African Journal of Applied Research
Vol. 11, No. 2 (2025), pp.125-139
http://www.ajaronline.com
https://doi.org/10.26437/ajar.v11i2.981
Received: July 2, 2024
Peer reviewed: December 22, 2024
Revised: February 18, 2025
Published: April 2025

FEMALE GRADUATES HARNESSING BLUE ECONOMY OPPORTUNITIES IN TANZANIA: THE CASE OF TANZANIA INSTITUTE OF ACCOUNTANCY PROGRAMMES

Kasambala, M.
Tanzania Institute of Accountancy (T.I.A), Tanzania.
momole.kasambala@tia.ac.tz

ABSTRACT

Purpose: The study explored the perceived relevance of the Tanzania Institute of Accountancy programmes, examined the influence of these programmes on female graduates' harnessing of blue economy opportunities, and determined the constraints against female graduates' harnessing of blue economy opportunities.

Design/Methodology/Approach: The study adopted a sequential exploratory mixed methods design. Data were collected through questionnaires from 345 female graduates sampled randomly from 2,267 female graduates of the Tanzania Institute of Accountancy in 2023/2024. The descriptive and inferential techniques were used for data analysis and presentation.

Findings: The study found that the bachelor's degree programmes offered by the Tanzania Institute of Accountancy are relevant to enhance female graduates' harnessing of blue economy opportunities. Marketing and Public Relations, Procurement and Logistics Management, Business Administration and Bachelor of Accountancy have a positive association and significant influence on female graduates harnessing blue economy opportunities, unlike the Bachelor of Human Resource, which has insignificant influence.

Research Limitation: The study disclosed the cause-effect relationship between business studies programs and harnessing blue economy opportunities in Tanzania, but did not investigate the sustainability of the blue economy resources or the productivity of these opportunities discussed and explained to the blue economy.

Practical implication: The study calls for establishing a policy review to encourage practitioners to engage in the opportunities available in the blue economy to sustain economic growth.

Social Implication: Female graduates' involvement in sustainable coastal livelihoods, marine conservation, and ocean-based tourism can strengthen community resilience to environmental and economic challenges.

Originality/value: The study described how having skills from business studies programmes does not guarantee a graduate's ability to utilise blue economy resources due to personal, policy, socio-cultural, and economic barriers.

Keywords: *Blue Economy. female graduates. opportunities. sustainable development. Tanzania*

ISSN: 2408-7920

African Journal of Applied Research
Vol. 11, No. 2 (2025), pp.125-139
http://www.ajaronline.com
https://doi.org/10.26437/ajar.v11i2.981
Received: July 2, 2024
Peer reviewed: December 22, 2024
Revised: February 18, 2025
Published: April 2025

INTRODUCTION

Tanzania Institute of Accountancy is an executive agency mandated to conduct training, research, and consultancy services in business-related programmes. It is a 'blue institute' due to its campuses strategically located near the potential resources for the blue economy. The campuses include Dar es Salaam, Zanzibar, Mtwara, and Tanga (TIA, 2024). This means the positioning of these campuses makes it advantageous for its graduates to harness the blue economy opportunities in blue resources found at the Indian Ocean, Lake Victoria, Lake Nyasa, Lake Tanganyika, Lake Singidani and Kindai.

Blue economy is perceived as the sustainable utilisation of oceanic and inland water resources for improved livelihood, economic growth, and job creation while ensuring the health of oceanic systems (Lagati & Handa, 2023). The approach gained momentum at the United Conference on Sustainable Development 'Rio+20', held in Rio de Janeiro-Brazil in 2012, emphasising the sustainable utilisation of blue economy opportunities for economic growth and improving human lives (United Nations, 2012).

Globally, the oceans and seas cover about 72% of the surface of the planet Earth, home to 95% of the Earth's living organisms, facilitating trade by 80% and providing employment opportunities for most people (UNECA, 2020). The blue economy sectors play a vital role in food provision, climate regulation, shelter provision, trade facilitation, tourism and leisure avenues, fishing, employment creation, and economic growth (World Bank, 2016). European countries such as Germany, Spain, Italy, and France created many employment opportunities through investments in blue economy resources. Others include Croatia, Denmark, Cyprus, Malta, Greece, Poland, Portugal, Romania, Norway, the United Kingdom, and the Netherlands (European Commission, 2024).

In Africa, out of 54 states, 38 (70%) are coastal countries, and the total coastline in Africa is 30,500 km (Semboja, 2021). In 2012, the African Union adopted the 2050 Africa Integrated Maritime Strategy. The strategy intends to promote the sustainable utilisation of Africa's maritime resources towards the global sustainable development goals in 2030, and the Africa Development Agenda 2063 (UNECA, 2023). The champions of African countries in the blue economy are Cape Verde, Comoros, Guinea-Bissau, Seychelles, São Tomé, and Príncipe (UNECA, 2014).

Tanzania is blessed with blue resources due to the presence of lakes, rivers, and an ocean, with the coastlines covering 1,450 km while territorial waters are 64,000 km (URT, 2018). The adoption of a blue economy in Tanzania, is in line with global and regional policies, as is declared in the sustainable development goals, SDG14: Conservation and sustainable use of oceans, seas, and marine resources for improving human lives (United Nations, 2016); as well as 2050 Africa Integrated Maritime Strategy (United Nations, 2023). Therefore, the nation takes different initiatives to ensure the effective utilisation of blue resources to end poverty, zero hunger, provide

ISSN: 2408-7920

African Journal of Applied Research
Vol. 11, No. 2 (2025), pp.125-139
http://www.ajaronline.com
https://doi.org/10.26437/ajar.v11i2.981
Received: July 2, 2024
Peer reviewed: December 22, 2024
Revised: February 18, 2025
Published: April 2025

decent work, reduce inequality, reduce the gender gap, improve life below water, and mitigate the impact of climatic changes (URT, 2018).

Blue economy sectors contribute only 11.9% of Mainland Tanzania's Gross Domestic Product (GDP), and 39.6% of Zanzibar's GDP in 2020. The wages generated in 2020 formed 9.9% of Gross National Income (GNI) in Mainland Tanzania and 25.4% in Zanzibar. The values of ecosystem services were approximately USD 104.24 billion in the year 2020 for blue economy resources of Mainland Tanzania: 74.8% of which is generated by freshwater lakes. In the case of Zanzibar, the value of ecosystem services in 2020 was estimated at USD 100.76 billion, led by the contribution from coral reefs. Furthermore, the sectors contribute positively to the social fabric of both Mainland Tanzania and Zanzibar, as indicated by their Composite Social Index Value of 48.64 in 2020 (UNECA, 2023).

The low contribution of blue resources to national income and economic growth is associated with a limited engagement of female graduates in harnessing blue economy opportunities (Young, 2024). While the blue economy has employed more than 9.1 million people globally across the six sectors of the blue economy, women occupy just 20% of such jobs, most of them in the fishing subsector, and less than 15% in other sectors. At the same time, female graduates have few employment opportunities (World Bank, 2023).

In Africa, for example, most of the blue economy jobs are taken by men in different sectors, and female graduates end up in fish trading and processing (Edu-Afful & Osei-Tutu, 2023). Most of them are just fish traders and or fish processors, which earn them a small amount of money, hardly enough to support their family members (Ayilu, 2023). Worse still, the COVID-19 pandemic and Russia's invasion of Ukraine made female graduates more disadvantaged even in the low-paying blue economy fishing sub-sector (European Union, 2022). These female graduates are mocked and or discriminated against and prone to gender-based violence (Jenkins & Brown, 2023).

Moreover, social and cultural beliefs threaten women's participation in the blue economy (Mancin & Comolet, 2020). Other factors include illegal fishing, sea piracy, drug trafficking, and pollution from toxic substances (African Union, 2019). Lack of enough capital, less access to digital technology, and limited skills are other forces against female graduates' engagement in blue economy opportunities (Jenkins & Brown, 2023).

Since the blue economy is a new opportunity for Tanzania's economic growth and sustainable development, whereas, female graduates are more disadvantageous in blue economy opportunities, research on how academic programmes offered by the Tanzania Institute of Accountancy enhance female graduates' engagement in blue economy opportunities is vital (Khan, 2020; Lyimo, 2021). Therefore, the study examined Tanzania Institute of Accountancy programmes and female graduates' engagement in blue economy opportunities. Specifically, the study explored the perceived relevance of the Tanzania Institute of Accountancy programmes; examined the influence

ISSN: 2408-7920

African Journal of Applied Research
Vol. 11, No. 2 (2025), pp.125-139
http://www.ajaronline.com
https://doi.org/10.26437/ajar.v11i2.981
Received: July 2, 2024
Peer reviewed: December 22, 2024
Revised: February 18, 2025
Published: April 2025

of Tanzania Institute of Accountancy programmes on female graduates' engagement in blue economy opportunities, and determined the constraints against female graduates' engagement in blue economy opportunities.

LITERATURE REVIEW

The blue economy is a sustainable economic model promoting responsible use of ocean resources to drive economic growth while ensuring environmental conservation. It integrates various sectors, including fisheries, marine transportation, renewable energy, and tourism, to foster economic development without depleting marine ecosystems. The concept was first introduced during the 2012 United Nations Conference on Sustainable Development and has since evolved into a key strategy for global sustainability (Commonwealth Secretariat, 2016).

The real value of the blue economy lies in its ability to generate significant economic benefits while ensuring environmental sustainability. The blue economy contributes to global economic development through fisheries, maritime transport, tourism, and renewable energy industries. In the European Union, it generates approximately €500 billion annually and employs around 5.4 million people (Stanca et al., 2018). Similarly, the sustainable management of marine resources across oceans, lakes, and rivers can add up to $1.5 trillion to the global economy (Waruhiu, 2019).

One of the core principles of the blue economy is maximising economic benefits while preserving marine ecosystems for future generations. The approach emphasises sustainable fishing, eco-friendly maritime activities, and the development of ocean-based renewable energy sources. It also encourages innovative business models that align with the principles of a circular economy, ensuring that waste and pollution are minimised (Brears, 2021).

Countries like India have also recognised the blue economy as an opportunity to enhance national economic development while improving regional maritime security and connectivity (Chakraborty, 2020). Emerging industries such as marine biotechnology, ocean-based carbon sequestration, and aquaculture provide new avenues for sustainable economic growth (Roberts & Ali, 2016). However, overfishing, pollution, and climate change pose significant threats to marine environments, requiring stronger governance, international collaboration, and investment in sustainable ocean management (Youssef, 2023).

This further calls for awareness creation in both lower and higher-level education. More studies outlined that the blue economy fosters innovation and resilience in coastal and marine industries beyond economic output. Emerging sectors such as ocean-based biotechnology, carbon sequestration, and marine renewable energy provide new opportunities for growth while addressing critical environmental challenges (Roberts & Ali, 2016).

African Journal of Applied Research
Vol. 11, No. 2 (2025), pp.125-139
http://www.ajaronline.com
https://doi.org/10.26437/ajar.v11i2.981
Received: July 2, 2024
Peer reviewed: December 22, 2024
Revised: February 18, 2025
Published: April 2025

For example, coastal tourism has become a key driver of the blue economy in Portugal. However, its growth has been affected by external shocks like the 2008 financial crisis and the COVID-19 pandemic (Sousa et al., 2023). While effective governance is critical for the sustainable development of the blue economy, Roberts and Ali (2016) cemented this by highlighting the need for regulatory frameworks to integrate environmental sustainability with economic policies to prevent resource depletion. For example, research on India's blue economy emphasises the need for a national strategy incorporating marine security, environmental sustainability, and technological innovation to enhance long-term economic benefits (Chakraborty, 2020).

A comparative study between Bangladesh and China found that China's success in blue economy growth is attributed to its strong policies, investment in marine biotechnology, and strategic international collaborations. The study suggests that Bangladesh can adapt China's model to enhance its marine economy (Mahadi et al., 2023). Similarly, research on Africa's blue economy potential highlights the importance of offshore wind energy and marine biodiversity conservation as key areas for economic expansion (Koshelenko & Krivorotov, 2023).

In addition, the role of the blue economy has been realised in social and environmental sustainability. Studies have shown that the blue economy promotes inclusive economic development by providing jobs in fisheries, marine conservation, and tourism, particularly benefiting coastal and island communities.

Countries that effectively integrate blue economy strategies into national development plans balance economic growth with conservation efforts. However, achieving this balance requires investment in governance, policy frameworks, and international cooperation (Olteanu & Stinga, 2019). Other studies has shown that investing in the blue economy is still scant, , requiring innovative financial mechanisms such as blue bonds and public-private partnerships, this is argued that a rational funding sources are inadequate for scaling up sustainable marine-based industries, and additional financial instruments are needed to attract diverse investors (Tirumala & Tiwari, 2020). Strengthening regional financial frameworks can also support infrastructure development in coastal and island nations, helping them fully harness their blue economy potential (Rustomjee, 2016).

In enhancing sustainability and social inclusion, this study focuses on female graduates, particularly how these graduates harness opportunities for employment in the blue economy. Studies highlighted that ensuring fair distribution of resources and involving local communities in decision-making are crucial for long-term success (Zhang et al., 2024). Furthermore, improved waste management policies and investments in marine ecosystem restoration are necessary to mitigate pollution and preserve biodiversity, ultimately securing the long-term economic benefits of ocean-based industries (Romano et al., 2023). When utilised efficiently, the whole chain of the blue economy ecosystem can create significant employment opportunities for graduates. For the sake of this study, female graduates can find their way into different lines of products and activities.

ISSN: 2408-7920

African Journal of Applied Research
Vol. 11, No. 2 (2025), pp.125-139
http://www.ajaronline.com
https://doi.org/10.26437/ajar.v11i2.981
Received: July 2, 2024
Peer reviewed: December 22, 2024
Revised: February 18, 2025
Published: April 2025

MATERIALS AND METHODS

The study was conducted on the Tanzania Institute of Accountancy programme alumni. Data were collected through semi-structured questionnaires from 345 female graduates sampled randomly from 2,267 female graduates of 2023/2024 from five major programmes: accountancy, procurement and logistics management, business administration, marketing and public relations, and human resource management. The choice of the respondents is based on their experience and exposure to both TIA programmes and surrounding blue economy resources compared to the rest of the graduates.

The study adopted a sequential exploratory mixed design. The respondents were informed of the purpose of the study. Then, they were asked for their consent to participate, with their identities' anonymity, and responses were treated with confidentiality. Online questionnaires were translated into Kiswahili and then shared in their WhatsApp groups, requesting them to respond. The tools were pretested for Diploma graduates at the Mwanza campus and then modified to improve validity and reliability. The reliability test was conducted, and the Cronbach's Alpha was 0.6, which is adequate and acceptable. The collected data were coded into themes and subjected to a statistical package for social sciences (SPSS Version 25) to run descriptive, Pearson correlation, and linear regression analysis, then presented in frequency, percentage, mean, standard deviation, P-value, and coefficients (Creswell, 2015; Creswell, 2014).

The study tested five hypotheses which were: *H_1:Bachelor of marketing and public relations has a positive and significant influence on female graduates harnessing blue economy opportunities; H_2:Bachelor of procurement and logistics management has a positive and significant influence on female graduates harnessing blue economy opportunities; H_3: Bachelor of Accountancy has a positive and significance influence on female graduates harnessing blue economy opportunities; H_4:Bachelor of Business Administration has a positive and significance influence on female graduates harnessing blue economy opportunities and H_5:Bachelor of Human Resource Management has a positive and significant influence on female graduates harnessing blue economy opportunities.* From these hypotheses, the following linear regression equation was developed: $FEBE = \beta_0 + \beta_1 BMPR + \beta_2 BPLM + \beta_3 BAC + \beta_4 BBA + \beta_5 BHRM + \acute{\varepsilon}$

Model specifications

$FEBE = \beta_0 + \beta_1 BMPR + \beta_2 BPLM + \beta_3 BAC + \beta_4 BBA + \beta_5 BHRM + \acute{\varepsilon}$

Whereby: FEBE= Female Graduates Engagement in Tanzania Blue Economy Opportunities;
BMPR = Bachelor of Marketing and Public Relations
BPLM = Bachelor of Procurement and Logistics Management
BAC = Bachelor of Accountancy
BBA= Bachelor of Business Administration
BHRM = Bachelor of Human Resource Management
β_0, β_1, β_2, β_3, β_4, β_5 = Coefficients of variables used in the study
$\acute{\varepsilon}$= Error term.

ISSN: 2408-7920

African Journal of Applied Research
Vol. 11, No. 2 (2025), pp.125-139
http://www.ajaronline.com
https://doi.org/10.26437/ajar.v11i2.981
Received: July 2, 2024
Peer reviewed: December 22, 2024
Revised: February 18, 2025
Published: April 2025

RESULTS AND DISCUSSION

The perceived relevance of the Tanzania Institute of Accountancy programmes

The study explored the perceived relevance of the Tanzania Institute of Accountancy programmes for female graduates to harness Tanzania's blue economy opportunities. 345 female graduates completed five Likert scale questionnaires to indicate the Tanzania Institute of Accountancy programmes they perceive as relevant for harnessing blue economy opportunities. The questionnaires had five Likert scales ranging from Not relevant at all, Not relevant, Moderately relevant, Relevant, and Most relevant. The descriptive statistics results in mean and standard deviation are presented in Table 1.

Table 1: The perceived relevance of the Tanzania Institute of Accountancy programmes

Variables	OBS	Min	Max	Mean	Std. Deviation
Bachelor of Marketing and Public Relations	345	1	5	3.83	1.018
Bachelor of Procurement and Logistics Management	345	1	5	3.74	1.067
Bachelor of Accountancy	345	1	5	3.91	1.127
Bachelor of Business Administration	345	1	5	3.94	1.001
Bachelor of Human Resource Management	345	1	5	3.32	1.291

The descriptive results presented in Table 1, indicate that Bachelor of Business Administration had the highest mean of 3.94 and a standard deviation of 1.001, followed by Bachelor of Accountancy with a mean of 3.91 and a standard deviation of 3.91; then Bachelor of Marketing and Public relations with a mean of 3.83 and a standard deviation of 3.83; bachelor of procurement and logistics management with a mean of 3.74 and a standard deviation of 1.067 and the least is bachelor of human resource management with a mean of 3.32 and a standard deviation of 1.291. The mean score in these programmes means that skills developed in all these programmes are relevant for harnessing blue economy opportunities. The results concur with previous studies by Kakonge in Kenya (2019), who established that capacity building is required to impart skills for utilising blue economy opportunities. Lack of such skills makes one engage in low-earning blue economy jobs. This means there is a need to improve academic programmes to meet the skill gaps of female graduates towards harnessing blue economy opportunities.

ISSN: 2408-7920

African Journal of Applied Research
Vol. 11, No. 2 (2025), pp.125-139
http://www.ajaronline.com
https://doi.org/10.26437/ajar.v11i2.981
Received: July 2, 2024
Peer reviewed: December 22, 2024
Revised: February 18, 2025
Published: April 2025

The influence of Tanzania Institute of Accountancy programmes on female graduates' engagement in Tanzania blue economy opportunities.

The study intended to examine the influence of Tanzania Institute of Accountancy programmes on female graduates' engagement in Tanzania blue economy opportunities. Different tests were conducted to achieve this objective.

Multicollinearity test Results.

The multicollinearity test results indicate that the tolerance value ranges from 0.340 to 0.771. Since such a value is greater than 0.10, and the variance inflation factor (VIF) ranges between 1.378 and 2.480, less than 10, the results suggest that all the TIA programmes that serve as independent variables in this study are free from multicollinearity. That means the independent variables were reliable and valid for this study.

Table 2. Multicollinearity test results

Variables	Collinearity Statistics	
	Tolerance	VIF
Marketing and Public Relations	.481	2.080
Procurement and Logistics Management	.340	2.939
Accounting and Finance	.726	1.378
Business Administration	.403	2.480
Human Resource Management	.771	1.297

Autocorrelation test results

The Durbin-Watson test was conducted to determine whether there was autocorrelation between TIA programmes as independent variables. Table 5 shows that the Durbin-Watson result was 1.431, which is below 1.5 and 2.5, indicating a positive autocorrelation among the study's independent variables.

Model of Fit Results

The model of this study is statistically significant because the prob of the F-statistic is .000, which is less than 5% and hence acceptable. The coefficient of correlation (R) is .662 (66.2%), which implies that 66.2% of the study determinants were used in this study, and only 33.8% were not used, which is also acceptable. The 33.8% suggest other factors to be considered to help female graduates harness Tanzania's blue economy opportunities. Moreover, the coefficient of determination (R-square) is .438 (43.8%). The adjusted R-square is .42.9 (42.9%) which signifies that, the variables of the study (TIA programmes), determine moderately the chances of female

African Journal of Applied Research
Vol. 11, No. 2 (2025), pp.125-139
http://www.ajaronline.com
https://doi.org/10.26437/ajar.v11i2.981
Received: July 2, 2024
Peer reviewed: December 22, 2024
Revised: February 18, 2025
Published: April 2025

graduates' engagement in Tanzania blue economy opportunities if other factors are not worked out as intervention measures.

Correlation Results

The Pearson correlation examined the association between Tanzania Institute of Accountancy programmes and female graduates' engagement in Tanzania blue economy opportunities. The results are presented in Table 3.

Table 3: Correlation results between Tanzania Institute of Accountancy Programmes and Female Graduates' Engagement in Blue Economy Opportunities.

Variables		FEBE	BMPR	BPLM	BAC	BBA	BHRM
FEBE	Pearson Correlation	1					
BMPR	Pearson Correlation	.592**	1		1		
	Sig. (2-tailed)	.000					
BPLM	Pearson Correlation	.576**	.697**	1			
	Sig. (2-tailed)	.000	.000				
BAC	Pearson Correlation	.443**	.442**	.489**	1		
	Sig. (2-tailed)	.000	.000	.000			
BBA	Pearson Correlation	.539**	.604**	.743**	.447**	1	
	Sig. (2-tailed)	.000	.000	.000	.000		
BHRM	Pearson Correlation	.357**	.385**	.384**	.294**	.743**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	

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

Regression results

Linear regression examined the influence of Tanzania Institute of Accountancy Programmes and female graduates' engagement in Tanzania blue economy opportunities. The linear regression results are presented in Table 4.

ISSN: 2408-7920

African Journal of Applied Research
Vol. 11, No. 2 (2025), pp.125-139
http://www.ajaronline.com
https://doi.org/10.26437/ajar.v11i2.981
Received: July 2, 2024
Peer reviewed: December 22, 2024
Revised: February 18, 2025
Published: April 2025

Table 4: Linear regression Results

	Dependent Variable: FEBE			
Independent Variables	**Unstandardised Coeff**	**t-stats**	**P-value**	**Hypothesis**
Constant	.604	2.832	.005	
BMPR	.315	5.130	.000	Accepted
BPLM	.175	2.401	.017	Accepted
BAC	.140	3.063	.002	Accepted
BBA	.141	2.075	.039	Accepted
BHRM	.072	1.591	.112	Rejected
Diagnostic tests				
R	66%			
R^2	43.8%			
Adj R^2	42.9%			
F-statistics	52.795			
Prob (F-statistics)	.000[b]			
Durbin-Watson	1.431			

FEBE: Female graduates' engagement in blue economy opportunities; BMPR: Bachelor of Marketing and Public Relations; BPLM: Bachelor of Procurement and Logistics Management; BAC: Bachelor of Accountancy; BBA: Bachelor of Business Administration; BHRM: Bachelor of Human Resource Management.

a. Dependent Variable: Women's Engagement in Blue Economy Opportunities

b. Predictors: (Constant), Human Resource Management, Accounting and Finance, Marketing and Public Relations, Business Administration, Procurement and Logistics Management

Bachelor of marketing and public relations and female graduates' engagement in blue economy opportunities

The study predicted that a Bachelor of Marketing and public relations positively and significantly influences female graduates' engagement in Tanzania's blue economy opportunities. The results indicate that a bachelor of marketing and public relations has a positive association and significant influence on female graduates' engagement in Tanzania's blue economy (r=0.592, p-value=0.000). This implies that marketing and public relations competencies can enable female graduates to explore and utilise blue economy opportunities. The results concur with the previous study of the European Union (2021), which established the need for an effective marketing and branding strategy for blue economy opportunities. The study also highlights the successful countries in branding and marketing their blue economy growth, such as Denmark, Sweden, Germany, Poland, and Lithuania. This implies that, if the success of blue economy investment is marketing and

African Journal of Applied Research
Vol. 11, No. 2 (2025), pp.125-139
http://www.ajaronline.com
https://doi.org/10.26437/ajar.v11i2.981
Received: July 2, 2024
Peer reviewed: December 22, 2024
Revised: February 18, 2025
Published: April 2025

branding such resources, then a bachelor of marketing and public relations is very essential in the blue economy.

Bachelor of procurement and Logistics Management and female graduates' Engagement in blue economy opportunities

The study predicted that a Bachelor of procurement and logistics management has a positive association and significant influence on female graduates' engagement in Tanzania's blue economy opportunities. The results indicate that a bachelor of procurement and logistics management has a positive association and significant influence on female graduates' engagement in Tanzania's blue economy (r=0.576, p-value=0.017). This implies that procurement and logistics management competencies can enable female graduates to explore and utilise blue economy opportunities. The results concur with the United Nations Economic Commission for Africa, which established that 80% of the goods for trade depend on the oceans and seas (UNECA, 2020). This implies that procurement and logistics management skills are essential to enable female graduates to harness the blue economy through marine transport of trading goods. If the ocean and seas are the major trade routes in the world, and if female graduates pursue procurement and logistics management programmes which equip them with skills on procurement, transportation, distribution and storage of goods, then such a programme is relevant to enable them to harness blue economy opportunities.

Bachelor of accountancy and female graduates' engagement in blue economy opportunities

The study predicted that a Bachelor of Accountancy positively and significantly influences female graduates' engagement in Tanzania's blue economy opportunities. The results indicate that a bachelor of accountancy positively and significantly influences female graduates' engagement in Tanzania's blue economy (r=0.443, p-value=0.002). This implies that business administration competencies can enable female graduates to explore and utilise blue economy opportunities. The results concur with a recent study conducted by Failler et al (2023), in Seychelles, which established the need for accounting skills to influence the review of financial policies in blue economy sectors to raise the national revenue collection. Hurley (2021) suggested that accounting skills enable different countries to widen their tax bases and fund important blue economy investment projects for economic growth and sustainable development.

Bachelor of business administration and female graduates' engagement in blue economy opportunities

The study predicted that a Bachelor of Business Administration positively and significantly influences female graduates' engagement in Tanzania's blue economy opportunities. The results indicate that a Bachelor of Business Administration has a positive association and significant influence on female graduates' engagement in Tanzania's blue economy (r=0.539, p-value=0.039). This implies that business administration competencies can enable female graduates to explore and utilise blue economy opportunities. The results concur with a previous study conducted by Gurumo and Mbilinyi (2019), which established the need for business skills to enhance the blue

ISSN: 2408-7920

African Journal of Applied Research
Vol. 11, No. 2 (2025), pp.125-139
http://www.ajaronline.com
https://doi.org/10.26437/ajar.v11i2.981
Received: July 2, 2024
Peer reviewed: December 22, 2024
Revised: February 18, 2025
Published: April 2025

economy. The study insisted further that such skills are required to utilise blue resources to end poverty and zero hunger, secure affordable and clean energy, create decent work and economic growth, and mitigate the impacts of climate change. If business skills are essential for sustainable utilisation of blue resources and if TIA offers business skills to female graduates, then the TIA programme is vital to enable female graduates to harness blue economy opportunities.

Bachelor of human resource management and female graduates' engagement in blue economy opportunities

The study predicted that a Bachelor of Human Resource Management has a positive association and significant influence on female graduates' engagement in Tanzania's blue economy opportunities. The results indicate that a bachelor of human resource management has a positive association and significant influence on female graduates' engagement in Tanzania's blue economy ($r=0.357$, p-value=0.112). This implies that human resource management skills can enable female graduates to explore and utilise blue economy opportunities. The result concurs with a previous study conducted by Rustomjee in 2016, which raised a need for capacitating human resources to enable them to address different barriers against the growth and sustainability of blue economy resources. Suppose blue economy resources are a tool for economic growth and sustainable development. In that case, human resource management competencies are essential to ensure that the set goals and objectives in important sectors of the blue economy are achieved and sustained.

Barriers Against Female Graduates' Engagement in Tanzania Blue Economy

Female graduates responded to the barriers to engagement in Tanzania's blue economy opportunities. The results are presented in Table 5.

Table 5: Barriers against female graduates' engagement in Tanzania's blue economy

Barriers against female graduates' engagement in blue economy opportunities in Tanzania.	Frequency	Percent
Low awareness of blue economy opportunities among female graduates	58	16.8
Lack of business creation skills among female graduates	94	27.2
Lack of startup capital for blue economy business among female graduates	118	34.2
Digital divide for blue economy investments among female graduates	50	14.5
Lack of blue economy integrated academic programmes	25	7.2
Total	345	100.0

ISSN: 2408-7920

African Journal of Applied Research
Vol. 11, No. 2 (2025), pp.125-139
http://www.ajaronline.com
https://doi.org/10.26437/ajar.v11i2.981
Received: July 2, 2024
Peer reviewed: December 22, 2024
Revised: February 18, 2025
Published: April 2025

The results indicate that most of the graduates 118 (34.2%), consider lack of startup capital as the barrier which prevents them from engaging in blue economy, followed by lack of business creation skills 94 (27.2%), limited awareness 58 (16.8%), digital divide 50 (14.5%) and lastly lack of blue economy integrated academic programmes 25 (7.2%). The critical examination of these barriers informs that personal, economic, socio-cultural and political factors prevent female graduates from directly engaging in blue economy opportunities. The results concur with the African Union report 2019, which called for women's empowerment to enable them to harness blue economy opportunities (African Union, 2019). Similarly, Bohler-Miller et al. (2019) suggested addressing gender gaps in the blue economy, while Edu-Afful and Osei-Tutu (2023) advised integrating women into the blue economy as professional actors. Female graduates' engagement in blue economy opportunities is a complex issue that requires different actors such as policymakers, academicians, politicians, and the general community.

CONCLUSION AND RECOMMENDATIONS

The study reveals that graduates, particularly females, who are the key subjects of this study, have the potential and capacity to drive opportunities in the blue economy. However, they must use resources sustainably while maintaining the health of marine ecosystems.

Governments and businesses recognise the economic potential of oceans, and are adopting sustainable policies. Innovative marine technologies will be key to maximising benefits for both people, the planet, and society. Thus, it creates more jobs and fosters innovation to maximise ocean resources sustainably. Similarly, leveraging the technical know-how can enhance marine resource management, allowing for better employment opportunities and optimisation of economic activities while safeguarding them for future generations.

Therefore, the study recommends intervention programmes integrating the blue economy into higher education. This may involve formulating a specific module that will enhance a general understanding of the potential envisaged at this juncture. When awareness is raised and achieved, more female graduates will find their way into the blue economy.

Implications of the study

This study aims to influence policy review and intervention programmes for integrating higher education programmes with blue economy opportunities towards Tanzania Development Vision 2050.

Female graduates in blue economy sectors often maintain stronger connections to local communities than their male counterparts. Their involvement in sustainable coastal livelihoods, marine conservation, and ocean-based tourism can strengthen community resilience to environmental and economic challenges.

ISSN: 2408-7920

African Journal of Applied Research
Vol. 11, No. 2 (2025), pp.125-139
http://www.ajaronline.com
https://doi.org/10.26437/ajar.v11i2.981
Received: July 2, 2024
Peer reviewed: December 22, 2024
Revised: February 18, 2025
Published: April 2025

REFERENCES

African Union (2019). Africa Blue Economy Strategy. Nairobi: African Union.

Ayilu, R., Fabiriyi, M., Barclay, K. & Bawa, M. A. (2023). Blue Economy: Industrialization and Coastal Fishing Livelihood in Ghana. Reviews in Fish Biology and Fisheries. Springer.

Bohler-Muller, N., Steyn-Kotze, J., Zikhali, T. & Sekyere, E. (2019). Women's Economic Empowerment and the Blue Economy: Policy Brief. Human Sciences Research Council.

Brears, R. C. (2021). *The Blue Economy*. International Economic Law.

Chakraborty, K. (2020). *Blue Economy in India*.

Commonwealth Secretariat. (2016). *The Blue Economy Concept*. https://thecommonwealth.org/news/commonwealth-urges-policy-changes-unleash-blue-economy

Creswell, J.W. (2014). Research Design: Qualitative, Quantitative, and Mixed Methods Approach. New Delhi: SAGE Publishers.

Creswell, J.W. (2015). A Concise Introduction to Mixed Methods Research. New Delhi: SAGE Publishers.

Edu-Afful, P. & Osei-Tutu, J. A. (2023). Guarding the Sea, Pulling the Net, Salting the Fish: The Multiple Roles of Women in the Blue Economy. KATPTC Occasional Paper No. 57

European Commission (2022). The EU Blue Economy Report. Brussel.

European Commission (2021). Marketing and Branding Strategy for the Blue Growth in Southern Baltic Sea Region in the age of Transformation. European Commission Brussel.

Failler, P., Liu, J., Lallemand, P., & March, A. (2023). Blue accounting approaches in the emerging African blue economy context. *Journal of Sustainability Research*, *5*(1).

Gurumo, T.S. & Mbilinyi, R.S. (2019). Enhancing Participation of Women and Youth in Blue Economy Activities. The International Journal of Humanities and Social Sciences. 7 (6). 156-160.

Henriques, C., & Leite, J. (2023). *Exploring the value of the sea: A study of the blue economy in the EU and Portugal*. Strengthening Resilience by Sustainable Economy and Business - Towards the SDGs.

Hoareau, K. (2016). Introduction to the Blue Economy: Course Guide: Commonwealth of Learning. British Columbia.

Hurley, G.M. (2021). Financing the Blue Economy in TIMOR-LESTE: A Preliminary Road Map. United Nations Development Programme

Jekins, O. & Brown, G. (2023). Women's Economic Empowerment in the Blue Economy in Small Islands Developing States. WOW Helpdesk. Query No. 73

Kakonge, J.O. (2019). Kenya and the Blue Economy: The Way Ahead. International Journal of Innovative Research and Development. 8 (10). 369-373.

Khan, T. (2020). Young, Female and African: Barriers, Interventions and Opportunities for Female Youth Employment in Africa. INCLUDE Knowledge Platform.

Lagat, E. K. & Handa, S. (2023). Blue Economy Infrastructure Development and Security.

ISSN: 2408-7920

African Journal of Applied Research
Vol. 11, No. 2 (2025), pp.125-139
http://www.ajaronline.com
https://doi.org/10.26437/ajar.v11i2.981
Received: July 2, 2024
Peer reviewed: December 22, 2024
Revised: February 18, 2025
Published: April 2025

A Case Study of Kenya's Lake Victoria. Reviewed Journal of Social Sciences & Humanities. 4 (1). 215-239.

Lyimo, B. J. (2021). Blue Economy Growth and United Republic of Tanzania Economy. Olva Academy School of Researchers. 3 (1). 1-5.

Muncini, R. & Comolet, A. (2020). Blue Economy in the Mediterranean. Case Studies, Lessons and Perspectives. United Nations Environment Programmes.

Olteanu, A., & Stinga, V. (2019). *The economic impact of the blue economy*. 11th LUMEN International Scientific Conference Communicative Action & Transdisciplinarity in the Ethical Society, CATES 2018, 23-24 November 2018, Targoviste, Romania.

Rustomjee, C. (2016). Financing the Blue Economy in Small States. Policy Brief No. 78. Centre for International Governance Innovations.

Semboja, J. (2021). Realising the Blue Economy in Zanzibar: Potentials, Opportunities and Challenges. Research Report 21/17. Dar es Salaam: Uongozi Institute. Sousa, S., Spinrad, R. (2021). *The New Blue Economy*. Preparing a Workforce for the New Blue Economy.

Tanzania Institute of Accountancy (2024). Prospectus for 2024/2025. Dar es Salaam: Tanzania Institute of Accountancy.

UNECA (2014). Unlocking the full Potential of the Blue Economy: Are African Small Islands and Developing States Ready to Embrace the Opportunities? Addis Ababa.

UNECA (2020). Blue Economy, Inclusive Industrialization and Economic Development in Southern Africa. Addis Ababa.

UNECA (2023). Socio-Economic and Ecological Assessment of the Blue Economy in Tanzania Southern Africa. Kigali.

United Nations (2023). United Nations Development Programme. An Ocean of Opportunities. How the Blue Economy can Transform Sustainable Development in Small Islands Developing States. Bangkok.

United Nations (2012). Rio+20 United Nations Conference on Sustainable Development.

United Republic of Tanzania (2018). Overview, Milestones of Blue Economy in Tanzania Towards Implementation of Sustainable Development Goal 14. 10th April 2018, Hurley,

World Bank (2016). Blue Economy Development Framework.

World Bank (2021). Blue Economy Promotional and Marketing Strategy/Plan.

World Bank (2023). Making Waves: An Evaluation of the World Bank's Support for the Blue Economy (2012-2023). World Bank Group.

Young, E. (2024). Catalyzing Global Women's Leadership in the Green and Blue Economies. Counterpart International

Youssef, M. (2023). *Blue Economy Literature Review*. International Journal of Business and Management.

ISSN: 2408-7920