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Original Article

### Exploring the Profitability, Supporting Functions and Business Environment of Small and Medium Forest-Based Enterprises in Ruvuma, Tanzania

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*Small and Medium Enterprises, Profitability analysis, Capacity Building Activities, Entrepreneurial Relationships and Financing, Research and Development, Business Environment.*

Even though forest-based enterprises are prominent in the Ruvuma region as they are beneficial to the community in both an economic and social sphere, little is known about their profitability, supporting functions and business environment. Therefore, the objective of this study was to analyze the profit and determine supporting functions and the business environment of the SMEs along forest-based value chains in the Ruvuma region. A cross-sectional research design was adopted. Two districts (Songea urban and rural) were purposively selected due to their high forest value chain potentials and high availability of Small and Medium Enterprises. About 120 entrepreneurs who were dealing with forest products were randomly selected for this study. Interviews and unstructured questionnaires were used to obtain data on the profit metrics, supporting functions and the business environment of the SMEs. Descriptive, Inferential (Binary Logistic Regression) and Content analysis were performed on the collected data. The study revealed that the SMEs found along the forest-based value chain which was later categorized according to the nature of the products they produce and trade varied in their profitability (i.e., wild tea leaves 73%, beekeeping 54%, mushrooms 48%, bamboo 27%, fire sticks 12%, and timber -13%), their supporting functions included Capacity building, Entrepreneurial relationships, Financing, and Entrepreneurial Research and Development and that there is an existing understanding on their business environment i.e., the laws, policies and regulations which were at play. These findings can be used for different purposes such as a basis for further research on the forest-based entrepreneurship industry, education provision to the entrepreneurs, policy formulation for the benefit of entrepreneurs and allocation of funding to these enterprises.

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**INTRODUCTION**

Small and Medium enterprises (SMEs) are an integral part of the economic and social development of individuals, communities and even countries all around the globe. According to Herr and Nettekoven (2017) and Mempel-Sniezyk(2014), SMEs play important roles which can be ascertained in both economic and social spheres such as in employment creation, innovation, industrial upgrading and improving the livelihood of individuals. Even though SMEs are found throughout all the possible industries one can fathom, this study focused on those found in the forest industry. The forest industry provides a multitude of benefits to not only the SMEs but also the community in general, and these benefits can range from social aspects such as food provision to economic aspects such as contributing to the country's GDP, employment creation to mention a few (Tanzania Forest Services Agency (TFS), 2021).

The efficacy of these SMEs relies on periodic analyses of the profit. The profitability analysis is a measure of the degree to which a company or a particular business activity makes money (Segal, 2024). The profitability is measured by using different metrics such as gross profit margin, net profit margin and Operating profit margin depending on the type of data which is available. There are various research studies done on the profitability of forest-based enterprises such as (Penttinen *et al.*, 2014) and (Lusambo *et al.*, 2021). However, these studies focused only on those dealing with timber products. This results in the presence of inadequate information on the profitability of those dealing with non-timber

products, which in turn brings about the undervaluing of how profitable the forest-based SMEs are regardless of the forest product they trade in. Therefore, this study analysed the profitability of the forest-based enterprises for both those who dealt with timber and/or non-timber products.

Furthermore, for any business to run smoothly and efficiently, there must be some functions which support its operations. The supporting functions include; capacity building activities, networking, financing and Entrepreneurial Research and Development(R&D). In Tanzania there are various studies which have been conducted on these supporting functions such as those conducted by (Lwesya, 2021; Mashenene & Kumburu, 2023). However, these studies focused on enterprises in a general facet which in turn has resulted in the presence of inadequate information on the supporting functions with a specific focus on the forest-based enterprises especially in Ruvuma. This in turn causes these supporting functions to be neglected and to not be considered seriously as an integral part of the enterprise and in turn will affect the running and operations of the enterprise and its profitability. Therefore, this study aimed at providing detailed elaborations on the supporting functions of the forest-based enterprises.

Apart from the profitability and supporting functions, the business environment is also important in ensuring that enterprises run in a smooth and efficient manner. The business environment is a sum of all external factors, forces and institutions that are beyond the control of the business but influence the functioning of the entire

Therefore, as can be seen from the aforementioned, this study aims at filling the information gap that is present with regard to the profitability, supporting functions and business environment of forest-based enterprises which

Ruvuma region is situated in the Southern part of the country. The region extends between latitudes 9° 35' to 11° 45' South of the Equator and longitudes 34° 35' to 38° 10' Meridian. Ruvuma Region borders the Republic of Mozambique in the South, Lake Nyasa in the West, Morogoro in the North and Iringa in the North East. It is also bordered by the Mtwara Region to the West. It has a total of six districts which are Songea Urban, Songea Rural, Namtumbo, Mbinga, Nyasa, and Tunduru. The target population of this study were the entrepreneurs who engaged in entrepreneurial activities based in the forest sector i.e., beekeepers; wood traders, wood carvers, mushroom producers and traders, fire stick traders, wild leaves traders, wood renders and processors and carpenters.

selection of the two districts where the study was conducted i.e., Songea rural and urban. These districts were chosen due to their forest value chain potentials and the availability of Small and Medium Enterprises. The selection of respondents

was minimized also to only individuals engaging in the forest-based businesses.

### ***Study sample size***

The study sample size was obtained by looking at various factors including the research topic, the research population's structure and access and the resources and time to finalize the research (Daniela, 2020). In addition, the willingness and availability of the entrepreneurs, the established concept that states that for social research the study sample above 30 could represent the whole population of the study area and Kothari's (2004) formula for sample size determination were also utilized

$$n = \frac{N}{1 + N(e)^2}$$

Where n= Sample size, N= Population size which was 171 entrepreneurs and was obtained from the registry kept by FORVAC business mentors which consisted of both the entrepreneurs who were funded by FORVAC and those not funded by FORVAC, and e=Margin of error (0.05). It was determined that the sample size for this research was 120 respondents who were forest-based entrepreneurs.

### **Data collected**

The unstructured questionnaire survey and face-to-face interviews (with the respondents) were used to gather information on the profitability, supporting functions under which the SMEs operate, and the business environment of the SMEs. Regarding profitability analysis, the data collected included the revenue obtained and the total cost of production used in producing the goods. For the supporting functions, the data collected included the activities carried out for capacity building, entrepreneurial relationships (their types, maintenance, and activities done to establish them), enterprise financing (at the initial stages, currently and self-sufficiency), and research and development (whether they carry it out, methods and financing). And lastly, for the business environment, the data collected included the laws (those which are applicable and their

enforcement), policies and regulations that support or hinder their operations.

### **Data Reliability and Validity**

A pretest was conducted to check the validity of the questionnaire and in turn the data being collected. The results indicated that the questionnaires were feasible for the data collection process, leading to the collection of valid data for the research. As for the data reliability, the data was collected across different parameters such as age groups and gender to ensure reliability and validity. And secondary data such as different literal works to triangulate with the data obtained from the respondents.

### **Ethical Considerations**

Before starting the data collection, the participants were briefed at great length on the research at hand and they willingly consented to participate in this research. Any private details that they shared such as their names, phone numbers and ages were given willingly but were concealed in the analysis unless completely necessary.

### **Data Analysis**

Descriptive statistics and Content analysis were used to analyze the aforementioned collected data, where MAXQDA and Microsoft Excel software were employed to facilitate this. Since the data collected from the questionnaires were both qualitative and quantitative. For qualitative data collected for the supporting functions and business environment, they were first translated and then inserted into the MAXQDA software where the frequency of the identified themes/codes were obtained which showcased the results, it should be noted that even if the number of respondents was 120, the frequency of the themes may be higher since the respondents were free to give their answers and some had answers which had more than one theme or code. As for the quantitative data on revenue obtained and cost of production, Microsoft Excel software was employed where the gross profit margin was obtained using the formula expressed in equation (i);



$$\text{Gross Profit Margin} = \frac{\text{Total Revenue obtained} - \text{Total Cost of Production}}{\text{Total Revenue obtained}} * 100 \quad (i)$$

As for how the supporting functions and business environment influence profitability, binary logistic regression was utilized since it is used when the dependent variable has only two outcomes. For this model, the enterprise's profitability could be categorized to have only two outcomes, i.e., those with a GPM below 50 and those with a GPM of 50 and above, in order to establish the influence that the Supporting functions and Business Environment had on the Profitability. Therefore, the binary logistic regression was run using SPSS software where the guiding equation was expressed below in equation (ii);

$$Y = \frac{e^{(b_0 + b_n X_n)}}{1 + e^{(b_0 + b_n X_n)}} \quad (ii)$$

Where Y= Profitability of the enterprises, X= Supporting functions and Business environment and  $e^{(b_0 + b_n)} = \text{Constants}$ .

In detail, this model contained eleven independent variables which were capacity-building activities (Xcba), entrepreneurial relationships (Xer), enterprise financing at its initial (Xefi) and current stages (Xefc), enterprise self-sufficiency (Xss), habits (Xhrd) and methods of conducting entrepreneurial research and development (Xmrd), laws applicable (Xlaws), enforcement of these laws (Xenf), policies which support the entrepreneurial ventures (Xpsupport) and finally policies which hinder these entrepreneurial ventures (Xphinders).

## RESULTS AND DISCUSSION

### Profitability Analysis of the Small and Medium Enterprises (SMEs)

The results displayed that when the enterprises were grouped according to the nature of the forest products they were producing and/or trading, six categories emerged. These categories which were wild tea leaves, beekeeping, mushroom, bamboo, fire sticks, and timber differed in their profitability where their Gross Profit Margins (GPM) were 73%, 54%, 48%, 27%, 12% and -13% respectively.

**Table 1: The Profitability Analysis of the Enterprises**

Enterprises nature	No. of Enterprises	Total Revenue	Total Cost of Production	Profit obtained	GPM Percentage
Bamboo	1	550,000	400,000	150,000	27.27273
Beekeeping	39	10,463,000	4,820,000	5,643,000	53.93291
Mushroom	53	4,655,000	2,430,000	2,225,000	47.79807
Tealeaves	3	600,122	160,000	440,122	73.33875
Timber	23	29928000	33775000	-3,847,000	-12.8542
Firestick	1	300,000	263,000	37,000	12.33333

The difference in their profitability was due to different reasons such as seasonality since some of the enterprises depend on the season of the year for either harvesting their products or the availability of customers. Another reason was the market demand, for some of the enterprises which had a low gross profit margin this was brought about due to low market demand for their products. Also, poor marketing was another reason for the low profitability, this is because these enterprises have lagged in marketing their product and some of them have not even started

marketing and promoting their enterprises. Lastly, in the case of timber products, the high cost of permits and licenses added to why their GPM was quite low compared to the others. This coincided with a previous study conducted by Babatunde *et al.* (2020) where the cost of permits and licenses were among the factors elaborated to be affecting the profitability of the timber industry. All these reasons coincided with those which were mentioned in studies such as (Sokolov, 2008; Khaddafi, 2020; Abdulaali *et al.*, 2020.) which included poor marketing, seasonality, sales price,

market demand, financial constraints and management issues. Overall, from the results, it can be deduced that establishing the Small and Medium Enterprises in the forest industry was a somewhat profitable venture since the enterprises do generate a profitable revenue but this can be questionable in regards to the timber category as it has been shown to not be profitable. However, this is due to it being represented as a whole (category) but individually i.e., the individual enterprises there is in fact a profit being generated.

### Relationship between Profitability, Supporting Functions and Business Environment

This study went further on to investigate the influence the supporting functions and business environment had on the profitability of the enterprises. Binary logistic regression was performed to assess this influence. The full binary logistic model containing all the predictors was found to be statistically significant,  $\chi^2$  (11, N = 120) = 33.490,  $p < .001$ , indicating that the model was able to distinguish between enterprises' profitability which was 50% and above and those which were below 50%. Its significance was further confirmed by looking at the Hosmer-Lemeshow goodness of fit test where the significance value was 0.356. The model as a whole explained between 24.4% (Cox and Snell R square) and 32.5% (Nagelkerke R squared) of the variance in profitability, and correctly classified 70.8% of cases. From Table 2 below, it is seen that of the 11 independent variables, 4 were significant predictive variables and these were the capacity-building activities, self-sufficiency, laws which are applicable and the enforcement of these laws. The strongest predictor variable of profitability was the laws which were applicable since it recorded an odds ratio of 6.204. This implies that

these four independent variables had an influence on the profitability of the enterprises that is whether the enterprises are going to have a GPM of 50 and above or less than 50.

For the capacity-building activities, there was a positive relationship between it and the profitability which means that the more capacity-building activities are done the more profitable an enterprise will be and hence their GPM will be 50 and above. This is due to the entrepreneurs garnering more skills and knowledge and it coincides with previous studies such as those conducted by Laverack (2014) and the US Department of Education (2015) where the benefits associated with conducting capacity-building activities were elaborated. As for enterprise self-sufficiency, it had a negative relationship with profitability meaning that the more self-sufficient an enterprise is the less likely its GPM will be 50 and above since the revenue obtained will be re-inserted into the enterprise again. The laws which are applicable in running an enterprise, have a positive relationship with profitability. This implies that the more laws that are in play, the more profitable an enterprise will be and the more likely their GPM will be 50 and above, since these laws provide protection and ensure a fair market for the entrepreneurs as was stated by some of the entrepreneurs themselves. Lastly, the enforcement of these laws had a negative relationship with profitability implying that the more these laws are enforced the less profitable the enterprises are and this is reflected by what was stated by some of the entrepreneurs that some of these laws and their enforcement suppresses and hinders their entrepreneurial ventures.

**Table 2: Binary Logistic Regression Results**

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 <sup>a</sup>	Xcba	.826	.416	3.941	1	.047	2.285
	Xer	.217	1.102	.039	1	.844	1.243
	Xefi	-17.312	25951.487	.000	1	.999	.000
	Xefc	-20.856	25951.487	.000	1	.999	.000
	Xss	-1.698	.800	4.503	1	.034	.183
	Xhrd	-2.901	1.910	2.308	1	.129	.055
	Xmrd	.457	.313	2.130	1	.144	1.579

	<b>B</b>	<b>S.E.</b>	<b>Wald</b>	<b>df</b>	<b>Sig.</b>	<b>Exp(B)</b>
Xlaws	1.825	.478	14.588	1	.000	6.204
Xenf	-1.799	.669	7.235	1	.007	.165
Xpsupport	-.139	.143	.940	1	.332	.870
Xphiders	-.208	.215	.939	1	.333	.812
Constant	-2.172	1.819	1.425	1	.233	.114

### Supporting functions of the Small and Medium Enterprises

The study revealed that there are four central findings concerning the supporting functions. Firstly, the activities that the entrepreneurs carry out for their capacity building. Secondly, the entrepreneurial relationships which exist in these Small and Medium Enterprises. Thirdly, the financial aspect of operating the Small and Medium Enterprises. Lastly, the research and development aspect which goes on in the Small and Medium Enterprises operations. The findings

of these supporting functions were obtained using the knowledge and information provided by the entrepreneurs who were interviewed.

### Capacity building activities

The fact that the different enterprises carry out capacity-building activities is not surprising at all. However, the activities they usually carry out were intriguing nonetheless: the analysis suggests that the enterprises carry out different activities in order to improve and/or build their capacity in how they operate and/or conduct their businesses.

**Table 3: Capacity Building Activities**

<b>Code Systems</b>	<b>Frequencies</b>	<b>Total</b>
What are some capacity-building activities do you conduct or participate	120	120
None	7	7
Other entrepreneurial activities	1	1
Collaborating with other entrepreneurs	80	80
Teaching	6	6
Seminars/training	94	94

These activities included seminars and/or training which have been mentioned in several studies such as (Ryan,2012; Yamoah,2013; Hashimy,2023) as one of the strategies or activities for capacity building, another strategy/activity was teaching/mentorship which coincides with various studies including (St-Jean, 2009; Abu-Bakarr, 2022; Hashimy,2023) which have spoken on how mentorship/teaching has been used for capacity building, another activity was collaborating with other entrepreneurs and other entrepreneurial activities which lies in lieu with studies like (United Nations Conference on Trade and Development (UNCTAD), 2014; United Nations Conference on Trade and Development (UNCTAD), 2015). However, some of the entrepreneurs responded by stating that they do not in fact conduct any capacity-building activities and others did not give any responses and opted to skip the question. Examples of the

responses which were given by the entrepreneurs with regards to the question “What are some capacity building activities do you conduct or participate in?” were;

One of the beekeeping and honey producers responded;

*“Through training provided by FORVAC, by attending different seminars, by visiting and learning from those who started and have been in the sector for a longer period of time, and by attending different conferences and workshops”- (Respondent A)*

Another entrepreneur who was based in timber i.e., carpentry responded with;

*“By making different furniture and by providing education (teaching) to the carpenters who have recently started in this field or are about to start.”- (Respondent B)*

Another entrepreneur based in the timber sector i.e., a wood trader responded with;

*“By improving and growing my capital through my business cycle and my customers”- (Respondent C)*

These were examples of some of the responses which were obtained when interviewing the respondents who were entrepreneurs based in the forest sector. Some of the entrepreneurs who said none to this question stated that they hadn't really thought of doing so, and in turn, they don't really know or understand the importance of carrying out or conducting capacity-building activities. These activities were seen to be beneficial to the entrepreneurs as some of them have testified that the capacity-building activities that they conducted enabled them to operate their businesses much more smoothly, strengthened their businesses and their abilities as entrepreneurs, has increased their sales and profit just to mention a few which goes hand in hand with several studies which have shown the importance of having capacity building activities such as (Laverack, 2014; US Department of Education, 2015).

**Table 4: Types of Entrepreneurial Activities.**

Code Systems	Frequencies	Total
What type of relationship do you have with the other entrepreneurs?	120	120
None	1	1
Social relationship	59	59
Business relationship	60	60

For those whose responses were categorized as a business relationship, it was seen that the most recurring response was;

*“I have the type of relationship where I sell my products and/or services to them and I buy their products and/or services.”*

This is the most common type of entrepreneurial relationship that is easily found or available as it is beneficial for both parties. It can also be termed as a business-to-business relationship (Bagdoniene & Zilione, 2009). According to (Biggemann & Buttle, 2005), the benefits obtained from business-to-business relationships are extensive in value in such a manner that they

## Entrepreneurial Relationship.

Entrepreneurial relationships are an important aspect of conducting business (Centenaro & Laimer, 2017). They can presumably build or break the business depending on their type, strength and how they are maintained. In this study, we collected data on three main parts of these entrepreneurial relationships; the type of relationship the entrepreneurs have with other entrepreneurs in the forest sector, how they are able to maintain these relationships, and what other activities they do or partake in to facilitate the creation of relationships with others who are not based in the forest sector.

### Type of entrepreneurial relationship

In this study, the entrepreneurs had three (3) main responses when they were asked about the type of relationship they have with other entrepreneurs. These responses were analyzed and categorized by the themes which were identified as a business relationship, cooperative relationship and none.

can even go beyond financial benefit, that is the relationships can provide personal value, financial value, knowledge value and even strategic value.

For those whose responses fell into the social relationship, the most recurring response was;

*“By cooperating with them in social issues, and exchanging ideas and knowledge on the businesses that we conduct.”*

Another recurring response was;

*“By doing good deeds and cooperating with them in community affairs”*



According to Humphries and Wilding (2004), these relationships are usually built on trust, cooperation, coordination and collaboration, and can lead to the formation of long-term entrepreneurial relationships. This coincides with our findings as the entrepreneurs did state during the interviews that this type of relationship is built by being faithful to each other, communicating, cooperating and collaborating with each other. The benefits of cooperative entrepreneurial relationships may align with those of business-to-business relationships but to add on some other benefits from a study conducted by Centenaro and Laimer(2017), these included information sharing, achieving competitive gains which in turn give them a better advantage in the competitive market and even gaining resources.

For the entrepreneur whose response fell into none, he gave a clarification on why he does not

have a relationship with the other entrepreneurs. The entrepreneur who gave his reason said;

*“For us in the area that we are in i.e., Ruvuma region, there are no other entrepreneurs who are involved in the bamboo industry and so we cannot form a relationship with none existing entities”- (Respondent D)*

#### ***Maintaining the entrepreneurial relationship***

Even though having entrepreneurial relationships is very important, maintaining these relationships is far more important. Therefore, in this study, we examine how these entrepreneurs maintain the relationships that they have with other entrepreneurs. From the responses we got, it was determined that the entrepreneurs used a myriad of ways to maintain the entrepreneurial relationships that they formed.

**Table 5: Ways of maintaining entrepreneurial activities**

<b>Code Systems</b>	<b>Frequencies</b>	<b>Total</b>
How are you able to maintain the relationship with the other enterprises	<b>119</b>	<b>119</b>
Social relationship	59	59
Capacity building	54	54
Doing business with them	6	6
Meetings/seminars	2	2
Collaborating with them/faithfulness	33	33
Communication	9	9

Therefore, the responses were coded and analyzed and they were found to be; social relationships, capacity building, meetings and/or seminars, collaborating with the other entrepreneurs and being faithful to them and lastly through communication which has been proven by previous studies (Lasisi *et al*, 2014; Geiger, 2015; Kumar & Yakhlef, 2016). From the question “How are you able to maintain the relationship with the other enterprises”, some of the responses obtained from the entrepreneurs included:

*“By providing them with information about beekeeping and helping each other with different problems which may arise”- (Respondent E)*

From this response, two themes were formulated which were social relationships and communication.

*“By collaborating with other entrepreneurs in matters of beekeeping in order I can build my capacity and skills for this business”- (Respondent F)*

From this type of response, two more themes were formulated which were capacity building and Collaborating with the other entrepreneurs.

*“By doing business with each other, by speaking to them with respect and being faithful and wise in our business dealings”- (Respondent G)*

*“By cooperating with them to complete the orders that I get and by paying them faithfully”- (Respondent H)*

From the above responses, two themes were formulated which were doing business with them and being faithful to them.

### Enterprises Financing

Financing is another important aspect of establishing and operating an enterprise. It can come in many forms and from many sources, but enterprises indeed do require money to be established and to continue being operational. In this study, we took a look at three main things

when it came to enterprise financing; financing at the start of an entrepreneurial venture, current entrepreneurial financing, and if the enterprise is self-sufficient.

### Initial Enterprises financing

In this study, we inquired to the entrepreneurs on how they were able to start their entrepreneurial ventures. What this means is that we inquired about how they were able to finance their enterprises that is how they were able to set up and make their enterprises operational. From the responses, two categories or themes were developed which were private funding and loans.

**Table 6: Initial Enterprise Financing**

Code Systems	Frequencies	Total
How do you finance your enterprises during its startup period	120	120
<b>Loan</b>	1	1
<b>Forvac funding</b>	0	
<b>Private funding</b>	119	119

A majority of the entrepreneurs responded that they were able to initiate the start of their entrepreneurial ventures through private funding. That is the money that they used to start their businesses came from their own pockets and it was obtained through doing various trades. This coincides with various previous studies such as (Barbuta-Misu 2009; Abdulsaleh & Worthington, 2013; Jeannet *et al*, 2021) which showed that in most cases entrepreneurs start their business by using their own money which could have been from their savings, which in turn makes it one of the most used sources of financing. The remaining entrepreneur responded that he used a loan to start his business which in turn coincides with previous studies conducted by Abdulsaleh and Bodia (2009); Verma and Worthington (2013); Patnaik and Pasumarti (2020) which stated that loans are another source of financing in entrepreneurship and that they can be obtained from different entities which are largely referred to as financial institutions which may include state-owned banks and banks which specialize in lending to SMEs.

This further coincides with our findings as this entrepreneur stated that the loan, he obtained was in fact a domestic loan, that is it came from a donor who is inside the country. It should be noted that both sources of financing or funding are equally applicable and utilized by entrepreneurs especially those in small and medium-sized enterprises.

### Current Enterprises Financing

Furthermore, this study queried the entrepreneurs on how they are currently financing their entrepreneurial ventures. From analyzing the responses, two themes were obtained which were private funding and mixed funding. A majority of entrepreneurs responded that they are currently funding their businesses through private funding. This means that their businesses stay afloat using their own money, which can be from the money they obtained from conducting their businesses and they invest it back into the business or the money they obtained from other sources for example from agriculture.

**Table 7: Current enterprise financing**

Code System	Frequencies	SUM
How do you finance your enterprise currently?	120	120
<b>Both private and Forvac funding</b>	1	1
<b>Loan</b>	0	
<b>Forvac funding</b>	0	
<b>Private funding</b>	119	119

This type of enterprise financing coincides with those which were discussed in previous studies such as (Boscolo *et al*, 2012; Brighi *et al*, 2012; Gutterman, 2022) which went on to state that this type of financing is the same as self-financing and that usually is quite beneficial to entrepreneurs who employ this means of funding. The remaining entrepreneurs responded that they currently finance their enterprises through mixed funding which lies in lieu of studies such as (Smith *et al*, 2010; United States Agency for International Development (USAID), 2019) which support the existence and application of mixed financing also known as blended financing. These studies also mentioned some benefits of this type of financing which included improving an enterprise's financial strength and maximising an enterprise's market value just to mention a few. The entrepreneur went further to elaborate that they currently fund their entrepreneurial venture using private funding and FORVAC funding. FORVAC funding means that FORVAC provided assistance which could have been monetary in nature or technical to the entrepreneur which enabled them to continue keeping their entrepreneurial venture afloat. For example, FORVAC provided entrepreneurs with bee hives, safety equipment and technical knowledge on how to operate their businesses and harvest their products.

### ***Enterprise self-sufficiency***

This study further inquired to the entrepreneurs if the revenue they obtain from their entrepreneurial venture is sufficient enough to continue running their ventures and, in some cases, even allow the entrepreneurs to expand the entrepreneurial venture. A majority of the entrepreneurs

responded that their businesses were in fact self-sufficient. That is the revenue it generated; it was used to continue its operations. The remaining entrepreneurs responded that their entrepreneurial ventures were not self-sufficient in the sense that the revenue that was generated was not enough to support their operations.

### **Entrepreneurial Research and Development**

Entrepreneurial Research and development is important in operating a business of any nature. It enables entrepreneurs to know more about their businesses for example to know the market condition, new products being developed, customer preferences and interests and in turn enables them to expand their businesses in terms of size, employees, revenue generated, products and even the sector they are based in. For this study, we took a look at the research and development aspect of the businesses that the entrepreneurs we interviewed operate. We mainly focused on three parts; if they have the habit of conducting research and development, the type of research and development they conduct, and how they finance their research and development.

From the data collected, it can be seen that a majority of the entrepreneurs do in fact have the habit of conducting research and development for their enterprises. They conducted this research and development in a myriad of ways which were; through reconnaissance, by doing market, product and/or industrial research, by training with other entrepreneurs, by collaborating with the other entrepreneurs, through observation and through communication by using phones.

**Table 8: Methods for Research and Development**

<b>Code Systems</b>	<b>Frequencies</b>	<b>Total</b>
If yes, what type of research and development do you do?	<b>92</b>	<b>92</b>
<b>Collaborating with others</b>	6	6
<b>Reconnaissance</b>	34	34
<b>Research (market, product, industrial)</b>	11	11
<b>Training with others</b>	7	7
<b>Communication/phone</b>	6	6
<b>Observation</b>	28	28

These ways of research and development lie in lieu of those which have been mentioned in previous studies such as (Guttermann, 2023; Kenton, 2024) where it can be noticed that they were grouped into models like basic research, development research, Fundamental R&D, Radical R&D and applied research just to mention a few.

After taking a look at the ways they conduct their research and development, this study also took a look at how they finance these activities where a majority of entrepreneurs stated that they finance these activities through private funding which coincides with previous studies such as (Wang *et al*, 2016; Cvetanoic *et al*, 2019) which support that for most entrepreneurs they use private funding or self-financing or equity to fund their research and development activities. Therefore, entrepreneurs must conduct research and development periodically since it not only strengthens their ability as entrepreneurs but also strengthens their enterprises and gives them a competitive advantage over other entrepreneurs and enterprises.

### **Business Environment of the Small and Medium Enterprises**

The business environment tends to differ from enterprise to enterprise depending on various factors. This study took a look at the business environment of these small and medium enterprises. It mainly focused on the legal aspect of the enterprises, that is the laws and regulations that govern the functioning or operations of this

enterprise. It should be noted the legal aspect of the enterprise is in fact a part of the business environment, it usually falls into the external environment. A variety of questions were asked to the entrepreneurs in order to get an understanding of the business environment, such as what laws are applicable in your operations? Is the enforcement of these laws effective or not? Why, what policies and regulations support the activities of your enterprises, and which policies and regulations limit your enterprise activities? And how do they limit it? After asking these questions. The responses were equally divided with half of the entrepreneurs being knowledgeable in the legal aspect of running an enterprise while the other remaining half were not knowledgeable in it. This is understandable since most of the entrepreneurs operated in a small and/or medium scale and in remote areas therefore the laws are not well-known or easily applicable in context to their enterprises.

For the entrepreneurs who stated that they knew the laws that are applicable in their operations, this study went further on to ask them to state some of these laws and if these laws are effective or not. The responses given by the entrepreneurs were then analyzed and different themes were obtained and explored it was discovered that some of these laws include registration, license, and permits, the Environmental Management Act, the Forest Act and the Beekeeping Act. Some of these laws were elaborated in (the Forest Act, 2002; Business Registration Act, 2021; Registration and Practice Env. experts' regulations, 2021)

**Table 9: Laws that are applicable in entrepreneurial activities**

Code System	Frequencies	Total
If yes, what are the laws which are applicable to your operation?	0	61
<b>Environmental Management Act</b>	1	1
<b>Registration permit &amp; License</b>	24	24
<b>Forest Act</b>	21	21
<b>Beekeeping Act</b>	11	11
<b>None</b>	4	4

As for whether the enforcement of these laws is effective or not, the responses obtained ranged from Yes, they were, they somewhat were and outright Not effective. As for the reason behind their answers, those who responded with a yes and somewhat effective stated it was because these laws were effective in protecting their enterprises and their operations. And for those who said it was not effective, it was because these laws actually had the opposite effect as that which was intended meaning that these laws actually suppressed their enterprises and their operations.

This study went on further to inquire if there are any regulations and policies which support or limit their operations, some of the entrepreneurs

(a minority of them) answered that they didn't know of any policies or regulations that support or limit them, and a majority of them responded by mentioning these policies and regulations which included the Natural Resource Policy, Empower SIDO policy, Loaning Small Business Policy, Kazi Iendelee Policy and the Environmental Policy. These policies were seen to be beneficial as they enabled them to access and protect the resources, start and operate enterprises, and in turn encourage forest-based entrepreneurship. These benefits coincided with the policies mentioned in (Niskanen *et al.*, 2007) which were focused on elaborating on the policies affecting forestry entrepreneurship.

**Table 10: Policies which support the enterprise operations**

Code System	Frequencies	Total
What policies and regulations support the activities of your enterprises	120	120
<b>I don't know</b>	40	40
<b>Natural Resource Policy</b>	10	16
<b>Empower SIDO Policy</b>	1	14
<b>Loaning Small Business Policy</b>	23	23
<b>Kazi Iendelee Policy</b>	1	16
<b>Environmental Policy</b>	11	11

As for the policies which hindered entrepreneurial activities, this study investigated these policies and it was found that a portion of the entrepreneurs did not know of any policies which hindered their entrepreneurial activities. The rest of the entrepreneurs gave responses on the policies that do hinder their activities and these were the Taxation Policy, Permits and

Registration policies, forest policy with regards to the type of tree that can be harvested and utilized, Beekeeping Policy with regards to the standards that are required to transport the honey outside the country, A policy that states local leaders can't do business within their areas of authority. A few entrepreneurs stated that there are no policies that are hindering their entrepreneurial activities.



**Table 11: Policies which hinders entrepreneurial ventures**

Code System	Frequencies	Total
What policies and regulations hinder the activities of your enterprises	120	120
<b>I don't know</b>	35	35
<b>Taxation Policy</b>	23	23
<b>Permits and Registration Policy</b>	15	15
<b>Forest Policy</b>	14	14
<b>Beekeeping Policy</b>	13	13
<b>Leaders can't do business within their areas</b>	11	11
<b>None</b>	9	9

## CONCLUSION

From the profitability analysis, it was deduced that forest-based entrepreneurship in the Ruvuma region (i.e., Songea rural and urban areas) is quite profitable but this profit generation is hindered by different external factors which mostly falls under the legal aspects of operating an entrepreneurial venture such as the taxation laws, and forest policy which hinder them from sourcing natural timber to manufacture products just to mention a few. This can set the prerequisite that establishing an enterprise in this industry will have a high probability of generating a profit for the entrepreneur. Moving on to the supporting functions, this study concluded that there are mainly four main supporting functions that play a part in the operations of the SMEs found in the Ruvuma region (i.e., Songea rural and urban areas). These included capacity-building activities, entrepreneurial relationships, enterprise financing and research and development. An entrepreneur needs to understand these functions as their enterprise, its standing, operations and even day-to-day activities may depend on them. Therefore, knowing how to identify them, how to strengthen them and even how to restructure and allocate proper funding to them is an integral part of running an enterprise. On allocating the proper funds, an entrepreneur first must recognize which functions require more funding. Afterwards, the entrepreneur must identify if it is feasible to increase the funding to that function. If it is feasible, he/she must identify the amount of funding that the function requires. Then they must identify the source of funding (i.e., where the funding will come from). After doing all these, then the funds will be disbursed for the use of that

specific function/entity. Lastly, with regard to the business environment, it is crucial for an entrepreneur to understand which factors are influencing the enterprise whether internally or externally since these factors greatly influence the entire existence of the enterprise as was seen for the SMEs found in Ruvuma region (i.e., Songea rural and urban areas). This study hence has shone a light on these important aspects related to forest-based enterprises, specifically the Small and Medium Enterprises located in Songea rural and Songea urban districts.

## Recommendations

- Researchers should do further studies on the business environment, especially with regard to the laws, policies and regulations which are at play since it was noted to cause challenges to entrepreneurs.
- There should be an increase in knowledge and market information sharing between SMEs and other market actors such as investors, traders, distributors and consumers.
- More funding and support should be pushed to the Small and Medium Enterprises so they can run their operations smoothly and they can share the knowledge they obtained with other small and medium-scale entrepreneurs.
- Policymakers should make more policies which are in support of SMEs and amend the existing ones, especially with regard to the legal aspect of operating an enterprise since SMEs play a significant role in both individual and communal aspects.

- Business education should be provided to the entrepreneurs which will enable them to understand and apply the knowledge on profitability, supporting functions and business environment in running their enterprises.

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## REFERENCES

- Abdulaali, A., Abdulghani Oudah, A., Raheem Abdulaali Almayyahi Authors Abdulkareem Abdulghani Oudah, A., Professor, A., & Raheem Abdulaali Almayyahi, A. (2020). *Factors Affecting the Fluctuation of Accounting Profits System in SMEs Industrial: A field study on a group of companies in Basra, southern Iraq*. <https://www.researchgate.net/publication/344467508>
- Abdulsaleh, A. & Worthington, A. (2013). Small and Medium-Sized Enterprises Financing: A Review of Literature. *International Journal of Business and Management*, 36-54.
- Abu-Bakarr, I., Bakarr, M.I., Gelman, N., & Johnny, J. (2022). Capacity and leadership development for wildlife conservation in sub-Saharan Africa: assessment of a programme linking training and mentorship. *Oryx*, 1-9.
- Babatunde, T. O., Babatunde, O. O., Babatunde, K. O., Aduloju, A. R., Oluwalana, T., & Inyang, V. (2020). Profitability, Marketing Efficiency and Value Addition of Timber Industry in Ife East Local Government of Osun State, Nigeria. *Journal of Applied Sciences and Environmental Management*, 24(4), 589– 595. <https://doi.org/10.4314/jase.m.v24i4.7>
- Bagdoniene, I. & Zilione, R. (2009). Business to Business Relationships: The Variable Context of Success. *Social Sciences*, 16-25.
- Barbuta-Misu, N. (2009). THE ENTERPRISE SELF-FINANCING - THE TAXATION IMPACT UPON SELF-FINANCING DECISION. *EuroEconomics*, 80-86.
- Biggemann, S. & Buttle, F.A. (2005). *Conceptualising business-to-business relationship value*. Rotterdam, The Netherlands: Presented at the 21st IMP Conference.
- Boscolo, M. Asen, A., Castren, T., Savenije, H., Schmidt, F. & Van Dijk, K. (2012). Making private investments work for tropical forests - a synthesis. In S. e. Herman, *Good Business: Making Private Investments Work for Tropical Forests*. Vietnam: Tropenbos International.
- Brighi, P., Patuelli, R., & Torluccio, G. (2012). *Self-Financing of Traditional and R&D Investments: Evidence from Italian SMEs*. Bologna, Italy: Universita di Bologna.
- Centenaro, A. & Laimer, C.G. (2017). Cooperative relationships and competitiveness in supermarket sector. *Review of Business Management*, 65-81.
- Cvetanoic, S., Nedic, V. & Ristic, L. (2019). Sources of funding for activities in research and development in the selected European countries. *Ekonomika*, 65(4):31-40.
- Daniela, R. (2020). DETERMINING THE SAMPLE SIZE IN QUALITATIVE RESEARCH. *International Multidisciplinary Scientific Conference on the Dialogue between Sciences & Arts, Religion & Education* (pp. 181-187). Galati: Ideas Forum International Academic and Scientific Association. *Forest Act No-14-2002*.
- Geiger, I. (2015). Strategies of Business Relationship Management. In *Business*

- Relationship Management and Marketing* (pp. 153-192). Springer.
- Gutterman, A. (2023). *Research and Development*. Alan S. Gutterman.
- Gutterman, A. S. (2022). *Financing Activities for Businesses*. Silicon Valley: Sustainable Entrepreneurship Project.
- Hans, V. B., & Hans, D. V. B. (2018). *Business Environment-Conceptual Framework and Policies Business Environment-Conceptual Framework and Policies*. <https://www.researchgate.net/publication/324280605>
- Herr, H. & Nettekoven, Z. (2017). *The Role of Small and Medium-sized Enterprises in Development*. Germany: Friedrich Ebert Stiftung.
- Hashimy, S., Jahromi, A., Hamza, M. & Naaz, I. (2023). Nurturing Leadership and Capacity Building for Success; Empowering Growth. *International Journal of Rehabilitation*, 33-46.
- Humphries, A.S & Wilding, R. (2004). Long Term Collaborative Business Relationships: The Impact of Trust and C3 Behaviour. *Journal of Marketing Management*, 1107-1122.
- Jahari, C. (2021). Business environment and enterprise competitiveness, diversification and value chain. *Repoa Brief*.
- Jeannet, J., Volery, T., Bergmann, H. & Amstutz, C. (2021). Financing the enterprise. In C. e. Amstutz, *Masterpieces of Swiss Entrepreneurship, Swiss SMEs Competing in Global Markets* (pp. 69-79). Lausanne, Switzerland: Springer.
- Khaddafi, M. (2020). *International Journal of Business, Economics and Social Development The Influence of Gross Profit Margin, Operating Profit Margin and Net Profit Margin on the Stock Price of Consumer Good Industry in the Indonesia Stock Exchange on 2012-2014*. 1(3), 153–163.
- Kenton, L. (2024, January 22). *Research and Development (R&D) Definition, Types, and Importance*. Retrieved from Investopedia.
- Kothari C. (2004). In *Research Methodology, Methods and Techniques* (pp. 34-39). New Delhi: New Age International Publishers.
- Kumar, N & Yakhlef, A. (2016). Managing business to business relationships under conditions of employee attrition: A transparency approach. *Industrial Marketing Management*, 1-13.
- Lasisi, J.O., Shodiya, O.A., & Raji, O. A. (2014). Business Relationships, Capability, And Firm Effectiveness: A Study Of Nigeria Firms. *Arabian Journal of Business and Management Review*, 38-48.
- Laverack, G. (2014). Community Capacity Building. *Encyclopedia of Quality-of-Life Research*, 1-4.
- Law, J. (2021). Business Registration Act-Laws of Tanzania.
- Lusambo, L. P., Nyanda, S. S., & Mhando, D. G. (2021). Profitability Analysis of Tree Growing in the Southern Highlands of Tanzania. *International Journal of Forestry Research*, 2021. <https://doi.org/10.1155/2021/8872211>
- Lwesya, F. (2021). SMEs' competitiveness and international trade in the era of Global Value Chains (GVCs) in Tanzania: An assessment and future challenges. *Small Business International Review*, 5(1), e325. <https://doi.org/10.26784/sbir.v5i1.325>
- Mapunjo, J. (2010). *Synopsis Of Business Environment In Tanzania*. Ministry of Industry, Trade and Marketing.
- Mashenene, R. G., & Kumburu, N. P. (2023). Performance of Small Businesses in Tanzania: Human Resources-Based View. *Global Business Review*, 24(5), 887–901. <https://doi.org/10.1177/0972150920927358>

- Niskanen, A., Lunnan, A., Ota, I., Blatner, K., Herbohn, J., Bull, L., Ferguson, I., & Hickey, G. M. (2007). Policies Affecting Forestry Entrepreneurship. *Small-Scale Forestry*, 6(3), 233–255. <https://doi.org/10.1007/s11842-007-9025-z>
- Patnaik, A. & Pasumarti, S.S. (2020). Bank Loan as a Source of Finance for Start-ups: A Study. *Strad Research*, 107-115.
- Penttinen, M. J., Penttinen, M., Rummukainen, A., & Mikkola, J. (2014). *Wood harvesting enterprise profitability, liquidity and solvency*. <https://www.researchgate.net/publication/251998718>
- Ryan, J., Ibrahim, H., Dakermanji, A. & Niane, A. (2012). Training and Capacity Building; An essential Strategy for Development at an International Research Center. *Sustainable Agriculture Research*, 57-71.
- Satta, T. A. (2012). An Assessment of the Business Environment for Micro and Small-Scale Enterprises in Tanzania. *Journal of Small Business & Entrepreneurship*, 205-220.
- Segal, T. (2024, January 22). *Profit Margin: Definition, Types, Uses in Business and Investing*. Retrieved from Investopedia.
- Smith, J., Mays, N., Cumming, J.B., McDonald, J., & Ovenden, C.I (2010). *Managing Mixed Financing of Privately Owned Providers in the Public Interest*. Wellington: Institute of Policy Studies.
- Sokolov, S. (2008). *Department of Forest Products Financial analysis of the Russian forest product companies*.
- St-Jean, E. & Audet, J. (2009). The role of mentoring in the learning development of the novice entrepreneur. *International Entrepreneurship and Management Journal*, 8(1): 119-140.
- sw-1696846053-Registration and Practice Env. Experts REGULATIONS, 2021.
- Tanzania Forest Services Agency (TFS). (2021). *The Contribution Of Forest Sector To The National Economy*. Tanzania: Ministry Of Natural Resources And Tourism.
- UNCTAD. (2014). Entrepreneurship and productive capacity-building: Creating jobs through enterprise development. *Investment, Enterprise and Development Commission* (pp. 1-20). Geneva: United Nations.
- UNCTAD. (2015). Entrepreneurship for productive capacity building. *Multi-year Expert Meeting on Investment, Innovation and Entrepreneurship for Productive Capacity-building and Sustainable Development* (pp. 1-21). Geneva: United Nations.
- US Department of Education. (2015). *Conceptualizing Capacity Building*. Rockville: CIPP.
- USAID. (2019). *Mobilizing Private Finance for Development: A Comprehensive Introduction*. Chicago: Deloitte.
- Verma, S.R & Bodia, B.S. (2009). Financing of small scale enterprises (SSEs): a survey of literature. *International Journal of Value Chain Management*.
- Wang, H., & Yang, J. (2016). Financing Sources, R&D Investment and Enterprise Risk. *Information Technology and Quantitative Management (ITQM2016)*, 122-130.
- Yamoah, E. (2013). Capacity Building and Employee Performance. *Canadian Social Science*, 42-45.