

Effect of Sustainable Entrepreneurship Practices on the Non-Financial Performance of Fisheries SMEs in Tanzania

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Abstract

This paper seeks to investigate the relationship between social, economic, and environmental Sustainable Entrepreneurship Practices (SEPs) and the non-financial performance of fisheries Small and Medium Enterprises (SMEs), and the mediating role of reasons for SMEs implementing SEPs. A semi-structured questionnaire was utilized to gather data from a sample of 389 entrepreneurs involved in the Nile perch fishery of Lake Victoria in Tanzania. Partial Least Squares Structural Equation Modelling (PLS-SEM) technique was used for statistical analysis of quantitative data. The findings indicate social and economic SEPs significantly affect the non-financial performance of fisheries SMEs, while environmental SEPs were insignificant. Also, reasons for SMEs implementing SEPs were found to have a partial mediating role in social and economic SEPs and no mediation role in environmental SEPs. The study recommends capacity building to fisheries SMEs entrepreneurs on the significance of environmental practices and their reciprocity effect on social and economic benefits to firms and communities at large, so as to improve their perceptions and attitudes towards environmental SEPs.

Keywords: Sustainable entrepreneurship, Fisheries, Triple-bottom line, Firm performance

Introduction

Nowadays, the concept of entrepreneurship has evolved beyond its traditional perception as a mere tool for attaining economic objectives. It is now recognized as a viable approach for addressing persistent sustainability issues (Nhemachena and Murimbika, 2018; Vuorio et al., 2017; Wahga et al., 2017). The conventional approach to business, which prioritizes profit-making without considering societal and environmental issues, is no longer seen as viable, irrespective of the firm's size or location (Ahmad et al., 2020; Hall et al., 2010). According to Munoz and Cohen (2018), there is an argument suggesting that both large firms and SMEs can serve as a means to address social and environmental concerns, rather than being the cause of such challenges. Hence, sustainable entrepreneurship has emerged as a new field of entrepreneurship that embodies multi-dimensional constructs that merge economic performance with social responsibility and environmental stewardship (Nicolopoulou et al., 2016). As such, it is reshaping conventional business models, and setting a new paradigm for business performance, presenting novel opportunities for large firms and SMEs to improve their competitiveness and sustainability.

To achieve sustainable business performance, firms implement sustainable entrepreneurship practices (SEPs) of different kinds targeting community, environment, employees, partners, customers, and suppliers (Ahmad et al., 2020; Soto-Acosta et al., 2016). These SEPs have been reported to have positive relationships with both financial and non-financial firm performance (Ahmad et al., 2020; Masocha, 2019, 2018; Tarnanidis et al., 2017; Choongo, 2017;). SEPs refer to the ways in which entrepreneurs create and manage businesses that generate economic, social, and environmental goals (Belz and Binder, 2017). SEPs have

become increasingly important for large firms and SMEs as they strive to achieve economic growth while minimizing their impact on the environment and society (Roxas et al., 2017; Soto-Acosta et al., 2016). SEPs are a source of firm competitive advantage and give the firm an opportunity to stand out from other firms (Cantele and Zardini, 2018; Muñoz et al., 2018; Roxas et al., 2017).

Following the Triple Bottom Line (TBL) framework, which also known as the three Ps: People, Planet, and Profits, established by Elkington (1997), firms strive to balance both social, economic, and environmental SEPs on an equal footing (Tarnanidis et al., 2017; Stubbs, 2016; Hall et al., 2010; Shavitz and Weber, 2006). SEPs towards the environment imply that a firm is taking environmental responsibility and investing in technologies for waste management, energy conservation, pollution prevention and control, and lessening the effects of human activity on the environment (Roxas et al., 2017; Shafiq et al., 2017). Social SEPs involve firms working with their suppliers to promote ethical and sustainable practices like sourcing raw materials from certified sustainable sources, pursuing sustainable product innovation for customers who are environmentally and socially conscious, improving the working conditions for their employees, and engaging in community (Ayuso and Navarrete-Báez, 2018). With such practices, firms gain a competitive advantage through improved efficiency and cost savings, firm reputation and employee commitment, and increased sales volume and profitability (Masurel, 2007; Choongo, 2017; Gandolfo and Lupi, 2021).

In the context of fisheries, SEPs involve minimizing the negative impact of fishing activities on the environment while maximizing socio-economic benefits for local communities. Such SEPs include adopting environmentally friendly fishing methods and practices, waste reduction strategies, efficient use of energy in fishing, a healthy and safe working environment, fair remuneration for employees, contributing to community development projects, and adhering to national and international food safety and standards (FAO, 2018; 1995; URT, 2003a).

Nevertheless, while extensive studies on the effects of SEPs on the performance of SMEs in various sectors, such as manufacturing and service businesses, have been done, there is a paucity of studies that have investigated the effect of SEPs on the performance of SMEs in Sub-Saharan Africa, including SMEs in the fisheries sector (Johnstone and Lionais, 2018; Choongo, 2017). SMEs in the fisheries sector confront unique challenges, such as overfishing, illegal, unreported, and unregulated fishing, and the impacts of climate change (FAO, 2020). In such a setting, adopting and implementing SEPs could potentially boost their economic performance while addressing social and environmental concerns.

The fisheries sector is a crucial contributor to food security and poverty alleviation in many countries worldwide (FAO, 2020), and it is a fascinating context due to its intrinsic relation to biodiversity, environmental sustainability, and social-economic matters. The sector is expected to contribute to the achievement of Sustainable Development Goals (SDGs) number 14 of 17 SDG goals in 2030, which aim to conserve and sustainably use the oceans, sea, lakes, rivers, and marine resources for sustainable development (Crecente et al., 2021).

In Tanzania, for instance, from the year 2016 to 2020, the annual fish production from capture fisheries was 362,594.89 to 473,592,240 metric tonnes, and more than 98% of the produce was used for human consumption (URT, 2020). The sector offered direct employment to 203,529 fishers and more than 4 million others employed in fishery-related activities (URT, 2020). Out of 109,397 fishers operating in Lake Victoria, 66,024 are involved in the Nile perch fishery (URT, 2020; LVFO, 2021).

On the other hand, the Nile perch fishery faces a number of sustainability challenges that contribute to the decline of the fishery stock (LVFO, 2020; Mkuna & Baiyegunhi, 2019; Mkumbo & Marshall, 2015). A number of efforts to reverse the situation have been made, including the implementation of SEPs through eco-labelling (Mgaya, 2017; Onyango, 2013). However, research on how these practices influence the performance of fisheries SMEs has been largely overlooked.

Therefore, this research intends to fill the identified knowledge gap by exploring the effects of SEPs on the non-financial firm performance of fisheries SMEs in Tanzania and using the Nile perch fishery from Lake

Victoria as a case study. The research contributes to the emerging literature on sustainable entrepreneurship in the fisheries sector and provides practical implications for SMEs, policymakers, and stakeholders interested in the sustainability of this critical sector.

Hypotheses development

Sustainable entrepreneurship practices and firm performance of SMEs

Currently, firm performance is no longer evaluated based on traditional financial indicators. Following the TBL, firms also take into account the organization's effects on the environment, the society in which it operates, and the larger economy (Hourneaux et al., 2018; Soto-Acosta et al., 2016; Hosseini and Ramezani, 2016; Savitz and Weber, 2006). Several dimensions of SEPs that capture the social, economic, and environmental effects of SMEs operations are used to determine the firm's sustainable performance. According to Tarnanidis et al. (2017), the most crucial SEPs for the economic dimension are those that aim to boost a company's long-term profitability. Economic SEPs such as firm's compliance to legal obligations, on-time delivery of the product/services to their customers, provision of quality product and services that geared to increase number of customers and sales volume are among of SEPs that have impact on firm performance. Providing workers with a healthy and safe working environment and fair compensation, donations, and contributions to economic development projects are among the social SEPs that significantly affect the performance of SMEs (Cantele and Zardini, 2018; Choongo, 2017). Also, Masocha (2019) found that social practices such as community engagement, women's promotion to senior management positions, and improving the general education level have a significant impact on SME performance in emerging countries in terms of financial, customer, and employee satisfaction. Further, Choongo (2017) found social and environmental practices significantly contributing to the financial performance of SMEs in the mineral sector of Zambia and partially contributing to non-financial factors. While, Hosseini and Ramezani (2016) found that recycling, concern for the future of the earth; standards and physical standards of workplace are important environmental variables which have a strong relationship with the sustainable performance of SMEs in the food industry.

On a different note, some studies found that environmental SEPs have an insignificant impact on firm performance (Cantele & Zardini, 2018; Soto-Acosta et al., 2016). Poor perception and attitudes of entrepreneurs towards environmental responsibilities and many legislative voids regarding environmental protection compared to economic and social policies, especially in developing countries, are among the reasons associated with the insignificant contribution of environmental SEPs to firm performance (Cantele & Zardini, 2018; Soto-Acosta et al., 2016). Based on these arguments, the study hypothesizes that:

H1: Social SEPs have a significant effect on the non-financial firm performance.

H2: Economic SEPs have a significant effect on non-financial firm performance.

H3: Environmental SEPs have a significant effect on the non-financial firm performance.

H4: SEPs (SOP, ECP, and EVNP) significantly influence the reasons for SMEs implementing SEPs (REAS).

The mediating role of reasons for SMEs implementing SEPs

Scholars argued that, despite being recognized, SMEs have limited resources to embrace sustainability, but some SMEs are fast-adopting the implementation of SEPs for diverse reasons (Roxas et al., 2017; Masurel, 2007). Improved employee motivation, reduced costs, increased revenues and profitability, and attaining firm legitimacy and reputations are among the reasons that influence the implementation of SEPs in SMEs (Wahga et al., 2017; Gast et al., 2017; Choongo, 2017; Masurel, 2007). On the other hand, demands from national and international rules, public pressure from communities and NGOs involved in humanities and environmental conservation, and others are among the factors that led SMEs to implement SEPs (Wahga et al., 2017; Gast et al., 2017). Based on these arguments, the study hypothesizes that:

H5a: Reasons for SMEs implementing SEPs mediate the relationship between Social SEPs and non-financial firm performance.

H5b: Reasons for SMEs implementing SEPs mediate the relationship between Economic SEPs and non-financial firm performance.

H5c: Reasons for SMEs implementing SEPs mediate the relationship between environmental SEPs and non-financial firm performance.

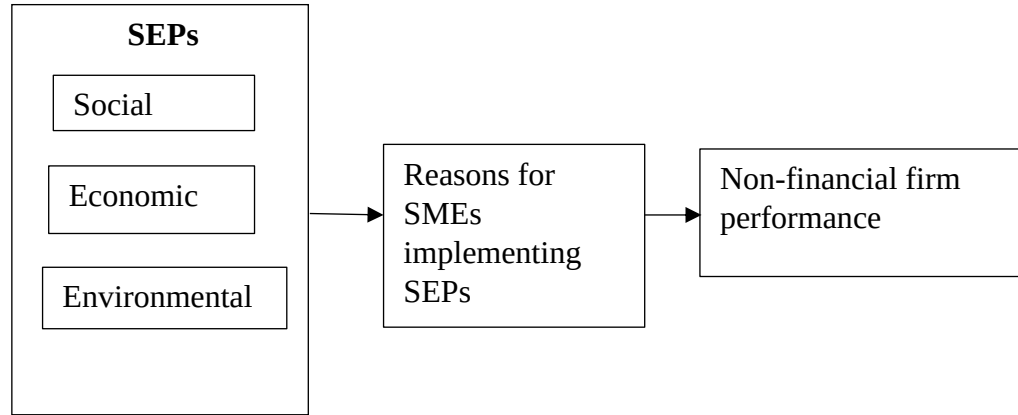


Figure 1. Research model

Methods, techniques, studied material and area descriptions

A cross-sectional survey was conducted in December 2022 in the three riparian regions (Mwanza, Mara, and Kagera) of Lake Victoria on the Tanzanian side. Tanzania's Lake Victoria is surrounded by five administrative regions: Kagera, Mwanza, Geita, Mara, and Simiyu (URT, 2020). Out of the five regions, Mwanza, Mara, and Kagera were purposively chosen for the study due to a number of factors, including the presence of fish processing facilities that support sustainable entrepreneurship through eco-labelling, the fact that these regions produce the majority of the Nile perch harvests, and the fact that 54,849 of the 62,024 Nile perch fishers operate there (LVFO, 2021; Onyango, 2013). Unfortunately, despite the fact that the number of fishers targeting the Nile perch fishery is known, the target population of Nile perch fisheries SMEs is not known. Therefore, Cochran's (1977) formula for an unknown population was used to estimate the sample size of the study, as shown below:

$$n = \frac{Z^2 pq}{e^2}$$

where: n is sample size, Z is confidence level, p is variability of population, q is (1 – p), and e is margin of error. In this study, it is assumed that the variability of the population is 0.5 (maximum variability), the confidence level is 95%, and the margin of error is 5%. Hence, the resulting sample size is:

$$n = \frac{(1.96)^2 (0.5) (0.5)}{(0.05)^2}$$

$$n = 384.16$$

Therefore, the sample size of 384 was considered and proportionately distributed to three regions based on the number of Nile perch fishers per region (URT, 2020). A convenient sampling method was deployed. Nile perch fishery entrepreneurs who invested in fishing boats and gears found at the landing sites during the survey were asked for participation in the study to represent their fisheries SMEs. As a results, 389 respondents were interviewed, and 93.8% of them were males and 6.2% were females, and the majority (89.49%) of the respondents were under the age range of 26 years to 55 years. Structural Equation Modelling (SEM) using the SmartPLS software was used for statistical analysis. The method was chosen because of its capacity to analyze complex and multifaceted latent variables that are normally measured

with error (Hair et al. 2010). PLS-SEM is a non-parametric model that uses the variance-based technique and therefore eases assumptions on the number of indicators and data normality (Sarstedt et al., 2019). The study constituted five constructs, namely: Social Practices (SOP), Economic Practices (ECP), environmental Practices (ENVP), Reasons for SMEs implementing SEPs (REAS), and Non-financial firm performance (PERF). All the constructs were measured by reflective indicators on five-point Likert scale-type anchors, with the range being 1 (Strongly disagree) to 5 (Strongly agree), adapted from previous similar studies as shown in Table 1 and slightly modified to cater for the industry specifics. The study also has two control variables measured in categorical form: firm age (FIRMAG) years since the firm was established, and firm assets (FIRMAS) capital invested in the form of fishing boats, engines, nets/hooks, and equipment's. Lastly, a one-on-one interview was deployed to gather the data. The technique was selected because of its capacity to decrease the non-response problem and maximize the quality of the data obtained (Creswell, 2012).

Table 1: Constructs and items measured

Construct	Acronym	Items	Sources
Social practices(Independent variable)	SOP1	Adhere to national and international food safety and standards	Soto-Acosta et al., 2016; Choongo, 2017; Cantele & Zardini, 2018; Lalangui, 2021
	SOP2	I pay my employees with wages that properly and fairly reward them for their work	
	SOP3	Help employees balance work-life and family life	
	SOP4	Contribute to economic development projects in the community	
Economic practices(Independent variable)	ECP1	Ensure on-time delivery to avoid/ minimize rejects of our fish	Choongo, 2017; Cantele & Zardini, 2018; Lalangui, 2021
	ECP2	My firm recognized for the quality service given to its customers	
	ECP3	My firm ensure efficiency use in energy/ fuel consumption	
Environmental practices (Independent variable)	ENVP1	Ensure my fishing business does not contribute to harmful emissions	Choongo, 2017; Cantele & Zardini, 2018; Lalangui, 2021
	ENVP2	Ensure avoid/reduce water & solid waste	
	ENVP3	I always consider fishing practices and methods that are environmental harmless	
Reasons for implementing SEPs (Mediating variable)	REAS1	My firm includes SEPs because it improves employee commitment	Choongo, 2017
	REAS2	My firm includes SEPs because the community where my business is located demands it.	
	REAS3	My firm includes SEPs because it improves the health/wellbeing of people in my community	
Firm performance (Dependent variable)	PERF1	Our customers are very satisfied with the products/services we offer	Choongo, 2017
	PERF2	Our employees are very committed to the firm	
	PERF3	Our employees often go above and beyond their regular responsibilities to ensure the firm's well-being	
Firm Age (Control Variable)	FIRMAG	5 years or less =1, 6-15 years =2, 16-25 years=3, 26-35 years =4, Above 35 = 5	Constructed by Researchers
Firm Assets (Control variable)	FIRMAS	Below 5 million =1, 5-100 million =2, 101-200 Million =3, 201-300 Million =4, 301-400 Million =5, Above 500 Million = 6	Constructed by Researchers

Results

Firm Characteristics

Table 2 indicates the majority of fisheries SMEs sampled were of less than 15 years of age. Following the Tanzania policy of 2003 for SMEs, the majority of the firms sampled fall under the category of micro and small enterprises where their capital for boats, engines, nets/hooks and equipment's is not more than TZS 200 million (1 TZS was equivalent to 0.00041 USD), and only 15 firms fall under the category of medium enterprises with capital above TZS 200 million. The total number of employees, total investment, and sales turnover are used as yardsticks to categorize SMEs in Tanzania (URT, 2003b). Results also indicate Nile perch fisheries SMEs rely more on part-time than full-time employees for labour. The maximum number of full-time employees was six, while the maximum number of part-time employees was 91.

Measurement model

The measurement model involves the assessment of the relationship between the constructs and their indicators. Table 3 depicts the assessment of the measurement model's reliability and convergent validity. A threshold of loadings above 0.7 is recommended implying that the construct explains more than 50 percent of the indicator's variance, thus providing acceptable item reliability (Hair et al. 2019). Therefore, indicators with low factor loadings (< 0.70) were removed as part of measurement model evaluation process. Table 3 shows that all loadings are above 0.7. Using Jöreskog's (1971) Composite Reliability (CR), the reliability values for the study range from 0.7 to 0.9, indicating the CR for the study is good. AVE is a measure of a construct's convergent validity (Hair et al. 2019). An AVE value of 0.50 or above is acceptable. All the constructs have an AVE value of above 0.6; therefore, the study convergent validity was established. The control variables firm age and assets have nothing to compare with, hence the variables have value of 1 in all aspects of quality criteria. Furthermore, the study used Heterotrait-monotrait ratio (HTMT) to assess the discriminant validity. HTMT is recognized to have more stringent assessment criteria compared to Fornell and Larcker's (1981) criterion (Low, Ong & Tan, 2017). Discriminant validity measures the extent to which a construct is empirically distinct from other constructs in the structural model (Hair et al., 2018). A threshold value of 0.85 or not larger than 0.90 for HTMT is recommended (Sarstedt et al., 2019). In Table 4, the results show that all values are below the conservative threshold of 0.85 except one (0.880), implying that the study constructs are conceptually more distinct (Hair et al., 2019). Therefore, generally it can be concluded that the measurement model results indicate that constructs used in this study have good levels of construct validity, reliability and convergent as well as discriminant validity.

Table 2. Firm characteristics (N=389)

Details	Frequency	Percentage		
Firm Age				
5 years or less	159	40.9		
6-15 years	129	33.2		
16-25 years	77	19.8		
26-35 years	17	4.4		
More than 35	7	1.8		
Firm Assets				
(TZS Millions)				
Below 5	176	42.2		
5- 100	83	21.3		
101-200	105	29.6		
201- 300	9	2.3		
301- 400	2	0.5		
Above 401	4	1.0		
Firm Employees				
	Minimum	Maximum	Mean	Std. Deviation
Full-time	1	6	1	.74
Part-time	2	91	10	10.95

Table 3: Loadings, Reliability and Convergent Validity

Constructs	Items	Loadings	Composite Reliability (CR)	Average Variance Extracted (AVE)
Sustainable entrepreneurship practices	SOP1	0.744	0.861	0.607
	SOP2	0.818		
	SOP3	0.754		
	SOP4	0.799		
	ECP1	0.911	0.873	0.774
	ECP2	0.848		
	ENVP1	0.898	0.811	0.684
	ENVP2	0.749		
Reasons for SMEs Implementing SEPs	REAS1	0.815	0.859	0.670
	REAS2	0.834		
	REAS3	0.808		
Firm Performance	PERF1	0.859	0.917	0.786
	PERF2	0.918		
	PERF3	0.881		
Control variables	FIRMAG	1.000	1.000	1.000
	FIRMAS	1.000	1.000	1.000

Table 4: Discriminant Validity using the HTMT criterion

	ECP	ENVP	FIRMAG	FIRMAS	PERF	REAS	SOP
ECP							
ENVP	0.765						
FIRMAG	0.011	0.095					
FIRMAS	0.028	0.110	0.121				
PERF	0.750	0.477	0.034	0.077			
REAS	0.702	0.432	0.009	0.136	0.840		
SOP	0.820	0.490	0.036	0.123	0.823	0.880	

Structural model:

The structural model depicts the paths hypothesized in the research model (Fig 2). Before assessing the structural model, collinearity issues were checked by investigating the inner VIF to ensure they did not influence regression results. The study results indicate collinearity was not a problem because all inner VIF values were less than 2 below the threshold of 3.3 (Hair et al., 2019). Additionally, four standard assessment criteria, namely: R^2 (explained variance), f^2 (effect size), Q^2 (predictive relevance), and the size and statistical significance of the structural path coefficients were checked to evaluate the structural model as recommended by existing literature (Hair et al., 2019; Hair et al., 2017). Table 5 indicates the results of R^2 for endogenous variables (PERF & REAS) were 0. 0.593 and 0.485, and for Q^2 were 0.477 and 0.317, respectively, indicating model's explanatory power and predictive accuracy were established (Hair et al., 2019; Hair et al., 2017). According to Hair et al. (2017), f^2 values of 0.02, 0.15, and 0.35, respectively, represent small, medium, and large effects of the exogenous latent variable, while values of less than 0.02 indicate that there is no effect. The f^2 values for exogenous latent variable ECP against endogenous variables PERF was 0.046 and for REAS was 0.027 indicating small effect size, and f^2 values for exogenous

latent variable SOP against endogenous variables PERF and REAS were (0.083 and 0.385) indicating small effect size on PERF while for REAS is large effect size. On the other hand, f^2 values for exogenous latent variable ENVP against endogenous variables PERF and REAS were less than 0.02, indicating the exogenous latent variable has no effect size. Also, the results indicate the control variables FIRMAG and FIRMAS were less than 0.02 indicating no effect size on PERF (Table 5).

Further, hypotheses were tested to ascertain the significance of the relationship between the exogenous latent variables and the endogenous latent variables of the structural model. H1 evaluates whether social SEPs (SOP) significantly affect non-financial firm performance (PERF). The results showed that SOP significantly affects PERF ($\beta = 0.277$, $t = 3.208$, $p = 0.001$). Hence, H1 was supported. The results also revealed that economic SEPs (ECP) have a highly significant effect on PERF ($\beta = 0.193$, $t = 3.774$, $p = 0.000$) and therefore, H2 was also supported while the results indicated environmental SEPs (ENVP) have no significant effect on PERF ($\beta = 0.025$, $t = 0.592$, $p = 0.554$); hence the H3 was not supported. Furthermore, the results also showed SEPs (SOP and ECP) have highly significant effects on REAS ($\beta = 0.570$, $t = 12.130$, $p = 0.000$; $\beta = 0.165$, $t = 3.235$, $p = 0.001$) supporting H4a and H4b while ENVP has no effect on REAS ($\beta = 0.025$, $t = 0.479$, $p = 0.632$ and therefore H4c was not supported. The results also indicate all the control variables (FIRMAG & FIRMAS) have insignificant influence on PERF under sustainable entrepreneurship perspectives ($\beta = 0.027$, $t = 0.890$, $p = 0.374$; $\beta = -0.005$, $t = 0.171$, $p = 0.864$). Lastly, bootstrap of 5,000 resamples generated 95% confidence interval as shown in table 4 and the confidence interval different from zero indicates significant relationship (Hair et al., 2019).

Table 5: Testing direct relationships

Constructs	Path coefficient (β)	SD	t values	p Values	BI [2.5% ; 97.5%]		f ²
ECP -> PERF	0.193	0.051	3.774	0.000	0.095	0.288	0.046
ECP -> REAS	0.165	0.051	3.235	0.001	0.061	0.253	0.027
ENVP -> PERF	0.025	0.043	0.592	0.554	-0.053	0.112	0.001
ENVP -> REAS	0.025	0.052	0.479	0.632	-0.066	0.127	0.001
FIRMAG -> PERF	0.027	0.030	0.890	0.374	-0.041	0.082	0.002
FIRMAS -> PERF	-0.005	0.031	0.171	0.864	-0.062	0.063	0.000
REAS -> PERF	0.402	0.074	5.420	0.000	0.258	0.537	0.203
SOP -> PERF	0.277	0.086	3.208	0.001	0.108	0.440	0.083
SOP -> REAS	0.570	0.047	12.130	0.000	0.466	0.653	0.385
R ² PERF = 0.593	Q ² PERF= 0.447						
R ² REAS = 0.485	Q ² REAS = 0.317						

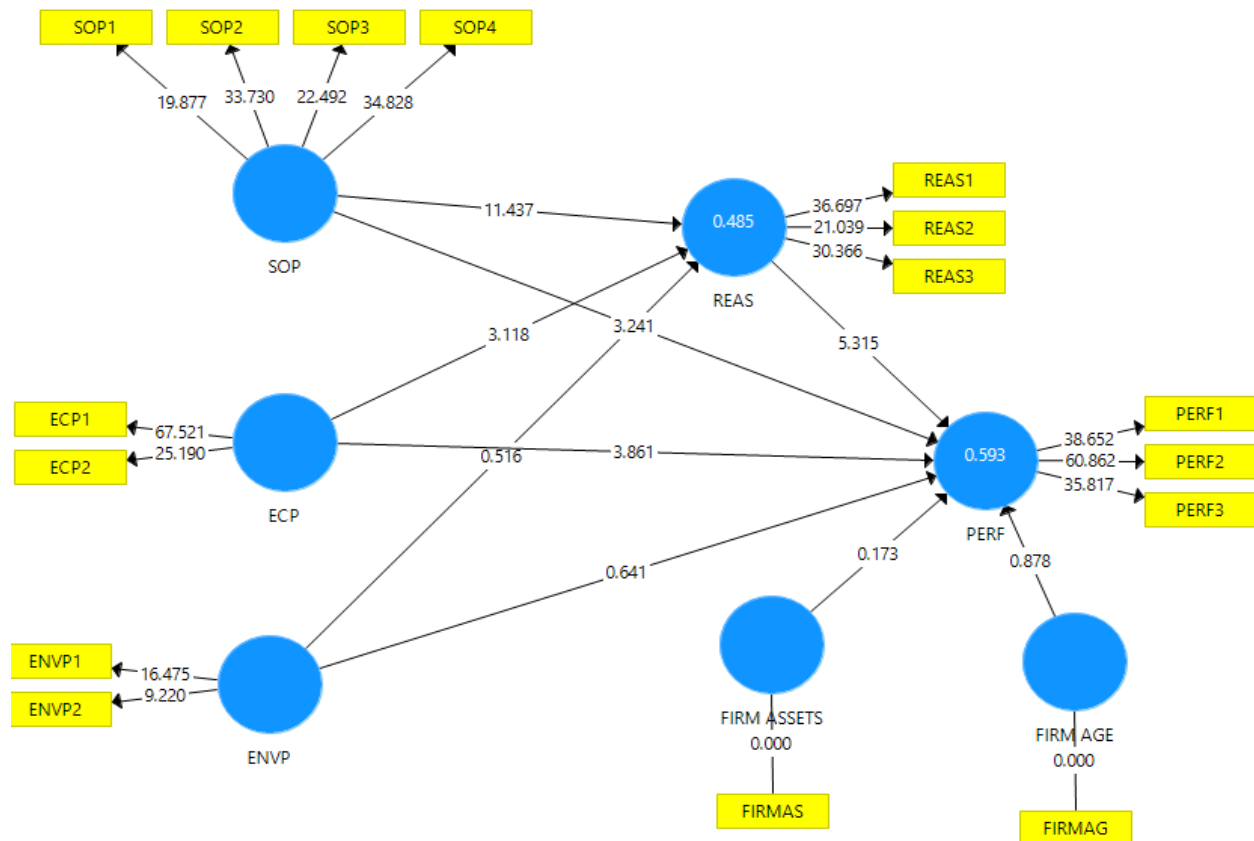


Figure 2: Structural model of the research framework

Mediation analysis

The study also involved the mediation analysis to assess the mediating role of REAS. The results in Table 6 revealed partially significant ($p < .05$) mediating role of REAS between SEPs (ECP and SOP) and PERF ($\beta = 0.066$, $t = 2.806$, $p = 0.005$; $\beta = 0.229$, $t = 5.321$, $p = 0.000$). On the other hand, REAS has no mediation role between ENVP and PERF ($\beta = 0.010$, $t = 0.450$, $p = 0.653$). Therefore, H5a and H5b were supported, while H5c was not supported.

Table 6: Indirect effects of SEPs on PERF

	Coefficient	SD	t value	P Values	BI (2.5%; 97.5%)	
ECP -> REAS -> PERF	0.066	0.024	2.806	0.005	0.029	0.119
ENVP -> REAS -> PERF	0.010	0.022	0.450	0.653	-0.022	0.059
SOP -> REAS -> PERF	0.229	0.043	5.321	0.000	0.150	0.312

Discussion

The study aimed to investigate the relationship between social, economic, and environmental SEPs and the non-financial performance of firms (PERF) and the mediating role of REAS. The research hypotheses tested these relationships using PLS-SEM. The first hypothesis (H1) posited a significant effect of social SEPs (SOP) on PERF. The results obtained from the structural model analysis provided strong support for this hypothesis, as a highly significant positive effect was observed. This suggests that firms with strong social SEPs are likely to perform better than those that does not prioritize social SEPs. Table 2 also indicated that

fisheries SMEs mostly rely on part-time employees for the harvest of the fisheries resource. These imply that for entrepreneurs of fisheries SMEs to win the trust and commitment of their employees, they have to invest more in social SEPs, which in turn significantly influence their non-financial firm performance. The second hypothesis (H2) evaluated the impact of economic SEPs (ECP) on PERF. Similar to H1, the results provided strong evidence in favour of H2, with ECP exhibiting a highly significant effect on PERF. This outcome indicates that firms that prioritizing on economic SEPs can also experience higher non-financial performance. Contrary to H1 and H2, the third hypothesis (H3), which postulated a significant effect of environmental SEPs (ENVP) on PERF, was not supported by the findings. The effect of ENVP on PERF was insignificant. This result might imply that, within the context of this study, environmental considerations do not significantly contribute to the non-financial firm's performance. These study findings are similar to those of Soto-Acosta et al. (2016) and Cantele et al. (2018), who found significant relationships between social and economic SEPs on firm performance and an insignificant effect of environmental SEPs on firm performance. These scholars argued that poor perceptions and attitudes towards environmental SEPs and legislation voids in many developing countries are among the reasons associated with the insignificant effect of environmental practices on firm performance.

Furthermore, because of the complexity and varied nature of sustainability, studies also indicate trade-offs and conflicts between social, economic, and environmental factors normally exist in business (Hahn et al., 2010; Bansal & DesJardine, 2014; Kautonen et al., 2020). In fisheries, firms tend to trade-off short-term harvest of fish over long-term resource conservation and output maximization, compromising environmental sustainability efforts. Additionally, the high dependence of poor people on natural resources and the open access regime for managing the fishery resource led most fisheries firms to overexploit the fishery resource, contributing to the continued decline of most world fishery stocks, including the Nile perch of Lake Victoria (Dean & McMullen, 2007; Hanna, 2014). Also, corruption, through the payment of bribes to avoid sanctions and to enable illegal practices to continue, has been reported to weaken efforts for environmental sustainability in natural resources, including fisheries (Nunan et al., 2018; Sundström, 2016; Gezelius and Hauck, 2011). Therefore, the above-mentioned factors could also be associated with why the environmental SEPs have no significant influence on non-financial firm performance in fisheries SMEs of Nile perch in Lake Victoria in Tanzania.

In examining the relationship between SEPs and REAS, both social and economic SEPs were found to have a highly significant influence on REAS supporting H4a and H4b. However, environmental SEPs were found to have no relationship with REAS. This implies that, in the context of this study, social and economic SEPs have a critical relationship with the REAS but environmental SEPs do not. The results of the study demonstrate a significant partial mediating role of REAS on SEPs (ECP and SOP) and PERF. These findings suggest that REAS plays a crucial role in enhancing the influence of ECP and SOP on PERF, and the significance level of these relationships ($p = 0.012$ and $p = 0.000$) further strengthens the validity of these results. Contrarily, REAS does not appear to mediate the relationship between ENVP and PERF, and fails to support hypothesis H5c. This suggests that, despite the presence of ENVP, it does not significantly impact PERF when mediated by REAS.

Conclusion

To the best of our knowledge, many studies on the relationship between SEPs and business performance have been mainly focused on SMEs of manufacturing firms and service businesses and have scarcely addressed SMEs of natural resource-related firms like fisheries. Therefore, these study findings imply that natural resources-related firms that aim to enhance their performance through sustainable entrepreneurship, social and economic SEPs can significantly improve their non-financial firm performance, while environmental SEPs may not have the same effect. The insignificant results of environmental SEPs on non-financial firm performance also highlight the contributing factor of continuous illegal fishing practices in many fisheries around the world (FAO, 2020), because the study results align with the reported argument of poor perception and attitudes of many SMEs entrepreneurs in developing world. The government and other practitioners need to build the capacity of fisheries SMEs entrepreneurs on the significance of

environmental SEPs and their reciprocity effect on social and economic benefits to firms and communities at large. This will change entrepreneurs' perceptions and attitudes towards the environmental sustainability of fishery resources. Further, these study findings provide important insights into the mediating role of REAS in the relationship between ECP, SOP, ENVP, and PERF. Given the insignificant mediation role of REAS on ENVP to PERF, we propose future studies to consider additional mediating or moderating variables, such as competitive advantage that could influence this relationship. Lastly, the current study only considered the effects of SEPs on non-financial PERF, future studies might consider studying the effect of SEPs on the financial performance of the firm. Also, the study's sample was drawn from the fisheries sector only, these findings cannot be generalized to other natural resource-related firms. Therefore, future studies should verify these findings across natural resource sectors.

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