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Examination of Various Stock Control Techniques in Selected Hotels in Imo State

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Abstract
The work surveyed the various stock control techniques in selected hotels in Owerri. In carrying out this study, ten different hotels were selected in Owerri, Imo State. A total of 136 copies structured questionnaire were used to collect data and the data collected were analyzed using simple percentage. The study was guided by six objectives formulated to ascertain whether the hotels have streamlined purchasing procedures, document for keeping records of stock, equipment for storing various items, trained staff in stock control techniques, use First –In-First Out method of issuing out items and also whether they have alternative sources of power. The stated hypotheses were drawn in conformity with the stated objectives and were tested using Chi-square. The results obtained showed that the hotels have: streamlined purchasing procedures, document for keeping records of stock, equipment for storing various items, trained staff in stock control techniques, use First –In-First Out method of issuing out items was used in issuing out items and also have alternative sources of power as the various control techniques.. It was therefore concluded that the selected hotels have various stock control techniques. It is therefore recommended that for any hotel to operate effectively, it should have streamlined purchasing procedures, have document for keeping records of stock, they also should use First In First Out method of issuing out items and should have an alternative means of power supply in addition to the public power supply.
Keywords: Control, Control Techniques, Stock Control, Wastes reduction and Organization Inventory

1.1 Introduction

Stock control techniques and its relevance in the hospitality organizations has been a topic that has attracted the attention of many scholars and hospitality management practitioners in recent times. Some hotel practitioners view stock control techniques as means to safeguard the goods that are purchased in the organization so that they will not be deteriorated. Bannas (2004) views it as a means to ensure that materials purchase for production in the organization are not spoilt. Ukabuilu (2007) views stock control as a means to use the required procedure for purchasing, storing, issuing and using material purchased in the organization effectively so that their required purpose will be achieved.

Ukabuilu (2007) also indicates that stock control techniques involve procedure for articulating what to purchase, that is considering the economic order quantity in respect to available capital, space, time, season and quality. This format helps any organization to ensure that the right quality of materials is purchased at right time and right quantity. This will aid to prevent tying limited resources to a particular good and prevent deterioration.

Dobber & Burt (1996) also indicated that stock control techniques also involve adhering to purchasing procedures. Ukabuilu (2007:36) and Bannas (2004) also indicated that "purchasing procedures like: receiving purchasing requisition, making decision concerning what to buy, when and how much to buy, determining sources of supply, selecting suppliers, preparing and placing order; follow up of the purchase order; receiving the materials; inspection of the material, checking of invoices and settling accounts. They opined that these sequences will not only aid in proper channeling of resources, but will aid in buying from correct sources, time, place, amount and quantity and quality". Goldberg (2004) also added that the required record for documentation must be used to achieve this result. Some of the documents include: purchasing requisition, delivering note, credit note, purchase order form, bin card, stock record card, requisition books, stock sheet, stock ledger, issues analysis sheet etc (Ukabuilu, 2007). These documents indicate the quantity received and issued, and the dates, these items are collected. The names and places/units/department should also be shown. Oscar (2004) also asserts that stock control techniques involve adequate storage systems. He emphasized that adequate storage system like refrigerators and other chilling systems are very vital for highly perishable foods like meat, fish, pork etc.

In the same vein, stock control techniques should involve proper stock taking. Ukabuilu (2007) opined that stock taking is the procedure for ensuring or checking whether items is bin card tallies with the available items on racks or storage area and at the same time check whether the items issued and received tally in records. It can be done monthly, every four months, biannually or annually as the case may be. But to get the best result, impromptu spot checking is always regarded as the best means for stock taking.

Bally and David (1994) also noted that every hospitality organization must have a very good issuing system. The studies carried out by Clems (2002) and in (2004) in some selected hotels in Singapore confirmed that the use of first in first out procedure is always the best practice to ensure effective stock control. Baily and David

(1994) also added that adequate staff training in purchasing and supply procedures are very vital to ensure proper stock control in every hospitality firms. This will aid the staff to know where, when and how to purchase. It will also aid the employees to know the various means of storing the items and how to separate perishable from non perishable items. Agulanna (2006) also opined that training will also aid staff to know the best practices to ensure effective achievement of the organizational objectives of the organization. It is also pertinent to note that no hotel organization can earn good profit, have quality product and improve efficiency and effectiveness of production if proper stock taking procedure is not adhered to (Adams 1997, Asch 2005 and Defranco and Pender 2000).

In today's hotel business, it is essential to observe that most owners of hotels do not take stock control technique serious. Some regard buying in large quantity as waste of resources and tying of limited resources down. Some also view it as a means of enriching the purchasing managers by giving them huge amount of money for purchases. Some also view the various procedures involved in stock control system as a means of spending money more especially creating means for pilfering, spoilage and misappropriation of material. Jagels (2007) also noted that good stock control technique is the only means that will aid in managing food and beverage production process, product issuing, inventory control, managing the food and beverage production area, employee theft, determining actual and alterable product cost and reducing products cost percentage.

Hence, this work will examine the various stock control techniques available in most hotels and how they can apply such procedures if they have none presently..

1.2Statement of the Problem

Hospitality organizations are meant to provide food and beverage to customers which help them to earn profit through proper cost control from well articulated stock control techniques. In most hotels in Owerri today, the stock taking techniques have been neglected; the issues like theft, pilferage, wastage, inadequate record keeping are common. The issue of running out of stock and goods going obsolescent are now problems in most hospitality organizations. Most staff in the hotel do not have prior knowledge of what stock control technique is all about (Chris, 2012). The researcher therefore observed that stock control techniques in the hospitality establishments has not been identified as very crucial and effective means to cub these problems.

This study therefore examines the various control techniques and how the various hotels in Owerri have been applying them.

1.3Purpose of the Study

The general purpose of this study is to examine the various stock control techniques in hotels in Owerri. However, the specific objectives are to:

(a) identify whether the hotels have a well streamlined purchasing procedures.
(b) know whether they have documents for keeping records of stock.
(c) find out whether they use FIFO method in issuing food and beverage.
(d) ascertain whether they have correct equipment for storing items.
(e) determine whether they have trained personnel on stock control system
(f) whether the organizations have power-supply system for effective storage.

1.4Research Questions

Based on the problems and objectives stated above, we posed the following research questions:

i) Do the hotels have streamlined purchasing procedures?
ii) Do the hotels have document for keeping record of stocks?
iii) Is FIFO method of issuing goods adopted in the hotels?
iv) Do the hotels have correct equipment for storing various items?
v) Do the hotels have trained staff in stock control techniques?
vi) Do the hotels have good generators as alternative to power holding company electricity?

1.5Hypotheses

H_{01}: The hotels do not have streamlined purchasing procedures
H_{02}: The hotels do not have documents for keeping record of stock
H_{03}: The hotels do not have different equipment for storing various items.
H_{04}: FIFO method of issuing out items is not adopted in the hotels
H_{05}: The hotels do not have trained staff in stock control techniques
H_{06}: The hotels do not have good generators as alternative to Power Holding Company electricity.

1.6Scope of the Study: It is not possible to study all hospitality establishments in Owerri in a research of this nature. Such approach will not only amount to a bold claim, but will also end up ignoring specific

issues and details required in knowing the stock control techniques(ukabuilu,2012). This explains why we chose ten different hotels from Owerri metropolis. They are selected to represent hotels in Owerri. Each of these hotels is involved in food purchasing, storing and usage and they have many years experience in stock control. Non probability method was applied in the selection of these hotels (that is they were purposively selected) the hotels include Cradle Hotels, New Castle Hotel, Rockview Hotel .,Imo Concorde Hotel And Casino, Pinewood Hotel, Genesis Hotel, Pelly Hotel, Comet Hotel ,Bestway and Mount Royal,,Rapour

1.7Significance of the Study

The research will be most meaningful to management consultants, hotel owners, researchers and employees in hotels. It will help management consultants to know the procedures to cut down wastes and improve profit of the hotel organizations. It will also aid them to know that making profit is determined by the ways in which they purchase, use material and reduce wastes. Hotel owners will also know the procedures for hospitality products storages, documents and methods for issues of material.

Researchers will also use the material for further studies on stock control can take place. The study will aid workers to be continuously in business since their salaries and wages are paid and as at when due.

2.0 Review of Related Literature: This sub unit explains some related literature on the topic under discussion.

2.1 Conceptual Review

In this sub-unit, the concepts of stock control, types of stock control, reasons and objectives effective stock control and the conceptual framework for stock control technique are explained.

2.2(a) Stock Control

Stock control, stock management and inventory control are three terms which are used simultaneously. These terms are used by different experts based on their different areas of viewing stock control. Trevor (1991) defined inventory control as "the total effort involved in meeting specified criteria of items available at minimum total cost. It is the science based act of controlling the amount of stock held in various forms within a business to meet economically the demands placed upon the organization, Ukabuilu (2006) also opined that stock control is the process of ensuring that the required quantities and qualities of products are available at required period and medium for ensuring effective and efficient production and service in hospitality establishment. It is also worthy to note that effective control of stock in hospitality establishments will help in monitoring progress, comparing it with the plan and if necessary taking some corrective actions (Boddy 2005).

In the same view, Appleby (1987) notes that control is an element of managerial tasks and involves the measurement and correction of performance of subordinates to make sure that the objectives of the enterprise and the plans devised to attain them are accomplished efficiently and economically.

It therefore becomes necessary to examine whether hospitality firms apply stock control techniques in order to achieve the required results; comparing the results to plans, identifying the disparity between the actual from desired results and taking action where necessary.

2.2(b)Types of Stock Control in Hospitality Firms There are various products which hospitality organizations use in their day-to-day operations. These products form the various stocks which the organization controls. They are grouped into:

Raw Materials: These materials are food materials and fuels which are used in the production of further products.

Work-in-progress: The items in this group include semi or partly finished goods and materials, sub-assemblies held between production stages.

Finished Goods: These are completed products ready for sale or distribution, such as meals, drinks, ice creams, snacks.

2.2(c) Reasons for Effective Control

It is pertinent to note that anything that has no benefit will not border a typical Nigerians. Hence, it is ideal that every hospitality organization should have effective stock control because of the reasons opined by Deloitte & Touch (1996), Dopson and David (2008) and Ukabuilu (2007) as follows: it helps to:

(i) attain an effective stock control in the establishments so as to ensure that sufficient goods are available to meet anticipated demand.
(ii) absorb variations in demand and production in the industry
(iii) ensure that there is no production lapses, services and goods are readily available
(iv) encourage bulk or economies of purchase
(v) control costs and usages
(vi) proper computer cost of items and fixing prices
(vii) detecting problems and solution

(viii) ensure that working capital is not tied in unnecessary material and prevention of risk of loss through deterioration and obsolescence is reduced.

2.2(d) Objective of Stock Control Technique

In every hospitality firm, the objective of stock control technique is to ensure that the organizations have stocks at the needed quantities, qualities, medium and time to avoid uninterrupted production or services.

2.2e) Benefits of Stock Control: In catering establishments, continuous stock taking aids them to ensure the following points as noted by Ukabuilu (2007) and Umeaka (2000):

- It helps staff to be more careful and honest as fraud is easily detected.
- Problems are detected easily, solved and preventive measure adopted
- Closing down offices for annual stock taking is not necessary.
- Management functions are facilitated by provision of information that will ensure working capital is not tied in unnecessary material. This will equally lead to reducing loss through deterioration and obsolescence
- Stock control balance is always available and this aids organizations in making quick decision.

In this study of stock control techniques in hospitality firms, the following variables are examined: Purchasing procedures, stock control documents, FIFO methods of issuing, storing equipments, training staff on stock control and other effective stock control systems. Hence, they are viewed on how the hospitality firms apply them to ensure effective stock control.

2.3 Examinations of Various Control Techniques in hospitality organizations

This sub-unit examines the various stock control methods which are normally used in hospitality establishments. The figure below is used to show the most common one elucidated in this work.

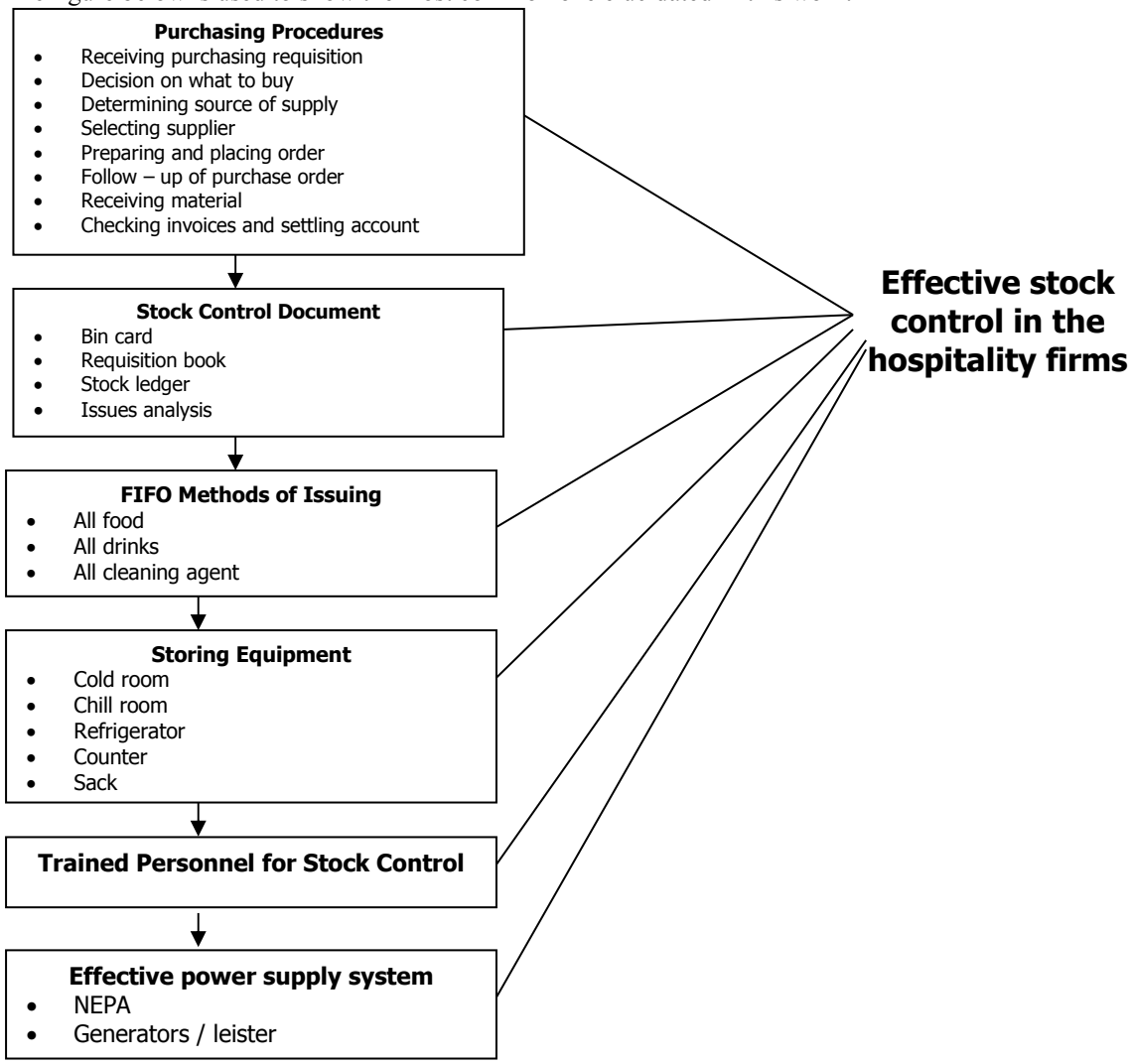

Fig 2.1 Stock Control methods initiated by *Ukabuilu E.O, and ukabuilu E.N (2013)*

2.4 Relevant Principles of Management Used For Stock-Control in Hospitality Establishments 0nNigeria

It is essential to note that for any hospitality establishment to have good control measure, the adherences of fourteen principles of management are very essential. These principles were postulated by Henry Fayol as follows:

(**i)Division of Work**: For every hospitality establishment to have good control system in its organization, it must have proper division of work. This involves dividing people into: people who purchase items, people who receive goods, people who store and issues. Guilding (2002) also indicated that even the people that provide the power/electricity be provided so that there will be constant supply of light. All these proper divisions will ensure good stock control in hospitality firms.

(ii)Authority and Responsibility: Authority which individual employee possesses should be equal to his responsibility. This portrays that every staff should be given authority in each area which he is assigned to do, more especially in the teams mention in (i) above.

(iii)Discipline: Every staff who fails to carry out his own assignment as specified should be disciplined more especially as regard to quality and quantity control violation. There should be code of conducts guiding all staff and they must be disciplined according to the codes and ethics governing them.

(iv)Unity of Command: Each unit or division mentioned in (i) above should have one person who should be in charge of each group who they should receive order from.

(v) Unity of Direction: Each group involved in control in hospitality organization units should receive order just from the superior unit leader in each group for effective and efficient work flow.

(vi) Subordination of individual interests to the general interest: Every member should be involved in control system of the organization since the major objective of the organization is to maximize profit and stock control contributes to it. Hence, the organizational interest must prevail.

(vii)Remuneration of Personnel: This equally affects control because a well and promptly paid staff will not steal products or find any other foul means of making money, but will be motivated to maximize profit for the organization which affects purchasing, storing and use of stock in the organization .

(**viii)Centralization:** Centralization of purchasing aids organization in saving money in transport, labour, and it also ensures uniformity in purchasing It gives the organization advantage of economies of purchase.

(**ix)Scalar Chain (Line Authority):** There should be scalar chain authority and communication ranging from top to the bottom positions in the organization.

(**x)Order:** The hospitality organizations should provide both the material and social order with everything and everyone in the appointed place. The sequence of purchasing should be followed and this will aid in control technique control systems which will equally lead to ensure effectiveness in the organization

(**xi)Equity:** There must be equity to all staff and guests in the organization. During services, equal material should be given for equal cost; i.e equal justice must extend throughout the organization.

(**xii)Stability of tenure of Personnel:** The employees need time to adapt to their work. Every employee is meant to stay in a particular position for duration as specified by the organization. This will aid to hold any person accountable for any problem that happened within that period. This will equally ensure perfect control techniques in hospitality organization.

(xiii)Initiative: There should be every opportunity to exercise initiative at all level in the organization. All sections where control techniques are required the sectional staff must put new initiative to achieve effective control (Ukabuilu 2007).

(xiv):Expirit de'crops: Team work is essential for the maintenance of good interpersonal relationship. Every unit involved in control system should work hand in hand with another unit. This will finally aid in ensuring outstanding result in the organization which is effective control technique.

3.1 Research Methodology

This unit focuses on the review of the methods employed in the collection, presentation, analyzing and interpretation of data. The review aids any reader to comprehend the topic under study and procedure involved in research methodology.

3.2 Research Design

It is also essential to note that there are two major aspects of research design namely: to specify precisely what the researcher wants to find out and to determine the best way to do that.

Research design is also about why and how of the research study. Babbie (1996) goes on to note that there are surveys, experiment method and ex-post fact methods of research design. But in this field survey method was used and it comprises questionnaire and telephone calls.

3.3 Sampling Unit:

The sample unit for this research is to study all the whole population of sections that were involved in stock

control of various hotels in Owerri in Imo State. It then becomes wise to select a size that will represent Owerri. Therefore, the workforce of the stock control unit of the named hotels under scope was used. Data from the Human Resources Manager of various hotels indicated that 206 staff were in those sections (i.e. store, food & beverage unit, laundary that directly participate in the sections that participate in stock control techniques (Using the statistical formula for sample size determination as given by Kumar (1976: 36), the sample size is calculated thus:

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

N=Total number of staff in the sections that participate in stock control of the Hotels,
e=Level of significant at 95%, I=Constant and n= Sample size

$$\frac{206}{1 + 206\,(0.05)^2} = 136$$

3.4 Sampling Procedure

Non probabilty method was used in the sampling procedure,. This sampling procedure involves personnel judgment in the selection of samples. It equally gives staff that is holding some positions in the stock control area chances to be chosen. In this research, every staff in the mentioned units is qualified to be given a copy of the questionnaire in any of the hotels. It is a matter of chance. Each staff has right to select from the options on the copies of questionnaires. The questionnaire were shared in proportion to the population of each unit selected

3.5 Questionnaire Design

The questionnaire were streamlined and structured to reflect the contemporary issues under study. It was adapted to reflect the hypotheses and research questions under study. The questions were operationalized in a Likert form for the respondents to select from the options.

3.6 Statistical Method Of Data Analysis The researcher used tables for data presentation and expressed the responses in percentages in frequency tables. The hypotheses stated in chapter one were tested using chi-square, which Owne and Jones (1994) identified as one of the formulae for data analysis.

Anyanwu (1994: 55) noted chi-square formula which the research used as

$$X^2 = \Sigma \frac{(O_1 - E_1)^2}{\Sigma_1}$$

X^2=Chi-square ,O_1=Observed frequency ,E_1=Expected frequency
Were E_1 is computed as

$$= \frac{\text{Column total x row total}}{\text{Grand total}}$$

3.7 Decision Rule

Two sets of figures were very vital in this study. They are the chi-square value calculated (X^2 cal) and chi-square tabulated or critical (X^2 tab). In using the two values, if X^2 calculated is greater than X^2 tab, the null hypothesis will be rejected and the alternative will be accepted

Data Presentation and Analysis

4.1 Questionnaire Rate of Return from the staff

In this study, a total of 136 copies of structured questionnaire were distributed and a total of 120 were duly filled and returned. This showed a return rate of 88.2%.

Table 4.1:Gender of Respondents

Sex	Freq.	Percent	Cum
Female	89	74.2	74.2
Male	31	25.8	100
Total	120	100	100

Source: Survey Data, 2017

Table 4.1 shows that 89(74.2%) of respondents are female while 31(25.8%) are male. This indicates that both males and females work in hospitality establishment but females are more in number.

Table 4.2:Working Experience

Working Experience in years	Freq.	Percent	Cum
0-3	6	5%	5%
4 – 7	54	45	49
8 – 11	50	41.7	91.7
12yrs & above	10	8.3	100
Total	120	100	100

Source: Survey Data, 2017

Table 4.2 above shows that 45% of total respondents have worked for 4 – 7yrs, 41.7% have worked for 8 – 11yrs and 8.3% have worked for more than 12 years while only 5% have worked for less than 3 years. This shows that majority of the respondents are experienced and the results obtain from them should be valid.

Table 4.3Designation of Workers

Designation	Freq.	Percent	Cum
Junior	68	56.7	56.7
Senior	50	41.7	97.4
Top	2	1.6	100
Total	120	100	100

Source: Survey Data, 2017

Table 4.3 above shows that total of 41.7% and 8.3% respondents belong to senior and top levels of management respectively while 50% of total respondent belongs to junior level of management. This shows that all levels of management were involved in the research.

Data analysis----------See Tables 4.4 to 4.10 in appendix

Testing of the Hypotheses

The data gathered in various tables relating to the final decision made concerning such variables were used to test the stated hypotheses

Testing Hypothesis One

H_{01}:The Hotels do not have streamlined purchasing procedure as a control technique.

The data presented on Table 4.4(9) were used in alliance with the levels of management presented on Table 4.3.

Table 4.11, Representation of table 4.4(9) and table 4.3.

Level of Management	SA	A	U	D	SD	Total
Junior	34	18	8	0	0	60
Senior	40	10	0	0	0	50
Top	8	2	0	0	0	10
Total	82	30	8	0	0	120

Table 4.12:Computation of Hypothesis One Expected Value

Level of Mgt/Options	SA	A	U	D	SD	Total
Low	34 (41)	18 (15)	8 (4)	0(0)	0 (0)	60
Senior	40 (34.2)	10 (12.5)	0 (3.3)	0	0	50
Top	8 (10.2)	2 (2.5)	0 (0.7)	0 (0)	0 (0)	10
Total	82	30	8	0	0	120

NB: The numbers in brackets are the expected values .The expected values are computed using this formula

$$\frac{\text{Row Total x Column Total}}{\text{Grand total}}$$

Table 4.13:Computation of hypothesis One Chi-Square

O	E	O – E	$(O – E)^2$	$(O – E)^2/\Sigma$
34	41	-7	49	1.2
18	15	3	9	0.6
8	4	4	16	4
0	0	0	0	0
0	0	0	0	0
40	34.2	5.8	33.64	0.98
10	1.25	8.75	76.56	61.2
0	3.3	-3.3	10.89	3.3
8	10.2	-2.2	4.84	0.5
2	2.5	0.5	0.25	0.1
0	0.7	0.7	0.49	0.1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
				71.98

To obtain X^2 tabulated, it is obtained using (r – 1) (c – 1) at 5% significant level
(3 -1) (5 – 1) at 5% = 15.507

Based on the fact that x^2 cal > x^2 tab, i.e 71.98 > 15.51, We therefore reject H_{01} and accept H_1 which indicates that the hotels have streamlined purchasing procedures as a control technique.

Testing of Hypothesis Two

H_{02}:The hotels do not have document for keeping records of stocks

The data presented on Table 4.5 (14) was used to the test that stated hypothesis in alliance with the levels of manager.

Table 4.14:Representation of Table 4.5 (14) and Table 4.3 on a table

Level of Mgt/Options	SA	A	U	D	SD	Total
Low	20	30	2	3	5	60
Senior	8	37	3	2	0	50
Top	7	3	0	0	0	10
Total	35	70	5	5	5	120

Table 4.15:Computation of hypothesis Two Expected Values

Level of Mgt/Options	SA	A	U	D	SD	Total
Low	20 (17.5)	30 (35)	2 (2.5)	3 (2.5)	5 (2.5)	60
Senior	8 (14.58)	37 (29.1)	3 (2.08)	2 (2.08)	0 (2.08)	50
Top	7 (2.9)	3 (5.8)	0 (0.4)	0 (0.4)	0 (0.4)	10
Total	35	70	5	5	5	120

Using the same formula = $\frac{\text{Row Total x Column Total}}{\text{Grand total}}$

Table 4.16:Computation of Hypothesis Two Chi-Square

O	E	O – E	$(O – E)^2$	$(O – E)^2/\Sigma$
20	17.5	2.5	6.25	0.35
30	35	5	25	0.71
2	2.5	-0.5	0.25	0.1
3	2.5	0.5	0.25	0.1
5	2.5	2.5	6.25	2.5
8	14.58	6.58	43.29	2.97
37	29.1	7.9	62.41	2.15
3	2.08	0.92	0.8464	0.41
2	2.08	0.8	0.0064	0.003
0	2.08	2.08	4.3264	2.08
7	2.9	4.1	16.81	5.8
3	5.8	-2.8	7.84	1.37
0	0.4	-0.4	0.0016	0.4
0	0.4	-0.4	0.0016	0.4
				29.608

X^2 tab = 15.51 and X^2 calculated = 29.61.Based on the fact that x^2 cal > x^2 tab we reject H_{02} and accept H_12 which indicates that the hotels have documentation for keeping records of stocks.

Testing Hypothesis Three

The hypothesis three is stated thus

H_{03}:The Hotels do not have different equipment for storing various items.

The data presented on table 4.6 (19) is used in alliance with the level of management in Table 4.3

Table 4.17:Computation of hypothesis Three Expected Values from Combination of Tables 4.7 (19) and 4.3

Level of Mgt/Options	SA	A	U	D	SD	Total
Low	53 (50)	2 (5)	2 (1)	3 (1.5)	0 (2.5)	60
Senior	40 (41.7)	5 (4.16)	0 (0.83)	0 (1.25)	5 (0.42)	50
Top	7 (5.83)	3 (0.8)	0 (0.16)	0 (0.25)	0 (0.42)	10
Total	100	10	2	3	5	120

Table 4.18:Computation of Hypothesis Three Expected value

O	E	O – E	$(O – E)^2$	$(O – E)^2/\Sigma$
53	50	3	9	0.18
2	5	-3	9	1.8
2	1	1	1	1
3	1.5	1.5	2.25	1.5
0	2.5	2.5	6.25	2.5
40	41.7	1.7	2.89	0.07
5	4.17	0.83	0.7056	0.85
0	0.83	-0.83	0.6889	0.83
0	1.25	-1.25	1.5625	1.25
5	2.08	2.92	4.28	2.00
7	5.83	1.17	1.3689	0.235
3	0.8	2.2	4.84	6
0	0.16	-0.16	0.0256	0.16
0	0.25	-0.25	0.0625	0.25
0	0.42	-0.42	0.176	0.42
				20.565

ThereforeX^2 cal = 20.565and X^2 tab = 15.51.Based on the fact that x^2 cal > x^2 tab we reject H_{03} and accept H_{13} which says that hotel do have different equipment for storing various items as a stock control technique.

Testing Hypothesis Four

H_{04}:First in First out method of issuing out item is not adopted as a stock control technique in the hotels.

The data presented on table 4.7 (24) is used in alliance with the level of management in Table 4.3 as shown in table 4.19 below

Table 4.19: Computation of Hypothesis Four Expected Values from Combination of Tables 4.8 (24) and Table 4.3

Level of Mgt/Options	SA	A	U	D	SD	Total
Low	50 (55)	5 (2.5)	2 (1)	3 (1.5)	0 (0)	60
Senior	50 (45.8)	0 (2.083)	0 (0.8)	0 (1.25)	0 (0)	50
Top	10 (9.16)	0 (0.41)	0 (0.16)	0 (1.5)	0 (0)	10
Total	110	5	2	3	0	120

Testing Hypothesis Four

Table 4.20: Computation of Hypothesis Four Expected Values from Combination of Tables 4.8 (24) and Table 4.3 which is used to test hypothesis four

Level of Mgt/Options	SA	A	U	D	SD	Total
Low	55 (50.5)	0 (4)	2 (2)	2 (2)	1 (1.5)	60
Senior	40(42.08)	4 (3.3)	1 (1.6)	2 (1.6)	2 (0.41)	50
Top	6 (8.4)	4 (0.6)	0 (0.3)	0 (0.3)	0 (0,25)	10
Total	101	8	4	4	3	120

Table 4.21: Computation of Hypothesis Four Chi-Square

O	E	O – E	$(O – E)^2$	$(O – E)^2/\Sigma$
55	50.5	4.5	20.25	0.4
0	4	-4	16	4
2	2	0	0	0
2	2	0	0	0
1	1.5	0.5	0.25	0.17
40	42.08	2.08	4.3264	0.11
4	3.3	0.7	0.49	0.85
2	1.6	0.4	0.16	0.1
2	1.6	0.4	0.16	0.1
2	0.41	1.59	2.5281	7.76
6	8.4	-2.4	5.76	0.69
4	0.6	3.4	11.56	22.7
0	0.3	0.3	0.9	0.3
0	0.3	-0.3	0.9	0.3
0	0.25	-0.25	0.025	0.25
				38.58

X^2 cal = 38.58 andX^2 tab = 15.51.Since x^2 cal > x^2 tab; 38.58 > 15.51 we therefore reject H_{04} and accept H_14 which states that first in first out method of issuing out items is adopted as a stock control techniques in the hotel.

Testing Hypothesis Five

H_{05}:Hotels do not have trained personnel for stock control as control technique in the hotels

The data presented on table 4.9(1) is used together with level of management presented in Table 4.3.

Table 4.22: Computation of expected value for hypothesis five

Level of Mgt/Options	SA	A	U	D	SD	Total
Low	45 (47)	1 (4)	0 (1)	1 (1)	4 (2)	60
Senior	46 (39.1)	1 (3.3)	2 (0.8)	1 (0.8)	0 (1.6)	50
Top	4 (7.8)	6 (6)	0 (0.16)	0 (0.16)	0 (0.3)	10
Total	94	8	2	2	4	120

Table 4.23: Computation of Hypothesis Five Chi-Square

O	E	O – E	$(O – E)^2$	$(O – E)^2/\Sigma$
45	47	-2	4	0.09
1	4	-3	9	2.25
0	1	-1	1	1
1	1	0	0	0
4	2	2	4	2
46	39.1	6.9	47.61	1.22
1.	3.3	2.3	5.29	1.6
2	0.8	1.2	1.44	1.8
1	0.8	0.2	0.04	0.05
0	1.6	-1.6	2.56	1.56
4	7.8	3.8	14.44	1.85
6	0.6	5.4	29.16	48.6
0	0.16	0.16	0.0256	0.16
0	0.16	-0.16	0.0256	0.16
0	0.3	-0.3	0.09	0
				60.78

If X^2 cal = 60.78 and X^2 tab = 15.51.Since x^2 cal > x^2 tab; 60.78 > 15.51 we therefore reject H_{05} and accept H_{15} which indicates that the hotels have trained personnel which aids in stock control.

Testing of Hypothesis Six

H_{06}:The Hotels do not have effective power supply system as a stock control technique

The data is obtained from Table 4.10

Table 4.24: Computation of expected value for hypothesis six

Level of Mgt/Options	SA	A	U	D	SD	Total
Low	58 (55)	0 (4)	1 (0.5)	1 (0.5)	0 (0)	60
Senior	48 (45.8)	2 (3.3)	0 (4.1)	0 (4.1)	0 (0)	50
Top	4 (9.2)	6 (0.6)	0 (0.08)	0 (0.08)	0 (0)	10
Total	110	8	1	1	0	120

Table 4.25: Computation of Hypothesis six Chi-Square

O	E	O – E	$(O - E)^2$	$(O - E)^2/\Sigma$
58	55	3	9	0.16
0	4	-4	16	4
1	0.5	0.5	0.25	0.5
1	0.5	0.5	0.25	0.5
0	0	0	0	0
48	45.8	2.2	4.84	0.11
2	3.3	1.3	1.69	0.51
0	0.41	-0.41	0.168	0.41
0	0.41	-0.41	0.168	0.41
0	0	0	0	0
4	9.2	5.2	27.04	2.94
6	0.6	5.4	29.16	48.6
0	0.08	-0.08	0.0064	0.08
0	0.08	0.08	0.0064	0.08
0	0	0	0	0
				58.3

Therefore since X^2 calculated = 58.3, andX^2 tabulated = 15.51.Since x^2 cal > x^2 tab ,We reject H_{06} and accept H_{i6} which states that the hotels have effect on power supply as a means for stock control technique in the organization.

Results

This study examined some of various control techniques available in the hotels. The study was guided by six objectives, from where the research questions and stated hypotheses were drawn. The stated hypotheses were tested using Chi-square from the data drawn using 120 copies of structured questionnaires. The result obtained revealed that all the null stated hypotheses were rejected, hence leading to acceptance of the alternatives. The results are that the hotels have these stock control techniques. They have streamlined purchasing procedures (confirmed x^2 cal > x^2 tab; 71.98 > 15.51), they have documents for keeping records of stocks (confirm were 29.61> 15.51, x^2 cal > x^2tab), they have different equipment for storing various items (confirmed at point where 20.57 > 15.51; x^2 cal > x^2tab. The hotels also operates FIFO control system. This was confirmed where x^2 cal = 38.58 > x^2 tab 15.51. The study also revealed that effective stock control can come inform of having well trained staff and effectives power supply. These were confirmed where x^2 calculated values of 60.70 and 68.78 were greater than 15.51 respectively in hypotheses five and six respectively.

5.2Conclusion

The study therefore concluded that in effective stock control in any hotel, include good purchasing procedures, good documents for recording stocks, operating FIFO method of issuing items to prevent deterioration, have correct equipment for storing various items have well trained staff stock control, and good sources of power supply.

5.3Recommendations

The following recommendations were drawn from the study. They states that in other to have good stock control techniques in a hotel the following should be imbibed upon

(a) Have well streamlined purchasing procedures to ensure that right quantity and quality are purchased from right sources, time, medium etc.
(b) Have appropriate document for recording items purchased and issue out from store.
(c) Operate on FIFO method of issuing out items to avoid deterioration of item
(d) Have correct equipment for storing various items and at different temperature.
(e) Have trained staff with correct qualities on stock control
(f) Have good source of power supply through PHCN and listers. A minimum of two listers are required.

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Appendix

SURVEY QUESTIONNAIRE ON STUDY ON STOCK CONTROL TECHNIQUES IN SELECTED HOTELS IN OWERRI

SECTION A

Personal Data of Respondents

1. Sex Male [ ] Female [ ]
2. Working Experience
(a) 0 – 3 years [ ] (b) 4 – 7 years [ ] (c) 8 – 11 [ ]
(d) 12 years and above [ ]
3. Name of your hotel ----------
4. Designation (a) Top level [ ] (b) Middle level [ ]
(c) Low level staff [ ]
5. Educational Qualification
(a) FSLC [ ] (b) SSCE [ ] (c) OND/NCE [ ] (d) First Degree [ ]
(e) Master/above [ ]

SECTION B

Please note the meaning of these letters SA ….Strongly agreed, A… Agreed U… Undecided D…Disagreed, and SD…Strongly agreed

Table 4.4Purchasing Method

S/N	Section	SA	A	U	D	SD
	Does the hotel has streamline preparation requisition format					
2.	Decision on what to buy					
3.	Determining source of supply					
4.	Selecting supplier					
5.	Preparing and placing order					
6.	Follow-up of purchase order					
7.	Receiving material					
8.	Checking invoices and settling account					
9.	Based on the above, does your hotel have streamlined purchasing procedure					
9.	Based on the above, does your hotel have streamlined purchasing procedure					
B.	**The hotel has these records**					
10	Bin cards					
11.	Requisition books for collecting item					
12.	Stock ledgers					
13.	Issues analysis books					
14.	Based on the above, does the hotel has well stock control document					
C.	**Does the hotel has operate FIFO method in issuing**					
15.	Out items in					
16.	Food					
17.	Drinks					
18.	Cleaning agents					
19.	Disposable					
20.	Do you conclude that the hotel operate FIFO method in issuing out items in					
D.	**The hotel has good storing equipment like**					
21.	Cold room					
22.	Chill room					
23.	Refrigerators / freezer					
24.	Counter					
25.	Sacks					
26.	Storing equipment is available in hotel					
E.	**Hotel train their personnel for stock control**					
-	On the job training					
-	Outside the organization					
F.	**The hotel has effective power supply system through NEPA**					
-	Generators & lister					
-	Hotel has effective supply system through all the above system for stock control					

Frequency of Distribution of Responses

Table 4.5: Purchasing Format

	Does the hotel has streamlined method	Freq.	Percent	Cum. Freq.
1.	Preparing/receiving requisition format			
	SA			
	A	58	48.3	48.3
	U	42	35	83.3
	D	10	8.3	91.6
	SD	6	5	96.6
		4	3.4	100
		120	100	100
2.	Deciding what to buy			
	SA	43	35.8	35.8
	A	57	47.5	83.3
	U	4	3.4	86.7
	D	6	5	91.7
	SD	10	8.3	100
		120	100	100
3.	Determining source of supply			
	SA	66	55	55
	A	34	28.3	83.3
	U	8	6.7	90
	D	2	1.7	91.7
	SD	10	8.3	100
4.	Selecting suppliers		48.3	
	SA	58	3.5	48.3
	A	42	6.7	83.3
	U	8	6.7	90
	D	8	2.3	96.7
	SD	4		100
		120	100	100
5.	Preparing and placing order			
	SA	60	50	50
	A	42	35	85
	U	8	6.6	91.7
	D	5	4.2	95.8
	SD	5	4.2	100
		120	100	100
	Does the hotel has streamlined method of purchasing	Freq	Percent	Cum. Freq.
6	Follow up purchase order			
	SA			
	A	58	48.3	48.3
	U	42	35	83.3
	D	10	8.3	91.6
	SD	6	5	96.6
		4	3.4	100
		120	100	100
7	Receiving material			
	SA	43	35.8	35.8
	A	57	47.5	83.3
	U	4	3.4	86.7
	D	6	5	91.7
	SD	10	8.3	100
		120	100	100
8.	Checking invoices and settling accounts			
	SA	66	55	55
	A	34	28.3	83.3
	U	8	6.7	90

	D SD	2 10	1.7 8.3	91.7 100
9	Based on the above, does your hotel have streamlined purchasing procedure	 82 30 8 0 0	 68.3 25 6.7 0 0	 68.3 93.3 100 100
		120	100	100
	Does the establishment has these records	Freq.	Percent	Cum. Freq.
10.	Bin Cards SA A U D SD	 71 36 4 6 3	 59.2 30 3.3 5 2.5	59.2 89.2 92.5 97.5 100
		120	100	100
11.	Requisition forms SA A U D SD	 66 44 5 3 2	 55 36.7 4.2 2.5 1.6	 55 91.7 95.9 98.4 100
		120	100	100
12.	Stock Ledger SA A U D SD	 55 40 10 5 10	 45.8 33.3 8.3 4.2 8.3	 45.8 79.1 87.4 91.7 100
		120	100	100
13.	Issues analysis book SA A U D SD	 35 70 5 5 5	 29.1 58.3 4.2 4.2 4.2	 29.1 87.4 91.6 95.8 100
		120	100	100
14.	Based on the above date the hotel has good document for recording data SA A U D SD	 35 70 5 5 5	 29.1 58.3 4.2 4.2 4.2	 29.1 87.4 91.6 95.8 100
		120	100	100

Table 4.6:First In First Out Method (FIFO)

	Does the hotel operate FIFO method in issuing out	Freq	Percent	Cum. Freq.
15	Food			
	SA	110	91.7	91.7
	A	4	3.2	94.9
	U	2	1.7	96.6
	D	2	1.7	98.3
	SD	2	1.7	100
		120	100	100
16.	Drinks			
	SA	110	91.7	91.7
	A	5	4.2	95.8
	U	2	1.7	97.5
	D	1	0.8	98.3
	SD	2	1.7	
		120	100	100
17.	Cleaning agents			
	SA	60	50	50
	A	48	40	90
	U	10	8.4	98.4
	D	1	0.8	99.2
	SD	1	0.8	100
18.	Disposable items			
	SA	60	57.5	57.5
	A	48	40	97.5
	U	3	2.5	100
	D	-	-	-
	SD	-	-	-
		120	100	100
19.	Based on the comments above, do you have FIFO method of issuing out item			
	SA	100	83.3	83.3
	A	10	8.3	91.6
	U	2	1.7	93.3
	D	3	2.5	95.8
	SD	5	4.1	4.1
		120	100	100

Table 4.7:Storage Equipment/Areas

	The hotel has good stirring equipment like	Freq.	Percent	Cum. Freq.
20.	Cold-room			
	SA	30	25	25
	A	30	66.7	91.7
	U	2	1.7	93.4
	D	4	3.3	96.7
	SD	4	3.3	100
		120	100	100
21.	Chilling room			
	SA	78	65	65
	A	32	26.6	91.6
	U	6	5	96.6
	D	2	1.7	98.3
	SD	2	1.7	100
		120	100	100
22	Refrigerators/Freezers			
	SA	120	100	100
	A	-	-	-
	U	-	-	-
	D	-	-	-
	SD	-	-	-
23.	Counters / sack / Racks			
	SA	60	50	50
	A	58	48.3	98.3
	U	2	1.7	100
	D	-	-	-
	SD	-	-	-
		120	100	100
24.	It is generally believed that the hotel has good storage equipment			
	SA	110	91.7	91.7
	A	5	-	95.9
	U	2	4.2	-
	D	3	1.7	-
	SD	-	2.5	-
	Table 4.9	120	100	100
25	The hotel train their staff in stock control by on-the-job training			
	SA	94	78.3	
	A	8	6.7	
	U	2	1.7	
	D	2	1.7	
	SD	4	3.4	
25.	Outside the organization			
	SA	10	8.3	
	A	20	16.6	
	U	10	8.3	
	D	60	49.8	
	SD	20	16.6	

Table 4.10:Good Source of Power Supply

SA	110	91.7	91.7
A	8	6.7	98.4
U	1	0.8	99.2
D	1	0.8	100
SD	0	0	-
	120	100	100