect to make any significant prediction of the dependent variable (Organizational Performance).

5.2. Conclusion

The study has investigated the factors affecting the performance of Ethiopian airlines during the COVID-19 pandemic. From the statistical analysis, the researcher has found out that COVID-19 pandemic has affected or changed the Working environment, Organizational culture, Employee motivation, Training programs, Leadership and Performance of the organization negatively.

As showed from the correlation analysis, all the determinant factors which are considered in this study which are Working environment, Organizational culture, Employee motivation, Training and Leadership have a significant positive relationship with Organizational performance. Thus, we can conclude that when all the above-mentioned determinant factors are negatively affected or changed by the pandemic, so is Organizational Performance.

From the regression analysis, the result has indicated that the pandemic's negative effect on Organizational Performance of the airlines is mostly contributed due to the changes the pandemic

has caused on Working environment then followed by Organizational culture, Employee motivation and Leadership respectively, but the change on training programs is not a significant contributor. The contribution of age, gender, qualification, and year of service on Organizational performance is also considered on this study and the analysis has indicated that all the control variables considered are not significant contributor to the organization's performance during the pandemic.

5.3. Recommendation

Based on the findings and conclusions made above, the following recommendations are proposed to minimize the negative effect of the COVID-19 pandemic on Organizational Performance of the airlines:

- The company should focus on organizing a good and safe working environment to the employees during the pandemic by regularly cleaning and disinfecting surfaces, by increasing ventilation and air filtration of offices, by providing open communication channels and by providing good work-life balance since the COVID-19 pandemic's negative effect on working environment affects the airlines performance significantly.
- The pandemic's negative effect on Organizational Culture affects the airline's performance significantly, so the company must ensure effective communication with employees during the pandemic. A consistent and effective communication and interaction with employees can strengthen the company and enhance its culture.
- Since the pandemic's negative effect on the leadership affects the airline's performance significantly, the organization needs to invest in the development of current and potential leaders to build new skills in order to function effectively in new work setting which is caused by the pandemic also leaders should be trained to facilitate and help employees to better cope with new and uncertain job demands.
- The pandemic's negative effect on employee motivation affects the airline's performance significantly so, the airlines should consider providing psychological and financial support to its employees and consider implementing flexible and remote work options depending on the employee's work condition in order to maintain employee's motivation during this crisis.

5.4. Policy Implication and Theoretical Contribution

The current study would have theoretical and practical implications for both scholars and practitioners. From scholars' perspective, the findings of this study are expected to further enhance the understanding of the relationship between Working environment, Organizational culture, Employee motivation, Training and Leadership with organizational performance during the COVID-19 pandemic. From the perspective of practitioners, the findings of this study may be useful to businesses in determining the most significant factors they should focus on in order to reduce the negative effect of the COVID-19 pandemic on their performance.

5.5. Suggestion for Further Research

Further research needs to be conducted in order to determine why the pandemic has affected training programs that used to be provided by the airlines negatively but its contribution to the Organization's Performance happened to be non-significant.

Further research needs to be conducted in order to find out additional factors which may influence organizational performance during this crisis. Since the five factors considered in this study (Working environment, Organizational culture, Employee motivation, Training and Leadership) were able to predict only 46.6% of the variation in the dependent variable (Organizational performance).

Furthermore, the current study relied on primary data, similar studies should be carried out in the future by adding finance related secondary data for a more precise result.

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Appendix I

ADDIS ABABA UNIVERSITY
COLLEGE OF BUSINESS AND ECONOMICS
MASTER OF BUSINESS ADMINISTRATION (MBA) PROGRAM

Questionnaire to be filled by respondents

Dear respondent, I thank you in advance for your voluntary participation in completion of this questionnaire. This questionnaire is prepared for a thesis to be conducted as part of the fulfillment to the requirement of Master of Business Administration. The questionnaire is designed to seek your opinion and knowledge about the factors affecting the performance of Ethiopian airlines during the COVID-19 pandemic.

Your contribution and honest responses are very important in the study and will help gain better understanding about the factors affecting organizational performance of the airlines during the pandemic. Please, note that the information you provide will only be used for academic purpose and remain anonymous. I assure you that any personal information you provide will only be known to me as a researcher and I kindly urge to be open and honest about your true feelings when you fill in the questionnaire. It will take you about 10 minutes to complete this questionnaire and please answer all the questions.

Thank you,

Helen Meley, MBA candidate

Addis Ababa University

Addis Ababa, Ethiopia

E-mail: helenmeley@yahoo.com

Addis Ababa University
College of Business and Economics
Master of Business Administration program

SECTION A: GENERAL INFORMATION

The following section requests for your background information. Please put “X” mark in front of the appropriate alternative provided and fill the required information.

1. Age:

- A. 18 – 24 ☐ B. 25 – 34 ☐ C. 35 – 45 ☐ D. 45 and above ☐

2. Gender:

- A. Female ☐ B. Male ☐

3. Highest qualification you have earned:

- A. Masters ☐ B. BA/Bsc. ☐ C. Diploma ☐
D. Other ☐

4. Year of service in the corporation:

- A. Below 2 years ☐ B. 2-10 years ☐ C. 11 – 20 years ☐
D. 21 and above years ☐

SECTION B: BASIC INFORMATION

The following statements are designed for assessing the effect of COVID-19 pandemic on work environment of Ethiopian airlines. Please put “X” mark on the scale given.

- A. Work environment:** Please evaluate the working environment of the airlines during the COVID-19 pandemic. Rate them on the scale of 1-5 (From 1= Strongly disagree to 5= Strongly agree)

Work environment	1. Strongly Disagree	2. Disagree	3. Neutral	4. Agree	5. Strongly Agree
1. My safety at work has been negatively affected by the pandemic.					
2. The current safety rules that have been enforced (wearing mask, social distancing) have negatively affected my performance.					
3. Work/Life balance of employees have been negatively affected during the pandemic.					
4. The level of communication you have with your managers and colleagues at your workplace have been negatively affected by the pandemic.					

- B. Organizational Culture:** Please evaluate the Organizational culture of the airlines during the COVID-19 pandemic. Rate them on the scale of 1-5 (From 1= Strongly disagree to 5= Strongly agree)

Organizational Culture	1. Strongly Disagree	2. Disagree	3. Neutral	4. Agree	5. Strongly Agree
1. The sense of cooperation and teamwork at my workplace has been negatively affected by the pandemic.					
2. The airline's ability to ensure the safety of its employees from arbitrary decisions has been negatively affected by the pandemic.					
3. The airline's ability to promote a high level of ethical standard and public interest has been negatively affected by the pandemic.					
4. Organizational communication has been negatively affected by the pandemic					

C. Employee motivation: Please evaluate your motivation during the COVID-19 pandemic. Rate them on the scale of 1-5 (From 1= Strongly disagree to 5= Strongly agree)

Employee motivation	1. Strongly Disagree	2. Disagree	3. Neutral	4. Agree	5. Strongly Agree
1. My motivation to come to my workplace has been negatively affected by the pandemic.					
2. The pandemic has caused me to fear about losing my job.					
3. The opportunities to grow and progress within the company have been negatively affected by the pandemic.					
4. MY ability to focus and work hard at my job has been negatively affected by the pandemic					

D. Training: Please evaluate the training and skill development programs of the airline during the COVID-19 pandemic. Rate them on the scale of 1-5 (From 1= Strongly disagree to 5= Strongly agree)

Training	1. Strongly Disagree	2. Disagree	3. Neutral	4. Agree	5. Strongly Agree
1. The pandemic has negatively affected the level of trainings that used to be provided by the airlines.					
2. My motivation to attend training sessions offered by my organization has been negatively affected by the pandemic.					
3. The opportunity to practice my knowledge and skill at work has been negatively affected by the pandemic.					
4. Medium of trainings provided by the organization has changed due to the pandemic (virtual trainings), which negatively affected my performance.					

E. Management/Leadership: Please evaluate the leadership at the airline during the COVID-19 pandemic. Rate them on the scale of 1-5 (From 1= Strongly disagree to 5= Strongly agree)

Leadership	1. Strongly Disagree	2. Disagree	3. Neutral	4. Agree	5. Strongly Agree
1. The management's performance has been negatively affected by the pandemic.					
2. The pandemic has negatively affected my level of communication and relationship with my managers.					
3. My manager's capability to supervise me closely has been negatively affected by the pandemic.					

4. Team coordination and team performance has been negatively affected by the pandemic.					
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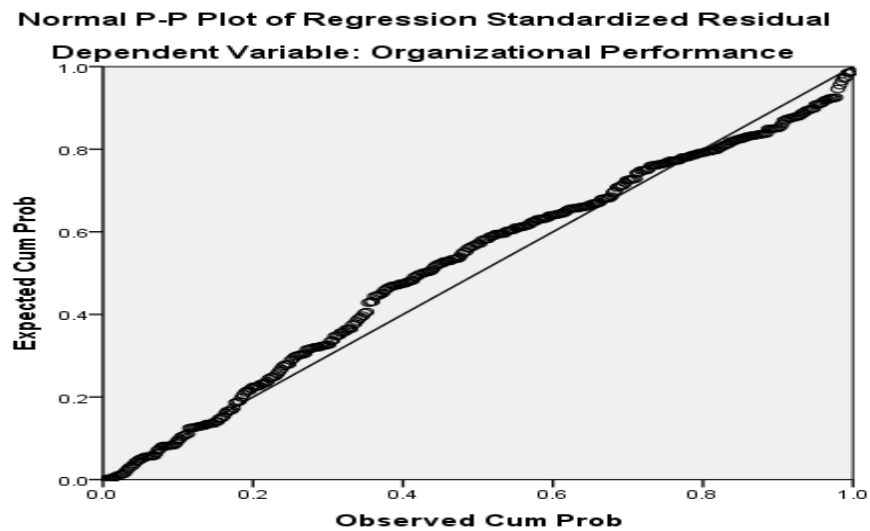
F. Organizational performance: Please evaluate the performance of the airline during the COVID-19 pandemic. Rate them on the scale of 1-5 (From 1= Strongly disagree to 5= Strongly agree)

Organizational performance	1. Strongly Disagree	2. Disagree	3. Neutral	4. Agree	5. Strongly Agree
1. In the last two years productivity has decreased in my operating unit.					
2. The performance of my colleagues within my team has been negatively affected by the pandemic.					
3. The ability of the airlines to retain essential employees has been negatively affected by the pandemic.					
4. The ability of the airlines to provide quality service to customers has been negatively affected by the pandemic.					

Questionnaire Source: Cera E. (2021) modified to the context of the COVID-19 pandemic

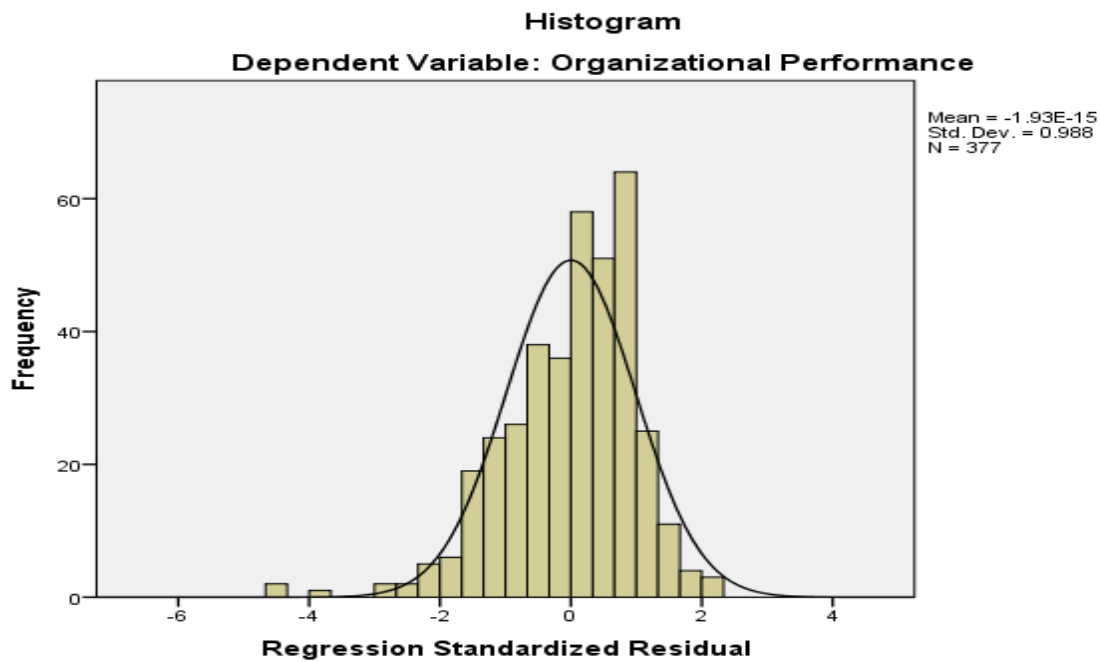
Appendix II:

Figure 6: Linearity test



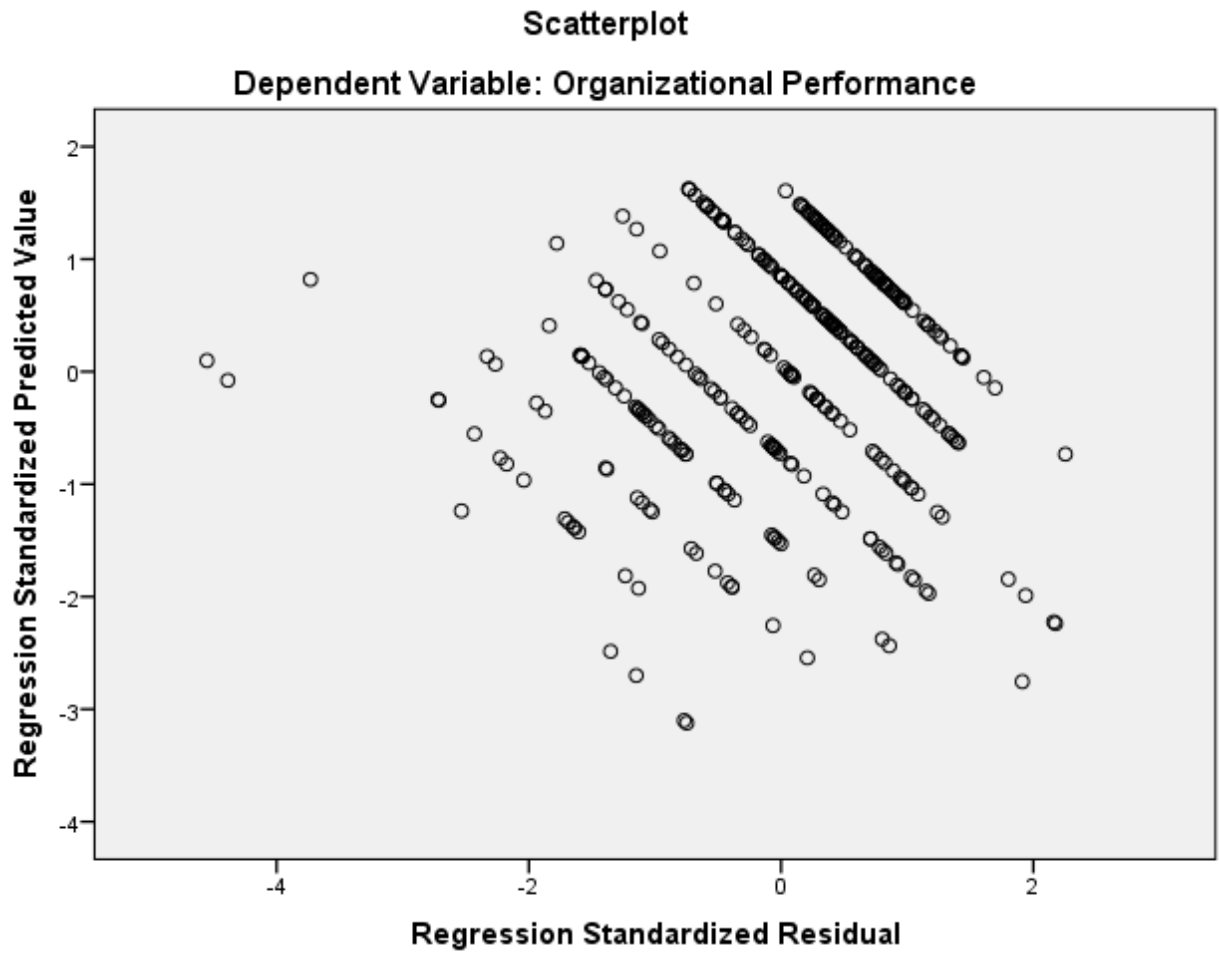
Source: SPSS output (2022)

Figure 7: Normality test



Source: SPSS output (2022)

Figure 8: Homoscedasticity Test



Source: SPSS output (2022)

Table 18: Residuals statistics

Residuals Statistics ^a					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	13.9945	19.9747	17.9284	1.25971	377
Residual	-6.05164	2.99593	.00000	1.31320	377
Std. Predicted Value	-3.123	1.624	.000	1.000	377
Std. Residual	-4.553	2.254	.000	.988	377

a. Dependent Variable: Organizational Performance

Source: SPSS output (2022)

Table 19: Collinearity diagnostics

Collinearity Diagnostics ^a													
Model		Eigenvalue	Condition Index	Variance Proportions									
				(Constant)	Work Environment	Organizational Culture	Employee Motivation	Training	Leadership	Age	Gender	Qualification	Year of service
1	1	9.228	1.000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	2	.552	4.088	.00	.00	.00	.00	.00	.00	.00	.94	.00	.00
	3	.108	9.243	.00	.00	.00	.00	.00	.00	.44	.03	.02	.09
	4	.052	13.369	.00	.00	.00	.00	.00	.00	.33	.01	.27	.40
	5	.031	17.227	.00	.01	.01	.00	.00	.02	.21	.00	.60	.47
	6	.010	30.391	.01	.03	.12	.01	.00	.87	.00	.00	.01	.00
	7	.008	34.605	.01	.01	.29	.02	.46	.10	.00	.00	.02	.02
	8	.005	41.237	.04	.87	.25	.00	.02	.01	.00	.00	.01	.01
	9	.004	48.005	.05	.03	.16	.58	.43	.00	.00	.00	.02	.00
	10	.002	62.346	.89	.04	.16	.38	.08	.00	.01	.01	.04	.01
a. Dependent Variable: Organizational Performance													

Source: SPSS output (2022)