



## RESEARCH ARTICLE

Vol. 2 Issue 1

### Category

Social Science

### Correspondence to:

[amtewa@must.ac.mw](mailto:amtewa@must.ac.mw)

### Citation

Banda *et al.*, (2025). Building a Business Model Framework for Natural Herbal Products Businesses in Malawi: A Case Study of the City of Blantyre. *Advances in Sciences and Arts*. 2(1).  
<https://doi.org/10.37872/2025.0201.09>

### Supporting info

Please refer to the journal's official website on  
<https://asa.must.ac.mw/>

### Received

1<sup>st</sup> Oct 2024

### Accepted

1<sup>st</sup> Feb, 2025

### Published

14<sup>th</sup> Mar, 2025

### DOI

<https://doi.org/10.37872/2025.0201.09>

## Building a Business Model Framework for Natural Herbal Products Businesses in Malawi: A Case Study of the City of Blantyre

*Mphatso Calvin Banda, Andrew Mtewa, Francis Masiye*

Malawi University of Science and Technology, P.O. Box 5196, Limbe, Malawi

**Abstract** The herbal product industry is undeniably a lucrative business in the world market today. The main objective of the study was to investigate the existing business model framework of the herbal products industry in Malawi. The sample was drawn from Blantyre City covering central business areas of Blantyre Main City, Chichiri and Limbe. Specifically, the study aimed at analysing the existing business model framework for herbal products in Malawi, identifying existing factors (value proposition) for herbal products business development in Malawi and determine the challenges faced by the herbal products industry in Malawi. The sample size was 96. The survey questionnaire was used to collect data. The data-gathering tool was pre-tested on 10 herbal businesses. SPSS 20.0 was used to analyse the quantitative data on existing factors affecting and challenges affecting the herbal business industry in Malawi using the Multinomial logistic regression while content analysis was used to analyse qualitative data. The study found that networking and strategic alliance, resource identification and inclusion as well as management in model improvement were all significant in positively influencing the herbal business model. Cost estimation, effective time management, having revenue streams and selecting appropriate pricing mechanisms also positively influence the current herbal business model. Lack of treatment protocols, a universally developed and unified terminology, medical ontologies and quality data were some of the challenges. This study recommends that the current herbal business model be improved based on the challenges and then be implemented in the herbal business industry in Blantyre only as the study was a case study of Blantyre.

**Keywords:** *Herbal products, capacity framework, business model, value maps, value proposition, traditional medicine, medical ontologies*

## Introduction

Across the world, the use of unconventional or traditional medical therapies is very high (Zamawe *et al.*, 2018). Herbal products are described as medicines (remedies) derived from plants (Jibril *et al.*, 2019). These products are largely used as supplements to improve health and well-being as well as for other therapeutic purposes. Interestingly, the production and consumption of these products have boosted both the global and local herbal market (Jibril *et al.*, 2019). In Sub-Saharan Africa, traditional herbal medicine is the main source of health care in rural communities. The high use of herbal medicines is due to their perceived low cost, alignment of herbal medicines with sociocultural, religious, spiritual values, and dissatisfaction with conventional healthcare (Bates *et al.*, 2018). The contribution of traditional medicines trade towards the improvement of the livelihoods of healers and/or traders and the general well-being of consumers in Malawi, is becoming increasingly important (Etando *et al.*, 2021). Yet, there is no known business model framework that has been adopted in the Malawi herbal trade industry. This however requires every small and medium enterprise involved in herbal products marketing to prepare and be able to fend off competition from both within and outside Malawi. It is evident that the use of business model frameworks has gained prominence in the fast-growing industries to create, as well as deliver value propositions and confer a firm competitive advantage to businesses, herbal product businesses inclusive. Several policies provide a business environment for herbal products in Malawi namely, the trade policy, health policy, agricultural policy, environmental policy, forestry policy and decentralization policy. All these policies facilitate a conducive environment for the business model in the Malawi herbal industry and addressing the current bottlenecks will further position the country on the path to achieving the health-related targets within the Sustainable Development Goals.

## Research Questions

The research questions were:

- i. What is the current business framework/model being operated by herbal products?

- ii. What is the ideal value proposition that will solve customer problems based on their needs?
- iii. What are the challenges facing the herbal products industry in Malawi?
- iv. What is the best business model framework for the herbal products industry?

## Study Objectives

### Main Objective

The main objective of the study was to investigate the existing business model framework and identify challenges to the existing business model of the herbal products industry in Malawi.

### Specific Objectives

The specific study objectives were:

- i. To analyse the existing business model framework for herbal products in Malawi.
- ii. To identify the existing factors (value proposition) for herbal products business development in Malawi
- iii. To identify the challenges faced by the herbal products industry in Malawi.
- iv. To design a new business model framework for the herbal products industry.

## Significance of the Study

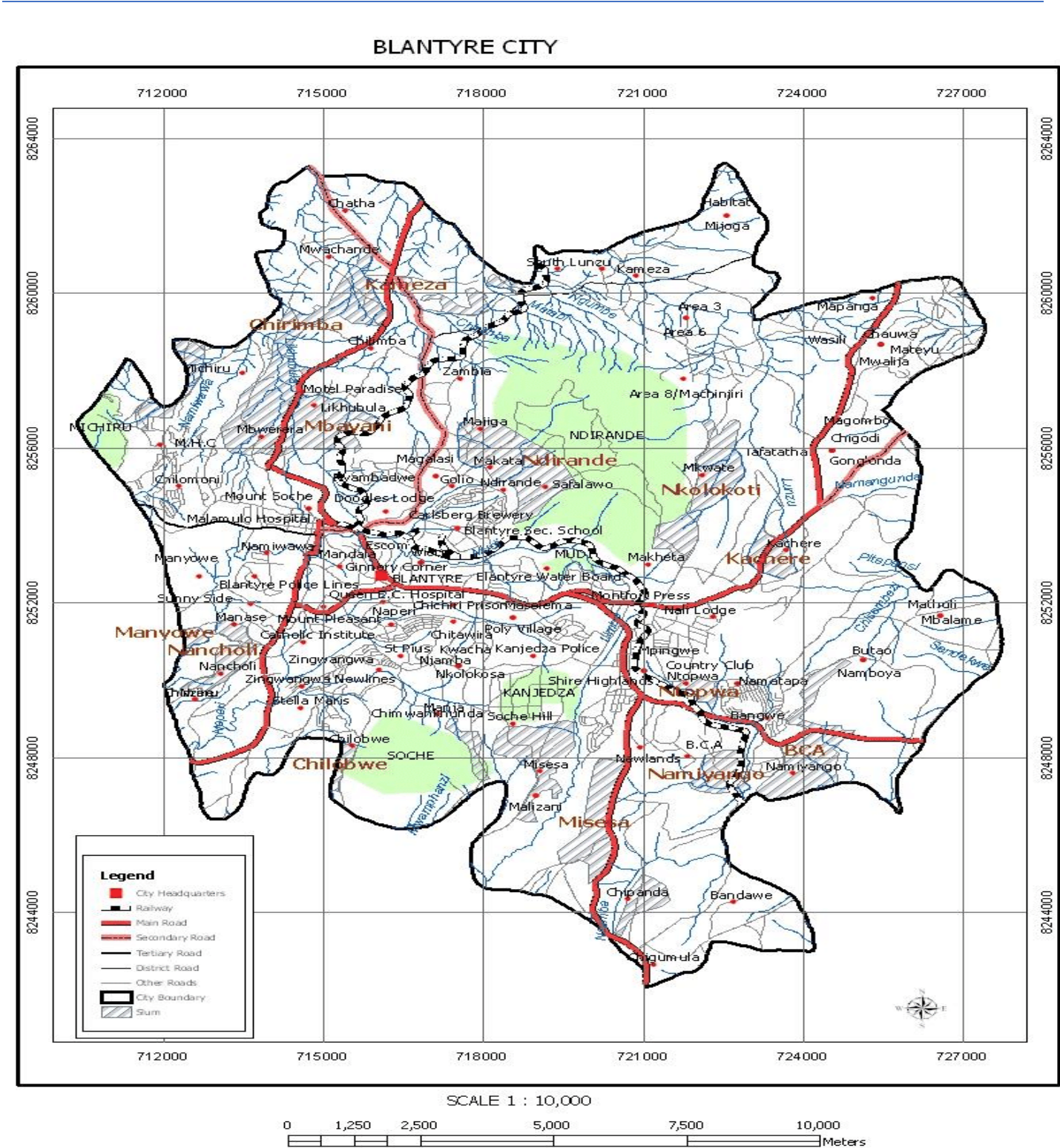
This study provides valuable information on herbal products business practices adopted by different small and medium enterprises in Malawi. The Malawi Government (FInES) project is a massive investment that should bring out the desired outcome and strengthen small and medium enterprises capacity to contribute towards the economic development of the country. The findings and recommendations of the research are beneficial to the small and medium herbal enterprises that want to set themselves apart by adopting a business model that can be a pathway to their competitive advantage and sustainability. The study findings will also help the industry to identify its problem areas and challenges and how the problems can be overcome for long term business sustainability. Ultimately, the findings and recommendations of this research may go a long way in supporting the Malawi government small and medium enterprises capacity building programs. The research is of practical value

because the chosen industry of study of herbal products is exponentially growing with a significant contribution to the improvement of the livelihoods of healers and/or traders and the general well-being of consumers in Malawi. Further, increased productivity in the industry will lead to increased exports hence impacting positively the foreign reserves of the country. This therefore makes it possible to apply the findings to other non-herbal products small and medium enterprises across the country.

## **Methodology**

### **Study Area**

The study area was Blantyre City covering central business areas of Blantyre Main City, Chichiri and Limbe Business Centres. These three were chosen since they host many herbal product outlets such as pharmacies and herbalists. Map of these locations is presented as Figure 2.1.



### Figure 1: Map of Blantyre City Showing Study Locations

## Research Design

This study adopted the mixed-methods research methodology with a descriptive case study as the study design. Mixed methodology offers several benefits to approaching complex research issues as it integrates philosophical frameworks of both post-positivism and interpretivism combining

qualitative and quantitative data in such a way that research issues are meaningfully explained (Fetters, 2016).

## Study Population

Mburu, Gichira and Kyalo (2021) defines population as “the universe of units from which the



sample is to be selected". This study purposely selected traders and consumers of herbal products in Blantyre as they would be better positioned to provide perspectives on herbal products business.

### Sampling Technique

The purposive sampling method was used to identify and locate participants that took part in the quantitative component of the study. Purposive sampling involves the researcher using their expertise to select a sample that is most useful to the purposes of the research (McCombes, 2020).

### Sample Size

A sample is a subset of the population that is taken to be representative of the entire population. Since there was no existing sampling frame, the sample size,  $n$ , was determined by the Cochran's formula, normally used to determine sample for an unknown population. The sample size,  $n$ , will thus be determined as follows.

- $n = z^2 [pq]/d^2$  where, critical value at 95%,  $z=1.96$ , sample proportion,  $p = 0.5$ , margin of error,  $d = 0.1$ ; and degree of precision,  $q = 1-p$ .

Therefore, in this study the sample size was as follows:

- $n = (1.96)^2 [0.5*0.5]/ (0.1)^2 = \{3.842 \times 0.25\}/0.01 = 96$ .

Sample size for the study was **96** respondents

### Data Collection

Sources of information included both primary and secondary data. Primary data included opinions, and policy considerations. These were derived from the respondents using a questionnaire. Secondary data used in this study was sourced from books, journals, and the approved research sites. The questionnaire consisted of the Likert-type scale questions. According to Saunders *et al* (2012), a questionnaire is structured in the form of a Likert-scale to show the respondents' level of agreement or disagreement. In this study, the questionnaire was constructed based on a five-point scale where the lowest scale represented strong disagreement, and the highest scale represented strong agreement. The questionnaire

was piloted on 10 respondents through a process called pre- testing. The pilot study was conducted at Lunzu Trading Centre in Blantyre City. A fully fledged data collection exercise was then made. Data collection was self-administered.

The questionnaire captured eight blocks, namely, *demographic information; overall results* -key partners; key resources; structure of costs; relations with clients/communication channels; revenue streams and value; general questions on (the improvement of business model vs. the success of a company; the use of appropriate methods and tools for the design of a successful business model; the increase of the awareness on the importance of business models; the role of the project in the improvement of skills of self-employability and new business creation; the knowledge on business models versus reducing barriers in the creation of start-ups); and effective adaptation strategies to challenges in terms of the willingness to experiment, ability to develop leadership and organizational capabilities, being decisive in business model adaptation. Key informant interviews were further conducted to fourteen (14) players in the herbal industry particularly herbal business owners to source the qualitative side of the study.

### Data Analysis

Quantitative data was divided into two categories. The first category was data for analysing business model and demographic information and the second category was data used to detect how important are the factors to the business model. The two categories were determined based on how these data were analysed. Data for business model and demographic information were analysed using descriptive statistics. Frequencies and percentages were generated to describe different components. SPSS and excel were used to generate such descriptive statistics.

To identify the value proposition factors for herbal products business development, a multinomial logistic regression was used. The collected data were ordinal in nature and as such ordinal logistic regression was supposed to be used to identify the existing factors for the herbal products business model. However, the preliminary analysis showed that this data failed a test of parallel lines assumption, a condition that necessitates one to use

ordinal logistic regression. In such situations it is recommended that a multinomial logistic regression should be used to ordinal data which fails to meet the test of parallel line assumption. Liang, Bi and Zhan (2020) highlighted that multinomial logistic regression is applied for multi-categorical outcomes, whereas ordinal variables is preferentially analysed using an ordinal logistic regression model. If the ordinal model does not meet the parallel regression assumption, the multinomial regression should be used as an alternative. Hence this data was analysed using multinomial logistic regression.

### Multinomial Logistic Regression

Suppose the response variable  $y$  is categorical and can take values  $1, 2, \dots, K$  ( $K > 2$ )

- $P(y = 1) = \pi_1, P(y = 2) = \pi_2, \dots, P(y = K) = \pi_K$ , such that  $\sum_{k=1}^K \pi_k = 1$

With have an explanatory variable  $x$ , then fitting the model such that:

- $P(y = k) = \pi_k$  is a function of  $x$ , then choose the baseline category of  $y = 1$ , then

$$\log \left( \frac{\pi_{ik}}{\pi_{i1}} \right) = \beta_{0k} + \beta_{1k} x_i$$

in the multinomial logistic regression model, there is a separate equation for each category of the

response relative to the baseline category, if the responses has  $K$  possible categories, there will be  $K - 1$  equations as part of the multinomial logistic regression model. Suppose we have a response variable  $y$  that can take three possible outcomes that are coded as “A”, “B” and “C”. If we have “A” as the baseline category, then

$$\log \left( \frac{\pi_{iB}}{\pi_{iA}} \right) = \beta_{0B} + \beta_{1B} x_i; \log \left( \frac{\pi_{iC}}{\pi_{iA}} \right) = \beta_{0C} + \beta_{1C} x_i$$

Qualitative data was analysed using content analysis in which case responses per question for the interviewed KIIs were compared by themes. Direct quotes were then also adopted and have been included in the results in the final presentation of results by drawing conclusions.

## Results

### Demographic Information

The sample size for the study was ninety-six (96) comprising herbal businesses. In terms of gender majority of respondents were males (58%). For age, most respondents were aged between 21 and 30years (43%) while for religion majority were Christians (58%). In terms of marital status, the majority were those married (54%) while in terms of herbal business experience the majority had less than 5years experience (42%) (Table 3.1).

**Table 1: Demographic Information**

Characteristic	Aspect	Frequency	Percent (%)
Gender	Male	42	58.3
	Female	30	41.7
Age	<20years	3	4.2
	21to30years	31	43.1
	31to40years	22	30.6
	41to50years	8	11.1
	>50years	8	11.1
Religion	Christianity	60	83.3
	Islam	12	16.7
Marital status	Married	39	54.2
	Widowed	3	4.2
	Divorced	2	2.8
	Separated	1	1.4

	Single	27	37.5
Herbal experience	<5yrs	30	41.7
	5to10yrs	25	34.7
	11to15yrs	15	20.8
	16to20yrs	2	2.8

### Analysis of the Business Model

Analysis of the business model covered key partners, key recourses, structure of costs, relation with clients and communication channels, revenue streams and value proposition, adaptation strategies and general questions related to the topic of business modelling on herbal products.

### Business Model Framework for Herbal Products

The business model analysis was done using descriptive statistical techniques such as frequencies and percentages as detailed (Table 3.2) covering four aspects, namely, costs involved in delivering the product, quality of product delivered from the markets, perceived key activities and key resources as important for gaining revenue, and the effects of the business model if changed in a specific way.

**Table 2: Business Model Analysis**

Aspects	Scale	Frequency	Percent (%)
Costs involved in delivering the product	High	26	36.1
	Medium	19	26.4
	Low	27	37.5
Quality of product delivered to the markets	Very Good	27	37.5
	Good	18	25
	Acceptable	21	29.2
	Poor	4	5.6
	Very Poor	2	2.8
Perceived key activities and key resources as important for gaining revenue	Very Important	27	37.5
	Important	33	45.8
	Fairly Important	12	16.7
Effects if business model is changed	Excellent	32	44.4
	Somewhat good	27	37.5
	Poor	13	18.1

In terms of the costs involved in delivering the product, they ranged from medium (26%) to low (38%). Quality of product delivered to the markets is acceptable (29%). The perceived key activities and key resources were rated important (46%) for

gaining revenue while the effects if business model is changed were rated as important.

### Existing Factors for Herbal Product Development

Different series of multinomial regression analyses were run to identify existing factors for herbal business development. The data for this purpose was collected using a Likert scale. The dependent variable had three levels, 1 for poor, 2 for good and 3 for excellent (meaning poor business model, good business model and excellent business model respectively). The factors which are the independent variables (predictors) had five levels as follows, 1 for very important, 2 for important, 3 for fairly important 4 for slightly important and 5 for not important. However, these levels were collapsed into three for easy analysis. The following were the new levels. Very important and important were collapsed into one (as level 1), fairly important and slightly important were also collapsed into one (as level 2) and not important as standalone category (as level 3). In the parameter estimate tables presented in the subsequent pages, the factors are equated to either 1, 2 or 3 based on these levels. If a factor is equal to 1 (say cost estimation = 1), the researcher is trying to find how cost estimation is influencing the business model when it is placed in level 1. Similarly, when cost estimation = 2, the researcher is finding how cost estimation can influence the business model when cost estimation falls in category 2 and so on.

### Key Partners in Business Development

Four factors were examined under key partners in business development (importance of networking and strategic alliance, problem solving in a partnership, public-speaking skills and use of rules

of competitiveness and cooperation to manage key partners in business development). The results for the multinomial logistic regression on how these factors influence the herbal business development are presented in Table 4. Table 5 shows the model fitting information, this indicates how the model adequately describes the data. The significance level of the model was found to be 0.000 less than 0.05, this implies that the model is significant, meaning that there is a significant improvement in fit as compared to the null model. Hence the model adequately describes the data.

**Table 4: Model Fitting Information**

Model	Model Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	57.570			
Final	21.216	36.354	12	0.000

The overall analysis on how the four factors in key partners in business development influence the business model is shown in the likelihood ratio test table. The Table 2.5 shows that only networking and strategic alliance was significant in influencing the business model regardless of the categories.

**Table 5: Likelihood Ratio Test**

Effect	Model Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	20.799 <sup>a</sup>	0.000	0	
Resource identification	34.883	14.084	4	0.007
Resource management	23.340	2.541	4	0.637
Resource identification and management in model improvement	30.881	10.082	4	0.039



### Structure of Costs in Business Development

On structure of cost in business development, five factors were looked at and these are firm assessment, cost estimation, knowing cost categories, differentiating between fixed and variable costs and linking strategic decisions. Below are the results on how these factors influence the business model. The significance level of the model is 0.002, which is less than the p-value of 0.05, this suggests that the model is significant, and it adequately describes the data (Table 8).

**Table 8: Model Fitting Information**

Model	Model Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	79.416			
Final	36.331	43.085	20	0.002

Overall effect of the factors on the dependent variable shows (Table 9) that only cost estimation is significant in influencing the business model.

**Table 9: Likelihood Ratio Test**

Effect	Model Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood of Reduced Model	Chi-Square	Df	Sig.
Intercept	36.331 <sup>a</sup>	0.000	0	
Firm assessment	43.648	7.318	4	0.120
Cost estimation	49.187	12.856	4	0.012
Knowing cost categories	39.831	3.500	4	0.478
Differentiating between fixed and variable costs	39.275	2.944	4	0.567
Linking strategic decisions	40.386	4.055	4	0.399

### Relations with Clients in Business Development

Six factors were looked at under relations with client in business development and these are effective communication, entrepreneur motivation, client communication through different channels, effective time management, and effective cooperation strategy and client idea consideration. Results on how the factors influence on the business model are presented in Table 3.10. With the significance level of 0.049, which is less than the p – value of 0.05, this suggests that the model is significant, and it adequately describes the data.

**Table 10: Model Fitting Information**

Model	Model Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	85.465			
Final	49.042	36.423	24	0.049

The overall analysis of the factors shows (Table 11) that effective time management is the only factors

that significantly influences the dependent variable with the significance level of 0.025.

**Table 11: Likelihood Ratio Test**

Effect	Model Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	49.042 <sup>a</sup>	0.000	0	
Effective communication	52.898	3.856	4	0.426
Entrepreneur motivation	53.608	4.566	4	0.335
Client communication	52.684	3.643	4	0.457
Effective time management	60.187	11.145	4	0.025
Effective cooperation strategy	54.649	5.607	4	0.230
Client idea consideration	54.766	5.724	4	0.221

### Revenue Streams and Value Addition in Business Development

There are four factors which were looked at under revenue stream and value addition in business development, these are having revenue stream, firms to respond to client needs, appropriate price mechanic and firm to calculate product fee. Below is the analysis on how the factors influence business model. The significance level of the model is 0.005 in Table 11, which is way below the p-value of 0.05. This suggests that the model is significant, and it adequately describes the data.

The overall analysis of the four factors shows (Table 12) that having revenue stream and selecting appropriate pricing mechanic are significant in influencing the business model. Their significant values are 0.028 and 0.003 respectively.

**Table 3.12: Likelihood Ratio Test**

Effect	Model Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	36.199 <sup>a</sup>	0.000	0	
Having revenue stream	47.087	10.888	4	0.028
Firms to respond to client needs	43.994	7.794	4	0.099
Selecting appropriate pricing mechanism	47.638	11.439	2	0.003
Firms to calculate product fee	44.917	8.718	4	0.069

### Challenges to the Herbal Industry

This examined the challenges faced by the herbal traders in business development. Based on the key informant interviews the general response was that there seems be no big challenges in their herbal product trade. For instance, when asked they faced challenges one respondent said, *“yes, we face problems just as any businessperson but that in such scenarios we look for solutions to continue with selling the herbal products “*

### Key Resources in Business Development

This aspect examined the importance of envisaging that identification of the main resources (physical, intellectual, human, financial) of an organization, managing resources of the organization, and inclusion of resource identification and management in the process of the development, or the improvement of a business model in business development.

Based on the key informant interviews, the general response was that *“most herbal sellers either started the business on their own or just inherited from their parents that there are no formal records to refer to analyse structure of costs.*

### Relations with Clients in Business Development

This examined the importance of effective communication between clients and communication channels used, and times of communication, based on the key informant interviews the respondents said, *“That the relationship goes sour most of the times*

Based on the key informant interviews, the general response was that *“there seems that resourcing for herbal products, the most wanted resources are what the sellers go for in cases of high demand for herbal products.”* According to Otolá (2020) who aimed at analysing the resource base in a business model of high-growth enterprises among managerial personnel of 150 high-growth enterprises in Poland, found that human capital, organizational capital, and intellectual property are crucial for a business model of those enterprises. The same concept is applicable to herbal modelling.

### Structure of Costs in Business Development

This examined the importance of assessing the situation of a firm in financial aspects, estimate costs in the firm, cost categories, differentiating between costs in the firm, and strategic decisions.

*when buyers do not communicate their failure to repay timely for herbal products acquired on credit. Sometimes this relationship gets more strained as some customers completely run away even after assurances for repayment.”*

### Revenue Streams and Value Addition in Business Development

This examined the importance of assessing the situation of a firm having revenue streams and value proposition, firms responding to clients' needs depending on market segmentation, selecting an

appropriate pricing mechanism for their products; and appropriately calculating advertising, brokerage, licensing, landing, renting leasing or usage fees for their products in business development. Based on the key informant interviews, *the general response was that while there may be a situation of a firm having revenue streams by value propositions for their*

*products; and appropriately calculating business fees for their products, “the herbal traders or sellers currently add value to the herbal products by displaying their products in containers, sticks or putting the powdery herbs in separate bags or tubes based on function.”*

## **Discussion**

### **Business Model Analysis**

Analysis of the business model covered key partners, key recourses, structure of costs, relation with clients and communication channels, revenue streams and value proposition, adaptation strategies and general questions related to the topic of business modelling on herbal products.

and percentages as detailed in Table 4.2 below and mostly covering four aspects, namely, costs involved in delivering the product, quality of product delivered from the markets, perceived key activities and key resources were found important for gaining revenue, and the effects of the business model if changed in a specific way. In terms of the costs involved in delivering the product, they ranged from medium (26%) to low (38%). Quality of product delivered to the markets is acceptable (29%). The perceived key activities and key resources were rated important (46%) for gaining revenue while the effects if business model is changed were rated as important.

### **Business Model Framework for Herbal Products**

The business model analysis was done using descriptive statistical techniques such as frequencies

development. Key partners was among the five factors which were found not to be very important.

### **Identifying Existing Factors for Herbal Products Business Development**

To check for robustness and reliability of the regressed results for herbal products business development, the Cronbach's Test was used as per methodology and a *Cronbach's Alpha* ratio of 0.835 was found to be within the range of  $0.9 > \alpha \geq 0.8$  (*good*) based on the Cronbach's Alpha rule of thumb.

### **Key Resources in Business Development**

This aspect examined the importance of envisaging that identification of the main resources (physical, intellectual, human, financial) of an organization, managing resources of the organization, and inclusion of resource identification and management in the process of the development are influential in business modelling. With respect to key resources in business development, resource identification and inclusion of resource identification and management in model improvement were found to be significant in relation to herbal modelling. Based on the key informant interviews the general response was that there seems that resourcing for herbal products, the most wanted resources are what the sellers go for in cases of high demand for herbal products. According to Otola (2020) who aimed at analysing the resource base in a business model of high-growth enterprises among managerial personnel of 150 high-growth enterprises in Poland, found that human capital, organizational capital, and intellectual property are crucial for a business model of those enterprises. This is also in line with the current findings which

### **Key Partners in Business Development**

This aspect looked at how networking and strategic alliance, problem solving in partnership, public speaking skills and use of rules of competitiveness and cooperation to manage key partners in business development influences the business model. The likelihood ratio test shows that only networking and strategic alliance is significant in influencing the business model. With only one out of four factors being significant in influencing the business model under key partners, it is proper to consider that respondents did not consider key partner in business development as very important in business modelling. The findings agree with Chang, Wu, Chen & Ke (2021) who based on the business model, explored nine factors affecting the hotel sub-brand

suggests that resource identification and inclusion of resource identification and management in model improvement are crucial in business modelling.

### **Structure of Costs in Business Development**

This aspect examined the importance of assessing the situation of a firm in financial aspects, estimate costs in the firm, cost categories, differentiating between costs in the firm, and strategic decisions in business modelling. With respect to structure of costs in business development, only cost estimation was found to be significant with respect to herbal modelling. This result contradicts Gunarathne and Samudrage (2018) who having analysed the cost structure of manufacturing companies in an emerging economy found that despite most costs being variable, there were great differences among the companies in the composition of costs. There was no relationship between the cost structure and the level of advanced manufacturing technology used, which suggests a low level of technology-related costs in the cost structure. Budgeting and cost control are the main reasons for classifying costs while there is inadequate use of information for strategizing pricing decisions. Differences were also observed in the classification of the manufacturing cost items in the respondent companies. Finally, all the findings confirm that accounting practices in emerging economies are shaped by their environment as well. The study by Gunarathne and Samudrage (2018) also revealed certain managerial and policy level implications.

### **Relations with Clients in Business Development**

This examined the importance of effective communication of importance between clients and communication channels, motivate entrepreneurs for cooperation, communicate with clients through different effective time channels, management, effective cooperation strategy, and consider clients' ideas in business development. The findings show that only effective time management was found to have a significant positive influence on the dependent variable. With the other five factors not significant, one cannot conclusively conclude that the respondents view at this as very important to business modelling. This result contradicts

Asadnezhad *et al* (2017) findings that customer relationships and key partnerships are important in business development. Also, it contradicts Ābeltiņa and Rizhamadze (2020) who illustrated the complexity of relationships that companies must handle. It is argued that the embeddedness of relationships plays a crucial role, notably in the business-to-business relationship and that finding common ground is pivotal and found that the B2B relationship is a complex and multi-layered subject. Furthermore, for conflict resolution, taking into consideration the cultural differences in the decision-making process are fundamental.

### **Revenue Streams and Value Addition in Business Development**

This examined the importance of assessing the situation of a firm having revenue streams and value proposition, firms responding to clients' needs depending on market segmentation, selecting an appropriate pricing mechanism for their products; and appropriately calculating advertising, brokerage, licensing, landing, renting leasing or usage fees for their products in business development. With respect to revenue streams and value addition in business development, revenue streams and appropriate pricing mechanism were found to be significant in influencing the business modelling. Firms to respond to client needs and firms to calculate product fee were insignificant, but not very far from being significant. With significance level of 0.099 and 0.069 respectively.

### **Designing the Business Model Framework for Herbal Industry**

Based on the findings the new business model that will work better for the herbal business in Malawi will adopt those factors that were found to be significant in positively influencing the herbal business in Malawi. Under key partners in development one factor was found to be significant and this is networking and strategic alliance. On key resources in business development there were two factors which were significant, and these were resource identification and inclusion of resource identification and management in model development. On structure of cost in business



development one factor was significant and it was cost estimation. Effective time management was significant in relations with client in business development and finally having revenue stream and selecting appropriate pricing mechanisms were found to be significant in revenue streams and value additions in business. The table below summarizes how the new herbal business model will look like. Based on the respondents' opinions these factors will make a business model that works in the context of herbal business.

## Conclusions

This study has found the following: that networking and strategic alliance under key partnerships, resource identification and inclusion of resource identification and management in model improvement under key resources, cost estimation under structure of costs, effective time management under relations with clients and having revenue streams and selecting appropriate pricing mechanism under revenue streams and value addition were all significant in positively influencing the business model. This suggests that the new business model for the herbal industry in Malawi should incorporate among other things the listed factors. The study also found that increased awareness on the importance of business models, clear project roles in skill improvement and new business creation are paramount to developing new business model on herbalism.

This study makes the following two recommendations:

- i. With respect to key partnerships, key resources, structure of costs, relations with clients in business development, and revenue streams and value addition in business development, it is recommended that only those factors which are significant in positively influencing the business model should be incorporated in the herbal business model
- ii. This study was a case of Blantyre City targeting clients and/or sellers in selected locations in which the results can only be

internally generalized. For external generalization of the findings to Blantyre City, any future studies may need to cover the whole of Blantyre.

## References

- Aarntzen, R. (2016). The Use of Frameworks in Business Model Development. *Masters' Thesis*, University of Twente.
- Ābeltiņa, A., & Rizhamadze, K. (2020). The Complexity of Relationships within Business and the Importance of Common Ground. SHS Web of Conferences 90, 01001. URL: <https://doi.org/10.1051/shsconf/20219001001>
- Asadnezhad, M., Hejazi, R., Akbari, M., & Hadizadeh, E. (2017). Designing the Business Model of Herbal Pharmaceutical Knowledge based Companies, *Journal of Entrepreneurship, Business and Economics*. 5(2), 47–63.
- Bazrafshani, M.S., Khandani, B.K., Pardakhty, A., Tajadini, H., Afshar, R.M.P., Moazed, V., & Sharifi, H. (2019). The prevalence and predictors of using herbal medicines among Iranian cancer patients. *Complementary therapies in clinical practice*, 35, 368–373.
- Bates, S.M., Rajasekhar, A., Middeldorp, S., McLintock, C., Rodger, M.A., James, A.H., ... & Rochweg, B. (2018). American Society of Haematology 2018 guidelines for management of venous thromboembolism: venous thromboembolism in the context of pregnancy. *Blood advances*, 2(22), 3317–3359.
- Creswell, J.W., & Plano, V.L. (2018). *Designing and Conducting Mixed Methods Research* (3rd ed.). Sage Publications
- Djuwari, D. (2021). Synthesis and Novelty for Developing the Framework in Academic Writing. *Philippine Social Science Journal*, 4(2), 53–60.

- Donner, M., & de Vries, H. (2021). How to innovate business models for a circular bioeconomy? *Bus Strat Env.* 30:1932–1947. DOI: 10.1002/bse.2725
- Jibril, A.B., Kwarteng, M.A., Chovancova, M., & Denanyoh, R. (2019). The Influence of Selected Factors on the Use of Herbal Products. *Journal of Competitiveness*, 11(4), 57–72. URL: <https://doi.org/10.7441/joc.2019.04.04>
- Maxwell, J.A. (2016). Expanding the history and range of mixed methods research. *Journal of Mixed Methods Research*, 10(1), 12–27. URL: <https://doi.org/10.1177/1558689815571132>
- Majid, U. (2018). Research fundamentals: Study design, population, and sample size. *Undergraduate research in natural and clinical science and technology journal*, 2, 1–7.
- Meke, G.S., Mumba, R.F., Bwanali, R.J., & Williams, V.L. (2017). The trade and marketing of traditional medicines in southern and central Malawi. *International Journal of Sustainable Development & World Ecology*, 24(1), 73–87.
- Osterwalder, A., Pigneur, Y., & Tucci, C.L. (2005). Clarifying Business Models: Origins, Present, and Future of the Concept. Communications of the Association for Information Systems.
- Saebi, T., Lien, L., & Foss, N.J. (2017) What drives business model adaptation? The impact of opportunities, threats, and strategic orientation. *Long Range Planning*, 50(5). pp. 567–581. Permanent WRAP URL: <http://wrap.warwick.ac.uk/98519>
- Saunders, M., Lewis, P., & Thornhill, A. (2007). Research methods. *Business Students 4th edition Pearson Education Limited*, England.
- Zhang, W., Saghaian, S., & Reed, M. (2022). Influences of Power Structure Evolution on Coffee Commodity Markets: Insights from Price Discovery and Volatility Spillovers. *Sustainability*, 14(22), 15268.
- Zheng, T., Yao, D., Chen, W., Hu, H., Ung, C.O.L., & Harnett, J.E. (2019). Healthcare providers' role regarding the safe and appropriate use of herbal products by breastfeeding mothers: A systematic literature review. *Complementary therapies in clinical practice*, 35 (1), 131–147.
- Zhou, J., Ouedraogo, M., Qu, F., & Duez, P. (2013). Potential genotoxicity of traditional Chinese medicinal plants and phytochemicals
- Zott, C., & Amit, R. (2010). Business Model Design: An Activity System Perspective. *Long Range Planning*, 43(2-3), 216–