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EXPLORING THE NEXUS OF RELEVANCE FOR SOUTH AFRICAN BUSINESS SCHOOLS IN THE 4TH INDUSTRIAL REVOLUTION

Explorando el nexo de relevancia para las escuelas de negocios sudafricanas en la cuarta revolución industrial

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ABSTRACT

The world of work is changing at a rapid and alarming pace. These changes have been ushered by several factors, including new technologies due to the 4th industrial revolution, political instability such as the war in Ukraine and the global health crises due to the Covid-19 pandemic. These changes have resulted in an increasingly complex business operating environment, where leaders in the 4th industrial revolution are now facing challenges that previous generations have never encountered. Business schools have a strategic role in developing leaders fit for the 4th industrial revolution. Business schools have remained a steadfast pillar of strategic development across the world with the purpose of cultivating

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leaders that are able to achieve business success. However, in times of change, business schools need to adapt and align to ensure that they are cultivating leaders that are able and capable of navigating through the changing world of work. This study explored the relevance of South African business schools in programmes such as the MBA. This was done by conducting 30 in-depth qualitative interviews with key stakeholders related to the business school ecosystem. The findings of the interviews were coded, analysed and interpreted into a conceptual model documenting the nexus of relevance for South African business Schools. This model presents a conceptual framework which indicates that if a business school acts within the nexus of industry, society and government, it will remain relevant to key stakeholders in the business school ecosystem.

KEYWORDS

Business schools; Education; Fourth industrial revolution; Relevance; MBA; Skills for future.

RESUMEN

El mundo laboral está cambiando a un ritmo rápido y alarmante. Estos cambios han sido impulsados por varios factores, incluyendo nuevas tecnologías debido a la cuarta revolución industrial, inestabilidad política como la guerra en Ucrania y la crisis sanitaria global debido a la pandemia de Covid-19. Estos cambios han resultado en un entorno operativo empresarial cada vez más complejo, donde los líderes en la cuarta revolución industrial se enfrentan ahora a desafíos que las generaciones anteriores nunca han encontrado. Las escuelas de negocios tienen un papel estratégico en el desarrollo de líderes aptos para la cuarta revolución industrial. Las escuelas de negocios han sido un pilar constante en el desarrollo estratégico en todo el mundo con el propósito de cultivar líderes capaces de lograr el éxito empresarial. Sin embargo, en tiempos de cambio, las escuelas de negocios necesitan adaptarse y alinearse para asegurarse de que están cultivando líderes capaces de navegar por el mundo laboral en constante cambio. Este estudio exploró la relevancia de las escuelas de negocios sudafricanas en programas como el MBA. Esto se realizó mediante la realización de 30 entrevistas cualitativas en profundidad con actores clave relacionados con el ecosistema de la escuela de negocios. Los hallazgos de las entrevistas fueron codificados, analizados e interpretados en un modelo conceptual que documenta el nexo de relevancia para las escuelas de negocios sudafricanas. Este modelo presenta un marco conceptual que indica que si una escuela de negocios actúa dentro del nexo de la industria, la sociedad y el gobierno, seguirá siendo relevante para los actores clave en el ecosistema de la escuela de negocios.

PALABRAS CLAVE

Escuelas de negocios; Educación; Cuarta revolución industrial; Relevancia; MBA; Habilidades para el futuro.

INTRODUCTION

The business and economic landscape of the 21st century has been riddled with complexities for traditional businesses. The advent of technology and increasingly prominent interest in aspects such as the 'internet of things' (IoT), artificial intelligence (AI), and machine learning have alluded to the premise that the 4th industrial revolution is not a theory prophesized by futurists but rather a reality in which businesses must adapt. For Ghobakhloo (2018), the 4th industrial revolution or industry 4.0, as it is commonly known, is currently upon us, and for businesses to remain relevant and sustainable, they need to embrace the revolution and find creative ways to thrive within it or fail by holding onto traditional business practices. However, in addition to the 4th industrial revolution, the nature of business has fundamentally changed. Walker and Lloyd-Walker (2019) suggested that several changing variables characterise the new world of work, including aspects such as increased competition, increased technological development, and changing demographics. Researchers such as Dasi, Elter, Gooderham, and Pedersen (2019) classified the changing nature of work according to the VUCA principles, which argue that business is volatile, uncertain, complex, and ambiguous (VUCA). There have been several iterations of VUCA, such as Turbulent, Uncertainty, Novel and Ambiguous (TUNA) or Brittle, Anxious, Nonlinear and Incomprehensible (BANI). These variations present different classifications of the changing world of work on a variety of different aspects. However, the common thread expressed is that the world of work in the 21st century is changing at an increasingly rapid pace due to a series of factors such as technology.

Manyika, Lund, Chui, Bughin, Woetzel, Batra, Ko and Sanghvi (2017) suggested that the role of a manager in today's world has changed drastically from what it was in the ’90s. The future world of work will require the cultivation of new skills and competencies linked to the 4th industrial revolution. These skills will produce future-fit individuals who can achieve a sustainable competitive advantage for the organisations. As the world moves towards mass automation, the skills required in the future will be essential to an organisation's success. The WEF (2016) added that the skills required for the 4th industrial revolution range from technical expertise to cognitive expertise. One of the most important skills that will be required in the future world of work is creativity, as creativity will be one of the primary areas that distinguish humans from robots. However, in addition to skills such as creativity, skills such as emotional intelligence, complex problem-solving, and an entrepreneurial mindset will be required in the new world of work (WEF, 2016). Bughin, Hazan, Lund, Dahlstrom, Wiesinger and Subramaniam (2018) added that the most relevant skills for the future world of work include digital skills, leadership, and entrepreneurship, as organisations are required to be far more agile in adapting to more complex operating environments.

Andrews (2018) found that business schools have a significant role to play in developing and cultivating the skills required for the future. In contrast, Sewchurran (2019) suggested that the traditional Masters in Business Administration (MBA) degrees have decreased in stature due to being removed from the realities of the current and future world of work. White (2018) and Seedat (2019) proposed that the modern MBA should move away from the traditional focus, develop the skills required for the future world of work, and should consider the changing business landscape. Future managers require a unique set of skills

which will allow them to succeed in a world of uncertainty and limited predictability. Thus, managers need to draw on aspects such as complex problem-solving, critical thinking, entrepreneurship, imagination, and creativity (Bughin et al., 2018).

Problem Investigated

As the business landscape continues to evolve and change at unprecedented rates due to several factors, so too are the skills required to change. The skills required for the future world of work will differ significantly from previous periods. Business schools have a strategic role to play in developing leaders fit for the changing world of work. However, to ensure this, business schools need to remain robust, rigorous and academically relevant to the constituencies they serve. This study explored the relevance of the South African business school MBA curriculum to current stakeholders through interviews with selected stakeholders related to the business school ecosystem.

Research Objectives

This study investigated literature regarding the 4th industrial revolution, the skills required and the value and criticism of the MBA programme. In addition, this study conducted a total of 30 semi-structured qualitative interviews with select stakeholders relating to the business school ecosystem to identify their perceived opinion on the relevance of the current MBA programmes to current stakeholders offered by South African business schools. Using data analysis software, the findings of the interviews were analysed and defined into emergent themes for current business schools to identify the nexus of relevance for South African business schools in the 4th industrial revolution through programmes such as the MBA.

LITERATURE REVIEW

The changing world of work and the 4th industrial revolution

The rise of technology has enabled innovation and enhanced efficiency and has become a prominent enabler for business in the 21st century. Researchers such as Davis and Schwab (2016) classified the above as the dawn of the 4th industrial revolution. For Davis and Schwab (2016), the 4th industrial revolution is the beginning of a new era, which will witness aspects such as digitalisation and technology as the key drivers for business, social, and economic progress. Schafer (2018) argued that the key revolutions witnessed throughout history were always based on introducing new aspects into the world that dramatically changed how business is done. The first revolution was when power and steam reduced human effort; the second revolution witnessed the introduction of electricity and led to mass reproduction, whereas the third revolution saw the introduction of information technology.

Morgan (2020) found that business complexity has continued to increase as there are several unknown variables that businesses must contend with to succeed. The introduction of the novel Covid-19 pandemic has resulted in increased disruption to business for many organisations, even further emphasising that change is needed in how we do business and the type of skills required to manage. This supports the premise that skills such as problem-

solving, creative thinking, and analytical skills are required to assist individuals in dealing with the new world of work.

The Covid-19 pandemic is a global health contagion affecting hundreds of thousands of people worldwide. The virus is spread through human-to-human contact, resulting in a change in human behaviour. The Board of Innovation (2020) regards this as the new state of the economy for the modern world. Covid-19 has altered the way that business is done. It has resulted in reduced physical interactions, physical distancing, travel bans, limitations on gatherings and imposed lockdowns, and ultimately shutting down business as we know it in certain areas. All of this resulted in a new low-touch economy. Even though the introduction of vaccinations has reduced the magnitude of the virus, the result thereof has significantly changed how business is done.

Hussain (2020) defined the 4th industrial revolution as a fundamentally new way of organisation and control as a result of aspects such as increases in technological capability. Davis (2016) classified it as the introduction of cyber-physical systems. This premise is underpinned by a move towards embedded technological developments within businesses, societies, and individuals. Similarly, Agostini and Filipinni (2018) and Lin, Lee, Lau, and Yang (2018) defined the 4th industrial revolution as the rapid integration of physical and digital assets to enhance production and processes, creating a system of interconnected intelligence. They found that the 4th industrial revolution is bridging the gap between production and information technology and will do this through mediums such as AI, IoT, and Big Data. This leads to enhanced efficiency, reduced human error, and increased organisational production.

Morgan (2020) found that whilst in the 21st century, most companies had shared digital transformation objectives due to the 4th industrial revolution, the Covid-19 pandemic has forced businesses to accept and implement digital processes to remain sustainable. Unfortunately, this rapid, forced change has left much smaller (and even bigger) businesses behind. Marr (2020) argues that it is imperative for businesses in the 21st century to rethink their business models and foster digital transformation to achieve a competitive position. The Board of Innovation (2020) has regarded this move as a pivot toward new business models, as traditional businesses are rethinking their current offerings in a new low-touch economy. Psaropoulos (2020) believes that the Covid-19 pandemic has forced employees, organisations, governments, and consumers to embrace digital platforms as a necessity for daily functioning. The necessity of moving onto digital platforms caused by the Covid-19 virus has spurred the development that was required for individuals and organisations to partake in the 4th industrial revolution effectively.

Skills required for the changing world of work and the 4th industrial revolution.

Almeida and Simoes (2019) argued that the 4th industrial revolution resulted in a radical shift between skills required in the past and skills required for the future world of work. Deloitte (2018) affirmed this view and argued that the shift has already begun as there are several million unemployed graduates across the world with skills that are mismatched to the needs of employers. This gap will likely increase if skills and education remain stagnant. However, skills required for the 4th industrial revolution vary as researchers identify different skill sets. However, there are commonalities between previous skill sets and skill sets

required in the future world of work, and Almeida and Simoes (2019) argued that soft skills are essential in the 4th industrial revolution.

Teng, Ma, Pahlevanshariff, and Turner (2019) broadly defined soft skills as interpersonal skills, abilities, attitudes, behaviours, and traits as opposed to technical skills. An example of these are skills such as creativity, communication, and problem-solving. This notion is supported by Broughaam, Haar and Tootell (2019), who conducted a qualitative study with over 50 respondents from different sectors and found that some of the most important skills required for the 4th industrial revolution include soft skills. This was identified as respondents agreed that as the world moves into a more digital landscape, there will be a need to maximise human interaction to ensure productivity and soft skills could assist with this transition.

In addition, Kazancoglu and Ozkan-Ozen (2018) found that the 4th industrial revolution will involve a shift from technical skills to cognitive skills, including systems thinking, complexity management, and problem-solving. These skills will be desired predicated on the basis that automation will replace ordinary tasks. Therefore, employees in the future world of work will need to be sufficiently skilled to deal with complex challenges. This was affirmed by Wilson and Okraku-Yirenki (2019), who argued that some of the most important skills for individuals in the 4th industrial revolution will be deep problem-solving and critical thinking skills. These skills will assist individuals in dealing with the complexity posed by the 4th industrial revolution and allow individuals the ability to understand how to work in an increasingly uncertain landscape.

Persuad (2019) defines technical skills in the 4th industrial revolution as the understanding and ability to use new technologies, infrastructure, and analytics for business success. Rasaki and Abioye (2018) define technical skills as the competence and capabilities to use tools and techniques within a specified discipline or area. Deloitte (2018) contends that leaders will need to understand core technical skills that drive innovation in the 4th industrial revolution. These skills need to be understood from a functional perspective instead of a deep specialised level for leaders and managers as the 4th industrial revolution requires digitally capable and interdisciplinary managers.

Entrepreneurial traits are also considered a critical skill in the 4th industrial revolution. Deloitte (2018) defines entrepreneurship in the context of the 4th industrial revolution as the abilities, competencies, and capabilities required to identify and nurture opportunities or ideas for business or social success. The skills required to foster entrepreneurial capability include aspects such as initiative, innovation, resilience, creativity, curiosity, and risk appetite. Beliaeva *et al.* (2019) define entrepreneurial behaviour as the ability to identify and recognise opportunities that may create value and the ability to pursue those opportunities.

Value of a business school in the 4th Industrial Revolution

Business schools have been a resounding pillar of the knowledge economy for the last decade. They have assisted in progressively developing leaders that can cope and succeed in complex working and trading environments. Trkman (2020) suggests that whilst the business model of business schools has not changed significantly over the last 30 years, business schools remain credible institutions that provide immense public and social value to the communities they operate within and serve. This value is further characterised through teaching and learning activities as well as through research output. Koris and Aav (2019) assert

that business schools and business education are believed to develop critical skills required to succeed in the world of business. They provide a foundation through various theories, case studies and practicals, allowing graduates to understand the business world better. Sunley *et al.* (2019) add that studying in a business school provides significant development opportunities that expand beyond intellectual development but also personal and professional development.

Business schools became prominent shortly after the second world war, wherein a need was realised to develop leaders and managers capable of reigniting economic activity in a new world of work. This inspired universities to focus on developing specialised units that focus on business studies. This, in turn, led to the creation of the graduate schools of business administration model. This was accomplished by creating centres affiliated with large universities focusing on business- and business-related studies (Simons, 2013). Muposhi, Dhurup, Martin, and Bhadury (2019) argued that this remains true as most business schools in South Africa are established by or within a parent university. Due to the prominence of the business school model being developed shortly after a major war, several characteristics of wartime management were adopted in business schools. These aspects include competing to emerge as a victor in times of scarcity while fostering command and control leadership and strategy skills (Simons, 2013).

Gardiner and Lacy (2005) posited that the role of business schools in society are to act as brokers of the knowledge economy. Therefore, a significant onus is placed on them to deliver a credible and sustainable education that meets the industry's demands. DeMuth (2019) argued that credible and sustainable education, in the context of business school education, includes technical and managerial competencies and leadership skills. Hence, some business schools pride themselves on their ability to develop the requisite leadership skills through their educational curricula. Soni (2020) asserts that the business landscape is changing due to the introduction of the 4th industrial revolution, and therefore the role that a business school plays should also change. Furthermore, in times of uncertainty, as witnessed by the introduction of the Covid-19 pandemic, the focus of business schools should also change. There is a need for a paradigm shift in business schools as the competencies and activities focused on in the 20th century are becoming irrelevant. Soni (2020) believes that the role of a business school in the context of the 4th industrial revolution is to develop graduates who understand new disciplines related to the changing times and business needs. Business schools should develop intellectual ability across disciplines and provide students with a globally focused mindset of best practices whilst remaining flexible to local contexts. Mezied (2016) purports that institutions of learning should become incubators for innovation and that higher education institutions need to move away from reacting to the 4th industrial revolution and become more involved in shaping the outcome of the revolution. PWC (2019) agrees with the findings of Mezied (2016) and adds that universities and business schools need to understand the changing nature of skills required by industry and ensure that they can produce graduates that manifest the skills required for the 4th industrial revolution.

Value of an MBA in the 4th Industrial Revolution

Fisher (2019) proffered that the MBA maintains a significant legacy as the qualification has existed for over 100 years. Thus, it is considered the leading business management programme for senior and executive managers. The MBA is, by nature, a generalist qualification that allows individuals to enhance critical skills and competencies related to business management. Whilst exact figures are vague and ambiguous, it is anticipated that over 500,000 professionals graduate from an MBA programme each year (Fisher, 2019).

Mtapuri and Lethoko (2018) assert that the benefit of the MBA is that it is regarded as being career orientated and provides individuals with a multidisciplinary understanding of business to be more effective managers and leaders. Baker (2019) added that several reasons prompt an individual to enrol for an MBA. Some of these reasons include perceived self-efficacy, stature and the acquisition of technical and managerial competencies required for career progression. O'Brien, Drnevich, Crook and Armstrong (2010) posited that career progression is one of the primary motivators for pursuing an MBA qualification. Thus, prospective students often equate the completion of an MBA with an economic benefit. According to Ortmans (2018), whilst students enrol in programmes such as the MBA to achieve the technical and managerial competencies required, they are also interested in a return on investment through an increased salary. This has largely been the case wherein students completing an MBA, on average, have achieved higher salaries. However, O'Brien et al. (2010) argued that a fragile dependency relationship exists between an MBA and an increased salary. Thus, several other variables must also be considered, such as the school's reputation and performance.

Koris and Aav (2019) found that the value of an MBA is represented by the ability to gain relevant knowledge, skills, and behaviours. These aspects would, in turn, result in career and economic prosperity. Dacko (2006) argued that students often regard an MBA as an opportunity to develop and enhance the skills required to achieve individual and organisational success. Fisher (2019) agreed with the findings of Dacko (2006) and Koris and Aav (2019) and added that the value of an MBA is to enhance individual skills and competencies so that managers and leaders are better equipped to achieve business success. Fisher (2019) proposed that the MBA also presents value for organisations as well as individuals, as it provides an opportunity for an individual to achieve organisational success. Hence, the demand for suitable qualified MBA graduates has increased over recent years. However, the value of an MBA is underpinned by its ability to produce leaders that can effectively lead and manage industries within the changing world of work.

Marino, Rivero and Dabos (2019) found that the MBA is regarded as a key developmental tool that provides professional competencies that allow individuals to be more successful in the business world. Muposhi *et al.* (2019) contend that the MBA is seen as a flagship programme by several business schools worldwide and similarly has the most gravitas of all business school degrees. Similarly, Marino *et al.* (2019) extend that the reputation of the MBA is widely recognised across the business world.

Seedat (2019) asserts that MBA qualifications could be of tremendous value in the 4th industrial revolution if it allows individuals to upskill in a multidisciplinary approach whilst fostering an understanding of digital and new technologies. This is, however, based on whether the MBA has been designed based on future-focused content and relevance. The business has changed, and for an MBA to

be relevant, it must align with its changes. Oxford (2019) found that whilst the MBA has faced significant criticism, it is still regarded as a sound qualification allowing apt business competencies to be transferred. The MBA was designed to assist leaders and managers in achieving sustainable value within their businesses. This notion remains true today, and as such, the MBA is relevant as leaders in the new world of work still have a responsibility to provide value to their stakeholders. This, however, becomes even more complex in an increasingly changing business landscape. Therefore, for an MBA to hold value, it needs to evolve and embrace aspects such as technology, digitalisation, creativity, and innovation, as these are the skills required for leaders to succeed in the new world of work.

Shimpi (2019) purports that the value of the MBA in the 4th industrial revolution needs to be achieved by reviewing the current curriculum and redesigning the content specific to the changes in business, thus creating an MBA 4.0. This revision would be based on techno-managerial content allowing for the understanding and integrating of theoretical and applied skills for the 4th industrial revolution. Some business schools have progressively started redesigning their programmes to be more future-focused. However, several business schools still offer a traditional MBA. Barber (2018) argues that traditional business schools regard their MBA as transformative whilst they are based on tried curricula that are largely becoming irrelevant. The MBA's value is that it can develop industry leaders to become "masters of business administration tomorrow". However, to achieve this, the MBA needs to be practical, relevant, and geared for the changing world and changing skills required by the 4th industrial revolution. Stroufe (2020) argues that business schools should equip students with the tools to deal with increasing complexity and uncertainty in the workplace. These skills are needed to deal with challenging business terrains such as the Covid-19 pandemic.

It is, therefore, evident that business schools and the MBA are still seen as potentially valuable aspects as they are positioned to deliver change. However, for the MBA to provide the value it warrants in the 4th industrial revolution, it needs to be relevant, practical, and future-focused.

The current focus area of an MBA across most business schools worldwide is business management. Marino *et al.* (2019) classify the MBA as a generalist management programme that covers the major aspects of effective and efficient business management. Muposhi *et al.* (2019) assert that whilst the general manager in the 21st century has become more than just a general manager due to change and complexity, the current MBA's focus in South Africa consists entirely of general management skills.

Criticisms of the relevance of MBA programmes

Kleiman and Kass (2007) suggested that business school leadership should understand the skills required by business and the areas where their curricula are lacking. However, few business schools have proactively engaged in aligning their MBA curricula to industry-required skills. Jing, Liu, Ghosh, Wang, and Sun (2019) found in their study comparing international branches of business schools that the curricula provided in programmes such as the MBA in developing countries are almost a replica of curricula in developed countries. Whilst it is commonly understood that these business landscapes differ, having the same curricula often raises questions of relevance for programmes such as the MBA.

Darley and Luethge (2019) have also criticised the MBA in regard to African relevance, as it is often based on Western curricula.

Tan and Ko (2019) suggested that the key criticism levied against MBA programmes is that they are largely becoming irrelevant. The MBA in the 21st century should be focused on developing skills that were required in the 20th century and are, therefore, misaligned with the current needs of the business. This criticism is not new, as Kleiman and Kass (2007) argued that MBA programmes fail to develop the skills required for individuals to succeed in the business world. The skills developed in an MBA are often far removed from the challenges faced in today's business landscape, which calls for a continuous review of the MBA curricula. Rubin and Dierdorff (2013) asserted that there have been several criticisms regarding the MBA's relevance to the business world. These critiques range from irrelevant content, lack of practical application, narrow focus, and the promotion of the wrong behaviours. Slater and Dixon-Fowler (2010) found that the major criticisms concerning MBA programmes are that they are irrelevant and promote shareholder value over stakeholder value. This has also been cited as resulting in corrupt business practices.

In a study by Nakavachara (2020), the success of CEOs with MBAs was considered in relation to CEOs without MBAs. The findings presented were that CEOs with an MBA do not perform better than CEOs without one. These findings called into question the relevance of the MBA in the 21st century, as the skills developed did not significantly assist individuals in outperforming their counterparts.

RESEARCH METHODOLOGY

This study adopted a qualitative research approach and conducted semi-structured interviews with a series of stakeholders relating to the business school ecosystem. According to a model of business school innovation developed by the Association to Advance Collegiate Schools of Business (AACSB) (2010), some of the most pertinent stakeholders of a business school include industry representatives, prospective students, academic leaders, current students and previous students. Interviews were with Academic leaders, current MBA students and previous MBA students. These individuals possessed an in-depth understanding of the MBA curriculum and were in a position of knowledge to comment on the appropriateness and relevance of the MBA curriculum in relation to the 4th industrial revolution.

The research design could be diagrammatically presented as follows:

Figure 1. Diagrammatic representation of research design

A total of 30 individuals were identified and interviewed for this study. The interviews focused on collecting data to better understand interviewees lived experiences on the MBA and whether they feel that the programme is relevant for the 4th industrial revolution.

Population and sampling

The population of a study refers to the group of individuals selected for a study; these individuals would typically share commonalities and be grouped for a study (Saunders *et al*., 2009).

The rationale for selecting the interview groups was as follows.

Academic leaders

Academic leaders from various business schools were selected for this study as they represent an institutional view of the intended outcome of programmes such as the MBA. These representatives were involved in managing or leading MBA programmes at their respective institutions. *Academic leaders* also provided insight from an institutional perspective as to whether programmes such as the MBA are developing individuals for the future world of work.

Current students

Current students provide a snapshot of the present reality and whether they believe programmes such as the MBA are better for developing them for the future world of work. *Alumni* provide critical insight as to whether programmes such as the MBA have better equipped them to deal with the changing nature of work.

Previous MBA students

Previous MBA students provided a lived experience of whether an MBA adequately provided the skills required for the changing world of work. Similarly, they provided insight into the key areas of the MBA efficacy of the programme regarding the 4th industrial revolution.

The sampling method adopted was based on purposive and convenience sampling based on the different interview groups. Purposive sampling was

adopted for the current alumni and academic leaders to leverage existing networks within the higher education environment. Palinkas, Horwitz, Green, Wisdom, Duan, and Hoagwood (2015) purported that purposive sampling is a widely used and effective research tool that involves identifying individuals with a rich understanding of a phenomenon. Saunders *et al.* (2009) explained that purposive sampling is best suited to research that relies on sound selection and judgments to select cases that will assist in answering the proposed research question. Several types of purposive sampling could be adopted, and methods such as criterion, typical and random sampling were considered. However, for this study, purposive and convenience sampling was adopted. This method was followed to leverage existing networks within the higher education environment.

Berndt (2020), Casteel and Bridier (2021), and Gill (2020) contended that probability and non-probability sampling present different strengths and weaknesses. The selection involving one of these methods should depend on the study's nature and research intent to select the most appropriate sampling strategy. For this study, a non-probability sampling method was selected. This approach was selected as it more closely aligns with the research objectives of this study, as this study is a qualitative study with a smaller sample group and is intended to generate in-depth theoretical insights from the identified sample. According to Gill (2020), this approach best suits qualitative, exploratory studies aimed at understanding the research participants' lived experiences.

A combination of non-probability sampling techniques was used for this study based on accessibility to stakeholder groups. The selected stakeholder groups are as follows:

Table 1. Selected stakeholder groups, sampling technique adopted, and rationale for selection.

Name of the stakeholder group	Rationale for selection
Business schools	The South African Business School Association (SABSA) (2020) asserted that there are currently 20 registered business schools operating in South Africa that form part of their membership. A total of 15 business schools were approached to participate in this study, of which five agreed to participate. For the five business schools that agreed to participate, this study followed the relevant ethical committee approvals at each business school prior to conducting interviews. These five business schools provided a representative sample of the South African business school landscape. Of the five business schools that participated, all were accredited by the Department of Higher Education in South Africa, and all were members of SABSA. One business school was a privately owned institution, and the four others were part of public institutions. One of the business schools had triple crown accreditation, one had two international accreditations, two had one major international accreditation, and one did not have any international accreditation for their MBA at this stage. All four of the business schools (bar one) are in the process of pursuing triple crown accreditation. These business schools were also geographically representative, with one operating in the Western Cape, one in the Free State, and three in Gauteng. However, three business schools have regional satellite campuses across a few select major metropolitan hubs in South Africa. A **purposive and convenience sampling** method was adopted, and a

	total of five business schools were included in this study (15 business schools were approached and 5 agreed to participate). A criterion for the selection of business schools was based on valid membership with SABSA, registration with the Department of Higher Education, and business schools that are currently offering MBA programmes as well as for more than five years.
Academic leaders	**Purposive sampling** was used to select the *academic leaders* who formed part of this study. This method was selected as the sample of faculty was based on the researcher's judgement. The rationale for this was based on the selection of academic faculties that directly involve management or leadership of MBA programmes at business schools in South Africa. Purposive sampling was used to ensure that the most relevant individuals from this sample were considered for this stakeholder group. Two *academic leaders* from each participating business school were selected and included in this study. This resulted in a total of 10 interviews with *academic leaders*. The method used to identify interview participants was based on referrals from the deans or deputy vice-chancellors of each participating business school.
Current MBA students	This sample group was also selected through **convenience sampling**. Each business school partaking in this study was approached, and permission was sought to approach their *current MBA students* to explore their willingness and availability to partake in this study. This study attempted to interview two *current students* per business school partaking in this study or until data saturation was reached. This resulted in a total of 10 interviews with *current MBA students*. The *current students* participating in this study had to hold a valid registration with a business school and complete their MBA studies at a business school registered in South Africa. These individuals were also approached through referrals from *academic leaders* participating in this study.
Previous MBA students	A **snowball sampling** approach was used to identify *previous students* that enrolled and have completed an MBA at participating member business schools. It was anticipated that a total of ten students could be approached to partake in this study. It is further noted that the selection of *previous students* was based on the requirement that they have completed their MBA at a registered business school (one of the five business schools that participated in this study) in South Africa within the last 48 months. These individuals were also approached through referrals from *academic leaders* participating in this study.

Data collection

The primary method of data collection utilised for this study was through interviews. Bartholomew *et al*. (2021) contended that interviews are a valuable way of focusing on individual experiences and gathering insightful data from participants. This data collection procedure is often used in qualitative studies wherein an in-depth analysis is required to understand a particular phenomenon. Non-standardised one-on-one, face-to-face or virtual interviews were selected as the primary data collection mode for this study. DeJonckheere and Vaughn (2019) asserted that non-standardised interviews are often referred to as semi-structured, in-depth interviews. This type of interview method is useful in exploring participants' thoughts, feelings, experiences and emotions about a particular subject or area. Furthermore, this method allows researchers to gain a deeper insight into specific research objectives.

Data analysis

Several pertinent aspects were considered within data analysis, such as the data analysis approach, process, and procedures. These elements were explored independently to identify the most suitable approach to data analysis.

Table 2. Data analysis summary

Data analysis – approach	Data analysis – a process	Data analysis – procedures
Saunders *et al*. (2009) and Haradhan (2018) contended that the inductive and deductive approaches could be considered as the two primary data analysis approaches. Guthery (2010) proposed that the deductive approach is based on prior knowledge and often involves the testing of hypotheses. The inductive approach, in contrast, relies on the development of theoretical assumptions based on empirical observation. This study followed an inductive approach as it aimed to generate observations from the emergent data.	Several data analysis processes were considered. Saunders *et al.* (2009) listed the key qualitative analysis processes as summarising, categorising, or structuring data. The process adopted for this study was a combination of the summarising process. This study summarised the key findings of the data collected and identified prominent themes and topics related to the research objectives of this study.	Bryne (2017) proposed that the data analysis procedure involves characterising emergent data based on identified selection criteria. According to Flick (2013), technology has allowed for an effective interpretation and presentation of qualitative data, providing benefits in data analysis. To this end, computer-assisted qualitative data analysis software was utilised. Saunders *et al.* (2009) argued that data analysis through software could yield several advantages for researchers by enhancing efficiency, transparency, and rigour. Several software platforms were considered; however, the ATLAS.ti qualitative data analysis tool was used based on its reported functionality and positive customer reviews from similar studies.

Regarding Table 2, rich data was generated from the 30 interviews conducted. The analysis then followed an inductive approach with the assistance of ATLAS.ti to identify emergent themes from the data. This was done by grouping data sets according to stakeholder groups and individually analysing emergent trends and themes per stakeholder group as identified through the data analysis. The process followed involved gathering quotes (specific information of relevance identified in the interviews per interview question) from participants that aligned to a specific category or code. The codes identified the most relevant areas of concern per stakeholder group and were analysed individually per stakeholder group to prevent the data from being diluted across all stakeholder groups. The codes were then used to identify recurring themes that emerged from the data. This resulted in the identification of specific themes per stakeholder group. Upon review of the identified quotes and codes, a second and third round of analysis and thematic coding was done to ensure that all emergent themes from the data were captured.

The themes identified were then reviewed holistically and grouped into broader thematic areas per stakeholder group and across stakeholder groups. This process ensured that common themes across all stakeholder groups were identified, as well as pertinent themes per stakeholder group. This approach provided a holistic view of the emergent themes across the entire business school ecosystem.

FINDINGS

A total of thirty interviews were conducted across three primary stakeholder groups. These stakeholders' groups were as follows:

- Academic leaders – (A1 – A10)
- Current MBA students – (B1 – B10)
- Previous MBA students – (D1 – D10)

The interviewed participants were classified alphabetically and numerically per stakeholder group to differentiate the research findings per group.

The interviews were recorded, transcribed, and the data were coded using ATLAS.ti. This section presents the findings and emergent themes from the data analysis process. The research findings are presented thematically based on recurring themes per stakeholder group. To find the themes per stakeholder group, the transcripts were analysed using ATLAS.ti to code the data. This led to identifying quotes from interview participants (quotes refer to specific information relevant to the interview questions gathered from participants). Similar quotes were then grouped as codes (categories), and the codes were further amalgamated into themes. The themes and codes that were identified by means of the supporting information from the quotes are presented in this chapter.

Each stakeholder group was analysed independently to identify the critical elements of consideration per group and to avoid diluting the findings per stakeholder group.

Table 3 provides a tabulated summary of the research data results per stakeholder. The full report with all recorded quotes per stakeholder group is available upon request.

Table 3. Summary of data results

Stakeholder group	Length of audio recorded and transcribed pages	Number of quotes and codes	Codes	Main themes identified	Code alignment to identified themes
Academic leaders **Participants A1 to A10**	3 hours and 45 minutes, (average of 22,5 minutes per interview) 101 pages of transcribed interview recordings	370 quotes and 14 codes	Constraints and challenges of the MBA Focus of the MBA on entrepreneurial skills Focus of the MBA on work readiness skills Modules of current MBA Skills required for the 4th industrial revolution Ways to ensure MBA relevance Focus of the MBA on Soft Skills How is the MBA developing leaders fit for the future Role of a business school in the 4th industrial revolution Unique features of current MBA programmes Defining the 4th industrial revolution Focus of the MBA on technical skills Limiting factors to innovative ability Role of institutional leadership in the MBA	**Theme 1** – defining the 4th industrial revolution, the skills required, and the role of a business school – grouping of 3 codes **Theme 2** – current strengths and focus of South African business schools – grouping of 8 codes **Theme 3** – constraints and challenges of South African business schools in developing leaders fit for the changing world of work through the MBA programme – grouping of 3 codes	**Theme 1** Defining the 4th industrial revolution – 23 quotes Role of a business school in the 4th industrial revolution – 31 quotes Skills required for the 4th industrial revolution – 37 quotes **Theme 2** Ways to ensure MBA relevance – 28 quotes Focus of the MBA on entrepreneurial skills – 19 quotes Focus of MBA on soft skills – 26 quotes Focus of MBA on technical skills – 19 quotes Focus of MBA on work readiness skills – 22 quotes How is the MBA developing leaders fit for the future – 39 quotes Modules of current MBAs – 17 quotes Unique features of current MBA programmes – 45 quotes **Theme 3** Constraints and challenges of the MBA – 71 quotes Limiting factors to innovative ability – 26 quotes Role of institutional leadership in the MBA -14 quotes
Current MBA students **Participants B1 to B10**	3 hours and 53 minutes,(average of 23,3 minutes per interview) 94 pages of transcribed interview recordings	192 quotes and 12 codes were recorded	Constraints and challenges of the MBA Focus of the MBA on entrepreneurial skills Focus of the MBA on work readiness skills Skills required for the 4th industrial revolution Ways to enhance MBA relevance Focus of the MBA on soft skills How is the MBA developing leaders fit for the future Role of a business school in the 4th industrial revolution Defining the 4th industrial revolution Focus of the MBA on technical skills Relevance of the MBA Aspects missing from the MBA	**Theme 1** – defining the 4th industrial revolution, the skills required and the role of a business school – grouping of 3 codes. **Theme 2** – current focus, relevance, and impact of the MBA at South African business schools – grouping of 6 codes. **Theme 3** – constraints and challenges, ways to enhance relevance, and aspects missing from the current MBA curriculum – grouping of 3 codes.	**Theme 1** Defining the 4th industrial revolution – 11 quotes Role of a business school in the 4th industrial revolution – 16 quotes Skills required for the 4th industrial revolution – 23 quotes **Theme 2** Focus on entrepreneurial skills – 12 quotes Focus on soft skills – 12 quotes Focus on technical skills – 14 quotes Focus on work readiness skills – 14 quotes How is the MBA developing leaders fit for the future – 28 quotes Relevance of the MBA – 14 quotes **Theme 3** Constraints and challenges of the MBA – 22 quotes Ways to enhance MBA relevance – 13 quotes Aspects missing from the MBA – 16 quotes

Previous students **Participants D1 to D10**	3 hours and 24 minutes (average of 20,4 minutes, per interview) 82 pages of transcribed interview recordings	149 quotes and 12 codes	Constraints and challenges of the MBA Ways to enhance MBA relevance Defining the 4th industrial revolution Focus on entrepreneurial skills Focus on soft skills Focus on technical skills Focus on work readiness skills How is the MBA developing leaders fit for the future Relevance of the MBA Role of a business school in the 4th industrial revolution Skills required for the 4th industrial revolution Aspects missing from the MBA	**Theme 1** – defining the 4th industrial revolution, the skills required and the role of a business school – grouping of 3 codes. **Theme 2** – current focus of the MBA – grouping of 7 codes. **Theme 3** – constraints, challenges, and ways to enhance the relevance of South African business school MBA programmes – grouping of 4 codes.	**Theme 1** Defining the 4th industrial revolution – 10 quotes Role of a business school in the 4th industrial revolution – 12 quotes Skills required for the 4th industrial revolution – 12 quotes **Theme 2** Focus on entrepreneurial skills – 10 quotes Focus on soft skills – 11 quotes Focus on technical skills – 10 quotes Focus on work readiness skills – 12 quotes Relevance of the MBA – 14 quotes Ways to enhance MBA relevance – 11 quotes **Theme 3** Constraints and challenges of the MBA – 14 quotes Ways to enhance MBA relevance – 11 quotes How is the MBA developing leaders fit for the future – 23 quotes Aspects missing from the MBA – 13 quotes

A total of three stakeholder groups were interviewed. These interviews were analysed separately according to their stakeholder groups using ATLAS.ti scientific qualitative analysis software. This software assisted in reviewing all interviews and grouping emerging codes and themes per stakeholder group. The themes with a sample of findings per stakeholder group per theme were shared in this section. The themes provided rich insight into the opinions of stakeholder groups concerning the relevance of South African business schools in developing leaders fit for the 4th industrial revolution through programmes such as the MBA. The next section analyses the findings shared above in alignment with the literature to assess the relevance of South African MBA programmes in relation to the 4th industrial revolution.

DISCUSSION

The focus of this chapter aligned with the emergent themes of stakeholder groups and was discussed across stakeholder groups under the following common themes:

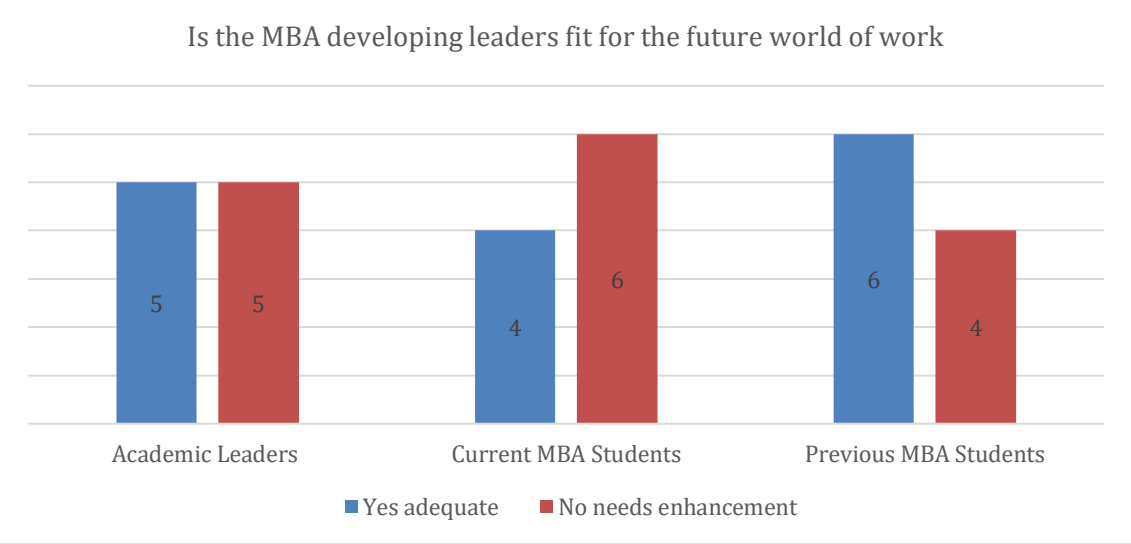
- Is the MBA offered by South African business schools currently developing leaders fit for the 4th industrial revolution?
- Key constraints and challenges to South African business schools.

These themes were explored individually, and the findings were presented per theme with managerial recommendations.

Efficacy of the MBA in developing leaders fit for the 4th industrial revolution

The research and interview findings suggest that the role of a business school is to develop leaders capable of dealing with the changes ushered in by the 4th industrial revolution. Researchers such as Nakavachara (2020) and Tan and Ko (2019) have previously criticised the MBA as irrelevant to the current and future world of work. This is largely due to the focus of the MBA still being anchored in traditional skills and not adequately preparing leaders for the 21st-century working world. To explore a modern variation of this question in relation to the 4th industrial revolution, this question was presented to all 30 interview participants across all stakeholder groups (Academic Leaders, Current MBA Students and Previous MBA Students). This was done to provide a holistic view of this question across the business school ecosystem. The consolidated findings from the interviews are presented in Figure 2

Figure 2. Is the MBA developing leaders fit for the future world of work – interview responses



As witnessed in Figure 2, the majority of respondents interviewed believed that the MBA currently offered by South African Business Schools requires further enhancement

Academic Leaders sample of interview Responses

A total of five out of the ten academic leaders believed that their MBA was better-equipping leaders fit for the future world of work. The primary way this was achieved was by providing deeper insight into knowledge areas that better prepare leaders for the changing world of work. Participant A5 from the Academic Leaders stakeholder group shared the following response to a question:

"So there's a cross-cutting theme that relates to digital transformation. We have, therefore, updated a lot of the material that we offer on the courses and made sure that we're bringing in the digital transformation element into all our subjects" – Participant A5.

Adversely, the remaining five believed that whilst they are developing leaders fit for the changing world of work, some gaps need to be addressed. Participant A9 shared the following:

"I'd like to disclaim that I don't think that the MBA is adapting as fast as the rate of change we are developing leaders in a business area or business aspect. But, as it relates specifically to the 4th industrial revolution, there is a gap there" – Participant A9.

Half of the Academic leaders interviewed believed they were not doing enough to address the apparent gaps in the MBA curriculum regarding the 4th industrial revolution.

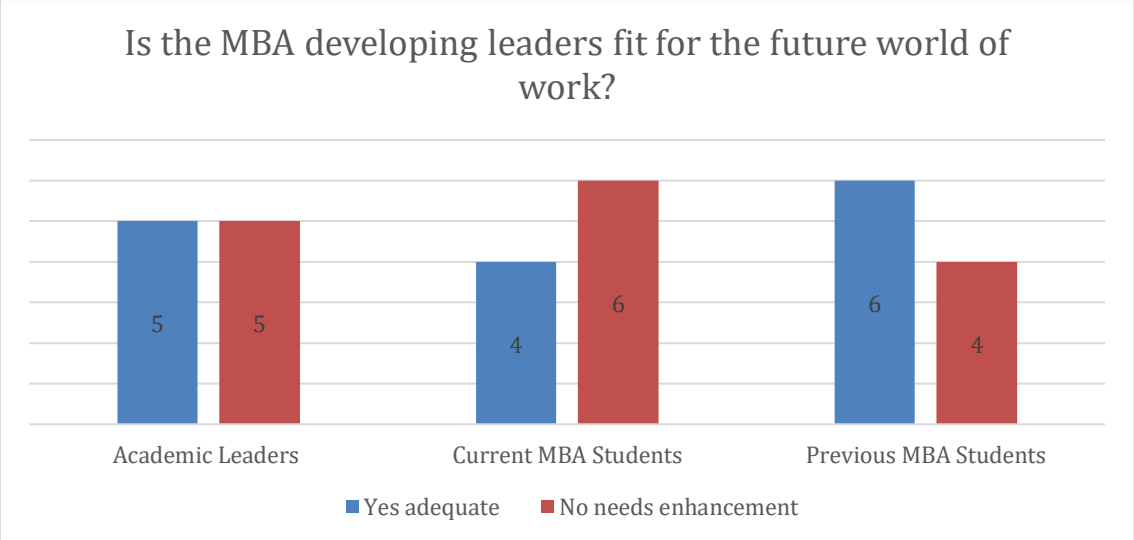
Current MBA student sample of interview responses

There was divided opinion on whether the MBA is developing leaders fit for the changing world of work by current MBA students. More than half of all current MBA students interviewees felt that the MBA needs further enhancement to equip them to deal with changes ushered in by the 4th industrial revolution. In contrast, some of the interviewees believed it is adequately preparing them to deal with the 4th industrial revolution.

The majority of the findings on whether the MBA is developing leaders fit for the changing world of work were related to positively influencing and changing students' mindsets. Participant B1 of the Current MBA Students shared the following:

"Basically, it is giving you the 'ability' to change with the changes, what the impact is and how to react to the impact, and what to expect. What would be the consequences if you had to change, and how do you take those consequences into effect when you make those decisions?" – Participant B1.

Figure 3. Is the MBA developing leaders fit for the future world of work – interview responses



Other students relayed that the MBA could have done more to prepare them for changes in the future world of work. This could have been achieved through a great infusion of technology and aspects related to the 4th industrial revolution in the MBA curriculum.

Participant B6 shared a similar view:

"Quite honestly, I would say that the MBA hasn't equipped me in this fashion at all. And it is a small gripe that I have, but I honestly would say that the focus on digital, and you know, we don't have to go into a module around data science as an example, but we need to understand the role that data analysts, data scientists, artificial intelligence, and roles of those sort of elements in business, how do they affect decision-making? How do they affect workforce management? How do they affect operations in a production sort of industry or organisation? And for me, those boxes weren't ticked off. It was very, very traditional. And, ja, in my view, it does need some kind of reinvigoration and rethink around the leaders that we are producing for tomorrow" – Participant B6.

It is evident that there are mixed views as to whether the MBA is preparing leaders equipped to deal with the changes in the future world of work.

Previous MBA students sample of interview responses

Six out of the ten previous MBA student interviewees confidently expressed that the MBA better equipped them to deal with possible changes in the future world of work. However, it was evident that this was through providing students with more holistic business skills and abilities, such as emotional intelligence, which assisted them in managing change. Participant D4 from the previous MBA students stakeholder group shared the following:

"But, to be honest, I think first of all it made me to understand, you know, what you call a 'business landscape,' both micro and macro in terms of where we play as a country within the bigger scheme of it, different economies" – Participant D4.

The students who were not confident that the MBA better equipped them to deal with the changes of the future world of work, expressed that certain aspects, such as a focus on digital skills, were missing. Participant D1 shared the following:

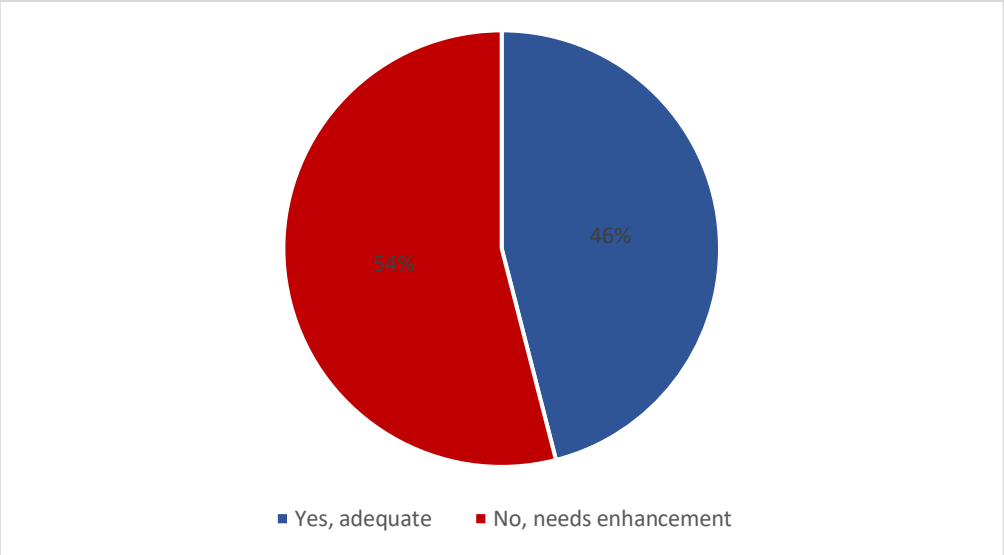
"Okay, so I think what could have contributed to better-equipping one as a leader within a space where the 4th industrial revolution is prominent was the 'relevance' of the information which was shared and the business cases which were discussed and analysed. I think a lot of them were focused on the 'transitioning' of businesses from operating in a historical model to a more modern model, and how you navigate through the challenges of 'growing' a business" – Participant D1.

In summation, most previous MBA student interviewees stated that the MBA better equipped them to deal with possible changes in the future world of work.

Summary of interview responses across three stakeholder groups (Academic leaders, current MBA students, previous MBA students)

Figure 4 below provides a summary of responses from the three stakeholder groups interviewed regarding the ability of the current MBA offered in South Africa across a sample of business schools, in developing leaders fit for the future world of work.

Figure 4 Summary of all responses collected regarding developing leaders fit for the future world of work

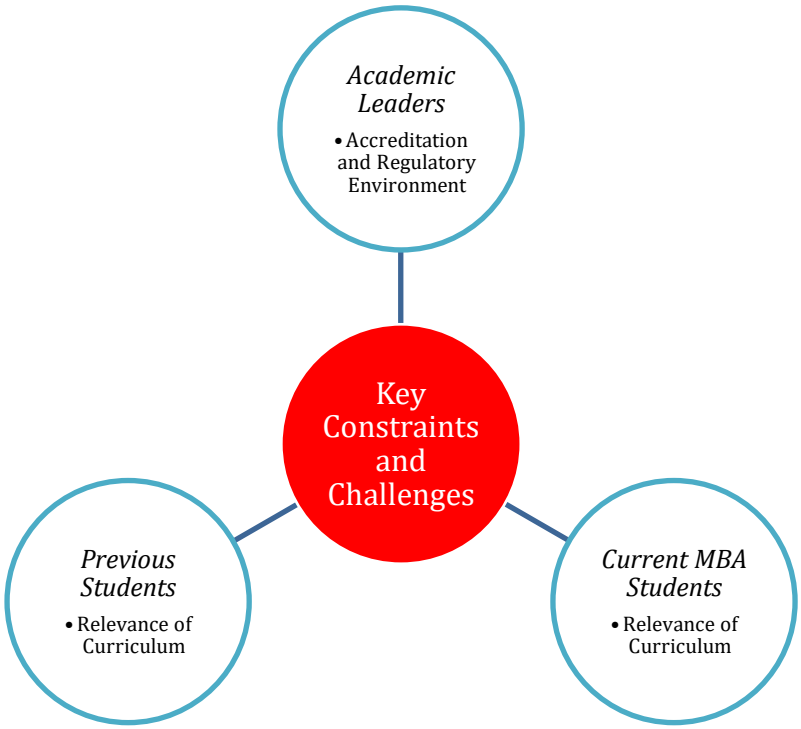


Upon reviewing all responses across all three stakeholder groups interviewed in Figure 4, it was evident that the majority of interviewees believed the MBA is currently not adequately developing leaders fit for the future world of work. This creates a discrepancy between the literature and interviews, suggesting that a business school's role in the 4th industrial revolution is to equip, empower, and develop leaders capable of dealing with the challenges and complexity of this era and the future world of work. This finding responds to the primary research objective of this study. It suggests that whilst there is value in the current focus of South African business schools, they are also not adequately equipping leaders with the skills required for the 4th industrial revolution.

Challenges and constraints of South African business schools

Tan and Ko (2019) contended that the MBA had been significantly criticised for its lack of relevance concerning developing leaders fit for the future world of work. To understand some of the most pressing constraints and challenges for business schools in South Africa, all three stakeholder groups were asked the question regarding key constraints and challenges facing business schools today. The results varied according to the priorities of the stakeholder group. However, they provided rich insight into the aspects that business schools need to focus on to enhance their relevance and increase their potential impact. The analysis of the findings is shared next.

Figure 5 Key constraints and challenges of South African business schools



According to academic leaders, the most significant constraint and challenge to South African business schools are associated with lengthy, cumbersome, and outdated accreditation and regulatory policies. All the academic leader interviewees shared this common theme and frustration. It was understood that the current regulatory environment in South Africa for higher education qualifications negates and limits South African Institutions' innovative ability. This is due to lengthy approval, bureaucratic and prohibitive regulations. Stakeholders shared that those fundamental changes to the existing curriculum required external approval from the Department of Higher Education. This process takes up to 3 years to be approved. By the time changes were approved, the suggested changes were no longer relevant or viable. Lin et al. (2018) asserted that the skills required for the 4th industrial revolution drastically differed from those required in previous revolutions. Thus, there is a need for continuous enhancement of skills to remain relevant. McGuigan and Ghio (2020) similarly contended that the world of work is becoming increasingly complex, and the advent of the Covid-19 pandemic has necessitated a mind shift for leaders regarding a new digital world of work. Soni (2020) added that the role of a business school in the 4th industrial revolution is to create competent and well-versed leaders in the forces driving business.

According to findings from academic leaders, the inability to ensure relevance to the 4th industrial revolution and the current changes in the world of work is due to factors beyond their control, such as a cumbersome regulatory environment to which they are subjected. This key constraint and challenge have cascaded to other stakeholders in the business school environment, such as current MBA students, industry representatives and previous students. These stakeholders believe the major constraint and challenge of a business school in the 4th industrial revolution is the relevance of the curriculum.

The literature reviewed suggests that new skills are required for the world of work. Similarly, all stakeholder groups interviewed believe that new skills are required for the world of work. The interviews with academic leaders identified that a limited percentage of changes could be made without reaccreditation. In the interviews with the academic leader's stakeholder group, it was identified that the primary method for business schools to enhance their relevance in the 4th industrial revolution is to review and update their curricula. However, in the interviews with academic leaders, it was determined that this is still perceived as a limiting factor as often the changes required are more than the allowable percentage by the regulatory environment.

Nexus of relevance for South African business schools

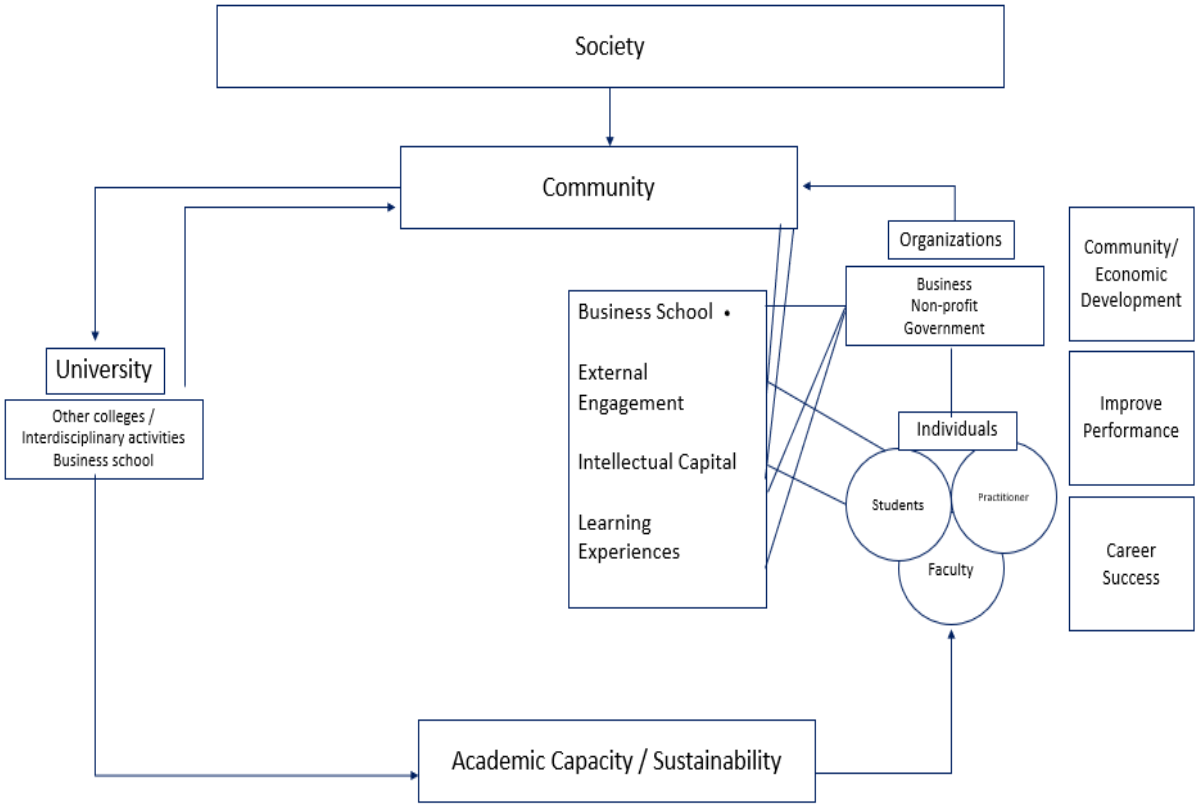
One of the key objectives of this study was the development of a framework that would allow South African business schools to assess the relevance of programs such as the MBA. Upon analysis of the literature and interview data, pertinent themes emerged that could add to this study's existing theoretical substantiation and lead to forming a framework for South African business school relevance.

According to Pfeffermann (2016), the most critical aspects required for a business school in the developing world to succeed are to include visionary leadership, integration with the business community, independence to innovate, strong partnerships, and clarity of vision. Within the South African business school context, it is clear that business schools do not have the independence and ability to innovate. Therefore, they are not aligned with the model suggested by Pfeffermann (2016).

Furthermore, it emerged through the interviews that integration and alignment of priorities with other key stakeholders is an element that could complement the model from Pfeffermann (2016). It was found through the interviews that, in addition to the business community, previous students, academic leaders, and current students can provide valuable insight to business schools to enhance their role and relevance in the current world of work. This could be in the form of providing deep insight into the relevance of the curriculum, the skills currently required, and the business school's current effectiveness. This insight and feedback should be gathered continuously to ensure that business schools are relevant to their current stakeholders and, if not, what changes need to be implemented to enhance relevance.

Similarly, the AACSB (2010) developed a theoretical framework for innovation within the business school environment, as depicted in Figure 6.

Figure 6 AACSB innovation for business schools



The AACSB (2010) provided a sound model for the innovation process within the business school environment. This process engages the insight and opinions of individuals, organisations, and the university to provide learning experiences, intellectual capital, and external engagement contextually relevant to stakeholders. A significant finding from the interviews with stakeholder groups is the critical role that accreditation and regulatory bodies play within the South African business school environment. These bodies are imperative to the role of innovation and relevance to South African business schools and have been cited as a major barrier to curriculum innovation at business schools. This study's findings have identified that if business schools were to ensure the relevance of their curriculum to the changes brought about by the 4th industrial revolution, they would need to identify ways to overcome existing challenges with the current accreditation processes. Currently, the accreditation and regulatory processes in South Africa limit the innovative ability of business schools adversely. The accreditation and regulatory environment in South Africa also has an opportunity to promote innovative ability in business schools. This consideration has not been taken into consideration in the AACSB (2010) model; therefore, this study recommends a revised framework that incorporates the key aspects of the Pfeffermann (2016) model with the addition of other critical stakeholders and the incorporation of the AACSB (2010) model with the addition of the regulatory environment. This revised framework is based on the findings that South African

business schools need to function at the nexus of government, industry, and society to ensure and enhance the appropriateness of MBA programmes.

Based on the study and literature findings, a revised framework for business school relevance is presented in Figure 7.

Figure 7 Nexus of relevance for South African business schools

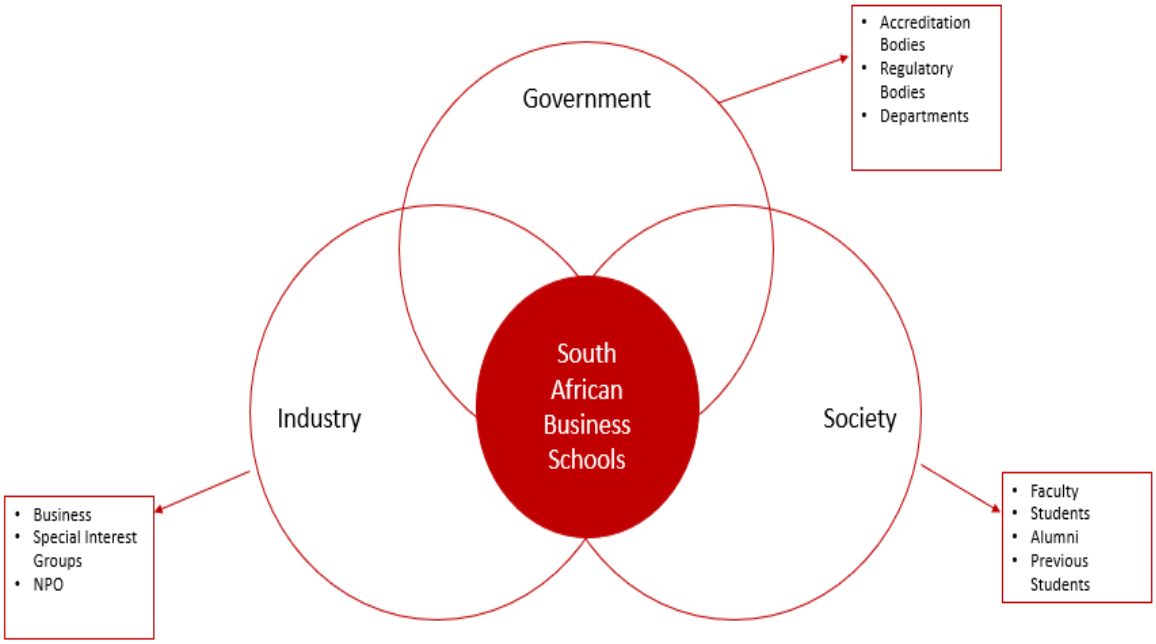


Figure 7 provides a nexus of relevance for South African business schools by incorporating the business school relevance model of Pfeffermann (2016) and the model of business school innovation by AACSB (2010). This revised framework further complements these two existing models by amalgamation and by including missing considerations, such as other critical stakeholders related to the relevance of business schools. Stakeholders such as current faculty, current students, and previous students provide critical insight into the current efficacy of South African business schools. Their opinions must be gathered and incorporated into ways to enhance and improve current offerings. Similarly, government bodies such as accreditation bodies are also considered critical stakeholders in the success of a business school.

This model suggests that for a business school to remain relevant in the current and future world of work, all these constituents must gain insight into the current curriculum, relevance, and opportunities. If business schools attempt to gather feedback and insight from industry and society to enhance their relevance without effectively including and lobbying the government and the regulatory bodies to provide an enabling environment for innovation, they will retain challenges (e.g., lacking relevance).

Similarly, if business schools lobby and advocate for changes in the curriculum without consulting the industry and society, their updated and revised curriculum will not be aligned with the needs of current stakeholders, thus making this activity moot. Business schools in the South African environment need to function at the

nexus of government, industry, and society to adequately equip leaders capable of leading and succeeding in times of change and uncertainty, such as the Covid-19 pandemic and the 4th industrial revolution. Functioning at the nexus of government, industry, and society will ensure relevance and provide deeper insight and functional recommendations to gatekeepers such as accreditation bodies regarding the restrictive role they currently play in developing leaders fit for the future world of work. Including government and regulatory bodies in discussions and conversations about the relevance and efficacy of current systems will provide an opportunity for evidence-based policy recommendations. These policy recommendations may alter the existing status quo and result in South African business schools that can adapt to the industry's changing needs and requirements. The nexus of relevance framework suggests that the optimal business school functions at the intersection of industry, government, and society.

LIMITATIONS AND FUTURE RESEARCH

Two primary limitations were identified in this study, the first being the sample size. This study involved a qualitative approach to identifying lived experiences of current and past business school stakeholders and focused on five participating business schools. This approach yielded rich results; however, there could be value in approaching this study from a quantitative perspective or mixed methods approach, thus, increasing the potential sample size of the participating population both from an institutional and a stakeholder perspective. This will allow the study to gain better insight into the skills required for the 4th industrial revolution by a large segment of the population related to a business school, as well as provide statistical inferences regarding the efficacy of the business school model.

The second limitation identified for this study was its geographical focus. This study focused purely on the South African business school environment. This could be noted as a limitation as there may be value in expanding the study to other African regions and contrasting findings per region/country. This would provide valuable insight into the different permutations of the business school environment in the 4th industrial revolution based on geographical and/or other contextual conditions. Lastly, future research related to this field could include a review of regulatory environments across Africa to determine which model best aligns with the changing skill requirements of the industry. This would serve as a benchmark of best practice for regulatory bodies worldwide.

CONCLUSIONS

The business environment is changing rapidly due to external factors such as the Covid-19 pandemic, global political instability and the advancement of technology ushered by the 4th industrial revolution. Business schools have a strategic role in developing leaders that can respond to the changing business landscape to achieve business success. Programmes such as the MBA are considered flagship business offerings for executives and leaders to enhance their abilities and capabilities. Based on the literature and interviews conducted, this study found that there is significant perceived value in the current MBA

offered by South African business schools. However, there are critical gaps in the approach adopted. This includes a lack of perceived relevance in relation to the changing world of work. Interviews with key stakeholders identified some of the causal factors that have led to perceived relevance, including prohibitive regulatory systems and alignment of relevance with key stakeholders. This study suggested a revised framework for business school relevancy which functions at the intersection of industry, government and society. This framework will assist business schools in identifying the focus areas for curriculum changes based on stakeholder feedback. It will assist in lobbying efforts for policy change by motivating a less restrictive programme accreditation process based on industry changes.

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