

**ASSESSING THE IMPACT OF ONLINE LEARNING ON STUDENT
PERFORMANCE AT THE NAMIBIA BUSINESS SCHOOL DURING COVID-19**

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ABSTRACT

The aim of this thesis was to assesses the impact of online learning on student performance at the Namibia Business School during the COVID-19 pandemic. This was in relation to students studying towards their Postgraduate Diploma, Masters and Doctor of Business Administration. Data was gathered from 3 different campuses including the Windhoek main campus, Ongwediva and Swakopmund Campuses. Data for the study was collected from a quantitative sample of registered students at the Namibia Business School at the University of Namibia. Questionnaires were administered and distributed online because of the COVID-19 regulations that were prevailing at the time of the study. The study found several challenges to be affecting students' online journey and key among them included lack of internet access, cost of data and noisy environments. Further analysis of the findings shows that the online learning processes, benefits of online and student motivation are critical and statistically significant predictors of students' performance in online environments. The study concluded that with several challenges in place, online learning could be problematic, and these challenges need the cooperation of higher education managers and government. It is imperative for NBS to leverage the data-driven insights obtained from this study to design adaptable and flexible learning approaches that cater to the diverse needs of its student community. By harnessing the potential of technology and tailoring educational resources to promote interactive and collaborative learning experiences, NBS can create an environment that empowers students to thrive academically, even in times of crisis.

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ACRONYMS

EFA – Exploratory Factory Analysis

ICTs - Information and communication technologies

MBA – Master of Business Administration

NBS – Namibia Business School

SPSS - Statistical Package for Social Sciences

TAM - Technology Acceptance Model

UNAM – University of Namibia

UTAUT - Unified Theory of Acceptance and Use of Technology

DEDICATION

This dissertation is dedicated to my son Ocean Tangi-oomwa Namboga, who was born amid my studies. I will always feel indebted to him, for not being there 100% during his first months of birth.

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Finally, I thank my family for supporting me throughout my studies.

DECLARATION

I, Hilma Iyaloo Penekondjo Nambambi, hereby declare that this study is a true reflection of my own research, and that this work, or part thereof has not been submitted for a degree at any other institution of higher education.

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Signature

Date

CHAPTER ONE

INTRODUCTION

1.0 Introduction

This study assesses the impact of online learning on student performance at the Namibia Business School (NBS) during the COVID 19 pandemic. The purpose of the chapter is to provide the background of the study, the problem statement, define the objectives and the significance of the study, and to state the limitations and delimitations of the study.

1.1 Background of the study

The Coronavirus disease, which was discovered in 2019, has been identified as a transmissible disease, that easily spreads among people. Over 157 countries, including Namibia imposed full or partial lockdowns to prevent the virus from spreading further. That included the suspension of social and non-social gatherings which included education (Julius, Nuugulu, & Julius, 2020). As a result, universities and other higher education institutions were forced to migrate to remote teaching and learning.

The whole orientation of education, both online and in-class was disrupted in the wake of the COVID-19 pandemic (Mare, Woyo & Amadhila, 2022). This demonstrates that COVID-19 has had devastating effects on all sectors of the global economy, since the World Health Organisation (WHO) announced it as a pandemic in March 2020. A rise in the number of confirmed cases and deaths forced the government to instil more stringent regulations globally to ensure safety of the people. More than 1.5 billion students, or 91.3% of global enrolments, were directly affected by school closures at the height of the COVID-19 pandemic (UNESCO, 2020).

Upon this closure, universities and other education providers facilitated the delivery of lessons through online learning (UNICEF, 2020). While many universities globally were able to adapt to this situation, others had a challenge of internet access (UNICEF, 2020). Despite these challenges, the universities and higher education institutions looked for ways to keep students learning through new technologies (Mare *et al.*, 2023). The COVID-19 crisis forced universities that were previously hesitant to accept new technologies facilitate the teaching and learning process (Mare *et al.*, 2023).

Online education meant carrying out the pedagogical processes through electronic devices that students could access such as smartphones, laptops, and computers. According to Singh and Thurman (2019) virtual education through the internet makes a platform which eases the educational process by making it more flexible, creative, and student-centred. It can increase equality by making education accessible to everyone with an internet connection and is cost-effective; more so for the students in remote and rural areas (Mare *et al.*, 2023). Therefore, provision of education, especially in poor countries became easier, with the World Health Organisation (WHO) identifying it as a crucial instrument to meet educational needs across the world (Colace *et al.*, 2006).

Following the closure of schools, colleges and universities implemented several creative approaches as a way of combating the crisis in the region through the use of applications and software such as Microsoft Teams, Zoom and Google Classroom to help students take online classes (Mare *et al.*, 2023). Home-based learning was accepted as the new norm in several African countries, including Namibia, helping to boost students' confidence and certainty and to help the universities to keep in touch with the students throughout the period as everyone fought to adapt to the new conditions (Agnoletto & Queiroz, 2020).

According to Xin and Keng (2020) online Learning (Distance education) is defined as a style of learning where teachers and students are physically separated, and different technologies are used so that they can communicate effectively. This was originally focused on full-time employees and those in remote regions. The arrival of COVID-19 has changed distance learning from an option to a necessity and can be termed as the panacea for the crisis (Xin & Keng, 2020). Hrastinski (2008) stated that the two types of online learning, namely, asynchronous and synchronous online learning, are majorly compared but for online learning to be effective and efficient, instructors, organisations and institutions must have comprehensive understanding of the benefits and limitations.

Information and communication technologies (ICTs) provide exceptional educational and training prospects as they expand creativity and innovation in teaching and learning. Furthermore, the use of ICT can promote the development of an educational policy that encourages creative and innovative educational institution environments (Kaisara & Bwalya, 2021; Woyo, Rukanda & Nyamapanda, 2020). Consequently, consideration is currently being given to understand experiences and efforts that are related to remote education and learning. This technology is commonly used by most universities in several developing countries. In an educational environment, there are lots of learning-related processes involved, and great amounts of potentially rich data are generated in educational institutions, continuously to extract knowledge from the data for a better understanding of learning-related processes (Kaisara & Bwalya, 2021; Woyo, Rukanda & Nyamapanda, 2020).

Though online-learning allows students to study at their own time, which boosts their level of self-motivation, and those students perform much better in online learning than in

traditional face-to-face learning (Julius *et al*, 2020), little research has been done to investigate the impact of online education on the performance of business administration students during a pandemic.

Studies done on online learning during COVID-19 in Namibia show that students experienced accessibility challenges exacerbated by relatively exorbitant data costs, poor network performance and devices that are not user friendly when accessing online resources (Kaisara & Bwalya, 2021). Therefore, questions around the sustainability of e-learning remain (Kaisara & Bwalya, 2021) and there is a need to analyse the impact these challenges have on the overall student performance.

The focus of research on ICT in Namibia has predominantly been on evaluating the ICT policy in education (Ngololo, Howie & Plomp, 2012; Osakwe, Dlodlo & Jere, 2017; Woyo, Rukanda & Nyamapanda, 2020). “The implementation of the ICT policy in higher education in Namibia is affected mostly by lack of ICT literacy and limited access to learning and training content” (Woyo *et al.*, 2020, p. 3715). Grounded on this theoretical gap, the present study seeks to assess the impact of online learning on student performance at the Namibia Business School during the COVID-19 pandemic.

1.2 STATEMENT OF THE PROBLEM

With online learning, students can study at their own pace, motivate themselves and perform better than traditional face-to-face teaching (Julius *et al.*, 2020). With the outbreak of the COVID-19 pandemic, educational institutions, including the Namibia Business School, had to swiftly transition from traditional face-to-face teaching to online learning modalities. Concerns of student performance at UNAM have been noted in

various degree programmes before the lockdowns (Mukonga, *et al.*, 2019; Pinehas, *et al.*, 2017), hence attention to business administration students' performance is required.

According to the UNAM graduation report (2019) only 55 master's students including 1 doctorate student graduated out of 254 management students enrolled in 2017. The enrolment numbers have significantly reduced by 19% as of 10 March 2020 to 2021 because of the pandemic; according to the UNAM enrolment rate update of 2020 to 2021 (UNAM, 2021). The enrolment of students studying towards their Doctorate and Post graduate diplomas in Business Administration decreased from 47% to 26%, although other master's specialisations had a positive enrolment rate during the pandemic. Between 2020 to 2021, the rate at which students graduated has increased from 127 to 141 (UNAM Virtual Graduate, 2021). Based on these theoretical and practical problems, the study seeks to assess the impact of online learning on student performance at the Namibia Business School.

1.3 RESEARCH OBJECTIVES

The primary objective of the study is to assess the impact of online learning on student performance during the COVID-19 pandemic. The following secondary objectives were pursued:

- To examine the challenges affecting MBA students' remote learning at NBS.
- To assess the student's performance during COVID-19, at NBS.
- To analyse the effects of online learning on students' motivation and their performance during online teaching.

1.4 RESEARCH HYPOTHESES

H₀: Online learning had no impact on student performance during Covid-19

H₁: Online learning had a positive impact on student performance during the Covid-19

H₀: There is no relationship between student motivation and student performance.

H₂: There is a positive relationship between student motivation and student performance.

1.5 SIGNIFICANCE OF THE STUDY FILL IN THE SUBHEADINGS BELOW

1.5.1 Academic Significance

Firstly, limited quantitative research has been conducted on the impacts of the COVID-19 pandemic. The study contributes to limited literature by examining the changes and impact in the online performance of students as contrasting to their face-to-face performance, especially in developing countries.

1.5.2 Significance to Policy

The findings are crucial in helping the policymakers and higher education managers in designing the infrastructure that effectively supports remote and distance learning during and post-pandemic. Furthermore, the findings are crucial also in developing the policy that could be used to manage remote teaching and learning for higher education institutions in Namibia and similar countries.

1.5.3 Significance to Practice

The findings could help NBS redirect the online teaching curricula and methods to motivate students' learning and reduce their fear of online learning.

1.6 LIMITATIONS OF THE STUDY

The data that was collected in this study was only from one university and focused only on business administration students at the Namibia Business School of the University of Namibia. Therefore, the generalisation of findings might be difficult, since its data collected from one school and university.

1.7 DELIMITATIONS OF THE STUDY

The study was conducted in a single service sector, that is, higher education, focusing on Business School students studying for postgraduate qualifications in Namibia. The students who participated in the study were drawn from NBS and were pursuing their studies in Diploma, Masters, and Doctors in Business Administration qualifications.

1.8 STRUCTURE OF THESIS

The study is organised into five (5) chapters that are assessing the impact of online learning on student performance at the Namibia Business School during COVID-19. The chapters are organised as follows:

Chapter 1: Introduction

The first chapter contains the orientation of the study; a description of its purpose as well as the rationale for the study; followed by the research objectives that guided the study. Lastly, limitations of the study are outlined in this chapter.

Chapter 2: Literature review

The second chapter contains a review of literature relating to the study and conceptual frameworks.

Chapter 3: Methodology

The third chapter outlines the methodology that was used in the study including the explanation of the research approach that was implemented, the methods of data collection, procedures and ethical considerations followed in the study.

Chapter 4: Data analysis and discussion

In Chapter four, the data collected is presented and analysed. It is in the same chapter where discussions and the results in relation to the literature in Chapter 2 are presented.

Chapter 5: Conclusions and recommendations

Finally, Chapter 5 discusses the conclusions and recommendations of the study, and these are based on the results and discussions.

CHAPTER TWO

LITERATURE REVIEW

2.0 INTRODUCTION

The present chapter undertakes a comprehensive review of the existing literature pertaining to online learning and its effect on student performance, with a particular focus on the context of the Namibia Business School during the COVID-19 pandemic. The chapter aims to synthesize and analyze a diverse body of research and scholarly works, evaluating the efficacy and challenges associated with online learning in the face of the pandemic. By examining relevant studies, academic papers, and reports, this literature review seeks to shed light on the multifaceted dimensions of online learning, offering valuable insights to inform educational practices and policies in the post-pandemic era.

2.1 ONLINE LEARNING SYSTEM USAGE

The analysis and review of literature from various studies, there is no universal definition of online learning. According to Stewart *et al.* (2011), online learning refers to a system of learning where the students learn virtually through the use internet. Additionally, Dhawan (2020) defines online education as the ability of the learners to use devices connected to a network, offering them the possibility to learn with any means, in any rhythm, anytime, and from anywhere. In another research, Singh, and Thurman (2019) refers to online learning as the “learning experiences in synchronous or asynchronous environments using different devices (mobile phones, laptops) with internet access. In these environments, students can be anywhere (independent) to learn and interact with instructors and other students.” These aspects have also been corroborated to constitute online learning in the context of Namibia by Woyo *et al.*, (2020).

Rapantar *et al.* (2020) defines online learning as an internet-enabled learning which includes a collaboration between experts, content creators, a networked community of learners, management of learning experiences, and content delivery. This view to online learning is also shared in a study conducted by Kundu (2018), where online learning has been defined as the delivery of course materials via electronic methods such as CDs, television, video/audio tape, satellite broadcast, extranets, intranets, and internet. Aspects of this definition are also featured in Namibia's ICT Policy for education (Woyo *et al.*, 2020). Combining these definitions, online learning can be referred to as an internet-based delivery of course content to the learners by use of internet-enabled devices such as laptops and phones.

Online learning has been accelerated by the fast internet development and globalization, making many higher education institutions to start focusing on online learning. Mart (2017) says that institutions all over the world have been trying to deviate their spending towards infrastructural development to have distance learning in place as the next best alternative to the traditional classroom teaching method. For its implementation to succeed, online education has to be acceptable to all the stakeholders, or at least a majority of them such as students, teachers, administrators, parents, and the education ministries (Woyo *et al.*, 2020). In their study, Shearer *et al.* (2020), while examining the student's perception of and motivation towards online education, they noted that curriculum developers and policymakers should understand the students' limitless perspectives so that they can offer student-centric instructional techniques while increasing students' satisfaction and engagement.

While the developed world has embraced online learning to a greater extent, the developing countries are yet to provide schools with relevant infrastructural development to integrate virtual learning as a supplement to face-to-face learning (Mare *et al.*, 2022; Woyo *et al.*, 2020). The gap between access to the ICT between the rich and the poor in developing countries is quite wide (Venkatesh & Sykes, 2013). In their research, Srivastava and Shainesh (2015) found out that the set-up of the societies in these countries are grounded on compound geographical spread and socioeconomic levels where most of the people lack an access to basics such as education and healthcare, and this makes access to ICT less of a priority. This means that stopping physical learning abruptly to introduce online learning from home had a big effect on the poor. Similarly, considering gender-based differences, females are more affected than their male counterparts which according to Cutter (2017) could have placed them among the have-nots considering at home, they are required to participate in feminine gender roles such as caregiving, cleaning, and cooking.

There are several factors that should be considered while implementing online learning and which influence its acceptance among the various stakeholders. The first factor is accessibility. According to Park, (2009), online learning accessibility refers to the level of ease with which students in an institution can receive and use the online learning system as an organisational factor. To ensure high rates of acceptance among students, higher education institutions must ensure that internet accessibility is high enough, so the priority should be to provide students with access to computers and internet connectivity (Park, 2009; Mare *et al.*, 2022). The second factor is concerned with appropriateness in the context of the fitness of online learning in meeting the student's needs. D'Antoni (2002)

says that any e-learning strategy that a school adopts should be best-fit to the needs of a student depending on their academic level and other needs at the time of its implementation (Mare *et al.*, 2022). Stewart *et al.* (2011) argues that a comprehensive online learning for both the synchronous and asynchronous communication modes make sure that the implemented strategy is appropriate for all students for it to be considered effective. Synchronous lecturer-student and student-student communication is therefore enhanced by chatting techniques such as message, and discussion platforms on the online learning system. Asynchronous communication is however enhanced by the use of less time-sensitive platforms such as emails (Stewart *et al.*, 2011). Based on this, to formulate the most appropriate learning and teaching strategy, universities should be in a position to overcome barriers that are related to access such as electricity, internet connectivity, and infrastructural redundancy (Laskaris *et al.*, 2017).

In a study looking into the factors which lead to acceptance of ICT in classroom, Lawrence, and Tar (2018) found out that successful adoption of online learning requires that lecturers, and university managers become part of the decision-makers. Their findings were in line with previous studies (Baydas & Goktas, 2016; Mirzajani *et al.*, 2016) that argued that support from senior management plays a significant role during the implementation process. This is specifically imperative given the challenges that COVID-19 presented to higher education. Similarly, in their review, Akkara and Mallampalli (2020) stated that e-learning cannot happen in a vacuum as it needs two most important pillars, that is, internet connectivity and existence of the relevant infrastructure. However, there is limited research that has investigated the challenges that business students at the

University of Namibia faced during their transitioning to online learning during the pandemic.

2.2 TEACHING AND LEARNING DURING THE PANDEMIC

The prescribed learning system that is based on the use of electronic resources is known as e-learning (Woyo *et al.*, 2020). Whereas teaching can be inside (or outside) the classrooms, the use of computer technology and the Internet is the main component of e-learning (Aboagye *et al.*, 2020). Due to coronavirus, the traditional brick and mortar educational methods were substituted by e-learning because social gatherings at universities were also considered to be spreaders of the virus. E-learning is the best option available to ensure that epidemics do not spread, as it guarantees spatial distancing despite the challenges and studied figures, which indicate that students are less likely to benefit from this type of education (Lizcano *et al.*, 2020).

The review of literature shows that limited research on the emergency transition to e-learning has been published. Such research explored best practices concerning online teaching and learning (Lizcano *et al.*, 2020). Additionally, it also focused on investigating synchronous compared to asynchronous approaches, the performance of students in e-learning environments, and the impact and barriers to online teaching and learning (Kaisara & Bwalya, 2021). This shows the need to continue investigating how online teaching and learning affects the performance of business school students based on the phenomenon of emergency remote teaching as experienced in 2020.

Several researchers around the world have delved into how COVID-19 influences the academic performance of university students (Adnan & Anwar, 2020; Gonzalez *et al.*,

2020; Kaisara & Bwalya, 2021). For instance, Gonzalez et al (2020) analysed the effects of the COVID-19 confinement on the autonomous learning performance of students in higher education. As a result, Gonzalez et al (2020) found that this confinement had a significant positive effect on the academic performance of students, which helped to improve students' learning strategies to a more continuous habit, improving their efficiency.

Similarly, Adnan and Anwar (2020) studied the attitudes of college students in Pakistan towards online classes during the COVID-19 pandemic. "Students' perspectives revealed that, in underdeveloped countries like Pakistan, online classes cannot produce desired academic performance, since most students are unable to access the internet" (Adnan & Anwar, 2020, p. 48). Moreover, it was also discovered in past research that due to the pandemic, students were faced with several problems that included "limited response time, absence of traditional classroom socialization, and lack of face-to-face interaction with the instructor" (Adnan & Anwar, 2020, p.48).

In another research, Demuyakor (2020) analysed the satisfaction level of Ghanaian international students in higher educational institutions in China during the COVID-19 pandemic. The focus of this study was to determine how students were coping with the pandemic and how satisfied were they with learning online. The findings of Demuyakor (2020) shows that students were positive regarding how the online teaching and learning was being implemented. This was regardless of other challenges that were being faced such as high data costs and slow connectivity, which have also been identified in previous research (Kaisara & Bwalya, 2020).

In worldwide research, and with a sample of 30,383 university students from 62 countries, Aristovnik *et al.* (2020) analysed how students perceived the impact of the COVID-19 pandemic in several factors and affecting their lives at a global level. The study found that students were satisfied with the support that was given to ensure their learning remained seamless during the pandemic (Aristovnik *et al.*, 2020). However, several challenges that were also documented in studies that were conducted before the pandemic were identified. These include lack of resources such as computers, perceived workload of lecturers (Kaisara & Bwalya, 2020; Osakwe *et al.*, 2017; Woyo *et al.*, 2020). These challenges affect the performance of students, especially in online environments (Aristovnik *et al.*, 2020).

Additionally, Sintema (2020) studied the effects of the COVID-19 pandemic on the academic performance of students at secondary schools in Zambia. Contrary to other studies discussed above, Sintema (2020) found that online learning affects student performance, especially in mathematics. However, the effects to business students in Namibia remains unknown and requires research.

Research conducted by the Arizona State University (Araujo; Carneiro; Cruz-Aguayo; and Schady, 2016) finds that students were affected negatively due to delayed graduations, worsened economic situations for future job hunting, although they felt that students from disadvantaged backgrounds were the most affected as their outcomes and expectations were not met.

The timeline as to when ICTs were first introduced to the higher education sector. Alkharang and Ghinea (2013) argue that the appropriation of ICTs for teaching and

learning started in the 1960s, whilst Hubackova (2015) points out that the cornerstone of modern e-learning was set in the late 1980's, with the term e-learning first used in 1999. Similarly, Bagarukayo and Kalema (2015) state that in the South African Higher Education context, e-learning emerged in 1990s. This demonstrates that while the term e-learning could be relatively new in the context of higher education, the use of ICT in higher education is not new. With new technological developments, scholars and practitioners across the world are still interested in harnessing computing power for enhancing access to academic knowledge. To sum up this section, the review of previous research on COVID-19 and students' performance shows that students were forced to acclimatize to the new conditions of teaching and learning that universities were implementing because of the ongoing pandemic.

2.3 ONLINE LEARNING VERSUS FACE-TO-FACE APPROACHES

Changes in education delivery models have been profound and have generated both opportunities and threats as recognized as such by various groups of stakeholders (Szopiński & Bachnik, 2022). A prominent threat addresses the quality and effectiveness of online business education. The need to ascertain accountability for online learning seems understandable if there is an assumption of an exponential demand for online business education and increasing competition in the field (Szopiński & Bachnik, 2022). The learning outcomes of online students have been shown to be similar to those in face-to-face settings (Palloff & Pratt, 2001; Redpath, 2012). Spooner *et al.* (1999) perceive no differences in cognitive factors (such as the amount of learning, academic performance, achievement, and examination and assignment grades) between online classes and traditional campus-based classes. Krishnamurthy (2020) argues that while online students

perform marginally better than students in traditional classroom environments, and blended learning approaches might be fruitful, faculty members remain sceptical about the efficacy of online learning (Szopiński & Bachnik, 2022).

Different studies have designed various frameworks to test or evaluate the effectiveness of online teaching versus face-to-face learning in achieving learning outcomes. Robinson and Hullinger (2008) argue that studies on the effectiveness of online learning fall into three broad categories: (1) student outcomes, focused on test scores and grades; (2) student attitudes about learning; and (3) overall student satisfaction with online learning. Whitaker *et al.* (2016) also identify three broad categories to analyse research on student learning in online business education, though using slightly different terminology. They identified in their study the (1) ways in which technology tools can address student learning, (2) similarities and differences in learning outcomes between in-class, online, and blended course formats, and (3) the appropriateness of online education for various student types.

Since the advent of advanced technologies supporting web-based learning, there has been a shift to utilize online platforms as either a supplementary tool or a complete replacement of traditional face-to-face education (Palvia *et al.*, 2018). Online learning encompasses a plethora of forms involving the use of digital technology to support learning. This includes varying degrees of synchronous (“live” forums or video tutorials through which people can respond or react immediately and in real time) or asynchronous (recorded lectures or discussion boards for which responses are often delayed) content viewed through electronic and mobile devices. Its users are allowed not only the flexibility to access the

material whenever and wherever necessary, but also the choice to customize the information received by them according to their needs.

The educational value of virtual environments is well known regarding the transmission of information and interactive participation, either in real time, via video conferences or other alternative systems, or by means of forums, chats, and other ways open to involvement non-simultaneous of participants (Novo-Corti, Varela-Candamio, & Ramil-Díaz, 2013). Synchronous online learning classes require students and faculty to be online at the same time, over a virtual platform such as Zoom, which promotes interaction but restrains flexibility (Hsiao 2010; Skylar 2009). Additionally, there is a need for lecturers and students to have access to the necessary technology and workspace for effective teaching and learning. However, accessing these technologies is not always easy as students are often faced with several challenges (Kaisara & Bwalya, 2020; Osakwe *et al.*, 2017; Woyo *et al.*, 2020).

Face-to-face learning classes enjoys much greater flexibility and additional opportunities for self-paced learning. However, significant drawbacks include less interaction or excessive reading and writing assignments (Hsiao 2019). Asynchronous approach allows for the lecturers' flexibility in preparing teaching materials and allows for the students to juggle their work at home. Because asynchronous teaching works best in digital, teaching online does not have to be fixed, but can be postponed to a more suitable teaching time, giving students room to breathe (Daniel, 2020).

According to Horspool and Lange (2012), when comparing online to f2f leaning, research has revealed that the quality interactions of students in both environments perceiving

quality communication with their lecturers and most of them saying that the interaction between them and their instructors is more in the online learning as compared to the face-to-face.

2.3 COVID-19 PANDEMIC AND E-LEARNING

The COVID-19 pandemic is not the first time that higher education institutions have introduced programs making use of digital technologies; however, the resulting lockdowns have sped up the process of university digitalization and have forced universities to provide online programs on a much larger scale (Mare *et al.*, 2022; Szopiński & Bachnik, 2022). The current form of online education started in the 1990s with the advent of the Internet and World Wide Web and continued to develop as information and communication technologies advanced and became more sophisticated (Szopiński & Bachnik, 2022).

According to Kumar *et al.* (2019), online learning is not merely a passing trend that impacts universities but a burgeoning standard in education. Hsu *et al.* (2012) second this claim, stating that learning is no longer restricted to the traditional in class and on campus environment. Online business education in particular is becoming increasingly common in response to the growing needs of a changing student population and increased competition on the education market (Szopiński & Bachnik, 2022). E-learning and teaching business online have unique challenges when compared to their more traditional classroom counterparts.

Effective online teaching promotes the concepts of a nimble organisation from the managers' perspective. It requires preparation and training for both teachers and students

as well as consistent planning (Cong, 2020). However, the COVID-19 pandemic exposed the shortcomings of the existing systems and forced their revision. The pandemic has sparked discussion regarding online curricula and whether it should become an element of the competitive advantage of universities and business schools and a permanent feature of their development strategy.

Several billions of students globally were affected by lockdowns and school closures. Thus, to sustain teaching and learning during the pandemic, countries will mainly be dependent on the use of online learning. Although most Universities are unprepared for this kind of transition, due to the unavailability of infrastructure, and the lack of projects.

E-learning was intensely entrenched with suitable planning, and instructional designs, thus a few decades ago-before COVID-19, where technologies were developed, with new modalities, such like online and blended learning through MS Teams, Moodle, Google Classroom and Blackboard, which spreads across the globe. Although e-learning allows for the educational system to continue, it was however a challenge with the technicality of the system since the social distancing requirement did not allow universities to conduct both practical and work-based activities and assessments, which are critical to good performance and educational success.

The shift from face-to-face learning to online learning has in several psychological changes amongst students and teachers, interrupted learning, fewer opportunities to grow and develop and have greatly affected their performance. The goal of shifting to online learning is to minimize any kind of interaction as well as reduce the risk of acquiring

coronavirus, through physical contact. Therefore, students only interact with each other in online platforms.

2.4 THE IMPACT OF THE COVID 19 PANDEMIC ON STUDENTS'

PERFORMANCE

Academic performance refers to how students deal with their studies and how they cope with or accomplish different tasks given to them by their lecturers (Akey, 2006). Success in higher education is generally measured through the academic performance of students and how their needs are met (Rehman *et al.*, 2020).

The Covid 19 pandemic has disrupted student's lives in many ways. Not only did it bring changes to the higher education sector, but it has also severely impacted student learning experiences as emergency learning was ushered in (Cranfield; Tick; Venter; Blignaut & Renaud, 2021) which increased their anxiety and stress with minimum IT end-user training or user perception evaluations (Blackburn, LaBerge, O'Toole, & Schneider, 2020; Marr, 2020).

The measure of academic performance is seen as a basis for academic success which can be used to determine one's career path (Moloko, Mphale & Mhlauli, 2014), and it is one of the most pressing educational issues (Orelus, 2010). However, students' academic performance is often debated, because it can be influenced by multiple factors such as online learning and students' motivation (Martínez, Karanik, Giovannini, & Pinto, 2015). Students mentioned the ability to stay and study at home when describing online learning, which is an advantage to them, including flexibility, convenience, family obligations and health concerns (Fish, 2016).

According to the United Nations (2020) report, 87.6% of student were affected by the demand in IT usage due to the sudden shift to online learning mode and are struggling to cope in school. However, Eyles, Gibbons, and Montebruno (2020) said, there was not yet empirical evidence on the impact of different types of online education on student performance during lockdown. But data collected from experimental research conducted in China, shows the casual impact of online education of student performance during the pandemic. The experimental was done in two groups: examinations written by students who were involved in the face-to-face, fully online, and blended education.

The educational system was neither built, nor prepared to cope with a situation like this. This is because it lacks the structures it needs to sustain effective teaching and learning during a pandemic. Although the exact impacts are not known, what is known is that the performance of students has deteriorated since the pandemic (Rothstein 2004; Putnam 2015; Reardon 2011; García & Weiss 2017). Consequently, the socio-economic disparities affecting educational outcomes and inequities have widened.

Despite the benefits of online learning, students learning online platforms is still challenging (Panigrahi, Srivastava, & Sharma, 2018). Literature acknowledges that online learning is valuable to students' learning and graduate outcomes compared to traditional learning (Magalhaes, Ferreira, Cunha & Rosario, 2020). However, this view is not universally accepted as some researchers have argued that online learning is not as effective as traditional face-to-face delivery (Kaisara & Bwalya, 2020; Panigrahi *et al.* 2020).

There is a strong positive relationship between how student perceived their academic performance and how satisfied they are with the online learning environment, as it has shown a reliable implementation of ICT based initiative to measure success (Sher, 2009). This was achieved by online training, online interactions, computer efficiency, online skills, teacher support, coarse design (Jaggar Xu, 2016), teacher feedback, quality information and activities as well as technical support.

Although students' expertise in computer use influenced their participation in e-learning. Wu (2010) emphasizes the lack of adequate computer skill as an important impediment to effective online delivery. IAU (2020), highlighted lack of technical preparation and equipment; in particular, many students did not have adequate equipment or Internet access for an effective online learning delivery.

Technology Acceptance Model (TAM) is one of the comprehensive models developed for studying e-learning performance and providing a good prediction of students' participation and involvement in online learning (Hussein, 2017). The acceptance of the model by the students depends on enjoyment and self-efficacy.

2.5 ONLINE EDUCATION AND STUDENT MOTIVATION DURING THE

PANDEMIC

Previous studies (Lim *et al.*, 2021; Wei & Chou, 2020) found that students' computer/internet self-efficacy and motivation for learning had direct, positive effects on online learning perceptions and course satisfaction. Students' online learning perceptions significantly and positively affected their online learning readiness. When effectively prepared, faculty members could encourage active learning through technology (Green *et*

al., 2018). Other studies found that dialogue positively impacts students' learning experience (Nortvig *et al.*, 2018), mainly when students engage in guided conversations with their instructors.

Many students profited from this shift to grow as independent learners through online learning self-efficacy, which is the level of confidence to perform a particular task, activity, action or challenge; this is a critical component in student learning and satisfaction (Alqurashi, 2019). According to Abbas (2016), this self-regulated learning efficacy measures the extent to which students are confident implementing several self-regulated learning strategies and is a strong predictor of academic performance. Thus, online learning is particularly successful with highly intrinsically motivated learners, as they can make use of digital knowledge on their own (Hartmann & Hundertpfund, 2015). These self-regulated learners inherently understand how to use the technology, but they also know when to seek help. The students' perceptions in this study could provide opportunities for faculty to prepare a myriad of courses with varying levels of self-regulated learning (for those who thrive in this context) and more traditional pedagogy (for those who prefer face-to-face interactions).

With the rising competition amongst universities, students' motivation becomes a focal point leading to customer-oriented business models (Parahoo, Santally, Rajabalee, & Harvey, 2016). Students have identified factors such as interaction, computer self-efficacy, course content, self-regulation, and perceived usefulness. Parahoo *et al* (2016) finds that students who interacted with the staff, tutors - content and a positive performance were as student-to-student interaction showed insignificant performance.

In the context of the COVID-19 pandemic, adopting e-learning has become the only way of transmitting knowledge worldwide, as social distancing is the only way to reduce the spread of the disease (Biswas & Debnath, 2020). However, students' motivation plays an important role in such adoption (Zhou, 2016; Zhu *et al.*, 2020). Generally, motivation refers to the incentive that leads someone to act spontaneously (Keskin & Yurdugül, 2020). A few studies have pointed out that learners' motivation is a noticeable factor affecting learning outcomes (Brooker *et al.*, 2018; H. C. K. Hsu *et al.*, 2019). Moreover, researchers have demonstrated a strong connection between the motivation to learn online and participants' success and engagement in online learning settings (Keskin & Yurdugül, 2020).

Exploring researchers have identified different engagements that foster performance: Behavioural engagement refers to students participating, paying attention, effort, intensity, or persistence. Cognitive engagement refers to how much students spend in completing online tasks in terms of mental focus. Emotional engagement refers to how students feel towards tutors, peers, online activities, and sense of belonging (Reeve, 2013; Reeve & Tseng, 2011). Agentic engagement is defined as the act of taking initiatives that constructively contribute to learning and teaching. These dimensions correspond to the learning processes of acting, thinking, feeling, and communicating, respectively (Reeve, 2013; Wang & Eccles, 2013).

There is no normal life anymore even after COVID 19. Institutions will organise themselves systematically to pursue the aspects of technology-based learning that they have found most useful (Daniel, 2020). The tutoring system in higher institutions is an

established model of support, advice, and guidance for students with a purpose to improve motivation, success and drop-out.

The role of lecturers in motivating and improving the performance of students has been identified as positive in previous research (Rehman *et al.*, 2020), especially in online learning environments. This can be accomplished by encouraging students' independence, by guaranteeing learning and being involved interpersonally. Basically, autonomy is when the support the idea of encouraging and facilitating students to pursue their personal goals, student endorsements and learning behaviour (Alamri, 2020).

2.6 CHALLENGES OF E-LEARNING DURING COVID-19

The success of any information system depends on the usage of the system by users (Almaiah 2018). Thus, the acceptance of e-learning by students can be deemed as a criterion for success under the pandemic conditions. Numerous studies in the literature focused on e-learning implementation globally, and Namibia is yet to be sufficiently investigated. For instance, in Malaysia, Almaiah and Man (2016) used the TAM with IDT model to investigate the critical factors that affect the use of e-learning system Malaysian students. "The results revealed that relative advantages, observability, trialability, perceived compatibility, complexity, and perceived enjoyment are the factors that play a significant role in students' decision to use e-learning system in Malaysia" (Almaiah & Man, 2016, p.233). Salloum *et al.* (2019) used UAE as a case study for a quantitative investigation. "The results indicated that four factors (innovativeness, quality, trust, and knowledge sharing) were observed to achieve better e-learning system acceptance among students" (Salloum *et al.* 2019, p. 204).

The review of literature also shows that the factors influencing student's acceptance of e-learning based on TAM3 have also been investigated (Al-Gahtani, 2016). The factors that are documented in literature include self-efficacy, anxiety, using computers, and playfulness (Al-Gahtani, 2016). Furthermore, a framework using Delphi method to determine the success factors of e-learning system implementation was proposed for use in Saudi Arabia (Almaiah *et al.*, 2016) using several factors. The factors included technology options, e-learning awareness by students, e-learning awareness by lecturers, and website quality (Almaiah *et al.*, 2016).

Bellaaj *et al.* (2015) used the Unified Theory of Acceptance and Use of Technology (UTAUT) model to explore the factors affecting students' use of e-learning systems at the University of Tabuk, Saudi Arabia. As a result, it was observed that the effort and performance of students positively impacted acceptance of e-learning (Bellaaj *et al.*, 2015). In another study in Azerbaijan, Chang *et al.* (2017) found subjective norms, experience and enjoyment influenced acceptance of e-learning. Abdullah and Ward (2016) also investigated factors influencing e-learning acceptance using TAM. Subjective norms, self-efficacy, experience, and enjoying using computers are critical factors that also contribute to acceptance of e-learning systems (Abdullah & Ward, 2016). Similarly, Alhabeeb and Rowley (2017) found that academic staff knowledge of learning technologies, student knowledge of computer systems and technical infrastructure, were significant factors in facilitating the successful acceptance of e-learning in Saudi Arabian universities. Though several studies exist on COVID-19 and e-learning implementation, the current study seeks to add novel literature contribution to the existing body of literature that focuses on e-learning challenges using Namibia as a case study context.

E-learning usage and adoption among users is a challenging issue for many universities, both in developed and developing countries, but it is likely to be less of a concern in developed countries over the willingness of their students to accept and use the e-learning system, as significant progressive steps have already been taken, according to literatures, in this regard (Almaiah *et al.* 2016b). Thus, developing countries have structural challenges that emanates from the digital divide and thus negatively affecting teaching and learning online (Eltahir, 2019).

Several challenges affecting e-learning have been identified (Osakwe *et al.*, 2020; Ngololo *et al.*, 2012). These were categorised as individual challenges, technological, course and cultural challenges and they vary from one country to another (Osakwe *et al.*, 2020; Ngololo *et al.*, 2012). This is because of cultural differences as well the readiness of universities to embrace ICT in teaching. For example, lack of ICT knowledge, poor network infrastructure and weakness of content development were the main challenges of e-learning system adoption in developing countries (Aung & Khaing 2015).

Another study revealed that system characteristics, internet experience and computer self-efficacy were the main issues that impede the successful adoption of e-learning system in Pakistan (Kanwal & Rehman 2017). A similar study conducted in Kenya identified three main challenges of e-learning are inadequate ICT infrastructure, lack of technical skills and financial constraints (Tarus *et al.* 2015). A study by Kisanga and Ireson (Mulhanga & Lima 2017) identified that poor interface design; inadequate technical support and lack of IT skills are the primary barriers that hinder the successful implementation of existing e-learning projects. Mulhanga and Lima (Kenan *et al.* 2013) claimed that cultural, political, and economical constraints are the main reasons to fail the e-learning initiatives in Libya.

In the same way, Kenan *et al.* (Chen & Tseng 2012) classified the challenges that affect the actual use of e-learning into four categories: management challenges, technological challenges, implementation challenges and cultural challenges.

A study conducted by Al-Araibi *et al.* (2019), which puts the technological issues as the main criteria for the success of e-learning system, indicated that 45% of e-learning projects in developing countries are total failures, 40% are partial failures, while only 15% are successful. Therefore, based on these findings, along with other studies, many researchers in the field of IS/IT have conducted researches in order to look into the challenges to the successful implementation of e-learning system initiatives (Al-Araibi *et al.* 2019; Esterhuysen and Scholtz 2015; Islam *et al.* 2015).

The literature has cited numerous challenges for online learning, such as the lack of motivation, capacity/incapacity of autonomous learning and lacking/misleading communication (Dräger & Müller-Eiselt, 2017; Lischer *et al.*, 2021). Other challenges include less interaction with the material and the difficulties of dealing with complex concepts without a professor to guide them (Nortvig *et al.*, 2018). Further, the feeling of isolation and anxiety was frequently addressed (Jehi *et al.*, 2022; Nortvig *et al.*, 2018) as well as financial hardships from lost student jobs (Jehi *et al.*, 2022). In the online setting, students and faculty were separated by distance and time, and many lacked familiarities with the asynchronous environment (Nortvig *et al.*, 2018). Faculty members struggled to create meaningful interactions with their students online (Chauhan *et al.*, 2021), while many students struggled to find the sufficient learner support, they were accustomed to in traditional campuses (Nortvig *et al.*, 2018). Further, virtual interactions were devoid of any in-person contact; thus, relationships were difficult to maintain (Gigliotti, 2021).

A further challenge resided in potential distractions during online classes (Hofer-Krucker-Valderrama & Kauffman, 2019; Serhan, 2020). Although distraction is common in the classroom, more supervision and control in these new online modalities were not expected from the teacher (Hofer-Krucker-Valderrama & Kauffman, 2019). Hence, the propensity to multitask or divide attention between important and less important tasks proved ill-suited in online learning situations (Junco, 2012). While college students commonly engage in multiple online activities simultaneously, multitasking has not been found to yield positive results for the learning process (Junco, 2012; Lepp *et al.*, 2019).

2.7 THEORETICAL FRAMEWORK

The theories in this study ranges from personal (Self-efficacy, self-determination) to social (academic engagements) to technical (emergency remote teaching). Bandura's theory of self-efficacy (1977) and related theory of self-efficacy in a crisis (Bandura, 1994, as cited in Money & Pacifici, 2020) explored how teachers' success changed overtime as the degree to which working conditions were changed. Therefore, lecturers depend on strong expectations, recognition and communication to succeed. According to Cardullo et al (2021), instructional technology needs should be met before they can be comfortable to meet the needs of the students.

The self-efficacy theory argues that students are convicted that they can perform to the best of their ability (Bandura, 1997). Consequently, this can be argued that it is conceptualized as means of explaining how students feel regarding their performance. Through this, students are able to learning more positively (Moors *et al.*, 2013). Past studies in ICT and higher education shows that positively achieve more in online environments (Lehman *et al.*, 2012; You & Kang, 2014). This is true regarding self-

efficacy concerning with computer usage as it demonstrates the confidence of students in terms of abilities as to how they use computers and other technologies in learning (Sharma *et al.*, 2007) which often improves student engagement (Pellas, 2014). Therefore, self-efficacy was used to underpin the study in understanding how students' performance were affected by online learning during the pandemic.

2.8 CHAPTER SUMMARY

This chapter reviewed literature intensively and extensively on what other researchers have written on e-learning and pandemic contexts. Financial and technical support were found to be critical in ensuring the success of e-learning in universities. This was followed by other factors that include digital skills, and staff development. The next chapter discusses the methods that were used to collect data for the study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 INTRODUCTION

An analysis of the previous studies in chapter two, provided guidance for this research. Chapter three is focused on the research methodology used to obtain students' online performance at the Namibia Business School, during the COVID-19 pandemic. The previous chapter reviewed literature in detail, and this chapter discusses methods that were used to collect data from participants. The chapter starts by explaining the research design that was employed in the study. The chapter also covers data collection methods and instruments, population, sampling, data analysis and presentation, trustworthiness as well as ethical issues.

3.1 RESEARCH DESIGN

According to Nooshinfard, Nemati-Anaraki, Zikmund, Babin, and Griffin (2012) a research design is a grand plan of approach to a research topic, and it is a process that is required to answer the research questions. This study is quantitative its nature enabling the researchers to test if the variables have a statistical impact on each other (Techo, 2016). The study followed a survey design to collect the data. The survey design was chosen because the researcher sought to understand and analyse the impact of online learning which is a new trend in teaching and learning in universities due to COVID-19.

3.2 THE POPULATION

Research population refers to the total quantity of cases that are to be examined in the study (Walliman, 2011). The problem statement guides the population of the research.

This study included all the students 627 registered at NBS for the academic year 2020, who are pursuing their postgraduate studies in Diploma, Masters, and Doctors in Business Administration in Windhoek, Ongwediva and Swakopmund. The target population was $N=627$ students (UNAM, 2020). The study did not include students who were participating in the short-term training programmes offered by the NBS, because these programmes are offered on a short-term basis, and the study was only focused on programmes that ran on a long-term where students would have been engaged with the school for a longer period.

3.3 SAMPLE SIZE

The convenience sampling strategy was employed to select the respondents of the study. Additionally, the sample size was determined by the guidelines that were provided by Krejcie and Morgan (1970). Based on these guidelines, a known population of $N=627$, requires a sample size of $n=234$ (Krejcie & Morgan, 1970).

3.4 RESEARCH INSTRUMENT

A structured questionnaire was administered during the data collection period. The instrument used a 5-point Likert scale in asking respondents to specify their level of agreement typically regarding the impacts of online learning during the pandemic on their performance (1 = Strongly disagree; 5 =Strongly agree). The questionnaire used several items to measure that study constructs and these items were adapted from previous literature. This questionnaire collected data on the characteristics of participants' demographic characteristics including age, gender, and their registered courses, the impacts of online learning on student performance. (*See Appendix A*).

3.5 DATA COLLECTION PROCEDURE

The researcher obtained consent from the participants. Additionally, the researcher took time to explain to the participants the purpose of the study. This was done before they completed the questionnaires. Participants were free to decline the research process if, when and if they were not comfortable. Participants were also assured that the information collected was going to be used for academic purposes only.

An ethical clearance letter from NBS was presented to permit data collection and due to COVID-19 the survey was administered online, using Survey monkey (see Appendix B). A pilot test was done to evaluate the readability and content validity of the study (Nooshinfard, Nemati-Anaraki, Zikmund, Babin, & Griffin, 2012). The questionnaire, due to the prevailing COVID-19 restrictions at the time of data collection was administered using Google Forms. The link was shared using the Namibia Business School communication platforms, to reach for a bigger sample of students who were currently studying for their post-graduate diploma, masters, and doctors' studies of Business Administration.

3.6 DATA ANALYSIS

Data was analysed using statistical analysis by means of the SPSS 27.0 programme. This programme was used because it permits researchers to present data using graphs, pie charts and tables. Data was analysed using descriptive statistics using means, frequencies, and percentages. The reliability of the data was measured using Cronbach's alpha coefficient. Further analysis was achieved using inferential statistics, that included exploratory factor analysis (EFA) and Linear Regression Analysis to determine whether

there is an association between variables being studied. Hypotheses were tested using regression analysis. The following regression model was used: $Y_i = \beta_0 + \beta_1 X_1 + C_t$.

Y_i = Student performance (dependent variable).

β_0 = autonomous student performance, that is, the level of student performance with no change in online teaching and learning.

β_1 = level of student performance influenced by online learning.

X_1 = Online learning (independent variable).

C_t = random error term.

3.7 RESEARCH ETHICS

Participants were informed that the research conducted would not cause harm to anyone, so consent letters were presented. The researcher embraced confidentiality, respect, and integrity. Privacy and anonymity of the respondents was respected. Archiving: Data is stored in a password protected hard-drive and will be deleted after 5 years.

3.8 CHAPTER SUMMARY

The chapter discussed the study's data collection methodology. It started by discussing the research philosophy that was used in the study. It then went on to focus on the research approach, research design and research methods that were used in the study. It further discussed the population, sampling methods and data analysis and presentation techniques. The chapter ended by discussing data analysis and the ethical considerations that were observed in carrying out the study.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.0 INTRODUCTION

This study aimed at assessing the impact that online learning has on student performance, at the Namibia Business School during the COVID-19 pandemic. This chapter presents the overall research findings and data analysis using formats such as tables, charts, and graphs. The chapter analyses all information gathered and ensures that all research objectives are addressed in the process. This chapter is divided into sections: Demographics, that will represent the information gathered from the 197 respondents.

4.1 DESCRIPTION OF THE SAMPLE

The study collected demographic information of the respondents, and these included the sex, age, marital status, employment status, the campus where the student is study and the course that is being enrolled. This section provides a descriptive analysis of these variables of the study. Data analysis showed that 49% of the sample were male students, followed by 45.5% who indicated that they were female. Those who did not disclose their sex were 5.5% of the sample. These findings are summarized in Figure 4.1.

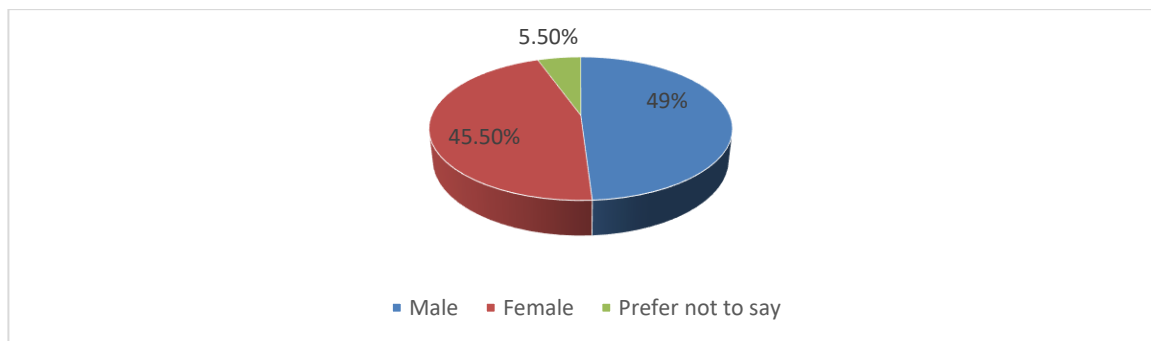


Figure 4.1: The sex of respondents

Further analysis of the data also showed that most of the business administration students that participated in the study (39.4%) 26 and 30 years. This was followed by those who indicate that they were aged between 31 and 35 years accumulating 27.8%. These findings shows that generally young people are studying business administration, and this is very important for dealing with poverty in Namibia. The results are summarized in Table 4.1.

Table 4.1: Age of the respondents

		Frequency	Percent
Valid	26-30 years	78	39.6%
	31-35 years	55	27.9%
	36-40 years	43	21.8%
	41 years and above	21	10.7%
	Total	197	100.0

As shown in Table 4.1, marital status, the study found that the greatest proportion (64.1%) of the students who participated in the study were single. This could explain the demanding nature of the business administration programmes. This was followed by 25.8% respondents who indicated that they were married. These results are summarised in Table 4.2.

Table 4.2: Marital status

Marital Status					
Marital status		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never married	127	64.5%	64.5%	64.1%
	Married	51	25.9%	25.9%	89.9%
	Divorced	8	4.0%	4.0%	93.9%

	Widow(er)	3	1.5%	1.5%	95.5%
	Separated	8	4.0%	4.0%	100%
	Total	197	100.0	100.0	

Figure 4.2 depicts that most of the students were enrolled at the Windhoek main campus (69%). This could be because Windhoek as a capital is able to attract many local and international students, hence the large number of participants from Windhoek's main campus. This was followed by those who indicated that they were based at a campus in Ongwediva (16.2%) while those who were studying at the Erongo region's Swakopmund campus were 14.8% of the sample.

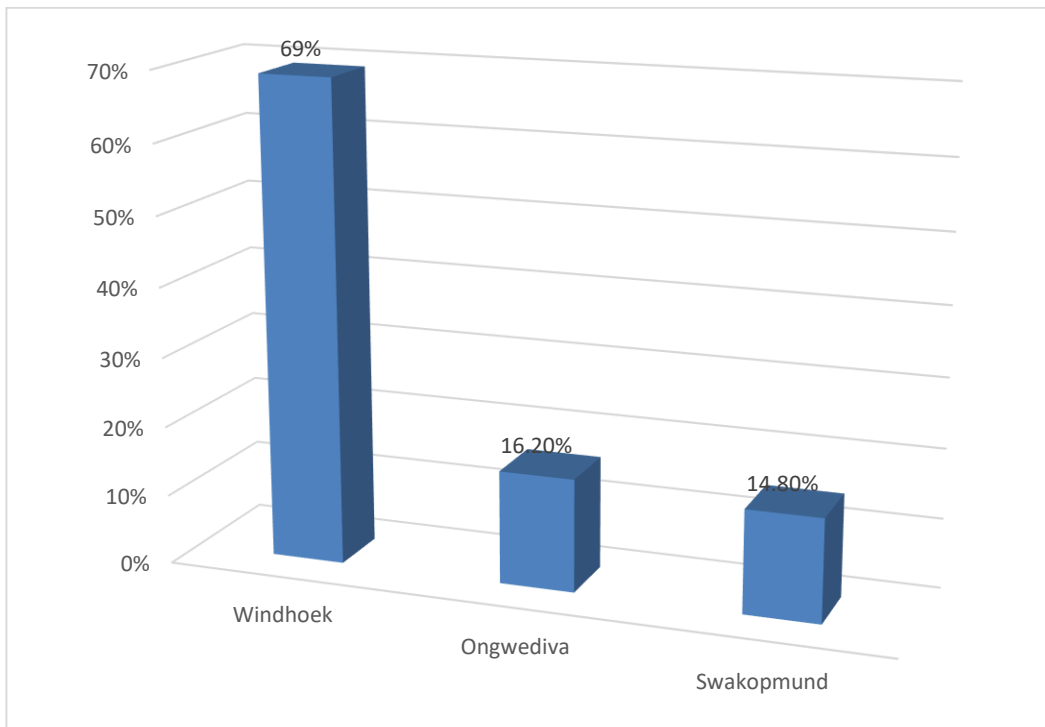


Figure 4.2: Campus where respondents are studying

The results presented in Figure 4.3 shows that many of the respondents were studying towards an MBA (Management Strategy) (55.84%). This was followed by MBA Entrepreneurship (10.10%), Post Graduate Diploma (9.10%) and MBA in Public Sector (9%). The Doctor of Business Administration had the lowest number of respondents.

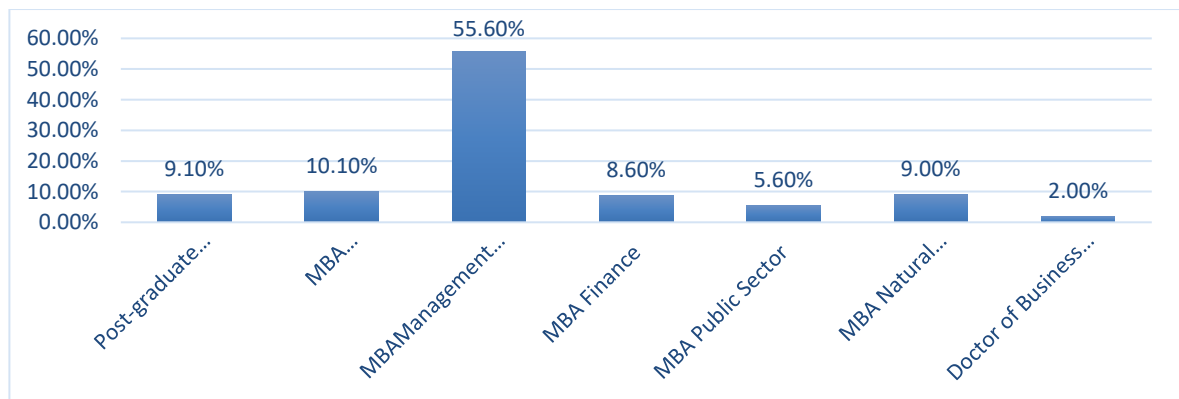


Figure 4.3: Course enrolled in 2020

4.2 CHALLENGES OF E-LEARNING DURING THE PANDEMIC

Figure 4.4. presents the challenges that were faced by the business administration students that participated in the survey. Students reported difficulty of finding enough resources to pay for the data or internet service providers for them to continue learning in the pandemic (69%). Furthermore, other notable challenges included lack of stable internet, lack of internet, work interference with schoolwork and too much noise. These challenges have been articulated in Namibian scholarship (Bwalya & Kaisara, 2021, Osakwe *et al.*, 2020; Ngololo *et al.*, 2012; Woyo *et al.*, 2020), therefore the findings of the study are consistent with previous studies.

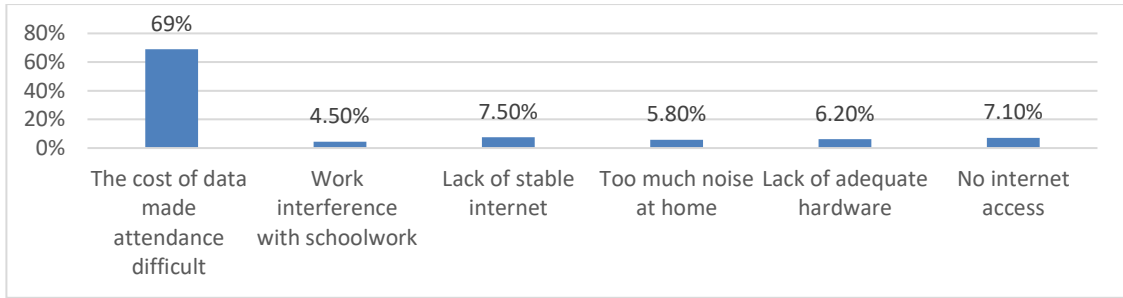


Figure 4.4: Challenges of e-learning during the COVID-19 pandemic

4.3 RELATIONSHIP BETWEEN ONLINE LEARNING AND PERFORMANCE

The study also measured the relationship between online and performance and this was achieved through correlational analysis. Table 4.3 depicts correlations of the variables that were measured in this study. In this case, the relationship between perception of learning community and overall online learning process was found to be statistically significant ($r = 0.213$, $p < 0.001$). This implies that students enjoyed learning online, probably because it provided them with flexibility (Osakwe *et al.*, 2020; Ngololo *et al.*, 2012; Woyo *et al.*, 2020). Furthermore, the results shows that the relationship between the benefits of remote learning and overall online learning process was significant ($r = 0.196$, $p < 0.001$).

The challenges of remote learning and overall online learning process also produced statistically significant results ($r=0.330$, $p< 0.001$). Those Pearson’s (r) are further away from 1 (one) yet close to 0 (zero). It is therefore a weak although positive, relationship between overall online learning process and students’ perception of their learning community, challenges of remote learning as well as benefits of remote learning. These results are summarized in Table 4.3.

Table 4.3: Correlation results

		Overall online learning process	Perception of learning community	Benefits of remote learning	Challenges of remote learning
Overall online learning process	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	197			
Perception of learning community	Pearson Correlation	.213**	1		
	Sig. (2-tailed)	.003			
	N	197	197		
Benefits of remote learning	Pearson Correlation	.196**	.119	1	
	Sig. (2-tailed)	.006	.095		
	N	197	197	197	
Challenges of remote learning	Pearson Correlation	.330**	.196**	.533**	1
	Sig. (2-tailed)	.000	.006	.000	
	N	197	197	197	197

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

The findings of this study shows that online learning at the Namibia Business School presented students with a learning environment that is distinct from face-to-face or classroom learning environments and students have a favourable perception of the changes. These findings are consistent to the conclusions that were made before that pandemic that students have a positive perception of the online learning environment (Bazelais, Doleck, & Lemay, 2018; Blackburn, LaBerge, O’Toole, & Schneider, 2020; Marr, 2020). This is regardless of the challenges that could exist in the e-learning environment.

Further analysis was also done using the Kendall’s Tau B. The above figures in Table 3 depicts the Kendall’s Tau B, that measures the strengths and direction of association that exists between variables. Their coefficients are usually smaller values and based on concordant and discordant pairs. $\tau_b = 0$ indicates no monotonous relation at all; $\tau_b = 1$ indicates a perfect positive monotonous relationship.

The Kendall Tau b coefficient, τ_b , are 0.131, 0.131 and 0.225 representing a positive correlation between overall online learning and the perception of online community, benefits, and challenges of online learning, which is statistically significant. This basically means that the value or score on overall online learning process, whether high or low, as to how the students rated will always be associated with the value/score of the student's perception of online community, benefits, and challenges of online learning, whether high or low depending on the students rated.

Table 4.4: Kendall's Tau B results

			Overall online learning process	Perception of learning community	Benefits of online learning	Challenges of remote learning
Kendall's tau_b	Overall online learning process	Correlation Coefficient	1.000			
		Sig. (2-tailed)	.			
		N	197			
	Perception of learning community	Correlation Coefficient	.131*	1.000		
		Sig. (2-tailed)	.011	.		
		N	197	197		
	Benefits of remote learning	Correlation Coefficient	.131*	.027	1.000	
		Sig. (2-tailed)	.011	.606	.	
		N	197	197	197	
	Challenges of remote learning	Correlation Coefficient	.225**	.128*	.414**	1.000

	learning	Sig. (2-tailed)	.000	.016	.000	.
		N	197	197	197	197

* Correlation is significant at the 0.05 level (2-tailed).

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

4.4 IMPACT OF ONLINE LEARNING ON STUDENTS' ABILITY TO LEARN

The study also asked the respondents how the transition to online learning during COVID-19 affected their ability to learn and the overall student performance. Overall online learning process, perception of the learning community, student motivation, benefits of remote learning and challenges of remote learning were used as the independent variables that were measured to see how they impact students' performance. Thus, students' performance was used as a dependent outcome in the study. The results presented in Table 4.5 show only overall online learning processes, student motivation, and benefits of remote learning were found to be statistically significant in influencing the performance of the students during the pandemic.

The analysis of the results show that overall online learning process is the strongest predictor of students' performance ($\beta = .702, t = 17.6222, p < .000$). The findings for online learning readiness were consistent with previous research (Cigdem & Ozturk, 2016; Horzum *et al.*, 2015; Lim *et al.*, 2021; Wei & Chou, 2020) and highlighted the vital role of online learning readiness in the high school population. The respondents who were ready to learn online had better online learning academic performance during the pandemic. Moreover, as in previous studies (Roper, 2007; Yilmaz, 2017), students who could direct their own learning online, avoid online distractions (e.g., instant messages or surfing the Internet), and communicate effectively with peers or lecturers

online demonstrated stronger academic performance during COVID-19. Consistent with Hypothesis 1, online learning was associated with academic performance significantly for the business administration students at the Namibia Business School who participated in this survey.

Student motivation was found to be the second most important predictor of performance during the pandemic, and significantly associated with business administration' academic performance ($\beta = .026, t = 1.221, p = < .024$). Based on this finding, the second hypothesis was also supported. All these findings are in line with classical developmental psychology theories, especially Bandura's (1977) interactive triangle of personal factors, personal behaviours, and environmental factors and Vygotsky's (1978) social learning theory. This implies that changes in learning and social environments are critical in explaining how students perceive learning, and thus affect performance. Online learning and the pandemic are foreign for business administration students in Namibia; the more ready students are, or the more quickly they can adjust to the new environment, the better their learning outcomes will be (Tu, 2002).

The last predictor of performance was the benefits of online learning to performance ($\beta = .016, t = 1.605, p = < .000$). This finding of the study is both consistent and parallel to previous pandemic literature regarding the perceptions of students of online learning. Students perceive both advantages and disadvantages to online learning (Ebner & Gegenfurtner, 2019; Szopiński & Bachnik, 2022; Zhou, 2016; Zhu *et al.*, 2020).

Table 4.5: Regression analysis

Coefficients ^a	
---------------------------	--

Model		Unstandardized Coefficients		Standardized Coefficients	t	P value
		B	Std. Error	Beta		
1	(Constant)	5.571	.320		17.389	.000
	Overall online learning process	.072	.004	.822	17.622	.000
	Student motivation	.026	.022	.054	1.221	.024
	Perception of learning community	.005	.009	.027	.595	.552
	Benefits of remote learning	.016	.010	.083	1.605	.010
	Challenges of remote learning	.000	.010	.002	.031	.975

4.5 CHAPTER SUMMARY

Significant relationships were explained, mostly using online learning processes, student motivation, and benefits of online learning with correlation and regression results. Multiple regression analyses were used to test the study's hypotheses, and the results show that online learning processes, student motivation and benefits of online learning were significant with students' performance during the pandemic. The next chapter discusses the conclusions of the study and the recommendations.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.0 INTRODUCTION

COVID-19 at the time of writing had been an ongoing global health pandemic. As a result of this pandemic, universities resorted to online learning to avoid an educational crisis that could have been caused by the pandemic. However, little is known about whether students' performance improved from using online learning platforms.

This study assessed the impact of online learning on business administration students at the Namibia Business School during the COVID-19 pandemic. To achieve this main objective, the study also pursued secondary objectives that included the examination of the challenges affecting students' remote learning at the Namibia Business School. Furthermore, the study also assessed the students' performance during the COVID-19 pandemic at the Namibia Business School. Lastly, the study also analysed the relationship between students' motivation and their performance during online teaching.

The purpose of this chapter is to discuss the study's conclusions and provide recommendations on e-learning and the performance of students in higher education in developing countries. It also provides suggestions for further research on aspects of e-learning, remote learning, and student performance.

5.1 CONCLUSIONS OF THE STUDY

The conclusions of this study are discussed based on the study's objectives. The objectives of the study were formulated for the researcher to unpack and solve the research problem. Specific objectives and their conclusions are grounded on the results discussed in Chapter 4 of the study. Therefore, the following conclusions were made concerning this study:

- **To examine the challenges affecting MBA students' remote learning at NBS.**

The study identified the challenges that students faced during remote learning during the pandemic. Students emphasised several challenges that emanated from the changes from traditional teaching to online classes. Key of these included lack of technological support, perceived workloads due to home schooling, limited social interactions, and poor communication. Furthermore, it was also identified that the cost in terms of data was too high to support students in accessing online learning materials. This study concludes that students were faced with several structural challenges that affected their learning, especially that Namibia is an unequal economy. COVID-19 poses great challenges and opportunities for economic, social, and educational development, and these challenges would require structural interventions from higher education managers.

In conclusion, this research has delved into the multifaceted challenges faced by MBA students during their remote learning experiences at the Namibia Business School (NBS). Through an in-depth exploration of the data and insights gathered from surveys, interviews, and academic literature, several key findings have emerged. First and foremost, the sudden shift to remote learning brought forth a myriad of challenges, with technological limitations, inadequate study spaces, and distractions at home significantly

impacting students' engagement and performance. Furthermore, the lack of face-to-face interactions with peers and instructors resulted in a sense of isolation and hindered collaborative learning opportunities. Additionally, while NBS made commendable efforts in providing online resources and support, the digital divide, and varying levels of digital literacy among students contributed to unequal learning experiences. These challenges, when compounded, not only affected academic performance but also impacted students' well-being and overall satisfaction with their MBA program.

- **To assess the students' performance during COVID-19, at the NBS**

The findings show that students' performance was not affected during the COVID-19 pandemic. This study concludes that when universities put in place robust online learning processes, the performance of the students can be enhanced. Furthermore, this study concludes that preparing business administration students to learn online is as essential as preparing the institution to operate online. In conclusion, this research study has provided valuable insights into the impact of the COVID-19 pandemic on students' performance at the Namibia Business School (NBS). The findings reveal that the sudden transition to remote learning during the pandemic presented both challenges and opportunities for students. While the online learning environment offered flexibility and continuity of education, it also posed technological, socio-economic, and motivational hurdles that affected academic outcomes.

The analysis of students' performance data indicated variations in achievements across different programs and student cohorts. Factors such as access to reliable internet connectivity, digital literacy, home environments, and levels of self-discipline played

significant roles in shaping student success during remote learning. Furthermore, the study emphasized the crucial role of institutional support and faculty engagement in mitigating the negative impact of the pandemic on students' academic journey (Shanahan *et al.*, 2020).

Universities and business schools are required to enhance access of basic technologies such as Microsoft Office, use of Zoom and online searching techniques. This is critical in reducing online distractions and enhancing effective teaching and learning strategies. Furthermore, this study concludes that there is need for effective communication as part of online teaching strategy for business administration students. Doing so, is critical in ensuring that students maximize the benefits of learning online.

Overall, the students agreed that online teaching was valuable for them even though the online mode of classes was the first experience during the pandemic period of Covid-19 (Agarwal & Kaushik, 2020; Rajabalee & Santally, 2020). Some of the previous studies suggest that the technology-supported courses have a positive relationship with students' performance (Cho & Schelzer, 2000; Sigala, 2002).

- **To analyse the relationship between students' motivation and their performance during online teaching**

The findings of the study indicate that there is a significant relationship between the students' motivation and performance during online teaching at the Namibia Business School. Based on the analysis of the results, the business administration university students were found to be overall satisfied and happy with online learning arrangements and it motivated them to perform better given the circumstances. This is because most

students agreed that online processes that were in place helped them in coping with their studies during the pandemic, thus, overall improving performance.

This study concludes autonomous motivation is a critical antecedent of students' performance, especially in challenging times such as COVID-19 (Cerasoli & Ford, 2014; Reeve, 2013). This shows that when students are motivated to engage online learning they perform better in their formative and summative assessments. Therefore, the importance of class attendance is generally not considered in online settings as is the case in traditional learning arrangements.

5.2 RECOMMENDATIONS

Based on the above conclusions, the study recommends the following:

- Online lecturers must be keen to develop valuable instructional and teaching materials that dynamically connect students and inspire them to perform better.
- Teaching staff must be well-equipped for online learning to be very effective. Future professors and lecturers should be prepared for online teaching and learning by refining their digital competencies, designing online learning materials and educational philosophies for online environments.
- Additionally, there is need to ensure that the mental health of business administration students is addressed through well designed sensitive competence-related interventions. These are useful in dealing with burnouts that often characterise learning and working online.

- The lecturer-student interactions also need to be enhanced. This ensures that relationships between students and lecturers in online learning environments are designed to enhance student performance.
- More explicitly, lecturers can improve their online skills in terms of communication. This helps students improve their performance as good communication helps them to receive quality feedforward feedback. Thus, further increases their motivation to learn and enhance their performance.
- To enhance student motivation and performance, there is need for lecturers to design materials for online learning activities that facilitates peer discussions and group work. These are helpful in connecting students and creating learning opportunities for receiving and giving feedback. Through this, students will further improve their performance.
- Self-directed learning could also be improved through using a range of online activities. These could be achieved by creating virtual online communities where students can attempt activities and discuss issues learned in class. Thus, a mixing material that focuses on the learning outcomes and activities is crucial in achieving better performance and engagement.

5.3 RECOMMENDATIONS FOR FURTHER RESEARCH

Based on the reviewed literature in Chapter 2, there is limited literature that has focused on e-learning in developing countries. Hence, future research could attempt to replicate the findings of this study with samples from other universities in Namibia and other countries. Doing so will generate more insights about that could be useful to higher education managers in developing strategies for remote teaching and learning. Future

studies could also employ qualitative methodology to generate an in-depth understanding of the factors affecting online learning performance.

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Appendix A – Research questionnaire



FACULTY OF ECONOMICS AND MANAGEMENT SCIENCES

DEPARTMENT OF BUSINESS MANAGEMENT

NAME	Hilma Nambambi 201123711
NQF LEVEL	9
PROGRAM	Master of Business Administration (Management Strategy)
SUPERVISOR	Prof. Obert Sifile

QUESTIONNAIRE

Title: Assessing the impact of online learning on student performance at the Namibia Business School during Covid-19.

QUESTIONNAIRE

The researcher is a student from the University of Namibia (Namibia Business School), student registration number 201123711 researching a topic titled: Assessing the impact of online learning on student performance at the Namibia Business School during Covid-19.

You are kindly invited to answer the questions below by ticking the appropriate box. You are kindly being requested to answer all questions freely and honestly the greatest of your knowledge. The information will be used only for academic purposes ONLY and will be treated with utmost confidentiality. The information will assist the Namibia Business School (NBS) make informed decision. Your cooperation is momentously appreciated.

Thank you very much in advance for your kind participation and support in this study.

SECTION A

Demographic Information

Please indicate your choice by ticking the appropriate box.

		Ticking Column
Gender	Male	
	Female	
	Prefer not to say	
Age	25 yrs. and below	
	26-30 yrs.	
	31-35 yrs.	
	36-40 yrs.	
	41 yrs. and above	
Marital Status	Never married	
	Married	
	Divorced	
	Widow(er)	
	Separated	
Employment status	Employed	
	Unemployed	
	Self-employed	
Campus Enrolled	Erongo (Swakopmund)	
	Khomas (Windhoek)	
	Oshana (Ongwediva)	
Coarse enrolled in 2020	Postgraduate Diploma in BA	
	MBA Entrepreneurship	
	MBA Management Strategy	
	MBA Finance	
	MBA Public Sector Management	
	MBA Natural Resources Management	

SECTION B

Overall online learning process

Please indicate your choice by ticking in the appropriate box.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
	1	2	3	4	5
I can easily access the Internet as needed for my studies					
I am comfortable communicating electronically					
I am willing to actively communicate with my classmates and lecturers electronically.					
I can manage my study time effectively and easily complete assignments on time.					
As a student, I enjoy working independently.					
As a student, I enjoy working with other students in groups.					
I like a lot of interaction with my lecturer					
I possess sufficient computer keyboarding skills for doing online work.					
I can ask my lecturer questions and receive a quick response during Internet activities outside of class.					
I feel that face-to-face contact with my lecturer is necessary to learn.					
I can discuss with other students during Internet activities outside of class.					
Learning is the same in class and at home on the Internet.					
I believe that learning on the Internet outside of class is more motivating than a regular course.					
I believe a complete course can be given by the Internet without difficulty.					
I could pass a course on the Internet without any lecturer's assistance					
I believe an Internet course is possible but for learning English, it would be difficult					

SECTION C

Perception of learning community

Please indicate your agreement degree with following statements about your study support.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
	1	2	3	4	5
I felt part of a group of students and lecturers committed to learning					
I was able to explore academic interests with teachers and students.					
I learned to explore ideas confidently with other students					
Students' ideas and suggestions were used during the classes.					
I felt I belonged to the school community.					

SECTION D

Benefits/challenges/ barriers of remote learning

For my remote learning, I am satisfied with:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
	1	2	3	4	5
Convenience in studying					
Access of information and learning material.					
Opportunities to interact with students and Lecturers					
Inadequate opportunity to study with other classmates					
Difficulty in applying concepts taught in the module					
Not confident enough to handle difficult task with online learning mode.					

Your participation was highly appreciated!

APPENDIX B: LANGUAGE EDITING CERTIFICATE



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Vinetta, Swakopmund
Namibia

LANGUAGE & COPY-EDITING CERTIFICATE

14th October 2022

RE: LANGUAGE, COPYEDITING AND PROOFREADING OF HAUSIKU HILMA I.P NAMBAMBI'S THESIS FOR THE MASTER OF BUSINESS ADMINISTRATION DEGREE OF THE NAMIBIA BUSINESS SCHOOL OF THE UNIVERSITY OF NAMIBIA

This certificate serves to confirm that I copyedited and proofread **HILMA I.P NAMBAMBI'S** Thesis for the **MASTER OF BUSINESS ADMINISTRATION DEGREE** entitled: **ASSESSING THE IMPACT OF ONLINE LEARNING ON STUDENT PERFORMANCE AT THE NAMIBIA BUSINESS SCHOOL DURING COVID-19**

I declare that I professionally copyedited and proofread the thesis and removed mistakes and errors in spelling, grammar, and punctuation. In some cases, I improved sentence construction without changing the content provided by the student. I also removed some typographical errors from the thesis and formatted the thesis so that it complies with the University of Namibia's guidelines.

I have edited many Postgraduate Diploma, and Masters' Thesis, Dissertations for students studying with universities in Namibia and elsewhere. I have also copy-edited company documents and publications for Non-Governmental Organisations (NGOs) around the Southern African region.

Please feel free to contact me should the need arise.

Yours Sincerely,

Mr. Shonhiwa Bakare



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Shonhiwa Bakare