Forecasting and its Effect on Organizational Performance

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ABSTRACT

This research work explored the impact of forecasting on organizational performance. Eastern Shop, Enugu was used as a case study. Frequencies, Percentages, Tables and Charts were used to present obtained data while chi-square Tests of independence and association was employed in testing the statistical significance of the null hypothesis. After subjecting each hypothesis under test, findings revealed that Information is an effective tool for forecasting, forecasting determines organizational profitability and that there exists a significant difference between forecasting and turnover in Eastern Shop Enugu. It was concluded however that organizations need to be undertaking forecasts if they are to survive the dynamic business environment.

Keywords: *Forecasting; Organizational Performance;*

Introduction

The past decade has seen many industries witnessing a throng of intense changes, such as the deregulation of the financial sector, competition from similar businesses and technological advancement seen in the advent of new information technology such as the Internet. All these changes have in a great way created a combined effect that has led to the overwhelming competitive market environment in this present time. Efficient forecasting and planning have become a vital activity for businesses who wish to survive in this highly volatile business environment. Forecast is the basis from which planning ensues. Forecasting therefore is a tool of planning that aids management in its attempts to cope with the uncertainty of the future, relying mainly on data from the past and present and analysis of trends. Forecasting starts with certain assumptions based on the management's experience, knowledge, and judgment. These estimates are projected into the coming months or years using one or more techniques such as Delphi method, Box-Jenkins models, moving averages, regression analysis, exponential smoothing and trend projection. Since any error in the assumptions will result in a similar or magnified error in forecasting, the technique of sensitivity analysis is used which assigns a range of values to the uncertain factors (variables) (Forecasting, 2017). Forecasting generally involves using information from the past to make decision concerning the future by the extrapolation of past data into the future using some scientific or statistical method (Benard, 2005). To be able to efficiently fulfil their planning and control responsibilities, managers of these institutions need timely and accurate forecasts of variables such as deposits, loans, exchange rates, and interest rates. Companies determined in achieving operational excellence and having a competitive advantage over other companies appreciate the impact forecasting has upon the ability of a company to satisfy its customers and to simultaneously manage its resources. A firm continually makes estimates of what is likely to happen in the future so that it can decide how much to produce and what to produce, what to invest in fixed capital and in inventories, how much labor to employ (Bradshaw, 2004). Even companies that think they do not undertake forecasting do so unconsciously by making projections into the future using their past experiences (Ashton, 2008). Forecasting if efficiently undertaken helps the company's management resolve the dilemma of more demanding customer requirements and greater shareholder expectations. To resolve this problem, managers are expected to provide better customer service with fewer resources. In this environment of trying to address numerous customer problems using fewer resources, the importance of effective forecasting is elevated. In manufacturing and distribution companies, a forecast is not just a prognosis of future business but a request for product. Though forecasts are an essential characteristic of human life, one should always remember that they are imperfect (Stutley, 2003). None of us knows exactly what will happen in the future. Because forecasting should not be regarded as a means of arriving at an accurate and detailed view of the future probabilities in an attempt to reduce uncertainties, a firm now finds it easier to project into the future and make a good plan. Once the plan has been made, it should be translated into details, estimates of profit, asset investment, and cash requirements predicated on how much money is expected to be available for meeting the organization's objectives; this is what is known as budget (Ackoff, 2005). The main aim for forecasting is to provide adequate information in appropriate details and in record time for organizations to economically respond to change; making it imperative for response time should be taken into consideration in making forecast accuracy measurement. Forecast helps an organization to manage financial market expectations by enabling management to better communicate with analysts (profit and loss forecasts), it also reduces production costs by enabling more efficient production scheduling and minimization of stock holding (production and logistics forecasts); it also reduces the cost of borrowing by enabling the organization to predict when it needs finance (cash flow forecasts) and also helps the organization focus on marketing effort to those areas where it will have most impact (forecasts of market potential) (CIMA, 2006). Forecasts are used by many functions within the organization. One specific application, the cash forecast, is prepared by the Finance department. This forecast predicts the size and timing of inflows and outflows of cash over a defined period. Typically, the Finance department prepares a monthly forecast for the first two years. This is usually followed by a less detailed annual forecast for the next three years. The Finance department also uses forecasts to anticipate whether budgets will be met. If not, Finance can analyze where the problem areas are. Similarly, profit and loss forecasts predict the trading performance of the organization, given projected sales and costs. Operational departments use forecasts to schedule production, and for purchasing and logistics. If there is insufficient capacity, forecasts can be used to determine the timing and amount of capital expenditure to increase capacity (Vollmann, Berry, Whybark, & Jacobs, 2005). The Sales department uses forecasts to set targets and quotas for salespeople (Wacker & Lummus, 2002). Forecasts are mainly generated from the Finance and Marketing departments, the latter frequently including external data in its forecasts. For example, Marketing might estimate how the market for its products will develop. This would involve looking at market potential, based on economic and perhaps social trends. Marketing will also consider how the organization's share of that market might develop. This would be based on customer trends and intentions, as well as market testing and competitive data results. It is helpful to have a dedicated specialist forecasting resource in the organization. This

helps ensure that different departments base their forecasts on common data. It also facilitates the sharing of results and good practice (Philip, 2004).

Statement of the Problem

The future is a challenge for every organization. All responsible managers see the continued existence of their organization as a prime management task. None of the organizations can really know what the future holds. However carefully they lay their plans there still remain a thousand and one things which they are unable to predict. There cannot be a single chief executive who has devoted no time to think about where his company is going and what it will be doing in the years ahead. Yet there are many who give insufficient thought to the future. They may, perhaps, look at their organizations occasionally through rosy spectacles or with fears of the pessimist. Most companies have been known to run the risk of straying from their goals, engaging in attractive and multiple but unattainable activities. They lose their sense of purpose and direction and are often not prepared for changes in their dynamic environment. Such companies, because of the difficulty in adapting to the environment, phase out as they come while others just manage to survive.

Objectives of the Study

i.   To determine if information is an effective tool for forecasting.
ii.   To establish if forecasting determines organizational profitability.

Research Questions

i.   How is forecasting important in an organization?
ii.   Can an organization progress without Forecasting?

Research Hypothesis

i.   Information is not an effective tool for forecasting in the selected supermarkets in Enugu
ii.   Forecasting does not determine organizational profitability of the selected supermarkets in Enugu

Theoretical Framework

Several theories have been developed out of researches conducted by individuals and institutions on the impact of forecasting on organizational performance. The theories are discussed below:

a.   Sequence or time-lag theory: this is the most important theory of business forecasting. It is based on the assumption that mist of the business data has the lag and the lead relationship, that is, changes in business are successive and not simultaneous. There is time lag between different movements. For example, expenditure on advertisement may not at once lead to increase in sales. Similarly, when Government makes use of deficit financing, it leads to inflationary pressure; the purchasing power of people goes up; the wholesale and retail prices go up. With the rise in retail prices, the cost of living goes up and with it there is a demand for increased wages. Thus, one factor, that is, more money in circulation, has affected the various fields of economic activities not simultaneously but successively, when the exercise duties are increased by the government, it leads to increase in prices which in turn lead to demand for the increase of wages (Fisher, 1997). The reliability of forecasts depends in this case upon the accuracy with which time lag is estimated. Also forecasting should not be done mechanically and due allowance should be given for the effects of the current economic conditions and other special factor operation at the time and the forecast modified in the light of these special factors. This theory is also based on the behaviour of different businesses which show similar movements occurring successively but not simultaneously. As such, this theory takes into account time lag based on the theory of lead lag relationship which holds good in most cases (Clarke & Subramanian, 2006).

b.   Action and reaction theory: this theory is based on two assumptions; every action has a reaction and magnitude of the original action influences the reaction. Thus, if the price of wheat has gone up above a certain level in a certain period, there is likelihood that after sometime, it will go down below normal level. Thus, according to this theory, a certain level of business activity is normal as sub normal or abnormal conditions cannot remain so for ever as there is bound to be reaction to them. Thus, we find four phases of business cycle to be prosperity, decline, depression and improvement. Since the theory regards a certain

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level of business activity as normal, the normal level must be very carefully estimated at the time of making forecasts. However, in practice, it is really difficult to decide precisely what constitutes normality (Kim et al., 2001).

c.   Economic rhythm theory: the basic assumption of this theory is that history repeats itself and hence the exponents of this theory believe that economic phenomena behave in a rhythmic order. Cycles of nearly the same intensity and duration tend to recur. Thus, the available historical data have to be analyzed into their component parts and different fluctuations influencing them have to be segregated. A trend is then obtained which will represent a long-term tendency or growth or decline. This trend line is projected a number of years into the future either by the free hand method or by the mathematical method (Creswee, 2003). This done on assumption that the trend line represents the normal growth or decline of the series. This theory has important limitations. First, business cycles are not strictly periodic and that the statistical extrapolation of cycles is not very satisfactory. Secondly, an error can be committed by an increase in either amplitude or duration, whereas the businessman is primarily interested in predicting the turning points of a cycle. However, it must be remembered that business cycles may not be strictly periodic and the very assumptions of this theory may not be true as history may not repeat (Jain, 2007).

d.   Specific historical analogy: this theory is based on a more realistic assumption that all business cycles are not uniform in amplitude or duration and as such the use of history is made not by projecting any fancied economic rhythm into the future, but by selecting some specific previous situation which has many of the earmarks of the present and concluding that what happened in that previous situation will happen in the present one also. What is done is that a time series relating to the data in question is thoroughly scrutinized and from it such period is selected in which conditions were similar to those prevailing at the time of making forecasts. The course which events took in the past under similar circumstances is then studied which gives an idea of the likely course which the phenomenon in question will follow (Easton, 1992).

e.   Cross section analysis: this theory is based on the knowledge and interpretation of current forces rather than projection of past trends (Easton, 1992). The theory assumes that no two cycles are alike, but the like causes always produce like results. All the factors bearing upon a given situation are assembled and relying upon the knowledge of economic processes, the forecaster concludes whether the situation is favorable or not. Immediate recognition is given to the fact that business conditions are shaped by simultaneous inflationary and deflationary forces (Ashton, 2004). Predominance of inflationary forces results in booms, whereas predominance of deflationary forces leads to depression. The forecaster who utilizes this method prepares three lists; one which itemizes inflationary forces, a second which enumerates stable forces and a third which sets forth deflationary forces on the basis of judgement. Obviously, the dominant forces change from time to time. Factors which need careful attention include technological development, supply-demand relationship, government policies and businessmen's expectation. In regard to the latter, several organizations regularly conduct surveys of executive opinions concerning future trends of general business conditions and selected series of business data (Chase & Charles, 2000).

Empirical Review

The research of Mentzer et al. (1999) suggests that as sales forecasting also NPF is more than an application of particular forecasting method. Their research also recommends that NPF should be viewed as an important and separate process from normal demand forecasting for ongoing products. It is even more crucial for NPF that the forecasts are continuously monitored and evaluated. Their study explained a recommended forecasting process, this process should have few modifications for new products when historical demand data is not available.

Study conducted by the Journal of Product Innovation revealed that 53% of all companies were either dissatisfied or very dissatisfied with their NPF process (Kahn, 2002; Simon, 2010). This high rate of dissatisfaction shows that NPF is a subject which should be studied in more detail to provide forecasting practitioners more recommendations how the NPF process could be improved to increase the quality of the forecasts.

Gartner & Thomas (1993) have studied the factors behind the low forecast accuracy rates for new products within the context of new computer software firms. Based on the study results, they provided the following recommendations to improve the accuracy: gain industry marketing experience, direct more attention and resources to new product forecasting, use personal data sources, and use more than one forecasting technique.

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Empirical for Forecasting

Ascher (1978) in his historical review of forecast accuracy with bias to environmental forecasting for an organization posited that large errors are common in that area of forecasting; and that, in practice, little improvement has been achieved over the past few decades. He pointed out that improved environmental forecasts will lead to more accurate market forecasts. He also stated that measurement error in the causal variables (e.g., the environmental inputs to a market forecasting model) had little impact on the accuracy of an econometric model in environmental forecasting for an organization. He observed that conditional econometric forecasts (those made with actual data on the causal variables) generally have not been found to be more accurate than unconditional forecasts (where the causal variables themselves must be forecasted). A possible explanation for these strange findings is that the comparisons may not be fair. The unconditional forecasts often include subjective revisions that may reduce the error in estimating the starting value; such adjustments were not typically used for the conditional forecasts. Asher concluded his study with an advice to businesses that when forecasting environmental factors that are related to market prices, it is important for the organizations to remember what might be called Adam Smith's Rule for Forecasters: "Forecasters cannot beat the market." In other words, when an active market of buyers and sellers is at work (such as in stocks, bonds, money, commodities, land, and football), forecasters have not had much success at finding methods that can improve upon the market's forecast of prices. This rule assumes that the forecaster lacks inside information, so the market price is a reflection of available information. Thus, the market forecasts prices as effectively as can any existing forecasting method. He also advocated that organizations should have a system for scanning the environment to be sure that they do not overlook variables that may have a large impact on their market. These variables he said can be tracked in a firm's marketing information system. He further suggested periodic brainstorming with a heterogeneous group of experts which he believes would be sufficient to identify which variables to track. The key is to identify the important variables and the direction of their effects.

Research on market (industry) forecasting has produced a number of useful conclusions. Here are some conclusions as contained in the study carried out by Ash and Smyth (1973), since the information that one of the major sources of error in forecasting, especially in short range forecasting, is estimation of the current status. For example, in trying to forecast beer sales for next year, it is important to know the current level of beer sales is the most useful, it follows that more frequent updating can improve forecasting accuracy. They stated that computer information systems allow for inexpensive and frequent updating of the current sales estimates from detailed data bases. This means that the size of the aggregate market and the various submarkets can be estimated more quickly and with greater precision. They gave an example with packaged goods industries where they stated that marketers can use weekly scanner data at the Standard Metropolitan Statistical Area level delivered within a week, whereas a few years ago they used two-month aggregates delivered six weeks after the fact and covering only 32 regional breakdowns as it serves in fast tracking the use of econometric methods for the estimation of the current status which produce modest improvements in accuracy in comparison to using only trade and production estimates.

Armstrong (1985), favored the use of judgmental method in forecasting for a company because high expertise in the subject area is not important for judgmental forecasts of change. It is, however, important for assessing current levels. He advised organizations not to spend heavily to obtain the best experts in the field to forecast change but they should avoid people who clearly have no expertise. People with knowledge on forecasting processes help in knowing the judgmental forecasts to combine as it is useful to combine judgmental forecasts. He further pointed out that biases may arise when using judgmental forecast which he listed as optimism, conservatism, anchoring, and an overemphasis on easily available data. It is often important to forecast the reactions of suppliers, distributors, and government in order to develop a successful marketing strategy. On occasion, one might also need to forecast the actions of other interest groups, such as "concerned minorities." A range of techniques similar to those for forecasting competitors' actions appears useful, but little research investigates the relative accuracy of these techniques.

As with forecasting competitors' actions, different techniques may suit different situations. In an attempt to forecast the decisions by supermarkets, Montgomery (1975) developed a model of a supermarket buying committee. Predictions were made about the shelving of a new product. The model, based on information such as advertising for the product, reputation of the supplier, margin, product novelty, and retail price, provided reasonable predictions for a hold-out sample.

In Armstrong (1987) study titled forecasting methods for conflict situations, role playing was used to forecast relations between suppliers and distributors. In the role play, Philco (called Ace Company in the role play), a

producer of home appliances, was trying to improve its share of a depressed market. Philco had developed a plan to sell appliances in supermarkets using a cash register tape discount plan. Secrecy was important because Philco wanted to be first to use this strategy. Implementation of such a plan depended upon the supermarket managers. Would the plan be acceptable to them? In this case, a simple role-playing procedure produced substantially more accurate forecasts of the supermarket managers' responses (8 of 10 groups were correct) than did unaided opinions (1 of 34 groups was correct). In the actual situation, the supermarket managers did accept the plan proposed by Philco. (Incidentally, the change in distribution channels led to substantial losses for Philco.) The superior accuracy of role playing relative to opinions seems to be due to its ability to provide a more realistic portrayal of the interactions.

Leigh, MacKay and Summers (1984) and Neslin (1981) compared direct and indirect bootstrapping of consumer preferences. Minor differences were found in accuracy, the Leigh, MacKay and Summers' study favoring the direct approach, while Neslin's favored the indirect. If the decision makers have little awareness of their process, indirect bootstrapping is preferred. Typically, however, the choice between direct and indirect bootstrapping will be based on relative costs. One would expect that bootstrapping of consumers and experts would each provide useful information. Research on the relative accuracy of each approach would be useful. The bootstrapping of marketing experts is typically less expensive and faster. In their opinion, bootstrapping (including related approaches such as expert systems and conjoint analysis) is one of the more important advances for forecasting in marketing over the past quarter century. In comparison to unaided judgments, it allows for systematic, inexpensive, rapid, and accurate forecasts of alternative marketing strategies. It also enables the decision makers to examine simultaneously the effects of different strategies (e.g., price, product design, sales efforts, and advertising) on market share.

New product forecasting is a particularly important area for marketers, especially in view of the large investments and the likelihood of large forecasting errors. Tull (1967), in a survey of new product introductions by companies, found a median absolute error of 26% and a median optimistic bias of about 22%. Conjoint analysis and expert systems are useful here, as are consumer intentions surveys. However, expert surveys are probably the most commonly used method for new product forecasting according to the study. They are subject to numerous biases, especially for situations where, as in new product sales, the growth rate is expected to be exponential. Diffusion models, based on estimating trial and repeat functions, have become widespread in commercial use, particularly in the packaged goods industry. ASSESSOR, BASES, NEWS and LITMUS are four such models. These models are used both for pre-test-market and later for after-test-market to estimate ultimate market share. Over 1500 pre-post validation assessments have been performed with these models and the results appear to be impressive, though their validity may be questioned because the assessments were performed by the organizations that are selling the services.

Some recent validation work has been done on diffusion models. Rao (1987) tested the forecasting ability of six diffusion models as compared with five extrapolation models for sales of dishwashers, room air conditioners, clothes driers (1949-1961), and color TVs (1963-1970). Forecasts for each of the models were prepared for one-, two- and three-years ahead. Surprisingly, the diffusion models were less accurate as a group than the extrapolation models. For example, overall product groups and all forecast horizons, a simple linear trend had a MAPS of 18.5. Contrast this with the diffusion models where the MAPS ranged from 42.9 to 81.0. Unfortunately, the forecasts were all made from a single point in time, 1961.

A substantial amount of research on extrapolation methods, beginning with Winters (1960), leads to the conclusion that, beyond a modest level, additional sophistication is detrimental - it does not improve accuracy, but it does increase costs and reduce understanding. found no gain in accuracy when using adaptive parameters to extrapolate sales of liquor products. There are three important areas, however, where added complexity improves accuracy. First, seasonal adjustments are important. Second, it helps to use a trend and to dampen it. Third, combine forecasts from different extrapolation methods. It is difficult to imagine a product that does not have a seasonal factor. As expected, then, seasonal factors have proven to be of great value in marketing forecasting. His survey results are consistent with the hypothesis that the use of seasonal factors improves forecasts: the mean reported forecast error for those companies using seasonal factors was 8.4% vs. 11.7% for those not using seasonal factors. Perhaps seasonal factors should also be dampened, but no direct tests have yet been made.

Interestingly, some controversy exists as to whether mechanical extrapolations will do better than judgmental extrapolations. A study by Lawrence et al. (1985) concluded in favour of judgmental or "eyeball" extrapolations, but

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Carbone and Gorr (1985) and Mabert (1976) concluded the opposite. Of course, mechanical extrapolation methods are less expensive when a large number of forecasts must be made, such as for inventory control.

Another issue is whether to combine subjective and quantitative approaches to extrapolation, and, if so, how? Mathews and Diamantopoulos (1986), in a study of short-term quantitative sales forecasts for 281 products, found that subjective revisions led to improved accuracy; however, these results were based on only one company and one starting point, and the results were mixed. Conversely, Adams (1986) found substantial reductions in error when quantitative adjustments were made to judgmental forecasts; these reductions averaged 30% for three of the five series he examined.

The combination of forecasts from alternative methods is useful. Baker et al. (1980), in a study of the effects of offshore nuclear plants on visits to recreational beaches, showed how alternative methods can yield forecasts that differ substantially from one another. He stated further that a combination of expert opinion and consumer intentions was more accurate than either one alone in forecasting in the power plant. He concluded that combined judgmental and statistical forecasts are more accurate than either one alone.

Finally, Schnaars (1986) has begun a promising line of research by examining various rules to select which extrapolation model is most appropriate for sales forecasting. Rules that involve dampening the trend and combining alternative forecasts which he says has led to substantial improvement in accuracy in comparison with the rule "pick the model that provides the best fit to the historical sales" which has not made much impact in business forecasting.

Significant gains have been made in forecasting for marketing in the past quarter century. Advances have occurred in the development of qualitative methods such as Delphi, role playing, intentions and opinions surveys, and bootstrapping. They have also occurred for quantitative methods such as extrapolation and econometrics. The challenge now is to build up experience in applying these methods so generalizations can be made about which methods are most appropriate in the different areas where forecasts are needed in marketing (Lyon and Slovic, 1976).

Research Methodology

In this study the descriptive survey design was used. This is because the method helps the researcher to describe examine, record analyze and interpret the variables that exist in the study.

The population size for this study is made up of All Grocery Stores in Enugu Metropolis. This study will be focusing on Pentagon Supermarket, Enugu and Roban Stores with a total population of 25 Staff members.

The data used in the research work was obtained from primary and secondary sources. The Lickert-Summated Rating scale was used in the questionnaire to elicit information from the respondents primarily. The Licker- Summated Rating scale is given below:

Strongly Agree   (S A)

Agree   (A)

Disagree   (D)

Strongly Disagree   (S D) (Samie, 2006)

Secondary data used for the purpose of this research were obtained from books, internet, academic articles and journals.

The population size for this study is made up of All Grocery Stores in Enugu Metropolis. This study will be focusing on Pentagon Supermarket, Enugu and Roban Stores with a total population of 25 Staff members. According to Mugenda and Mugenda (2003), a representative sample should be at least 10% of the population. For this study stratified purposive sampling method was used. Leedy (1989) states that a purposive sampling procedure is one which individuals or samples thought to be most important and relevant to the issue are targeted for the research. Population was stratified into three strata's: Upper management; Middle level management; Lower level

employees. The questionnaire was designed to suit the test of the respondents as they said they would prefer a short questionnaire.

Table 1 Population and Sample Size

RESPONDENT	POPULATION	SAMPLE SIZE
UPPER MANAGEMENT	8	8
MIDDLE LEVEL MANAGEMENT	13	13
LOWER LEVEL EMPLOYEES	27	27
TOTAL	48	48

Statistical analysis is a vital aspect of research. The choice of an appropriate statistical method depends on factors such as sample size and characteristics, hypothesis being tested, and research design. In this research work, the responses of the respondents are analyzed with SPSS (Statistical Package for Social Sciences) Version 25. Also, the hypotheses are tested using the Chi-Square test of independence and association and Correlation. The Chi-Square test, X2, is a test of independence where the concept identified in one variable is not necessarily affected or related to another variable within measure (Ewurum, 2005). The Chi-Square test of independence is used to estimate the likelihood that some factors other than chance (sampling error) account for the apparent relationship.

The Chi-Square test of independence is denoted as follows:

$$X^2 = \sum \frac{(Fo-Fe)^2}{Fe}$$

Where:

X^2 = Chi-Square

$\sum$ = Summation

Fo = Observed frequency

Fe = Expected frequency

Decision Rule: Reject H_0, if p-value (Sig.) ≤ 0.5, otherwise do not reject H_0

H_0 1: Information is not an effective tool for forecasting in Selected Supermarkets in Enugu

Table 2 Cross Tab for Hypothesis One

			Record of organizational performance in the past years exists				
			Strongly Agree	Agree	Disagree	Strongly Disagree	Total
Measures are put in place to explore the use of past data in predicting customer interest	Strongly Agree	Count	19	0	0	0	19
		Expected Count	9.3	6.6	.9	2.2	19.0
		% of Total	44.2%	0.0%	0.0%	0.0%	44.2%
	Agree	Count	2	7	0	0	9
		Expected Count	4.4	3.1	.4	1.0	9.0
		% of Total	4.7%	16.3%	0.0%	0.0%	20.9%
	Disagree	Count	0	8	1	0	9
		Expected Count	4.4	3.1	.4	1.0	9.0
		% of Total	0.0%	18.6%	2.3%	0.0%	20.9%
	Strongly Disagree	Count	0	0	1	5	6
		Expected Count	2.9	2.1	.3	.7	6.0
		% of Total	0.0%	0.0%	2.3%	11.6%	14.0%
Total		Count	21	15	2	5	43
		Expected Count	21.0	15.0	2.0	5.0	43.0
		% of Total	48.8%	34.9%	4.7%	11.6%	100.0%

Table 3 Chi-Square Tests for Hypothesis One

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	74.613[a]	9	.000
Likelihood Ratio	74.264	9	.000
Linear-by-Linear Association	35.410	1	.000
N of Valid Cases	43		

a. 14 cells (87.5%) have expected count less than 5. The minimum expected count is .28.

Decision

The P-value on which basis we can reject the null hypothesis that Information is not an effective tool for forecasting in the selected supermarkets Enugu is [p-value (.000) < .05]. Hence, the researcher rejects the null hypothesis and state alternatively that Information is an effective tool for forecasting in the selected supermarkets Enugu.

H_0 2: Forecasting does not determine organizational profitability of the selected supermarkets Enugu.

Table 4 Cross Tab for Hypothesis Two

			Changes in organizational strategies and policies has over the years impacted positively on profitability		
			Strongly Agree	Agree	Total
Management do carry out periodic reappraisal of the key business aims of the organization to ascertain profitability	Strongly Agree	Count	15	0	15
		Expected Count	9.1	5.9	15.0
		% of Total	34.9%	0.0%	34.9%
	Agree	Count	11	4	15
		Expected Count	9.1	5.9	15.0
		% of Total	25.6%	9.3%	34.9%
	Disagree	Count	0	9	9
		Expected Count	5.4	3.6	9.0
		% of Total	0.0%	20.9%	20.9%
	Strongly Disagree	Count	0	4	4
		Expected Count	2.4	1.6	4.0
		% of Total	0.0%	9.3%	9.3%
Total		Count	26	17	43
		Expected Count	26.0	17.0	43.0
		% of Total	60.5%	39.5%	100.0%

Table 3 Chi-Square Tests for Hypothesis Two

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	30.729[a]	3	.000
Likelihood Ratio	40.315	3	.000
Linear-by-Linear Association	26.901	1	.000
N of Valid Cases	43		

a. 3 cells (37.5%) have expected count less than 5. The minimum expected count

Decision
The P-value on which basis we can reject the null hypothesis that Forecasting does not determine organizational profitability of the selected supermarkets Enugu [p-value (.001) <.05]. Hence, the researcher rejects the null hypothesis and state alternatively that Forecasting determines organizational profitability of the selected supermarkets Enugu

Conclusion
Organizations need to be undertaking forecasts if they are to survive the dynamic business environment it finds itself in. the selected supermarkets in Enugu has been in existence for more than 20 years and for them to continue being in business, forecasting must be continually carried out by the management of the organization or whoever appointed to carry out the function on behalf of management. The selected supermarkets should invest its time and effort in creating effective and efficient forecasting process in order to have a picture of the expected future sales as this will help it to also gain the possible financial benefits. As Forecasting helps companies to keep their customers happy by being able to meet their needs when it is the most suitable for them, managers in the selected supermarkets should ensure there is no lagging behind in this business tool utilization. Effective forecasting helps management resolve the dilemma of more demanding customer requirements and greater shareholder expectations.

Recommendations
1. Managers in the selected supermarkets should bear in mind when making predictions for the future that a forecast must include an explanation of how and why it was constructed as well as an estimate of the accuracy of its predictions, if it is expected to be more accurate.
2. The selected supermarkets management can make better decisions by recognizing that forecasts are used for specific resource decisions that have time specific frames. A forecast should be no more detailed than the resource decision requires. As much as possible, the forecast should be non-product specific and should be tied to specific time fences for each resource.
3. Management should utilize the fact that combining forecast methods improves forecast accuracy, especially when the combination includes a judgmental forecasting method in order to compensate for errors inherent in single method.
4. Management should strive to ensure that financial and sales data are recorded, consolidated, and reported accurately and timely as this will aid forecasting activities in the future.
5. To forecast what actions the company will actually take, the use of surveys or group depth interviews with the key decision makers and stakeholders is suggested. Group depth interviews seem especially useful for dealing with situations that could be unfavorable to the organization.
6. Competitive reactions to large changes in the environment or to changes in the selected supermarkets' strategy should be forecast by historical analogies or by role-playing.
7. Collecting input and feedback from customers can also aid forecasting activities.
8. Conducting market research also helps forecaster to put out accurate predictions.

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