Challenges faced by SMMEs operating in the ocean economy in KwaZulu-Natal province: A quantitative study

Authors:
Bheka C. Zulu[1]
Bonginkosi W. Zondi[1]
Tony Ngwenya[1]

Affiliations:
[1]Graduate School of Business and Leadership, College of Law and Management Studies, University of KwaZulu-Natal, Westville, South Africa

Corresponding author:
Bheka Zulu,
zulubheka@gmail.com

Background: The general state of entrepreneurship reveals that despite the efforts of the South African government to stimulate entrepreneurship through a policy framework, many small, medium and micro-enterprises (SMMEs) remain unsustainable. Small, medium and micro-enterprises in the country continue to experience a high failure rate of almost 70% – 80% within the first 5 years of operation. Policy makers have attempted to advance local economic development through entrepreneurship as a key economic development driver, without success. A significant gap exists in relation to knowledge about and challenges facing SMMEs in the ocean economy.

Aim: This study on which this article is based, sought to expand the existing body of knowledge, by examining the challenges faced by SMMEs within the ocean economy in the KwaZulu-Natal province and explore the concept of ocean economy within the South African context.

Setting: This study focuses on SMMEs in the KwaZulu-Natal Province.

Methods: The study followed a quantitative research design, with self-administered questionnaires being used to collect data from SMMEs in the ocean economy in KwaZulu-Natal province.

Results: Findings of the study reveal that SMMEs operating within the ocean economy encounter various challenges that impend them from being successful in conducting business in their specific areas. The findings reveal that SMMEs in the ocean economy are faced with challenges such as stringent government regulation and labour laws, a lack of start-up capital, a lack of managerial experience and skills, insufficient incentives and support to access to finance and competitive business environment.

Conclusion: The findings indicate future potential for SMMEs in the ocean economy, based on their ability to grow, overcome challenges and sustain their businesses; however, this may be dependent on the implementation of sustainable economic policy framework. In addressing the challenges facing SMMEs in the ocean economy, continued initiatives should be undertaken to promote increased entrepreneurial and productive activities.

Contribution: The study contributes to broadening understanding on the challenges faced by SMMEs within the ocean economy in KwaZulu-Natal Province.

Keywords: ocean economy; maritime economy; SMMEs; KwaZulu-Natal province; entrepreneurship; blue economy.

Introduction

The Ocean Economy, also referred to as the Blue Economy has gained global prominence in both developed and developing countries (OECD 2016). The World Bank (2017) regards the blue economy as a sustainable economic development business model with significant opportunities in the maritime sectors in the sea and shipping activities. In his book '10 years, 100 innovations, 100 million jobs' Pauli (2011) ascertains that the ocean economy business model aims to produce 100 innovations and 100 million jobs globally within 10 years, through using locally available resources from scarcity to abundance. The blue economy concept is understood as comprising the range of economic sectors and related policies that together determine whether the use of oceanic resources is sustainable (World Bank 2017). According to the UNEP (2015) the ocean economy concept encompasses environmental and social dimension of the ocean, requiring a paradigm shift that acknowldeges and values all ocean benefits. The environmentally sustainable economic growth based on the oceans is a strategy of sustaining economic growth and job creation necessary to reduce poverty in the face of worsening resource constraints and climate crisis (World Bank 2017).

Martínez-Vázquez, Milán-García, De Pablo Valenciano (2021) and Spamer (2015) ascertain that ocean economy has been defined in various ways, and similar terms such as blue growth (BG), marine economy (ME), ocean economy were all used as alternatives. Okafor-Yarwood et al. (2020:1) examine multiple definitions of BE using global case studies and summarise it as a 'macro-economy' concept that encompasses 'every aspect of national and global governance, economic development, environmental protection and sustainability and international communication'. The blue economy thus has not only diverse components, including established traditional ocean industries such as fisheries, tourism and maritime transport but also new and emerging activities, such as offshore renewable energy, aquaculture, seabed extractive activities and marine biotechnology and bioprospecting (World Bank 2017). The terms blue economy and ocean economy are used interchangeably in this study hereafter.

The blue economy concept is still new. The concept gained popularity after being used in the Rio de Janeiro National Conference on Sustainable Development in June 2012 (United Nations Conference on Trade and Development [UNCTAD] 2014). The blue economy contributes to environmental, economic and social gain and is viewed as a model for development. The blue economy identifies the requirement to increase the vast economic prospect of the oceans in the world and the desire to maintain vital natural resources.

The blue economy is clearly defined as a feasible ocean economy, evidenced by the ocean ecosystem's lasting resilience and well-being balanced by the economic benefits (Economist Intelligence Unit 2015). The blue economy is considered a combination of feasible development, focusing on synchronising and organising development between the ocean and the ocean ecosystem, promoting development in the coastal regions (World Bank 2017). The blue economy is a macroeconomic concept, which comprises environmental preservation, globalisation and economic growth (Wenhai et al. 2019). The concept of a blue economy aims to encourage economic development, social involvement, improved welfare and environmental preservation (Wenhai et al. 2019). The principal notion refers promotion of socio-economic growth through marine sectors and the sustainability of the environment (UNEP 2015). Therefore, the ocean economy includes trade and economic activities that incorporate protection and the justifiable administration of ocean resources, including genetic assets as well as ecosystem of maritime according to the social-economic affairs department of The World Bank (2017). The blue economy aims to reduce negative environmental consequences of ocean economies such as acidification of the sea water (UNEP 2015).

The blue economy's potential impact on developing countries' economies has gained recognition from policymakers and the public (Lee, Noh & Khim 2020; UNECA 2016; UNEP 2015; Wenhai et al. 2019). According to Voyer et al. (2018), there are different interpretations of the blue economy; hence it is still flexible and blurred. According to Eikeset et al. (2018), the phrase 'blue economy' is used in a variety of ways throughout the world, and the most generally used phrases is in marine and sea industrial activities, the maritime sector and maritime economy. According to Silver et al. (2015), no specific definition is recognised globally. The World Bank (2017) regards the blue economy or ME as still budding and yet to have a clear definition from an operative view.

The Africa's Decade of Seas and Oceans by the African Union (AU) has declared the period 2015–2025 as (AU 2016). This also happens to be the Decade of Women's Empowerment under Agenda 2063. In addition, the AU's agenda 2063 and the AU's 2050 Africa Integrated Maritime Strategy (AIMS) 2050 is geared towards encouraging African governments or countries to create sustainable blue economies through the coordination of sustainable maritime industries such as marine resource extraction, fishing and shipping activities (AU 2016). The AIMS 2050 regards the blue economy as the new frontier of the African Renaissance and aims to create sustainable economic development through the promotion of sustainable and inclusive growth of the maritime sector and through the sustainable use of the ocean and maritime industries (AU 2016). For the African continent, the blue economy strategy aims to contribute to the transformation and growth of the continent through the growth of the Africa-wide shipping industry.

Literature review
The maritime sector in South Africa

The maritime sector comprises individual ports, shipping, maritime and marine business services industries, consisting of various activities. Africa is a maritime continent with almost 90% of its trade transported by sea. The continent consists of a coastline of 47 000 km spanning over 38 coastal and island governments (Okafor-Yarwood et al. 2020). The maritime sector is the lifeblood of the continent, with significant opportunities for economic development. Despite this significance, Africa's contribution to global trade remains a small percentage. Meriton (2019) contends that the continent can still pursue its economic potential through shipping and ports, to achieve its economic growth goals. In the African context, the sustainability blue ocean economy remains of strategic significance to the realisation of the AU agenda 2063 and related projects such as the African Continental Free Trade Area (AFCFTA) whose focus is on enhancing and accelerating the continent's positioning within the global sector. Furthermore, the Continent's blue economy strategy aims to advance the continent's economic development (AU 2016).

Within the South African context, South Africa is a maritime nation with maritime interests spanning over 3000-km coastline along the Atlantic, Indian and Southern Oceans with exclusive economic zone (EEZ) jurisdiction of 1.5 million km^2 of ocean space (Funke et al. 2016; SAMSA 2013; Walker 2018). The South African maritime trade accounts for 3.5% of world sea trade and the maritime sector is

responsible for moving 80% of trade through the country's oceans (Funke et al. 2016; SAMSA 2013; Walker 2018). With this sizeable contribution, the maritime sector has an opportunity to ramp up its contribution to economic growth by sustainably leveraging its rich marine resources to boost the country's economic development (Funke et al. 2016; SAMSA 2013; Walker 2018). Despite the significance of the maritime sector in the country, the sector remains underdeveloped, under-resourced and fragmented, operating in a virtual vacuum since democratic dispensation in 1994 (South Africa Maritime sector Conference [SAMIC] 2012). The sector's deficiencies impede the sector's ability to contribute meaningfully to sustainable economic development (SAMIC 2012).

To address the identified deficiencies, in July 2014, the South African government launched Operation Phakisa as a 'fast results' delivery programme that aimed to help the government in implementing the National Development Plan (NDP), with the end goal of boosting economic growth and creating jobs. Operation Phakisa being a cross-sector programme, focused on strengthening the ocean economy's potential, wherein various key stakeholders would engage to implement initiatives and concrete actions aimed at addressing constraints to service delivery in prioritised focused areas for public accountability and transparency. Operation Phakisa aimed to create an environment conducive to the creation of entrepreneurial opportunities in the transport sub-sector and encourage sustainable entrepreneurship. Thus, the maritime sector has been touted as a high-impact sector with the potential to alleviate the country's socio-economic challenges. The small, medium and micro-enterprises (SMMEs) have been identified as crucial to the sector's ocean economy strategies (SAMIC 2012).

The government had the goal of creating employment and enhancing economic growth. Operation Phakisa strategy is connected in a detailed manner to the NDP 2030 and the achievement of an International Maritime Centre (IMC) status by 2030 (Findlay & Bohler-Muller 2018; Walker 2018). Operation Phakisa focuses on multiple first concern maritime niches such as services of marine protection and aquaculture, ocean governance, manufacturing and marine transport. The top concern development niches also described as the four sectors were selected to be the following: aquaculture, marine transport and manufacturing (MTM), marine protection and governance (MPG) and oil and gas (O&G) (Findlay & Bohler-Muller 2018). Studies by Walker (2018) and Department of Environmental Affairs (DEA 2019a) forecast that in the long term, around 2023, there would be a gross domestic product (GDP) of between R129 billion and R177bn, with a million jobs newly created (2018). From when Operation Phakisa was established, the ocean economy has managed to pull investments worth $2billion from government and private sectors put together (DEA 2019a; Walker 2018). The majority of the latest investments have been in ports' infrastructure, manufacturing sector such as the building of boats and yachts, aquaculture and oil and gas sector (DEA 2019a; Walker 2018). Findlay and Bohler-Muller's (2018) studies show that

Operation Phakisa has notably created not less than 437 694 jobs across the ocean economy with 6637 direct jobs.

Operation Phakisa aimed to create an environment conducive to the creation of entrepreneurial opportunities in the transport sub-sector and sustainable entrepreneurship. The sector has been touted as a high-impact sector with the potential to alleviate the country's socio-economic challenges. The SMMEs have been identified as crucial to the sector's ocean economy strategies (SAMIC 2012).

The contribution of small, medium and micro-enterprises to the economy

Studies indicate that the SMMEs contribution increases the country's economic growth and serves as a propeller for innovation and entrepreneurship growth (Bvuma & Marnewick 2020; Lose et al. 2016; Rungani & Potgieter 2018). Almost 90% of all businesses operating in South Africa are regarded as SMMEs and they account for approximately 80% of all employment in the economy and more than 50% of South Africa's GDP (Petersen, Bruwer & Mason 2020). Ndou (2014) observes that the South African government has acknowledged the importance of SMMEs to the South African economy. Bhorat et al. (2018) indicate that successful formation, market entry and growth of SMMEs have been identified by the government as a potentially sustainable solution for the elimination of poverty and the reduction of inequality through the creation of employment opportunities. Entrepreneurs are an essential source of job creation with long-term positive externalities realised through increased employment growth rates and incomes earned.

Numerous policy proposals, like the NDP, have been initiated by the government. By 2030, the NDP wants to boost GDP by 5.4% and expand employment between 13 and 24 million through generating 11 million new jobs as per DSBD (Department of Small Business Development 2017). According to the Small Business Project (2014), SMME sector in the country continues to experience a difficult environment and a high failure rate. Based on the Small Business Institute (SBI 2020), estimate, the SMMEs in the country are not growing fast enough to meet the envisaged NDP targets and would have to grow at a rate of at least 20% a year to achieve the NDP goals. The systemic and continued failure rate of SMMEs has an adverse effect in the short as well as long-run economic situation. From these studies, it is concluded that the government of South Africa takes enormous strides and initiatives to support the creation and sustainability of country the SMME sector.

The high failure rate is attributed to challenges such as a lack of efficient support structures, levels of business-related skills, creativity and innovation. In addition, regulatory constraints have been cited to pose serious challenges and an excessive burden for SMMEs' development in the country; the high startup costs, including registration and licensing requirements (Ajibade & Khayundi 2017). Masocha et al. (2017) identify additional challenges facing SMMEs as including corruption,

poor infrastructure, inaccessible international markets and inaccessible equipment.

Zondi (2017) identifies a lack of institutional support as some of the challenges SMMEs must contend with in the country. Zondi (2017) illustrates that the main challenge facing SMMEs to compete against established businesses is because of inaccessible finance and the absence of management skills. The SMME landscape in South Africa is hostile and uncompetitive with stringent government regulations and requirements. According to Ajibade and Khayundi (2017), legal and regulatory requirements are challenges that SMMEs are facing, as entrepreneurs often lack understanding of the regulations and requirements, which could result in fines and penalties. Zondi (2017) observes that the lack of support services negatively impacts entrepreneurs' ability to improve their management expertise. Moreover, a gap of skills still exists in the sector, despite the existence of various institutions that provide training, support and advisory services to SMMEs. This is because of the inability of entrepreneurs to raise funds for the training costs and the inability to afford to upgrade their skills. They are also challenged in acquiring the correct information and accessing appropriate technologies. Zondi (2017) observes that SMMEs either share ownership of technology among themselves or utilise foreign technology. Mutula and Van Brakel (2007) point out that factors such as load-shedding in urban areas and a lack of electricity mainly in rustic areas impede the continuation of use of the internet by SMMEs. Small, medium and micro-enterprises in the maritime sector are further constrained by limited access to communication types of machinery such as fax machines and mobile phones, which limit entrepreneurs' access to international markets information.

Problem background

Operation Phakisa aimed to create an environment conducive to the creation of entrepreneurial opportunities in the ocean economy and promote sustainable entrepreneurship. The sector has been touted as a high-impact sector with the potential to alleviate the country's socio-economic challenges. The SMMEs have been identified as crucial to the sector's ocean economy strategies (SAMIC 2012).

However, SMMEs in the maritime sector and ocean economy in KwaZulu-Natal in particular, face additional challenges, which have been identified as regulatory red tape, inaccessible adequate finance, inadequate institutional aid and inadequate infrastructure (Chikwati 2018). In addition, there are sectoral challenges such as lack of transformation that has remained as the single major challenge across the maritime and transport sector, including unfair Broad-Based Black Economic Empowerment (BBBEE) Act practices that lead to low BBBEE contribution levels; a lack of funding to assist transport-related businesses; a lack of managerial capabilities and skills and a lack of funding by cooperatives, women and youth-owned companies (Chikwati 2018).

In addition, information and knowledge about the ocean and its economic, social and environmental value are missing or inadequate (Sumaila et al. 2020). Small-, medium- and micro-enterprises in the ocean economy seem to be constrained, and a need therefore arises to investigate why there is such a constraint. The available literature does not provide an answer to this question especially with regard to the ocean economy in KwaZulu-Natal and in Durban in particular. This study aims to address this gap.

Research purpose and objectives

The general state of entrepreneurship reveals that despite the efforts of the South African government to stimulate entrepreneurship through a policy framework, many SMMEs remain unsustainable. The SMMEs in the country continue to experience a high failure rate of almost 70% – 80% within the first 5 years of operation (Fatoki 2014). This reflects that the country as having the highest SMME failure rate in the world. In addition, South Africa has low entrepreneurial intentions with few people with intentions to start a business. Such poor survival patterns have been documented by the Global Entrepreneurship Monitor Report (2020). South Africa's entrepreneurial ecosystem was rated as one of the most challenging in the sample of participating economies and has exhibited little sign of improvement over the past few years. Additionally, South Africa's survival rates for local start-ups in South Africa are lower in comparison to global standards, with only three out of ten start-ups progressing into established businesses (Bosma et al. 2021; Global Entrepreneurship Monitor 2020).

A significant gap exists in relation to knowledge about and challenges facing SMMEs in the ocean economy. This study sought to expand the existing body of knowledge by examining the challenges faced by SMMEs within the ocean economy in the KwaZulu-Natal province and explore the concept of ocean economy within the South African context.

The above aim raises the following core study objectives:

- To explore the maritime sector in South Africa
- To investigate the concept of ocean economy within the South African context
- To determine the challenges faced by SMMEs within the ocean economy in the KwaZulu-Natal province.

As such the study aims to answer the following questions, namely what are the challenges faced by SMMEs within the ocean economy in KwaZulu-Natal province?

Methodology
Research design

In this study, a deductive, positivist research design was chosen. Nudzor (2009) defines positivism as a framework for social research using the use of natural science research models to investigate social phenomena and explore facts and hypotheses about specific relationships and correlations

between variables. Positivism is based on the belief that reality is independent of the individual and aims to obtain ideas based on evaluation and evaluation. The deductive reasoning aims to prove a cause-and-effect relationships between the variables and helps to generalise research results (Sekaran & Bougie 2016). A cross-sectional design was selected to investigate the relationship between the variables in the study. Sekaran and Bougie (2017) describe a cross-sectional study as one in which data are collected at one point in time. A deductive, positivistic research design was deemed suitable in this study because the study explored the effect of independent variable on a dependent variable. The study explored the challenges faced by SMMEs within the ocean economy and the impact of economic policy on the development and sustainability of SMMEs.

Population and sampling strategy

Newman and Hitchcock (2011:240) describes the sample as 'a small set of cases the researcher chooses in a large pool and integrates into people'. To determine the sample, the researcher used the guidelines of Sekaran and Bougie (2016). This study used the non-probability sampling method for the quantitative survey to gather the primary data required.

Based on the Sample Table provided by Sekaran and Bougie (2016:50), a population size of 200 elements requires a sample size of approximately 132 elements. The researcher therefore chose 132 SMMEs, involved in the ocean economy and registered on the Moses Kotane Database, as the sample of the study. According to Babbie and Mouton (2011) and Creswell and Creswell (2018), a pilot study is a test study conducted before the main study is conducted. Its aim is to pre-test the research instrument in order to identify any shortcomings that the research instrument might have. The questionnaire was piloted to 10 SMMEs that are involved in the ocean economy in KwaZulu-Natal. The results of the pilot study revealed that some of the questions, in the questionnaire were double barrelled. As a remedy to this shortcoming, the researcher split all the double-barrelled questions, into separate questions.

Data analysis

The primary data were obtained from questionnaires. In the quantitative aspect of the study, the data were collected using a self-designed structured close-ended questionnaire, comprising 34 questions that relate to the objectives of the study. The questionnaire sought to understand the challenges faced by SMME's within the Ocean Economy in KwaZulu-Natal Province. This section was in response to the study's first research question that sought to understand the challenges faced by SMME owners in the ocean economy. The Statistical Package for Social Sciences (SPSS) version 21 was used for data analysis through descriptive analysis. To achieve the purpose of the study, data were interpreted using descriptive and inferential statistics. Several tests were conducted including reliability and validity test: frequency analysis, normality tests and Spearman correlation analysis.

Reliability and validity

To test for the reliability of the data, the Cronbach's alpha analysis was carried out. The Cronbach's alpha is a measure of internal consistency; how closely related a number of items are as a group (Sekaran & Bougie 2016). The coefficient ranges between 0 and 1. A high alpha value indicates that items measure an underlying factor. The result of the Cronbach's alpha test carried out on the questions of the questionnaire yielded an alpha value of 0.847 and 0.861, which are above 0.7 and indicating that the scales were trustworthy and appropriate for this study. Thus, the data set is reliable and consistent and can be accepted. The results for all measurement scales are reported in Table 1 and Table 2.

As per Table 2, the result of the Cronbach's alpha test carried out on the questions of the questionnaire yielded an alpha value of 0.844 and 0.861, which are above 0.7. Thus, the data set is reliable and consistent and can be accepted.

Table 1 and Table 2 demonstrate that all scales used in the study had acceptable internal consistency, and hence its results can be trusted. Several validity tests were performed in this study, which include face validity, content validity construct validity and predictive validity. Face validity was tested using a panel review of the questionnaire by 10 faculty experts. Content validity was ascertained through a pilot test of 20 questionnaires, using a conveniently selected sample of SMMEs. The construct validity was ensured by only adopting scales for the questionnaire that were already proven to be valid for corresponding concepts in similar studies with a Cronbach's alpha higher than 0.7 as already mentioned.

Normality tests: The Shapiro–Wilk and Kolmogorov–Smirnov

The normality test is carried out to examine whether the observations of the data set are normally distributed. To do this, the Kolmogorov–Smirnov test and Shapiro–Wilk test were carried out on the data in Table 3. The Shapiro–Wilk is

TABLE 1: Cronbach's alpha analysis.

Reliability statistics	
Cronbach's alpha	N of items
0.847	10

TABLE 2: Cronbach's alpha analysis.

Item-total statistics				
Item no.	Scale mean if item deleted	Scale variance if item deleted	Corrected item-total correlation	Cronbach's alpha if item deleted
Q1	95.6835	163.373	-0.247	0.861
Q2	94.8481	161.105	-0.190	0.856
Q3	95.8354	150.780	0.241	0.847
Q4	95.4937	152.151	0.192	0.848
Q5	95.5570	156.122	0.020	0.854
Q6	95.4684	155.021	0.085	0.851
Q7	96.6076	143.934	0.442	0.840
Q8	96.4557	147.482	0.295	0.846
Q9	95.1392	152.968	0.152	0.850
Q10	96.5443	149.764	0.310	0.844

used for small sample sizes (< 50 samples), while the Kolmogorov–Smirnov is used for sample sizes that are large (> 50 samples). Therefore, the Kolmogorov–Smirnov test was used as depicted in Table 3.

The significance values for all the 10 items can be observed to be less than 0.05. If the significance value is below 0.05, then the data significantly deviate from a normal distribution. The results depicted in Table 3 show that the data are not normally distributed (sig. value < 0.05) and will make use of non-parametric tests.

Ethical considerations

Ethical clearance to conduct this study was obtained from the University of KwaZulu-Natal Research Ethics Committee (No. HSSREC00002228/2020).

Presentation of results

The researchers sought to ascertain the perceptions of the study respondents with regard to the challenges facing SMMEs in the ocean economy.

Demographic information

The study purposively identified 132 SMME owners within the ocean economy in KwaZulu-Natal. Of the 132 entrepreneurs who were invited to participate in the study, only 113 returned the questionnaire yielding a 72% participation rate.

Information of data collected shows that among the 113 respondents, about 58 were females (51.3%) and 55 were males (48.7%). Of these, 39 respondents (34.5%) are within the age of 35–44, 36 (31.9%) respondents are between the ages of 45 and 54 years; 22 respondents (19.5%) are between 25 and 34 years old; seven of them are between 18 and 24 years; six respondents (5.3%) are between 55 and 64 years old and the remaining three respondents (2.7%) are of 65 years and above. It can be observed that 53 of the respondents (46.9%) have postgraduate studies as their highest educational qualification, 37 respondents (32.7%) have a diploma, 18 of them (15.9%) have a degree and the remaining five have matric or lower educational qualifications. Among the respondents, 39 of the respondents (34.5%) worked with the government and/or regulatory body, 35 of the respondents (31%) work in maritime companies or organisations, 20 work as entrepreneurs and 14 of them (12.4%) are business owners.

Challenges faced by SMMEs within the ocean economy in KwaZulu-Natal province

This study sought to gain an in-depth understanding of challenges faced by SMME's Within the Ocean Economy in KwaZulu-Natal Province. The majority of the respondents agree that the SMMEs operating within the KwaZulu-Natal ocean economy encounter various challenges that compromise their ability to become successful in conducting business in their specific areas of business.

As per Table 4, a significant number of respondents 65% believed that government regulation was a major challenge in conducting business followed by a lack of start-up capital (93%). The majority of 55% respondents believed that a lack of managerial experience and 68% regarded financial management skills as a challenge in their business. Almost 42% of entrepreneurs believe that the policies and strategies for financial access for SMMEs are not effective and 86% respondents felt that the maritime sector was competitive and dominated by large enterprises. Finally, 47% of entrepreneurs are undecided, and 35% entrepreneurs do not believe that labour laws are supportive.

The study also sought to explore the industry challenges faced by SMMEs in the ocean economy as depicted in Table 4.

TABLE 3: Shapiro–Wilk and Kolmogorov–Smirnov normality test.

Tests of normality						
Item no.	Kolmogorov–Smirnov†			Shapiro–Wilk		
	Statistic	df	Sigma	Statistic	df	Sigma
Q1	0.262	79	0.000	0.873	79	0.000
Q2	0.357	79	0.000	0.651	79	0.000
Q3	0.280	79	0.000	0.874	79	0.000
Q4	0.269	79	0.000	0.855	79	0.000
Q5	0.248	79	0.000	0.860	79	0.000
Q6	0.250	79	0.000	0.855	79	0.000
Q7	0.201	79	0.000	0.908	79	0.000
Q8	0.231	79	0.000	0.894	79	0.000
Q9	0.283	79	0.000	0.718	79	0.000
Q10	0.268	79	0.000	0.886	79	0.000

†, Lilliefors significance correction.

TABLE 4: Challenges faced by small, medium and micro-enterprise's within the Ocean Economy in KwaZulu-Natal Province.

Industry challenges	Strongly disagree (%)	Disagree (%)	Neither agree nor disagree (%)	Agree (%)	Strongly agree (%)
Government rules and regulations create problems for SMMEs	22	14	19	15	1
Start-up capital is the most challenging aspect for SMMEs	62	31	3	2	1
The lack of managerial experience affects the growth of my business	12	43	22	19	3
The lack of financial management skills affects the growth of my business	24	44	16	13	2
Policies and strategies for financial access for SMMEs are effective	7	22	28	29	13
The business environment is competitive	42	44	4	3	6
Labour laws are supportive	3	16	47	26	9
The lack of ocean economy knowledge affects the growth of my business	30	39	16	11	3
Difficulties in understanding new developments in ocean economy are one of the challenges I encounter in my business	27	42	29	9	1
There are enough investment opportunities within the ocean economy	10	24	19	36	11

SMME, small, medium and micro-enterprise.

The respondents cited challenges linked to conducting business in the ocean industry such as a lack of ocean economy knowledge, which was cited to be a contributing challenge to the business followed by difficulties in understanding new developments in the ocean economy and of respondents who believed that there are not enough investment opportunities within the ocean economy.

The respondents also cited challenges linked to conducting business in the maritime industry and 69% respondents identified a lack of ocean economy knowledge was identified to be a contributing challenge to their businesses, followed by 69% who experienced difficulties in understanding new developments in the ocean economy and 40% of the respondents agreed with the statement and an equal number (40%) of respondents were uncertain/indifferent that there are not enough investment opportunities within the ocean economy. The mixed results indicate that currently the majority of respondents are not sure whether ocean economy policies are effective.
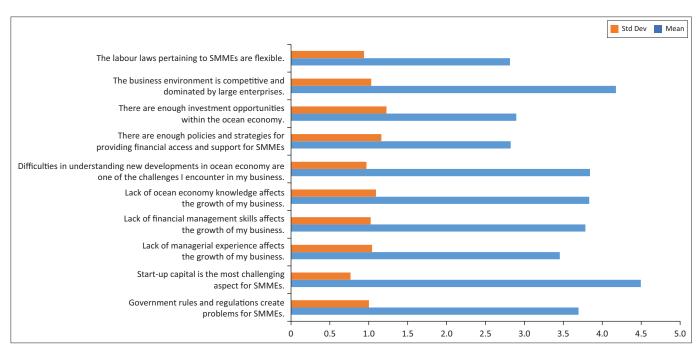
As depicted in Figure 1, on whether government rules and regulations create problems for SMMEs, the average or mean evaluation was 3.69, which suggests that respondents agree that government rules and regulations create problems for SMMEs. With a mean response of 4.49, respondents agree that start-up capital is the most challenging aspect for SMMEs. For the third question that has a mean response of 3.45, it can be concluded that a lack of managerial experience affects the growth of business. With a mean evaluation or response of 3.78 for the fourth question, respondents agree that a lack of financial management skills affects the growth of a business. It can also be observed from the mean evaluation for the fifth question, 3.83 that respondents agree

that a lack of ocean economy knowledge affects the growth of my business.

Respondents have also agreed that difficulties in understanding new developments in ocean economy affect their businesses, mean evaluation of 3.84. However, respondents did not agree that there are enough policies and strategies for providing financial access and support for SMMEs as their mean response here was 2.82. Respondents also did not agree that there are enough investment opportunities within the ocean economy, as average response here was 2.89. Respondents have also agreed that the business environment is competitive and dominated by large business, which make it difficult for SMMEs to thrive and develop. Lastly, the response on the flexibility of labour laws pertaining to SMMES, the mean or average response, 2.84, suggests that respondents disagree with this.

Results

The findings from this study have shown that SMMEs operating within the ocean economy in the KwaZulu-Natal province are faced with various challenges that prevent the success of these businesses. The most important challenges that these SMMEs face include financial problems, government regulation issues, financial management problems and technology adoption and implementation problems. The findings of this study have also been reported by other scholars who have researched different setups. According to Mutoko and Kapunda (2017), access to finances is among the most significant factor that affects the progress and success of SMMEs. In most cases, these businesses fail to access the appropriate amount of funds needed to support their businesses. A study by Chimucheka and Mandipaka (2015)

SMME, small, medium and micro-enterprise.

FIGURE 1: Challenges faced by small-, medium- and micro-enterprises in the ocean economy.

focused on examining the challenges faced by SMMEs in South Africa's Eastern Cape Province.

The study detected that the most important challenges facing SMMEs in the ocean economy included problems related to the establishment of the business, a lack of access to finances and inadequate government support. Regarding government regulation and support, the study's findings also showed that the lack of proper government support and increased regulations are among the challenges facing these small businesses. It becomes challenging for these businesses to expand and develop. Therefore, government should create a favourable environment that could support the SMMEs in the form of providing financial incentives and support to these businesses. The effect of government support can also be in the form of reducing regulations on these businesses, thus allowing the SMMEs to grow, develop and expand. A study by Bhoganadam, Rao and Dasaraju (2017) proved that SMMEs are faced with different challenges that prevent their success in different markets.

The results of this study have shown that appropriate government support in the form of economic policies is crucial in supporting the development and sustainability of SMMEs operating in the ocean economy. Through appropriate economic policies, SMMEs can have easier access to financial support among other important resources that may support the growth and development of these businesses. According to Makwara (2019), SMMEs are at the forefront of job creation. However, the environment has not been conducive to supporting the growth of these business organisations. According to Nieuwenhuizen (2019), regulatory environment and government-related legislation play a major role in supporting the growth of the SMMEs. Without appropriate government support, it becomes challenging for SMMEs to become successful in the business market. Economic policies related to tax and tax-related issues directly affect the success of these small businesses. Therefore, in South Africa, government support in the form of implementing appropriate economic policies can be crucial in supporting SMMEs. Similar findings have been supported by Mathibe and Van Zyl (2011), who have shown that with appropriate support from the government, SMMEs can become successful.

Conclusion

In summary, the SMMEs operating within the ocean economy are faced with various challenges that compromise their ability to become successful in conducting business in their specific areas. The findings reveal that SMMEs in the ocean economy are faced with challenges such as stringent government regulation and labour laws, a lack of start-up capital, a lack of managerial experience, a lack of managerial experience and skills, insufficient incentives and support to access to finance and competitive business environment.

The findings of this study show that one of the major hurdles encountered by the majority of SMMEs in the ocean economy, as claimed by participants who took part in the study, is that of rigorous government regulations that negatively impact the growth of the SMMEs. Entrepreneurs find the regulatory environment complex, burdensome and imposing unrealistic demands on business. The findings also reveal that SMMEs in the ocean economy identified the lack of access and general unavailability of finances as another challenge they are faced with. Respondents regarded a lack of start-up capital and financial resources as major impediments in their businesses. The lack of access to finance impacts on the business growth and survival and hampers the ability of SMMEs to fully realise their potential and their contribution to the economy and job creation. Access to capital and financial resources would enable entrepreneurs to have access to financial resources to attract the resources, assets and skills that are necessary to operate the business, which would enable the business to be competitive and survive during periods of unfavourable economic conditions.

The majority of SMMEs indicated that a lack financial management skills is a challenge in their businesses. In addition, respondents perceived a lack of management skills as an impeding factor in their business. Respondents identified the lack of basic management skills as a factor attributing to the failure of SMMEs. Surprisingly, the findings revealed that the majority of entrepreneurs do not believe that stringent labour laws impact them. These findings are in contrast with recent research, which has found labour laws to be restrictive for SMMEs. Labour regulations are currently ranked as one of the most restrictive factors for doing business in South Africa for businesses dependent on labour.

The findings of this article also report that entrepreneurs believe that policies and strategies for financial access for SMMEs are not effective. The majority of entrepreneurs have cited that they encounter problems with funding. Finance is one of the major reasons for business failure and business growth. The interviewed participants also echoed the same sentiment that industry is competitive and dominated by large foreign companies who are monopolising the sector. Thus, the government has a significant role to play in reducing the regulatory barriers, ensuring a level playing field, which is important for SMMEs to survive and grow and eradicating the monopolisation of markets by large companies. The conclusion of the study is that entrepreneurs are uncertain whether the government collaborates closely with the maritime sector in devising new strategies for SMMEs. The participants echoed that the KZN provincial government support is limited and ineffective; more could be done, entrepreneurs are not consulted on anything as entrepreneurs in the sector. Entrepreneurs were not sure if the provincial government were devising proper strategies for SMMEs. Most participants did not know of any existing assistance for SMMEs in KwaZulu-Natal.

This study further investigated additional industry challenges that SMME owners in the ocean economy are faced with, which included a lack of ocean economy knowledge, difficulties in understanding new developments in the ocean economy and that respondents felt that there were not enough investment opportunities within the ocean economy. The findings reveal that most entrepreneurs lack knowledge of the ocean economy industry. Most respondents reported that they experience difficulties in understanding new developments in the ocean economy and experience difficulties in accessing information relating to entrepreneurial opportunities with the ocean economy in the province. Participants highlighted a general lack of awareness about opportunities within the ocean economy. This lack of awareness affects the attitudes and career choices of entrepreneurs in relation to the ocean economy sector. The lack of awareness also perpetuates traditional biases as entrepreneurs perceive the maritime sector and the ocean economy as exclusively not for them.

The majority of the respondents in the study agreed that the economic policies developed by the government affected the development and sustainability of maritime SMMEs in the KwaZulu-Natal ocean economy. However, just as surprising is that an equal number of respondents were uncertain or indifferent that ocean economy policies are effective, providing mixed results. Entrepreneurs claimed that they understand that there are programmes or initiatives in place, but these are not effectively communicated and accessible to SMMEs, especially black owned ones. It is interesting to notice that the majority of respondents were of the view that the provincial government policy framework does not seem to be actively promoting entrepreneurial opportunities because the KwaZulu-Natal government is not seen to be collaborating closely with the maritime sector in devising strategies for SMME development and sustainability as the majority of respondents believe that the existing programmes or incentives assist with the development of SMMEs within the ocean economy as there are few business support programmes. Entrepreneurs explained that government often expresses that there are programmes and support for them but when they request assistance, they are given many reasons for not being assisted. Entrepreneurs feel demotivated and disheartened by the lack of assistance. Other entrepreneurs feel that access to institutional assistance does not benefit all entrepreneurs but seems to benefit the few minorities.

This has implications for the SMME's ability to meaningfully participate within the ocean economy. The ocean economy development focus should be on job creation, expansion and focusing on the creation of new business ventures. This requires a dedicated programme of support to new or young businesses as they are more vulnerable to shocks and harsh economic conditions than larger and older established businesses. Existing businesses should be assisted in key sectors and possible interventions should cater for enhancing existing industrial policy and SMME support programmes

and instruments. These can help contain further job losses in the province as well as protect important production capabilities in the maritime sector.

Acknowledgements

Data availability

The data that support the findings of this study are available from the corresponding author, B.K., upon reasonable request.

Disclaimer

The views and opinions expressed in this article are those of the authors and do not necessarily reflect the official policy or position of any affiliated agency of the authors.

References

African Union, 2016, *African Charter on Maritime Security and Safety and Development in Africa (Lomé Charter)*, African Union Commission, viewed 22 June 2022, from https://au.int/en/treaties/african-chartermaritime-security-and-safety-anddevelopment-africa-lomé-charter.

Ajibade, P. & Khayundi, F., 2017, 'The role of records management in small micro and medium enterprises (SMMEs) in South Africa and its implications for business sustainability', *African Journal of Library Archives and Information Science* 27(2), 175–188.

Babbie, E. & Mouton, J., 2011, *The practice of social research*, Oxford University Press, Cape Town.

Bhoganadam, S., Rao, D.N. & Dasaraju, S., 2017, 'A study on issues and challenges faced by SMMEs: A literature review', *Research Journal of Sri S. Ramasamy Naidu Memorial College* 1, 48–57.

Bhorat, H., Asmal, Z., Lilenstein, K. & Van der Zee, K., 2018, *SMMEs in South Africa: Understanding the constraints on growth and performance*, World Bank, Washington, DC.

Bosma, N., Hill, S., Ionescu-Somers, A., Kelly, D., Guerrero, M. & Schott, T., 2021, *Global Entrepreneurship Monitor 2020/2021 Global Report*, the Global Entrepreneurship Research Association, London Business School, London.

Bvuma, S. & Marnewick, C., 2020, 'Sustainable livelihoods of township small, medium and micro enterprises towards growth and development', *Sustainability* 12(8), 31. https://doi.org/10.3390/su12083149

Chikwati, P., 2018, *Entrepreneurial risk management challenges of selected small and medium enterprises in the maritime sector in Cape Town*, Cape Peninsula University of Technology, Cape Town.

Chimucheka, T. & Mandipaka, F., 2015, 'Challenges faced by small, medium and micro enterprises in The Nkonkobe Municipality', *International Business & Economics Research Journal* 14(2), 309–316. https://doi.org/10.19030/iber.v14i2.9114

Creswell, J.W. & Creswell, J.D., 2018, *Research design: Qualitative, quantitative, and mixed methods approaches*, Sage, Los Angeles, CA.

DEA, 2019a, *Department of Environmental Affairs Report to Parliament Portfolio Committee on Operation Phakisa - Oceans Economy - February 2019*, Department of Environmental Affairs, Chief Directorate Oceans Economy.

Department of Small Business Development, 2017, *Strategic Plan 2015–2019*, viewed 19 June 2022, from www.dsbd.gov.za.

Economist Intelligence Unit, 2015, *The Blue Economy: Growth, opportunity and a sustainable ocean economy. Briefing paper for the World Ocean Summit 2015*, viewed 18 December 2021, from http://www.economistinsights.com/sites/default/files/Blue%20Economy_briefing%20paper_WOS2015.pdf.

Eikeset, A., Mazzarella, A., Davidsdottir, B., Klinger, B., Levin, S., Rovenskaya, E. et al., 2018, 'What is blue growth? The semantics of "Sustainable Development" of marine environments', *Marine Policy* 87, 177–179. https://doi.org/10.1016/j.marpol.2017.10.019

Fatoki, O., 2014, 'The role of small and medium enterprises in alleviating the development challenges facing South *Africa*', *Mediterranean Journal of Social Sciences* 5(23), 270. https://doi.org/10.5901/mjss.2014.v5n23p270

Findlay, K. & Bohler-Muller, N., 2018, 'South Africa's Ocean economy and operation Phakisa: Lessons learned', in V.N. Attri & N. Bohler (eds.), *The blue economy handbook of the Indian Ocean region*, pp. 231–255, Africa Institute of South Africa, Pretoria.

Funke, N., Claassen, M., Nortje, K. & Meissner, R., 2016, *A research, innovation and knowledge management road map for the South African maritime sector: Charting a course to maritime excellence by 2030' CSIR report*. Council for Scientific and Industrial Research, Pretoria.

Global Entrepreneurship Monitor (GEM), 2020, *2019/2020 Global report*, viewed 14 January 2022, from https://www.gemconsortium.org/file/open?fileId=50443.

Lee, K., Noh, J. & Khim, J.S., 2020, 'The blue economy and the United Nations' sustainable development goals: Challenges and opportunities', *Environment International* 137, 105528. https://doi.org/10.1016/j.envint.2020.105528

Lose, T., Tengeh, R.K., Maziriri, E. & Madinga, N.W., 2016, ' Exploring the critical factors that hinder the growth of incubatees in South Africa', *Problems and Perspectives in Management* 14(13), 698–704. https://doi.org/10.21511/ppm.14(3-3).2016.13

Makwara, T., 2019, 'Taking on the challenge: Small, micro and medium enterprises (SMMEs) and socio-economic development in South Africa', *African Journal of Hospitality, Tourism and Leisure* 8, 1–14.

Martínez-Vázquez, R.M., Milán-García, J. & De Pablo Valenciano, J., 2021, 'Challenges of the blue economy: Evidence and research trends', *Environmental Sciences Europe* 33(1), 61. https://doi.org/10.1186/s12302-021-00502-1

Masocha, M., Murwira, A., Magadza, C. & Hirji, R., 2017, 'Remote sensing of surface water quality in relation to catchment condition in Zimbabwe', *Physics and Chemistry of the Earth, Parts A/B/C* 100, 13–18. https://doi.org/10.1016/j.pce.2017.02.013

Mathibe, M.S. & Van Zyl, J.H., 2011, 'The impact of business support services to SMMEs in South Africa', *International Business and Economics Research Journal (IBER)* 10(11), 101–108. https://doi.org/10.19030/iber.v10i11.6410

Meriton, V.E.A., 2019, *Africa's Blue Economy is a vehicle for sustainable development*, African Union Press, viewed 14 December 2021, from https://au.int/en/pressreleases/20190607/au-commissioner-drea-participates-conference-blue-economy.

Mutoko, W.R. & Kapunda, S.M., 2017, 'Factors influencing small, medium and micro-sized enterprises' borrowing from banks: The case of the Botswana manufacturing sector', *Acta Commercii* 17(1), 1–9. https://doi.org/10.4102/ac.v17i1.426

Mutula, S.M. & Van Brakel, P., 2007, 'ICT skills readiness for the emerging global digital economy among small businesses in developing countries: Case study of Botswana', *Library Hi Tech* 25(2), 231–245. https://doi.org/10.1108/07378830710754992

Ndou, I., 2014, 'An assessment of access to financial management services by small, medium and micro enterprises in Thohoyandou business centre, Limpopo, South Africa', *International Journal of Economic and Business Management* 2(4), 46–54.

Newman, I. & Hitchcock, J.H., 2011, 'Underlying agreements between quantitative and qualitative research: The short and tall of it all', *Human Resources Development Review* 10(4), 381–398. https://doi.org/10.1177/1534484311413867

Nieuwenhuizen, C., 2019, 'The effect of regulations and legislation on small, micro and medium enterprises in South Africa', *Development Southern Africa* 36(1), 1–12. https://doi.org/10.1080/0376835X.2019.1581053

Nudzor, H.P., 2009, 'A critical commentary on combined methods approach to researching educational and social issues', *Issues in Educational Research* 19(2), 114–126.

OECD, 2016, *The Ocean Economy in 2030*, OECD Publishing, Paris.

Okafor-Yarwood, I., Kadagi, N.I., Miranda, N.A., Uku, J., Elegbede, I.O. & Adewumi, I.J., 2020, 'The blue economy-cultural livelihood-ecosystem conservation triangle: The African experience', *Frontiers in Marine Science* 7, 586. https://doi.org/10.3389/fmars.2020.00586

Pauli, G., 2011, *From deep ecology to the Blue Economy*, viewed 10 January 2021, from http://www.youtube.com/watch?v = 1af08PSlals.

Petersen, A., Bruwer, J.P. & Mason, R., 2020, 'Source document usage and the financial sustainability of South African small, medium and micro retailers', *Expert Journal of Business and Management* 8(1), 110–119.

Rungani, E. & Potgieter, M., 2018, 'The impact of financial support on the success of small, medium and micro enterprises in the Eastern Cape province', *Acta Commercii* 18(1), 1–12. https://doi.org/10.4102/ac.v18i1.591

Sekaran, U. & Bougie, R., 2016, *Research methods for business: A skill-building approach*, 7th edn., John Wiley and Sons, Haddington.

Sekaran, U. & Bougie, R., 2017, *Research methods for business: A skill building approach*, 7th edn., John Wiley & Sons, West Sussex.

Silver, J.J., Gray, N.J., Campbell, L.M., Fairbanks, L.W. & Gruby, R.L., 2015, 'Blue economy and competing discourses in international oceans governance', *The Journal of Environment & Development* 24(2), 135–160. https://doi.org/10.1177/1070496515580797

Small Business Institute, 2020, *SBI releases situational analysis of the status of SMMEs in South Africa during Covid-19*, viewed 10 December 2021, from https://www.smallbusinessinstitute.co.za/2020/10/06/sbi-releases-situational-analysis-of-the-status-of-smmes-in-south-africa-during-covid-19/.

Small Business Project, 2014, *Examining the challenges facing small businesses in South Africa*. Issue paper 1, viewed 15 January 2022, from http://www.sbp.org.za/uploads/media/SBP.

South Africa Maritime Industry Conference (SAMIC), 2012, *Inaugural South Africa maritime industry conference: Delivering on South Africa's maritime agenda – A call for action*, 4–6 July 2012, Cape Town International Convention Centre (CTICC).

South African Maritime Safety Authority (SAMSA), 2013, 'South Africa ship registry bags one more vessel – a further boost to seafarers training', *The 10th Province Blog*, viewed 19 March 2017, from https://blog.samsa.org.za/2017/03/19/south-africa-ship-registry-bags-one-more-vessel-a-further-boost-to-seafarers-training/.

Spamer, J., 2015, 'Riding the African Blue Economy wave: A South African perspective', in *2015 4th International Conference on Advanced Logistics and Transport (ICALT)*, Valenciennes, France, May 20–22, 2015, pp. 59–64.

Sumaila, U.R., Zeller, D., Hood, L., Palomares, M.L.D., Li, Y. & Pauly, D., 2020, 'Illicit trade in marine fish catch and its effects on ecosystems and people worldwide', *Science Advances* 6(9), eaaz3801. https://doi.org/10.1126/sciadv.aaz3801.

United Nations Conference on Trade and Development (UNCTAD), 2017, *World investment report 2017: Investment and the digital economy*, viewed 10 December 2021, from https://www.tralac.org/images/docs/11726/world-investment-report-2017-unctad.pdf.

United Nations Economic Commission for Africa (UNECA), 2016, *Africa's Blue Economy: A policy handbook*, Economic Commission for Africa, Addis Ababa.

United Nations Environment Programme (UNEP), 2015, *Blue Economy: Sharing success stories to inspire change*, UNEP Regional Seas Report and Studies No. 195, UNEP, Nairobi.

Voyer, M., Schofield, C., Azmi, K., Warner, R., McIlgorm, A. & Quirk, G., 2018, 'Maritime security and the Blue Economy: Intersections and interdependencies in the Indian Ocean', *Journal of the Indian Ocean Region* 14(1), 28–48. https://doi.org/10.1080/19480881.2018.1418155

Walker, T., 2018, 'Securing a sustainable oceans economy: South Africa's approach', *ISS Southern Africa Report* 2018(13), 1–24.

Wenhai, L., Cusack, C., Baker, M., Tao, W., Mingbao, C. & Paige, K., 2019, 'Successful blue economy examples with an emphasis on international perspectives', *Frontiers in Marine Science* 6, 261. https://doi.org/10.3389/fmars.2019.00261

World Bank and United Nations Department of Economic and Social Affairs, 2017, *The potential of the Blue Economy: Increasing long-term benefits of the sustainable use of marine resources for small island developing states and coastal least developed countries*, World Bank, Washington, DC.

Zondi, W.B., 2017, 'Challenges facing small business development in South Africa', *International Journal of Economic Perspectives* 11(2), 621–628.