SEPE electronics and stationaries: decision making under different environments

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Abstract

This teaching case study aims at providing students with decision making scenario under certainty, uncertainty and risk Environment. It presents the data for Sepe Electronics and Stationaries, a small firm operated by its owner who is also a manager in Morogoro, Tanzania. The case study provides a situation where the business firms wishes to capture market opportunities hence need to make decision regarding alternatives as well as conduct analysis on the feasibility of the alternatives given the market conditions and available information. The case study provide a typical situation facing most of Small and Medium firms in the country which wish to expand business, introduce products, enter into new market etc, hence need to make financial decisions regarding the feasibility of the investments they wish to undertake. The case study is intended for class discussion only.

Keywords: Decision Marking, Forecasting, Budgeting, Sepe Electronics and Stationary,



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Introduction

Decision making is among the major challenges facing most of small entrepreneurs and business firms especially newly established firms and other immature small and medium enterprises. Most of these firms make different decision regarding their investments, the line of products as well other day to day decision without a critical analysis of the relevant information available which could support their decisions. Although it is said that the success of entrepreneurs in some points depends on the extent to which their ready to take risk, in today's business world this risk should be calculated risk. This case study addresses issues of management accounting on decision making. It presents Sepe electronics and stationaries firm whose manager is faced with a desire to capture market opportunity and generate profit in the face of different risks. It presents information available to the manager which should be considered to enable the firm to take advantage of the market opportunities by making right decision.

Company Profile

Sepe electronics and stationaries (SES) is a newly established firm engaging in supply of electronics and stationaries equipments to the local community in Morogoro region of Tanzania. The company was established as a result of market analysis conducted by the consultant who was commissioned by Mr. John Joseph the owner of SES. The company is located in Morogoro region in Tanzania which is deemed to be a center and a pass way to other regions of the country.

The owner of the firm, Mr. John Joseph is an experienced entrepreneur in Morogoro region, known for taking advantages of any business opportunities arising in the area. He has been involved in different kind of businesses such as agriculture and agricultural output business, hardware, transportation and car importation to mention some. To him business opportunity is something valuable which one should not delay holding it in his/her hands regardless the line of business in which it happens. Most of his entrepreneurial activities and business opportunities he has ever holds have been successful although in some cases he has experienced business failure with losses extending to the retained earnings from other projects he holds.

Mr. John Joseph has recently observed that Morogoro region in which he resides has been growing very fast in terms of population, economic activities as well as infrastructure developments. He has also observed that most of retails shops including electronics and stationaries has single supply source which is Dar-es-salaam a major business city in country, to purchase the goods for resale in Morogoro. Dar-es-salaam on the other hand is not the producer of most of product especially the electronics and stationaries, rather, businessmen in the city import the products from different parts of the world especially from China which has emerged as the major supplier of different commodities in the country.

Observing form his friend who own electronics and stationaries firms and form other businessmen around the town, Mr. John is confident that such line of business is very profitable and has high return with low payback period. Basing on his philosophy, he decided to capture the opportunity in electronics and stationaries business by positioning himself as the major supplier of the goods to other retail stores in the town. The decision to become wholesaler was based on two facts, one is to make sure that he does not compete with his friends who are doing similar businesses and second is to ensure certain demand for the products since he believed that all of his friends will get supply of the goods form his stores. In order to maximize profits, Mr John also decided to import goods from China to take advantage of favorable prices as compared to prices found in Dar-es-salaam.

Business Start

Being confident of his business idea, Mr. John approached CMDB bank one of the famous bank in Tanzania to obtain capital inform of loan to support his business idea. He approximated that, a good start up requires at least 500million Tshs capital, this information was based on information given to him from some businessmen in Dar-es-salaam who are also engaged in commodity importation from China. By the time, Mr. John had 200mil Tshs in his account he therefore required 300mil loan form the bank.

After a long negotiation, the bank loan manager informed Mr. John that the bank can advance the loan to him at 25% fixed interest rate under condition that he should first register his business and obtain business name and should also present a business plan prepared by professional person or firm. Mr. John therefore registered his business as Sepe electronics and stationary paying a fee of 3,000,000 Tshs to the authorities. He also hired KRM business consultant to assess his business idea and prepare for him a business plan as per bank requirements. Among the terms of the references given to the consultant is to make a good forecast that will enable firm obtain the financing form the bank.

Business forecasts

After assessing the market trend, Beta consultant forecasted the average demand for the product for the period of five years. Basing on the nature of the products, the consultant selected ten products from stationaries and other ten from electronics as representative to be included in the business plan. The consultant presented their business forecasts basing on the available data and other requirements from Mr. John as follows.

Demand

The demand for stationary items is expected to increase at the rate of 15% per year due to the fact that stationaries are always required in schools and offices, on the other hand, being the only supplier in Morogoro and given the distance to Dar-es-salaam, the Mr. John convinced the consultant that the demand will increase even more as the location will also attract other customers in other regions nearby Morogoro. For electronics the consultants forecasted a demand increase of 10% per year basing on the same facts given by the owner of the business. The table below presents the demand forecasts for the five years.

Demand Forecast (Units)					
Stationaries	Year 1	Year 2	Year 3	Year 4	
Counter books	4,300	4,945	5,687	6,540	
Exercise books	6,000	6,900	7,935	9,125	
Marker Pen	4,500	5,175	5,951	6,844	

Envelops	5,600	6,440	7,406	8,517
Note books	4,000	4,600	5,290	6,084
Empty DVD	3,000	3,450	3,968	4,563
Manila Card A4	4,000	4,600	5,290	6,084
Rim Papers	3,600	4,140	4,761	5,475
Lamination sheets	2,800	3,220	3,703	4,258
Spring files	3,400	3,910	4,497	5,171
Electronics				
Mobile Phones	1,600	1,760	1,936	2,130
Memory Cards	2,400	2,640	2,904	3,194
Scientific calculators	1,100	1,210	1,331	1,464
Phone accessories	1,800	1,980	2,178	2,396
Hard disk drives	1,400	1,540	1,694	1,863
Flash disks	2,000	2,200	<mark>2</mark> ,420	2,662
Extension cables	2,100	2,310	2,541	2,795
Laptops	600	660	726	799
Headphones	100	110	121	133
HD players	50	55	61	67

Purchases

Basing on the forecasted demand, the consultant approximated the purchases costs

	Price per	Forecasted Purchases Cost in Tanzanian Shillings				Forecasted Purchases Cost in Tanz		illings
Stationaries	unit (Tshs)	Year 1	Year 2	Year 3	Year 4			
Counter books	1100	4,400,000	5,060,000	5,819,000	6,691,850			
Exercise books	420	2,520,000	2,898,000	3,332,700	3,832,605			
Marker Pen	125	562,500	646,875	743,906	855,492			
Envelops	445	2,492,000	2,865,800	3,295,670	3,790,021			
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Note books	2500	10,000,000	11,500,000	13,225,000	15,208,750			

	Price per	Forecasted Purchases Cost in Tanzanian Shillings				
Stationaries	unit (Tshs)	Year 1	Year 2	Year 3	Year 4	
Empty DVD	280	840,000	966,000	1,110,900	1,277,535	
Manila Card A4	40	160,000	184,000	211,600	243,340	
Rim Papers	5700	20,520,000	23,598,000	27,137,700	31,208,355	
Lamination sheets	150	420,000	483,000	555,450	638,768	
Spring files	460	1,564,000	1,798,600	2,068,390	2,378,649	
Electronics						
Mobile Phones	100000	120,000,000	132,000,000	145,200,000	159,720,000	
Memory Cards	15000	36,000,000	39,600,000	43,560,000	47,916,000	
Scientific calculators	9000	9,900,000	10,890,000	<u>11,979,000</u>	13,176,900	
Phone accessories	1000	1,800,000	1,980,000	<mark>2,178,0</mark> 00	2,395,800	
Hard disk drives	80000	96,000,000	105,600,000	116,160,000	127,776,000	
Flash disks	15000	30,000,000	33,000,000	<u>36,300,000</u>	39,930,000	
Extension cables	12000	25,200,000	27,720,000	<mark>30,492</mark> ,000	33,541,200	
Laptops	400000	80,000,000	88,000,000	96,800,000	106,480,000	
Headphones	3000	300,000	330,000	363,000	399,300	
HD players	80000	4,000,000	4,400,000	4,840,000	5,324,000	

Sales

Basing on the market analysis and trends, the consultant came to conclusion that the minimum selling price for the product would yield a gross markup of 30% on total costs. Basing on this forecast, the sales in Tanzanian shillings were forecasted as follows.

Sales Forecast in Tanzanian Shillings						
	Year 1	Year 2	Year 3	Year 4		
Counter books	5,720,000	6,578,000	7,564,700	8,699,405		
Exercise books						

Sales Forecast in 7	Fanzanian Shillings			
	Year 1	Year 2	Year 3	Year 4
	3,276,000	3,767,400	4,332,510	4,982,387
Marker Pen	731,250	840,938	967,078	1,112,140
Envelops	3,239,600	3,725,540	4,284,371	4,927,027
Note books	13,000,000	14,950,000	17,192,500	19,771,375
Empty DVD	1,092,000	1,255,800	1,444,170	1,660,796
Manila Card A4	208,000	239,200	275,080	316,342
Rim Papers	26,676,000	30,677,400	35,279,010	40,570,862
Lamination sheets	546,000	627,900	722,085	830,398
Spring files	2,033,200	2,338,180	2,688,907	3,092,243
Electronics	1 B		B,	
Mobile Phones	156,000,000	171,600,000	188,760,000	207,636,000
Memory Cards	46,800,000	51,480,000	56,628,000	62,290,800
Scientific calculators	12,870,000	14,157,000	15,572,700	17,129,970
Phone accessories	2,340,000	2,574,000	2,831,400	3,114,540
Hard disk drives	124,800,000	137,280,000	151,008,000	166,108,800
Flash disks	39,000,000	42,900,000	47,190,000	51,909,000
Extension cables	32,760,000	36,036,000	39,639,600	43,603,560
Laptops	104,000,000	114,400,000	125,840,000	138,424,000
Headphones	390,000	429,000	471,900	519,090
HD players	5,200,000	5,720,000	6,292,000	6,921,200

Other administrative costs

Given the nature of the business and the past experience of the owner, the administrative expenses are expected to be 20% of the total sales revenue. These costs include mainly salaries

and other running costs. To ensure that the sales levels are attained the company should also advertise its product in local radios and television. It is expected the cost of advertisement will 30,000,000 Tshs which is expected to increase at the rate of 10% annually.

Cash budget

The following cash budget was prepared by the consultant showing that the firm will be able to repay the loan and still remain liquid for the period of four years.

Year 1	Year 2	Year 3	Year 4
Tshs	Tshs	Tshs	Tshs
200,000,000	356,887,837	244,431,460	132,701,011
300,000,000			
56,522,050	65,000,358	74,750,411	85,962,975
524,160,000	576,576,000	634,233,600	697,656,960
1,080,682,050	998,464,195	953,415,470	916,320,945
	NV	4	
X		1	
43,478,500	50,000,275	57,500,316	66,125,365
403,200,000	443,520,000	487,872,000	536,659,200
127,750,051	141,146,799	<mark>155,976</mark> ,482	172,396,386
30,000,000	33,000,000	36,300,0 00	39,930,000
119,365,662	119,365,662	119,365,662	119,365,662
723,794,213	754,032,735	820,714,460	894,546,612
356,887,837	244,431,460	132,701,011	21,774,333
	Tshs 200,000,000 300,000,000 56,522,050 524,160,000 1,080,682,050 43,478,500 403,200,000 127,750,051 30,000,000 119,365,662 723,794,213	TshsTshs200,000,000356,887,837300,000,00056,522,05056,522,05065,000,358524,160,000576,576,0001,080,682,050998,464,19543,478,50050,000,275403,200,000443,520,000127,750,051141,146,79930,000,00033,000,000119,365,662119,365,662723,794,213754,032,735	TshsTshsTshs200,000,000356,887,837244,431,460300,000,00056,522,05065,000,35874,750,411524,160,000576,576,000634,233,6001,080,682,050998,464,195953,415,47043,478,50050,000,27557,500,316403,200,000443,520,000487,872,000127,750,051141,146,799155,976,48230,000,00033,000,00036,300,000119,365,662119,365,662119,365,662723,794,213754,032,735820,714,460

Apart from the above table, the following information was included in the notes to the profit table by the consultant

- i. Due to the general business environment the demand for product depends of the agricultural activities and outputs which also depend on rainfall trends. There 20% chance in average that the demand for both stationaries and electronics will fall from the presented level as a result of draught, but if it rains, there is 30% chance that the demand will increase from the presented level.
- ii. The above analysis did not take into account tax issues. We assessed the tax position and we ascertained that the firm will have to pay 30% of its profits as income tax. The country tax policy also requires any firm with annual income level of 40million Tanzania shilling or more to charge value added tax (VAT) and remitted the funds to the authority, this was also not considered when assessing feasibility of the project.
- iii. All of our cost approximations were based on Dar-es-salaam market hence will be affected if the firm imports the products from abroad. We anticipate that, if the firm chooses to import the commodities from China the total costs will decline by 25% but the firm will have to pay import duties at 5% and excise duty at 10%. The authorities charges 1% par day on CIF cost in the case the of clearance days of more than 7 days since the landing of cargo.

iv. Since the owner of the business has several building located in Morogoro town, we have assumed that the same building will be used, hence rent charges are not included in the administrative cost approximation. The current market price for renting a building to house such a business is approximately 2,000,000 per month.

Required:

- i. Review all the data given including the notes and identify all relevant information that should be considered by Mr. John when deciding on business feasibility.
- ii. Assuming certainty environment, assess the feasibility of the business proposal presented above
- iii. Basing on the information given regarding the possible supply sources of the products, should Sepe Electronics and Stationaries purchase the products from Dares-salaam Tanzania or import the products from China?
- iv. Taking into account notes 1, recast the cash budget to reflect such uncertainties
- v. Refer to the notes attached in the forecast and prepare cash budget for the worst case scenario and the best case scenario
- vi. Assume Mr. John requires a return of 20% whenever he invest using own capital; assess the feasibility of the business proposal using net present value approach and the possible decision thereon.

