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Date : 26TH JUNE 2015

THE IMPLEMENTATION OF SALES FORECASTING TO ENHANCE THE SALES: A CASE STUDY AT ADIK UMMI ENTERPRISE

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Report submitted in fulfillment of the requirements for the Bachelor Degree of Technopreneurship with Honors

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"I admit that this report is the findings of my own work except the summaries and citations that everything I have detailed the sources."

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Name : NUR AMIRAH BINTI OMAR

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DEDICATION

I dedicate my dissertation work to my family and many friends. A special feeling of gratitude to my loving parents, Puan Kamariah binti Abdul Karim and Omar bin Abdullah whose words of encouragement and push for tenacity ring in my ears. The deepest thanks to my siblings and my future family, Nur Farhana binti Omar, Nur Atiqah binti Omar, Nurul Nadiah binti Omar, Muhammad Azamuddin bin Omar, Muhammad Fahmi bin Omar, Nurul Najihah binti Omar, Nurul Insyirah binti Omar, Basri bin Ahmad and family for their endless support, encouragement during the report completion from the beginning till the end.

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ABSTRACT

This study specifies the factors influencing and affecting sales performance in the Adik Ummi Enterprise. Adik Ummi Enterprise now having the problem to meet customer demand because of a shortage of labor. At the same time, the demands for products keep on increasing from day by day. This study aims to identify the factors that affect sales performance and present the results of secondary data that have been collected from year 2012 until 2014 and analyzed. Based on the data, there are a few factors that affecting the sales which are customer, price, quantity and weight. Some literature review has been found to strengthen the information and the data of this study. There are various tools have been used to find out the right and precise results for this study which are Pearson's Correlation Coefficient, Simple Linear Regression, One-way ANOVA and Independent Sample t-Test. Based on the results that have been obtained, the quantity is only variable that really affect sales at Adik Ummi Enterprise. The other variables such as weight and price only give very little impact on sales. While the variable of customer, do not even giving any effect to the sale. In conclusion, the Adik Ummi Enterprise can give more focus to the quantity for yellow noodle-making process in the future and try to get the outsources workforces in order to fulfill the increasing demands in the future.

ABSTRAK

Artikel ini menentukan faktor-faktor yang mempengaruhi dan menjejaskan prestasi jualan dalam Adik Ummi Enterprise. Adik Ummi Enterprise kini mempunyai masalah untuk memenuhi permintaan pelanggan kerana kekurangan tenaga kerja. Pada masa yang sama, permintaan untuk produk terus meningkat dari hari ke hari. Kajian ini bertujuan untuk mengenal pasti faktor-faktor yang memberi kesan kepada prestasi jualan dan membentangkan keputusan data sekunder yang telah dikumpul dan dianalisis. Berdasarkan data, terdapat beberapa faktor yang memberi kesan kepada jualan yang pelanggan, harga, kuantiti dan berat produk. Beberapa kajian literatur telah didapati mengukuhkan maklumat dan data kajian ini. Terdapat pelbagai alat telah digunakan untuk mengetahui keputusan yang tepat untuk kajian ini yang Korelasi Pekali Pearson itu, Simple Linear Regresi, Sehala ANOVA dan Sampel Bebas t-Test. Berdasarkan keputusan yang diperolehi, hanya faktor kuantiti sahaja yang benar-benar memberi kesan kepada jualan di Adik Ummi Enterprise. Faktor-faktor lain seperti berat dan harga hanya memberikan kesan yang sangat sedikit pada jualan. Manakala faktor pelanggan, tidak memberi apa-apa kesan kepada jualan. Kesimpulannya, AdikUmmi Enterprise boleh memberi lebih tumpuan kepada kuantiti untuk kuning proses mi membuat pada masa akan datang dan cuba untuk mengambil tenaga kerja luar untuk memenuhi permintaan yang lebih pada masa akan datang yang semakin bertambah.

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CHAPTER 1

INTRODUCTION

1.1 Background of Study

Malaysian SMEs are a vital component of the country's economic development. According to SMIDEC (2002), SMEs accounted for 93.8 percent of companies in the manufacturing sector. They contribute 27.3 percent of total manufacturing output, 25.8 percent to value-added production, own 27.6 percent of fixed assets, and employ 38.9 percent of the country's workforce. In addition, value added products from SMEs are expected to be worth RM 120 billion or 50 percent of total production in the manufacturing sector by 2020.

Despite this statistics, Malaysia SMEs' share of total exports is approximately 20 per cent lower than many other countries' such as Philippines, Hong Kong, Taiwan and even US (SMIDEC, 2002). SMEs in Malaysia are concentrated in the textile and apparel, food and beverages, metal and metals products and wood and wood products sectors. The majority of manufacturing companies are located in the central parts of Malaysia and around the country's major industrial regions.

Adik Ummi Enterprise was established in 2011. Its founder is a former lecturer in nursing who is aware on the importance of dietary and hygienic products to consumers in this country. She decided to leave nursing and studying business for the production of halal food and clean.

Starting with yellow noodle products, now Adik Ummi Enterprise widens its product with polka dot product cakes, chocolate and frozen foods. Each product is produced by individuals who have expertise in their respective products.

However, due to lack of exposure and in-depth knowledge of business administration, Adik Ummi Enterprise encountered some problems that can lead to loss of achieving maximum profits by the company itself. In this study, the researcher only focuses on the production of yellow noodles only.

1.2 Research Problem

This study was conducted to recognize the factors that contribute to the sales at Adik Ummi Enterprise. In addition, the company has a problem related to recruitment other than their own family members (outsourcing) which lead to the production of the company cannot meet the needs of the market.

Furthermore, these companies argue that they need to offer prices in line with current market noodle to avoid losses and cannot get maintain products on the market although from the point of packaging and product quality have demonstrated that the price should be offered is higher than the price they are offering now. The effect of do not implement to this study to this company may cause the company still in the same situation or cannot extend the business and remain the same and may be cannot be competing with the others.

1.3 Research Question

The research questions of this study are:

i. What are the factors that influence the company in order to maximize the number of sales?
ii. How sales performance can maximize the production of the company?

1.4 Research Objectives

The objectives of this study are:

i. To recognize the factors that contributes to maximize the number of sales.
ii. To determine whether sales performance can maximize the production of the company or not.

1.5 Scope

This study only focused on management, planning and business forecasts for the products in Adik Ummi Enterprise. The study population consisted of yellow noodles' suppliers around the district and retail traders only.

1.6 Limitations

There are various constraints in conducting this study which are included:

i. Only focus on one company which is Adik Ummi Enterprise.

ii. Only focus on the production and the sales of yellow noodle at Adik Ummi Enterprise.

1.7 Key Assumptions of Study

Sales forecasting is an attempt to predict what share of the market potential identified in a market forecast a particular company expects to have. For very small companies that serve only a fraction of the total market, the company forecast may not even explicitly consider the market forecast or share, although implicitly, of course, the company's sales are subsumed under the total market size. In the other extreme, a monopoly's sales forecast is essentially the same as the market forecast.

Forecasts of different kinds are often prepared at different levels of a corporate enterprise. Managers of different stripes use forecasts for a variety of purposes, including marketing planning, resource or investment allocation, production scheduling, and labor recruitment. In some cases the uses are simply informational, but in many cases forecasts are the basis for major decisions like:

i. What product lines to pursue?
ii. How much to spend on production and in what ways?
iii. How aggressively to advertise or promote the products?
iv. How best to get the products to market in order to fulfill the projected demand?

Yet sales forecasts are conditional in that they are only estimations and are highly interdependent with corporate strategy and actions. Some forecasts are developed before strategies and action plans are formulated; others are created to gauge the anticipated effects of an existing strategy.

A sales forecast may cause management to adjust some of its assumptions or decisions about production and marketing if the forecast indicates that the current production capacity is grossly inadequate or excessive and sales and marketing efforts are inconsistent with the expected outcomes. Management therefore has the opportunity to examine a series of alternate plans for changes in resource commitments (such as plant capacity, promotional programs, and market activities), changes in prices, or changes in production scheduling. Indeed, when a company is evaluating different courses of action it may develop separate forecasts for each option in order to assess the implications of each.

1.8 Significance of Study

This research is done for gaining as much information available in order to determine how the variables can affect the sales to the market. This research may be beneficial for:

1.8.1 Researcher

Researcher is the person who undertakes the responsibility to conduct a research either for own interest or for the favor of others. The research was beneficial to the researcher itself since the researcher conduct the research to find out about the studies and gain new knowledge. By conducting this research, the researchers may able to find out what they want to know with full fact evidences.

1.8.2 Investor

Investor is the person who buys and sells shares in order to gain extra earning. Investor got the benefit the most in this research since it was explored the factors that can increase the sales. This study can aids investor into making decision to invest or not in the business.

1.8.3 Organization

This research is very beneficial to the company, not only for investors. It is because that all organizations want their sales to keep on increasing from day to day. Organization tried to develop strategies in order to keep their sales on rise. Through this research, the organization abled to finds out that there are uncontrollable factors that can be avoided or at least be prepared when it comes. By conducting this research, it enabled the organization to discover what aspects that can be improve or maintain so that the sales will not fall.

1.9 Summary

At the end of this study, the results obtained can help upgrade the level of the economy, sales performance and raise the level of maximum profit by using all the facilities and resources of the company effectively.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

Literature review related to the research was explained in broad general perspective until narrow specific perspective. It consists of the review on the main dependent variable which is sales, as well as what are the factors that can influence the dependent variable and also the brief definition of the independent variables itself like the customer, price, quantity and weight.

2.2 The Role of Sales Forecasting In Sales and Operations Planning (S&OP)

In many companies, sales forecasting is an integral part of a critical process for matching demand and supply that is sometimes referred to as Sales and Operations Planning (S&OP). Demand is the responsibility of sales and marketing. In many companies, the sales organization is responsible for generating and maintaining demand from large end-user customers, or from wholesale or retail channel partners. Marketing is usually responsible for generating and maintaining demand from end consumers. Supply is the

responsibility of a number of functions, including manufacturing, procurement, logistics or distribution, human resources, and finance. It is also the responsibility of a variety of suppliers, who must provide raw materials, component parts, and packaging. The S&OP process provides a "junction box" where information can flow between the demand side and the supply side of an enterprise. The sales forecast should originate in the demand side of the enterprise, because it is the demand side of the enterprise (i.e., sales and marketing) that is responsible for generating demand and that should have the best perspective on what future demand will be. In addition to the sales forecast, which originates in the demand side of the company, another critical input to the S&OP process is a capacity plan. A capacity plan is a projection into the future about what supply capabilities will be, given a set of environmental assumptions. This input is provided by the supply side of the enterprise and documents both long- and short-term supply capabilities. The process that occurs inside the S&OP process—the junction box—is the matching of future demand projections (i.e., the sales forecast) with future supply projections (i.e., the capacity plan). Out of the S&OP process come two critical plans, the operational plan and the demand plan. As discussed above, the operational plan consists of manufacturing plans, procurement plans, distribution plans, and human resource plans. These various operational plans can be short-term in nature, such as a monthly production schedule.

They can be long-term in nature, such as extended contracts for raw materials, or even plans to expand manufacturing capacity. The other critical plan that emerges from the S&OP process is the demand plan, which involves sales and marketing making plans about what should be sold and marketed and when, given the supply capabilities of the firm. As mentioned above, demand plans may involve suppressing demand for products or services that are capacity constrained, or shifting demand from low-margin products to high-margin items. Other authors have discussed how to effectively manage the S&OP process within organizations (see, for example, Lapide 2002), and such discussion is

beyond the scope of this book. It is important, however, to understand the critical role that sales forecasting plays in the overall planning activities of the firm. Without accurate and credible estimates of future demand, it is impossible for organizations to effectively manage their supply chains.

2.3 Sales Forecasting in SMEs

2.3.1 Price

Retail tests are "experiments, called tests, in which products are offered for sale under carefully controlled conditions in a small number of stores" (Fisher & Rajaram 2000). Such a test is used to test customer reaction to variables such as price, product placement or store design. If the test is used to predict season sales for a product it is called a depth test (Fisher & Rajaram 2000). In a depth test the test outlets are usually oversupplied in order to avoid stock-outs which usually distort the forecast. The forecast is then used for the total season demand, which is ordered from a supplier before the start of the selling period.

Fisher & Rajaram (2000) report there exists no further academic or managerial literature describing how to design retail tests. In order to achieve optimal results with a retail test Fisher & Rajaram (2000) propose a clustering method to select test stores based on past sales performance. They found that clustering based on sales figures outperforms clustering on other store descriptor variables (average temperature, ethnicity, store type) significantly.

Fisher & Rajaram (2000) assume that customers differ in their preferences for products according to differing preferences for specific product attributes (e.g. color, style). Thus actual sales of a store can be thought of as a summary of product attribute preferences of the customers at that store. The clustering approach is thus based on percentage of total sales represented by each product attribute. Therefore stores are clustered according to their similarity in the percentage mix along the product attributes. Then one store from each cluster is selected as a test store to predict total season sales. The inference from the sales in the test stores to the population of all stores is done using a dynamic programming approach that determines the weights of a linear forecast formula such that the trade-off between extra costs of the test sale and benefits from increased accuracy is optimized.

2.3.2 Weight

Two commonly used methods to forecast sales from intentions predict that the proportion of consumers who will purchase will equal the mean intent (transformed to lie between zero and one to represent the mean probability of purchase), or the proportion of respondents indicating a positive purchase intent (Morwitz et al., 1996). However, several studies have shown that these methods often provide biased estimates of sales, overstating or understating actual purchasing (Morrison, 1979; Manski, 1990). Thus, when possible, the sales data should be used to adjust for the bias in intentions. The simplest way to do this is to relate an aggregate measure of sales. For example, Morrison (1979) estimates the bias in intentions measures as the difference between the mean intent across respondents (transformed to a number between 0 and 1) and the proportion that purchased. For an existing product, this

bias could be estimated in a previous period and used to adjust for the bias in a current intent score. This method should be accurate if the bias is stable over time.

If panel data are available, a second way to adjust for the bias in intentions data is to use sales data to estimate the proportion of respondents in each intender and non-intender group who will make a purchase (i.e. intent–behavior conversion rates). For example, for existing products, intention–behavior conversion rates can be obtained from past time periods (Morwitz and Schmittlein, 1992). This method should lead to accurate sales forecasts if these conversion rates are stationary over time.

While our study deals with existing products, there is an analogy to new product forecasting. For new products, intent–behavior conversion rates can come from past observations of similar products or from established industry norms. Jamieson and Bass (1989) describe a set of different intent–behavior conversion norms that have been used by industry practitioners. The accuracy of this method for new product forecasting will depend on the extent to which intent–behavior conversion rates vary across similar products.

Given the uncertainty about the best way to use intentions, one strategy is to use different approaches to develop forecasts, then to combine the forecasts from these approaches. The evidence on combining forecasts is substantial and favorable (Clemen, 1989; Winkler, 1989; Schmittlein, Kim and Morrison, 1990; Batchelor and Dua, 1995). Combined forecasts are expected to be especially effective when the component forecasts differ substantially from one another with respect to the data and methods used. Combining forecasts from different methods with equal weights is recommended unless a strong case can be made for