

**COMPUTER APPLICATION TO BANQUETING
OPERATION IN HOTEL INDUSTRY
(A CASE STUDY OF EKO HOLIDAY INN, LAGOS)**

BY

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**A PROJECT SUBMITTED TO THE DEPARTMENT OF
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DEDICATION

To Almighty Allah, My wife, and the children.

ABSTRACT

Banqueting is a special function which serves as an additional source of income in hotel operation. It can be very profitable in hotel business if adequately organized.

The time taken in computing manually the costing involved in the sales of banqueting and lengthy discussion that normally exist between the clients and the banqueting staff and style of the function required, therefore made it necessary for the computerization.

With computerization, all the information s regards type of function, type of menu that suites a particular function, table plan and setting can display on the computer screen for clients to make their choice. This would in turn boost the sales, increase the profit margin and improve the effectiveness of the Banquet unit.

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CERTIFICATION

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CHAPTER ONE

1.1 Background of the Study

Hotels cover a very wide spectrum. They vary tremendously in size, market and location.

For the purpose of this study, hotel is composed of all those organisations, which consist of wholly or mainly in the carrying out of one or more of the following activities -:

- i) the supply of food and drinks for immediate consumption.
- ii) the provision of living accommodation for guests/clients or for persons employed in the organization.
- ii) any other activities incidental or ancillary to any of those activities of the organization.

The definition above and the one in the hotel's proprietors Act of 1956 - that gives the legal meaning of hotels in Britain emphasized four things. These are: an organization; offering services: to guests and at a cost.

Banqueting operation which is one of the products of hotel are regarded as a special function. These include wedding receptions, dinners, both business and organization, dances and other social events, cocktail parties, meetings of business organizations etc.

For any such function, pre-established menus (food) and prices should be used. It is easier for a potential

provided with several alternatives appropriately priced from which the selection can be made.

Apart from the menus, the table design and arrangement, which is usually guided by the type and style of function is always presented to potential customers to make their choice.

Banqueting sales are usually handled by banquet-sales manager who is not involved in selling rooms and other than for functions. Normally, the source of banquet business is the local community in which the hotel exists. But in some cases it may be from outside the location of the hotel. So the successful Banquet-sales manager must develop the proper relations within that community. Close contact must be maintained with major companies in the area, particularly those who have periodic meetings, dinners, and other functions.

Hotels, especially those in big towns and cities realize huge revenue from banquet sales. Apart from accommodation sales, banquet sales is the next that yields more revenue to the hotel establishment. Banquet benefits almost every revenue producing department in the hotel. Guests attending a function very often use some of the other facilities. To alert other departments heads and to keep management informed of all bookings, the banquet manager prepares various reports of actual bookings. The period covered and the information included vary in each hotel to conform to the management's policy. The contents include the date, the name of the person or organization

holding the function, the type of function, the number of people expected, and any special requirements that might affect other departments. In addition, the banquet manager prepares a separate sheet for each function with the full menu and all other pertinent information.

In the competitive hospitality industry- core of which are profit maximization and satisfied consumers. The use of modern technology, especially, the computer, would boost the sales and consequently attain the set business objectives. In meeting the needs of the clients (customers) as regards banqueting, is essentially the reason behind the study.

1.2 Importance of Study

This is mainly the creation of an automated Banqueting sales techniques to replace or enhance the present manual system. It will assist the banquet unit to carry out its basic functions effectively and offer better and improved services to guests. The provision of improved and better services to guests would consequently affect the management policy positively and enhance high positive return.

1.3 Purpose and Aims of the Study

- 1) Determine through system analysis whether the application of modern technology to banqueting sales is desirable by clients, staff and management.
- 2) On the basis of our findings, if positive, design a functional banqueting sales system for the hotel. This will

display type and style of function available for sale on the screen, including the appropriate menus and associated costing.

3) Understanding the banquet operations in hotel business, and highlight areas where computerization can be successfully carried out or implemented.

4) Write a workable program to computerize this.

5) Ensure that a workable environment is created for the installation and proper use of the system designed.

1.4 Limitations and Scope

The project work is limited in scope to the banqueting operation in the commercial catering. This specifically covers the sales of banqueting - facilitated by identifying the type and style of function; appropriate menus (food and drink) for function; the costing aspect and the calculation of the expected sales.

The financial and time constraints have their effect on the result of the study. The inability to do a more extensive work because of not being able to travel far and wide due to time and financial limitations. Restrictive texts and laboratory facilities no doubt have negative effects on the study.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

Computers have been variously defined by many computer authorities and authors. In general, a computer consists of not one machine, but a series of related machines. The generic term "computer" is widely used to describe the central processing unit and the peripheral devices used for electronic data processing. A computer may be defined as a machine which accepts data from a input device, performs arithmetic and logical operation in accordance with a predefined program and output device either for further processing or in final printed form such as business document schedules and management reports.

The characteristics of a computer which distinguishes it from other forms of data processing are :-

- i) It has the capacity to store its program of instruction.
- ii) It has capacity to store data and acts upon the data by means of stored instructions.
- iii) It can also modify its stored program of instructions.
- iv) It has the capacity to function with a high degree of automatic control.

Advancements in computer technology have passed

of the fifth. Each stage being distinguished by the type of logic element being used. These are : 1st generation (1951-1958), Vacuum tube; 2nd generation (1959-1963), transistor; 3rd generation (1964-1970), integrated circuits; 4th generation (1971-1990), microminiaturized circuit and the 5th generation (1990-1997), major advances. Each new logic element led to more flexible, more reliable and less expensive logic element than those preceding them. Computer data processing system performs the same basic operation as manual systems, inputting, storing, processing, outputting, and controlling. Storage is both internal and external and processing unit which contains a control unit and an arithmetic logic unit.

Data processing units are superior to manual systems because of their potentials for accuracy, communication, storage and speed of response. Software refers to the set of computer programs, procedures and associated documentation related to the effective operation of a data processing system. The two main types of software are applications software and systems software. The latter consists of programs designed to control the operation of a computer system.

Computer in Catering

A large number of caterers find the many different types of computer that are available a source of great confusion. Whichever magazine one reads or whichever trade exhibition one visits there is invariably a baffling selection on offer. There are not only mainframes, minis,

and micros, but also desktops, and Pcs ideally suited to the small business and all of them boast apparently irresistible advantages for a catering business. Many of these machines appear identical to the outsider, with television screens attached to typewriter keyboards and printing machinery very similar to the electric typewriter which caters to have become accustomed to in their administration offices. It is necessary for caterer to have a basic knowledge of these various types of computer so that they can appreciate where the different machines might fit into the multitude of potential catering locations.

There are three basic types of computer that might be considered in a business situation and in attempting to categorize these we shall use a novel approach. Rather than describing the machines by their technology, which would be the way that a computer scientist might prefer to operate, we shall look at the usefulness of computers as far as the caterer is concerned.

A mainframe is a large beast, covering a huge floor area, with many cabinets containing spinning tapes and disks. It can be found in many of the larger hotel and catering companies. Mini computers first came into the market in about 1978; and have become firmly established in many businesses. They are most commonly found in accounting and financial applications. Micro computers are the most recent addition to the range of computers on offer to the business user.

Compared with many industries, catering presented a

complex computing problem and it is therefore hardly surprising that it adopted new technology less readily than other industries with relatively simple requirements. There is little doubt, though, that managers in catering as in other industries felt threatened by computers and this considerably slowed the penetration of new technology. There was the worry that both staff and managers themselves might be replaced by new technology and that the skills of a manager could be usurped by a computer. In catering, however, there were additional concerns, such as the perception that with its customers would suffer. It was felt that the "host" and "hospitality" elements of a catering operation might be lost, and it was feared by some managers that guests would not have as much contact with staff as had previously been possible. Some of these fears had been recognised in other industries and they took sometime in the catering and hospitality industry to be overcome. Computerization in many instances started to allow more time for members of staff to be with their customers and gave managers much better information upon which to base their decisions.

Catering computers evolution in the united kingdom closely mirror the emergence of similar machines in North America. It is therefore imperative when examining the history of catering computers to identify initially what happened in the United States where most breakthroughs occurred. In the 1950's in North America, computerization was the province of the larger multinational firms who took

up the challenge of new technology purely because it was the fashion and not because cost-effectiveness could be demonstrated.

In common with most American business the few catering companies to make use of computers did so largely in accounting orientated application, such as the processing of the staff payroll. Applications such as this had already been developed in other industries and were therefore easily transferable to a large catering company. Such were thew applications utilized that as far as the general staff and the customers were concerned, these large computers had little if any practical impact on the service given to the guest.

2.2 Banqueting as a Unit in Hotel Industry

Banqueting is the term used to cover special functions, which is separate from normal services found in various department of catering organization.

Special function is one of the most important branches of catering industry. In planning any function, thought must be given to the various requirements of the different classes involved - from general banquet to cocktail party.

Function of any kind does not interfere with the daily business for this reason, the banqueting manager makes sure that the kitchen and other department in the hotel are equal to the demand of the function. There are various types of function such as meeting, luncheon, dinner, wedding, breakfast, wedding reception, cocktail parties,

buffet tea, conferences etc. Whatever form a function is, there are several ways of booking. Booking of function can be done through personal contact, telephone and other ways, such as letter writing, telex etc.

If booking is made through personal contact, the client comes to the hotel in person. The person making the booking can book the function for another person or for a group of persons. It is a face to face business in which both the client and the banquet manager meets to discuss business. Telephone booking is sufficient but not efficient until booking is confirmed. In the case of this type of booking, the banquet manager must listen carefully, give full attention to the information given by the client and ask question to clarify the information received.

Other method could be through writing. in which the client writes to inquire on booking procedure and the hotel replies by giving the types of function rooms they have, the capacity of each room and the various prices for them. Here, the client sends back to the hotel an acceptance letter if he or she can afford any of the rooms.

2.3 Organising Banqueting Function

A complete understanding between the caterer and his client is essential if a function is to be smoothly organised. As in many other circumstances, this is most easily achieved when both parties regard each other with friendly respect and the business details are discussed in an atmosphere of mutual cooperation. The sensible

banqueting manager will therefore take care to engender and maintain the right atmosphere, whilst at the same time ensuring that the amount of profit is commensurate with the effort and costs involved.

When a guest or client comes for booking, the most important thing is that correct information is passed between the client and the banqueting manager. Information on the function, such as type of function, date of function, number of persons etc. is required for the client. While information such as type of rooms available and the prices, table design, menu and drinks etc. is provided by the banquet manager to the client. To this effect, function reservation sheet is provided in which all necessary information required is found.

Function Planning Process

Organising a function is in many ways a mechanical process. There are standard parts and specific procedures for putting the pieces together much like making a car. Many tasks occur simultaneously. Some tasks cannot occur until others are complete. Some parts must be assembled by team and specialists must participate during certain stages of process. All these are of little concern to the customer or function attendance. They are only interested in the final product. It is the planner who is concerned with the detail of the process. The planner must first identify all tasks schedule according to the required completion dates and specify the staffing requirement necessary to

accomplish the tasks. These logically falls into the following categories:

- i) pre - function
- ii) on the day of function
- iii) post - function

The function planners (banquet manager) must communicate the plan to all persons and department involved to ensure that the process is realistic. This is important when there are separate, but in interdependent relationship among the task.

2.4 Computers and Restaurant Operation

One of the major problems of the Hotel and Catering industry is that food and beverage are extremely difficult commodities to control both physically and economically, and are also difficult to market precisely. The main constituent of the catering business, food and drinks provide complex consumption problem, with varying shelf lives and perishability and furthermore they disappear once consumed. Most stock managers in other industries would recoil in horror at the problems of controlling the myriad of widely differing commodities one finds in catering. Whilst there are no systems as yet that can accurately count the number of beans say being dispensed on to a guest's plate in a restaurant, there are a wide variety of computerized food and beverage systems to assist mainly in the production of statistics and result once detailed stocktaking has taken place.

In recent years, computer has become much more common in restaurant, whether they be the fast-food variety or the fine dining room. Systems vary in configuration from single micro-computers to intelligent point-of-sale terminals integrated in extensive networks. Research has been undertaken in the United States by Restaurant and Institutions Magazine to quantify the uses to which restaurateurs put their computers in various categories of establishment.

Point-of-sale (POS) terminals have replaced the mechanical cash registers that were commonplace a decade ago for cash control within a restaurant. Cash control itself is only one of the functions of the sophisticated POS system that will also monitor exact details of dishes sold, ingredients used, and efficiency of individual members of staff, and even calculate their wages and tips. Back office system can be integrated with POS terminals to provide detail accounting and purchasing information.

The major areas in which computers can help in the operation of a restaurant may be identified as follows:

- i) Billing of customers and cash control
- i) Liaison with the kitchen
- iii) Management Control

An electronic point-of-sale (EPOS) machine makes its major contribution in the first of these areas - billing of customers and cash control. An EPOS machine is quite a powerful computer that has the capacity to incorporate and analyze a large amount of sales data and produce itemized

bills and a breakdown of sales, either by dish or payment. This saves a considerable amount of time and aggravation for staff, allowing more time to be devoted to the customer and stricter control of the restaurant to be achieved by management.

On close examination it can be seen that waiting staff in restaurant spend a large amount of food between the kitchen and customers at their tables. Whilst as yet computers cannot actually serve foods other than in vending-machine situation. Liaison with the kitchen has attracted the attention of computer suppliers. Not only can this provide a cost-effective and time-effective opportunity for staff to spend more time with their customer serving them with dishes cooked to perfection, but it can also provide the chef with legible orders in the first place.

In a modern computerized restaurant, the waiter receives a customer's order and keys this into a terminal. The terminal may be near at hand or may actually be handled so that the waiter can communicate with the system without even leaving the table.

The computer sends the order to the chef and records the financial detail on the guest's bill. The waiter can be called through to the kitchen when a course is ready to be served and he can also alert the chef when the next course is required. Throughout the meal, drinks and additional items are added to the bill so that a complete account is instantly ready for the guest on departure.

The third main area, where a computer can help is in analyzing the sales information fed into the system by waiting staff. Thus facilitating strict management control. Total payments can be shown by different methods so that an exact breakdown of the turnover achieved during a particular meal can be readily available for management within minutes of the close of business. The system will show exactly how many sales each member of staff achieved and which dishes were the most popular during the meal. Furthermore, the system can be further developed to use the sales information for stock control, alerting management of the need to replace stock used and even printing out the order require.

In a hotel, the restaurant system may be linked to the front office system, so that meals are automatically added on to guests checking out before their breakfast charges have been added to their bills.

The micro-computer may be harnessed in a variety of ways depending on the requirement of the restaurateur concerned. In a single-site operation the micro-computer may be needed to undertake the traditional back office tasks including the payroll, accounting, ledger work and menu preparation as well as monitoring the point-of-sale terminals. On some PCs it is possible to convert food bought into a restaurant into portions sold so that exact calculations of ingredients may be analyzed, thereby very closely controlling wastage. Where the profitability of a restaurant may depend on reducing costs by very small

amounts this ability to identify potential waste may be vital to the continued existence of the business.

2.5 Management Information System (MIS) as it Relates to Hotel

Management Information System (MIS) can be defined as a formal method of making available to management the accurate and timely information necessary to facilitate the decision making process and enable the organization, planning, control and operational functions to be carried out effectively. The system provides information on the past, present, and projected future and on relevant events and outside the organization.

Prince Badmus R. (1997) summed "MIS" as an organized collection of people, procedures, databases and devices used to provide routine information to managers and decision makers. Further, he listed the aims as relevance, management by exception, accuracy, timeliness and adaptability. Thus MIS could be said to be an information available and usable by management.

The integrated Management Information System brings together the many day-to-day activities of the management, clerical and production staff with the eventual aim of providing a comprehensive catering service to the widely dispersed customers. The output of most Management Information System is a collection of reports that are distributed to managers at various intervals and frequencies. These reports are scheduled reports. These are

produced periodically or on a regular schedule, such as daily, weekly, or monthly. This can help managers control customer credit, and the performances of sales staff. This report summarizes the previous day's critical activities and is typically available first thing in the morning of each work day. In an hotel, this report is called Night Clerk Daily Summary. It summarizes the day's business in financial and other quantitative terms normally prepared late in the night to be ready for management first thing the next morning.

2.6 Computerized Information System (CIS)

Computerized Information System (CIS) allows management fast access to accurate costing where food is concerned. Such a level of control was not possible with a manual system because so much information is involved that any conclusions drawn manually were out of data by the time they were actually produced. Indeed, in pre-computer days, food and beverage managers sweat for hours over paper work often producing very limited and meaningless statistics that had been overtaken by events. The benefits of a CIS include:-

- i) more information
- ii) quicker access to that information
- iii) improved control of costs.

A catering information system typically has a database that all the receipts used in the catering outlet together with the individual ingredient costed up-to-date. The CIS

calculates all the necessary menu costing and summarized the requisitions needed from the stores having taken into account the production-forecast. The stock control for both the central stores and any satellite kitchen. Current and historical analysis of sales can be produced and eventually used for sales forecasting while variances in production costs can be identified.

It is recognized that a CIS is more suited to a larger institutional and standardized catering operation than to an a la carte restaurant where dishes and policies change much more frequently. Caterers operating the latter type of restaurant have argued that a CIS would be far too constraining.

CHAPTER THREE

SYSTEM ANALYSIS AND DESIGN

3.1 System Analysis

System analysis is synonymous with system development cycle. It is the formal process by which organization build computer based information system. System development cycle is used as a guide line in deciding and administering the activities involved in establishing business system; developing the system; acquiring hardware and the software and controlling development costs.

System analysis main stages include :

Problem definition - whose purpose is to establish wether there is a need for a new system. Define problems and look at all the possible alternative solutions, and also do a cost benefit analysis and recommend the best.

Analysis stage - gives the full description of the existing system and the objectives of the proposed system resulting in a full specification of the users requirements. The stage took the full detailed study of the current system, including its procedures, information flows, and methods of work organization and control. The analysis also spells out the strength and weakness of the existing system.

Feasibility study - Aims at determining wether or not the proposed project is desirable using three important criteria. That is operational, technical and financial.

project is workable when developed and installed. It will eliminate most of the problems inherent in the existing and smoothen the operation.

Financially feasibility study revealed that cost of the project would be covered over a period of time. That is, the combination of payback period that determines how long it will take a new computer project to pay-back its development cost in terms of benefits was examined and acceptable results obtained.

Technical feasibility revealed that the proposed project cannot be accomplished or realized with the current equipment and software. In fact none is existing currently. But the personnel are trainable and can be upgraded to the status through training.

3.2 System Design and Development

Design and development define the technical design and create the software of the new system using QBASIC programming system and technique. Structured design and system flow-chart are used in establishing a sound framework of control with which the new system should operate and assemble documentations about the design of the new BANQUETING OPERATIONS SYSTEM. The new system will be constructed based on the requirements defined in system requirement phase. This would also reflect the speed, accuracy and users friendliness of the proposed system. In addition, design must operate within a framework of control. A system needs feedback to do its job. And this

feedback is a form of control.

The main input to the system which is actually carried out manually are the information provided by the guests. These include :type of function, number of guest expected, time and date of function, the menu, drinks and cigarette required during the function. All these lack standardization and mistakes/errors are often committed in taking down the information. Also data collected might be mixed up, and this may threaten the success of the function.

The main output of the current system is guest bill, which is not explicitly explained. It lacks standardization. The sub-total and grand total on the guest bill are not always with enough explanation in term of figure clarification.

Filing and data storage, as criticized against the principle of procedure are particularly lacking, and satisfactory updating file is particularly difficult to accomplish due to the large number of files to be updated as the current filing system lacks operational efficiency.

In system design, most of these manual work carried out by the Banquet staff would be computerized. This would be designed in such a way that information or data gathered can be inputted in a logical manner that would facilitate data storage and retrieval. Requirements specification to produce system specification, which provide details of all features of the system would be analyzed in details.

3.3 Input Specifications

Input design is the process of converting external user oriented description of the inputs to a system into a machine oriented format. Input design specifies the types, format, contents, and frequency of inputs to a system into a machine. Inputs are generated by devices operated by human and so must take into account the human elements in order to ensure rapid and accurate data entry. Rules that help in input design are the laying out of data elements in a sequence that the data entry staff can flow easily. Grouping the data element to be entered. Also, while inputting one needs to ensure that, data entry staff does not have to hesitate when skipping over fields that are not to be stored or processed. Input design must take into account the dimension of the screen - typical being 24 rows by 30 columns. The principle source for computer output error is not faulty processing, but faulty input. Technique that are employed in the new BANQUETING System design. Amongst are the input elements considered for the design of the system :

- Name of client and address
- Charge per function room
= charge per function room per hour x Cost per hour
- Total food cost (TFC) = No of persons x Food Cost per person
- Total drink Cost = No required x Unit Price
- Total Cigarette Cost = No required x Unit price
- Labour Cost = Estimated No of Casual Staff required

- x Cost/hr
- Other Cost if available
- Sub-total function cost =
- Charge / function room
- + total food cost
- + " drink cost
- + " cigarette cost
- + " labour cost
- + " other cost

Overhead cost = Estimated % of Sub-total cost

Net profit = Estimated % of Sub-total cost

VAT = 5 % of Sub-total cost

Service charge = 10 % of Sub-total cost

Government Tax = 5 % of Sub-total cost

Deposit paid

3.4 Output Specification

Describes all the output from the system. These include the types, format, content and frequency of output.

Layout sketches become the reference for characters; spacing between line total and Sub-total.

Output inform of display of vital information for the success of the function are produced on the computer screen for guests to see at a glance. These specifications include the following:

- type of function rooms
- the capacity of each function room
- the type of sitting arrangement

cost per hour for function room

type of menu available with prices

type of drinks available with prices

type of cigarette available with prices

These aid operations as it is easier and speedier to obtain. It also saves document printing resources.

3.5 Field Design

Data files are critical element of computer information system because many processing steps require the use of stored data in order to design effective files, the followings must be properly addressed - what data must be stored on file, and what storage media should be used.

For the purpose of this, data that must be stored in a master file are determined by examining the sources of the output data element. These can be created in three ways

- i) Data can be moved from an input file to an output area without modification.
- ii) Output data can be created as a result of arithmetic or logical processing operation.
- iii) Output data can be obtained from a master file.

The first stage requires no storage; the second may or may not involve a master file, and the third obviously requires the use of master file storage requirement.

3.6 Banqueting Computerization - General Requirements

The following constitute the general requirements of the new system :-

to significantly reduce time required for searching and retrieving information.

to automatically update the bookings for functions and stored the files serially for easy access.

to automatically calculate all costing involved and analyze each guest's bill.

to display all the information required as regards the table arrangement, sitting arrangement, and others for the success of the function.

to automatically produce report (online) Hard copy - in computer usable form (stored internally) as computer files.

Specific Requirement :- The specific requirement for the computerization of Banqueting in Hotel industry are as follows :-

Inputs :- it should be easier to input data into the system (on line system) with in-built control (i.e validity check to reduce or eliminate data entry errors).

Storage :- The creation of appropriate data files would be automatically updated as an aid to the processing and output operations.

Processing :- On-line processing needed are time sensitive.

3.7 Change-Over-Procedure

Change-over involves the conversion of the old file into form required by the new system, and is usually a very expensive stage in the whole project.

Since the new system had been proved to the satisfaction of the new analyst, and the design of the new system is considered the alternative to the old system. Hence the development of the new system followed by the file conversion if other implementation activities have been completed.

A preferred approach is to gradually introduce the new system, while slowly phasing out the old one. Conversion to the new system computerization from the old manual system is a significant milestone. After conversion, this is thus transferred to the end users.

Considering all factors, the best approach for conversion here will be PARALLEL RUNNING. This is characterised as when the two systems (old & new) are operated concurrently for some period of time. The old system is then stopped when the new system proves satisfactory.

3.8 Cost Benefit Analysis

Cost-effectiveness is defined as striking a balance between the cost of developing and operating a system, and the benefits derived from that system.

Operating Cost	=N=
Hardware (New PCs 4)	280,000

Equipment maintenance	30,000
Program maintenance	45,000
Labour cost (5 operators)	20,000
Utilities	15,000
Miscellaneous expenses	25,000
Total	415,000

Development cost	=N=
System analysis & Design for 6 weeks at =N=5000 per week	30,000
Software development/implementation for 4 weeks	15,000
Printer, stabilizer, UPS	65,000
Personnel training for 6 weeks at =N=5000 per week	30,000
Installation	15,000
Total	155,000

Total Operation Cost and Development Cost = =N=570,000

Benefits

better services are provided.

prompt attention to client is encouraged.

ensures accurate and accessible information.

ensures accurate and adequate data.

procedures and method of calculating guests are
simplified.

boosts the organization sales.

The need for computation of cost requirements cannot be over-emphasized and hence very important.

CHAPTER FOUR

PROGRAM DEVELOPMENT AND IMPLEMENTATION

4.1 Introduction

The implementation of computerizing Banqueting in Hotel establishment is expected to be achieved in this chapter. The software actualization, development - covering programming, system requirement, testing, training and maintenance would be covered among other things.

4.2 Choice of Language

To achieve the new system (computerization of Banqueting), the choice of language used is QBASIC programming language environment. One good thing about Qbasic is that it encourages running the computer in an interactive mode. As soon as the user submits a program and some data to the computer, the computer executes the program, produces the result back to the user immediately. In this way, it is easy for the user to find out whether the program is working properly or not.

4.3 Features of language chosen

It is one of the frequently used package available in its class. Its outstanding features include

- 1) its relative simplicity to use and learn
- 2) it has ability to constitute, expand and maintain the data.

- 4) safeguarding data against corruption and ability to provide necessary and resistant facilities after a hardware or software failure.
- 5) Qbasic provides interface between the user and the data. It can process a complete file and required records and simplify individual records retrieval.

Program System Requirement

The requirement for installation and operation of the new system can be grouped into two namely :

- i) Manpower requirement
- ii) Material requirement

Manpower Requirement :- Most of the Hotels, if not all do not use computer for any of its operation, therefore, the introduction of the new system means the introduction of computer into Hotel Banqueting. The Hotel would require the service of a trained computer operator to carry out data entry. This requirement could be met either by employing a competent qualified computer operator or train an existing employee in computer operation.

Material Requirement :- This relates to the type nature of computer needed for the new system involves storing a large number of data and information. For a start, a micro-computer with high speed and large storage capacity would be assembled with monitor, keyboard, and a standard printer to enhance the production of hard copy, in addition to the hardware requirement, Qbasic package would have to be acquired by the hotel.

4.4 System Testing

It is important to be sure that the new system is working efficiently before installation and usage. This can be done by using some data on the new system. This was however carried out by the researcher. The new system was tested using some data on all the segments of the program. The program and output produced from the testing are on the appendix.

4.5 Program Description

Program on Banqueting developed in Qbasic requires the installation of Qbasic language for execution. To execute the program, one needs to log on to Qbasic environment by typing Qbasic at the system prompt. Pressing ESC key takes one to dot(.) mode. At this point, the program would now be activated by opening the file named ALADE1.BAS.

The first seven segments of the program input data on services available and displays same.

The 8th segment requires information from the client as regards his bookings for the function. All information provided here by the client would be used for the calculation that would show the sub-total cost expected for the function. Here, there is provision for any modification and adjustment.

The 9th segment contains the technical information supplied by the Banquet unit, which assist in calculating the expected grand total cost of the intended function.

The 10th segment of performs various aspects of the

costing and shows the breakdown of the cost involved.

Generally, the program is very interactive and simple to operate. What is required is for the client to supply the necessary information needed for the function, and these would be used to work out the expected cost for the function instantly and clearly.

4.6 Maintenance and Improvement

Maintenance is the correction of errors and omissions that is essential to the system's usefulness. Most such errors are software bugs that were not caught during testing in the construction and delivery phases. Improvements are the addition of new capabilities such as new interface with other systems and new feature such as better screen of report layouts. It can not be overemphasized that as changes are made to the new system, documentation needs to be maintained.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

The major findings during the analysis of the current manual system of Banqueting revealed that :-

procedures and methods of operation, most especially in gathering the necessary data are overtly inefficient and cumbersome.

time is unnecessarily wasted during the bookings the staff are overworked and have lost value in the intrinsic job factor itself, often they are prone to mistake and errors thereby not being able to give their best.

Careful analysis of elements that form the total bill is not available in the current manual system. all these problems and shortcomings of the current system are addressed in the new Computerized Banqueting system, with a view to finding a long and lasting solutions to them.

With the new system :

accurate and reliable data are now available at the fingertips of whoever wants the information, be it management, users or clients.

wastages are drastically reduced and economical to produce.

The personnel involved in the operation are motivated

procedures and method of calculating bill are simplified, without being unnecessarily complex as it is in the old system.

Presentation of analyzed billing is enhanced. Thus giving confidence to the clients on whatever bill is presented to them. This would eventually boost the sales in the Banqueting unit.

5.2 Conclusion

The project "Computerization of Banqueting System in Hotel operation" identified problems and shortcomings inherent in the manual system. All the problems identified are thoroughly analyzed in designing the new system. And consequently, solutions were proffered culminating in a well designed and developed modern Banqueting system in hotel operation. The program designed was put into operation and the result was very satisfactory.

5.2 Recommendations

The benefits of computer system in any industry cannot be over-emphasized. The use of computer has a lot of benefit over any manual operation. Hence computerization of Banqueting unit in hotel operation would not only boost the sales of the hotel, but also remove all the problems associated with the manual system operations. These accruable benefit in the use of computer would enhance :-

- i) the provision of accurate and adequate data.
- ii) adequate capacity for all legitimate needs.

- iii) the ability to maintain sufficient flexibility, versatility and stability with respect to changing needs and condition.
- iv) the ability to motivate managers and staff to act in ways that promote the organization objectives.

Based on the above reasons and benefits, it is recommended to all operators and owners of hotels and other hospitality related services to seriously consider the use of computer not only in the Banqueting unit, but also other service units.

Banks and other finance houses should seriously consider granting loans and advances to Hotel companies who are desirous of installing and utilizing computer. As their business is bound to witness a boom and pay-back within a short period of time.

The computer specialist should always approach Hotel and other hospitality services as a way of enlightening and intimating them on the importance and benefits of computer.

Finally, government on the other hand should endeavour to encourage local investors by opening them to the world for the new technological advancement.

REFERENCES

- 1) Abdul A. (1988): Computer System In the Hotel and Catering Industry, 1st edition, Heineman London Cassell.
- 2) Ayo C.K. (1994): Computer Literacy (Operation & Appreciation), 1st edition, Alanukitan Commercial Press (Nig) Ltd., Kogi state.
- 3) Barrie J.C. (1986): Catering for Functions, 3rd edition, Anchor Press Ltd., Great Britain, London.
- 4) Boardman B. (1988): Hotel and Catering Costing and Control, 3rd edition, Cox and Wyman Ltd., Fakenham London.
- 5) Braham B. (1988): Computer System in the Hotel and Catering Industry, 1st edition, Heineman London cassell
- 6) Gordon E.G. (1989): Calculations For the Hotel and Catering Industry, 2nd edition, Hodder and Stoughton Ltd. London Sydney.
- 7) Grace P. (1987): Catering Costs and Control, 2nd edition, Biddle Ltd. Guilford London.

RAM ON BANQUETING BY ALADE.W.Y (REG. NO PGD/MCS/367/97)

meal\$(9), costper\$(9)
ow many types of dishes are available?"; a
ow many types of drinks are available?"; b
ow many types of cigarettes are available?"; c
segment inputs types, sitting arrangement, and cost per
tion room.

i = 1 TO 7
AD typerm\$(i), sitdown(i), classrm(i), theatre(i), cocktail(i), costhr\$(

i
segment inputs types of meal & cost per guest.
i = 1 TO a

AD typemeal\$(i), costper\$(i)

i
segment inputs types of drinks & cost per glass.
i = 1 TO b

AD typedrk\$(i), costglas\$(i)

i
segment inputs types of cigarettes & cost per stick
i = 1 TO c

AD CIGRETE\$(i), COSTIK\$(i)

i
segment inputs cost of drinks as a numeric variable
i = 1 TO b

AD pdrink(i)

i
segment inputs cost of cigarattes as a numeric variable
i = 1 TO c

AD pcig(i)

TAB(5); "CAPACITY, SITTING ARRANGEMENT, & COST/HOUR OF EACH FUNCTION F

TAB(5); "*****"
"

TAB(1); "TYPE OF FUNCTION"; TAB(23); "SITDOWN"; TAB(32); "CLASSROOM";
TAB(44); "THEATRE"; TAB(54); "COCKTAIL"; TAB(66); "COST PER"
TAB(7); "ROOM"; TAB(23); "BANQUET"; TAB(34); "STYLE"; TAB(45); "STYLE"
TAB(68); "HOUR"
"

= 1 TO 7

NT TAB(3); typerm\$(i); TAB(24); sitdown(i); TAB(34); classrm(i);

NT TAB(45); theatre(i);

NT TAB(56); cocktail(i); TAB(66); costhr\$(i)

i

"Note:Capacity figures are subject to change depending"
" on space required for setup"

: PRINT : PRINT

TAB(37); "MENU": PRINT TAB(36); "*****"

TAB(20); "-----"

TAB(22); "TYPE OF MEAL"; TAB(45); "COST PER PERSON"

TAB(20); "-----"

= 1 TO a

NT TAB(17); i; TAB(20); typemeal\$(i); TAB(47); costper\$(i)

TAB(20); "-----"

: PRINT : PRINT

TAB(36); "DRINKS": PRINT TAB(35); "*****"

```

= cig1 + cig2
our = staf * cstaf
tot = accom + food + drink + cig + labour + other
nd = subtot * (1 + (.01 * (overhd + nprofit)))
cst = (vat * .01 * grand)
vice = serve * .01 * grand
= gtax * .01 * grand
l = grand + vatcst + service + tax
NT : PRINT
NT "bill = "; TAB(12); "=N="; TAB(15); bill
NT : PRINT
UT "enter value for deposit", depo: PRINT : PRINT
ance = bill - depo
4: j = 28: CLS : PRINT : PRINT
NT TAB(k); "Name of client:"; TAB(j - 3); iname$
NT TAB(k); "Address:"; TAB(j - 3); adres$
NT TAB(k); "Grand total:"; TAB(j - 3); "=N="; TAB(j); grand
NT TAB(k); "vat:"; TAB(j - 3); "=N="; TAB(j); vatcst
NT TAB(k); "Service charge:"; TAB(j - 3); "=N="; TAB(j); service
NT TAB(k); "Tax:"; TAB(j - 3); "=N="; TAB(j); tax
NT TAB(k); "total bill:"; TAB(j - 3); "=N="; TAB(j); bill
NT TAB(k); "Deposit:"; TAB(j - 3); "=N="; TAB(j); depo
NT : PRINT TAB(j - 3); "-----"
NT TAB(k); "Balance:"; TAB(j - 3); "=N="; TAB(j); balance
NT TAB(j - 3); "-----"
NT : PRINT : PRINT TAB(45); idate$

```

Data on room type, sitting capacity & cost/hr

- A "Function Room A", 150, 120, 300, 350, "=N=750.00"
- A "Function Room B", 170, 150, 350, 400, "=N=850.00"
- A "Function Room C", 300, 250, 600, 800, "=N=1000.00"
- A "Meeting Room", 24, 30, 40, 60, "=N=500.00"
- A "Crockpot (Inner)", 100, 80, 150, 100, "=N=700.00"
- A "Goodies Pub", 20, 15, 25, 30, "=N=400.00"
- A "Pool Side", 200, 0, 150, 500, "=N=800.00"

Data on type of meal or dish & cost/per person

- A "Deluxe Gala Buffet", "=N=2,500.00"
- A "Chef's Buffet", "=N=1,900.00"
- A "Banquet Buffet", "=N=1,700.00"
- A "Banquet Tea & Coffee", "=N=300.00"
-) "Banquet Lunch Set Menus", "=N=2,200.00"
-) "Banquet Dinner Set Menus", "=N=2,400.00"
-) "Breakfast Buffet", "=N=1,200.00"
-) "Cold Doshes", "=N=1,450.00"
-) "Hot Dishes", "=N=1,600.00"

Data on assorted soft drinks & cost/glass

-) "Assorted Minerals", "=N=35.00"
-) "Assorted Malt", "=N=55.00"
-) "Assorted Beer", "=N=80.00"
-) "Assorted Stout", "=N=180.00"

OUTPUT

CAPACITY, SITTING ARRANGEMENT, & COST/HOUR OF EACH FUNCTION ROOM

OF FUNCTION ROOM	SITDOWN BANQUET	CLASSROOM STYLE	THEATRE STYLE	COCKTAIL	COST PER HOUR
Function Room A	150	120	300	350	=N=750.00
Function Room B	170	150	350	400	=N=850.00
Function Room C	300	250	600	800	=N=1000.00
Meeting Room	24	30	40	60	=N=500.00
Mockpot (Inner)	100	80	150	100	=N=700.00
Podies Pub	20	15	25	30	=N=400.00
Pool Side	200	0	150	500	=N=800.00

Capacity figures are subject to change depending on space required for setup

MENU

TYPE OF MEAL	COST PER PERSON
1 Deluxe Gala Buffet	=N=2,500.00
2 Chef's Buffet	=N=1,900.00
3 Banquet Buffet	=N=1,700.00
4 Banquet Tea & Coffee	=N=300.00
5 Banquet Lunch Set Menus	=N=2,200.00
6 Banquet Dinner Set Menus	=N=2,400.00
7 Breakfast Buffet	=N=1,200.00
8 Cold Dishes	=N=1,450.00
9 Hot Dishes	=N=1,600.00

DRINKS

TYPE OF DRINK	COST/GLASS OR TOT
Assorted Minerals	=N=35.00
Assorted Malt	=N=55.00
Assorted Beer	=N=80.00
Assorted Stout	=N=180.00
assorted Fruit Juices	=N=25.00
Assorted Wine	=N=50.00
Assorted Liquor	=N=70.00

CIGARATTES

TYPE OF CIGARATTES	COST/STICK
Benson	=N=5.00
Rothmans	=N=7.00
Ciga	=N=25.00
Eric Moore	=N=20.00

HOTEL BILL

Name of client: Mrs Rachael Adewumi
Address: No 32, Taiwo Road, Ilorin
Grand total: =N= 349334.8
Vat: =N= 17466.74
Service charge: =N= 34933.48
Tax: =N= 17466.74
Total bill: =N= 419201.8
Deposit: =N= 300000

Balance: =N= 119201.8

20-3-99

HOTEL BILL

Name of client: Mr Ola Fatosin
Address: 50, Randle Avenue, S/Lere, Lagos
Grand total: =N= 272406
Vat: =N= 13620.3
Service charge: =N= 27240.6
Tax: =N= 13620.3
Total bill: =N= 326887.2
Deposit: =N= 250000

Balance: =N= 76887.19

25-3-99

HOTEL BILL

Name of client: Alhaji Adamu Rabi
Address: No 40, Aminu Kanu Road, Kano
Grand total: =N= 293145.9
Vat: =N= 14657.29
Service charge: =N= 29314.59
Tax: =N= 14657.29
Total bill: =N= 351775.1
Deposit: =N= 250000

Balance: =N= 101775.1

27-3-99

```

INT : PRINT : PRINT
INT TAB(36); "DRINKS": PRINT TAB(35); "*****"
INT TAB(15); "-----"
INT TAB(15); "TYPE OF DRINK"; TAB(43); "COST/GLASS OR TOT"
INT TAB(15); "-----"
R i = 1 TO b
PRINT TAB(15); typedrk$(i); TAB(48); costglas$(i)
XT i
INT TAB(15); "-----"
INT : PRINT : PRINT
INT TAB(30); "CIGARATTES": PRINT TAB(29); "*****"
INT TAB(15); "-----"
INT TAB(16); "TYPE OF CIGARATTES"; TAB(40); "COST/STICK"
INT TAB(15); "-----"
R i = 1 TO c
PRINT TAB(16); CIGRETE$(i); TAB(42); COSTIK$(i)
XT i
INT TAB(15); "-----"
is segment requests for information from client
PUT "Enter clients name", iname$
PUT "enter clients address", adres$
PUT "enter no of guests", guest
PUT "enter no of hours", hrs
PUT "enter accomodation cost /hr", acmcost
PUT "enter food cost /person", fdcost
PUT "enter qty of assorted minerals", minral
PUT "enter qty of assorted beer", beer
PUT "enter qty of assorted stout", stout
PUT "enter qty of assorted fruit juices", fruits
PUT "enter qty of assorted wine", wine
PUT "enter qty of assorted liquor", liquor
PUT "enter qty of benson", benson
PUT "enter qty of rothmans", rot
PUT "enter qty of ciga", ciga
PUT "enter qty of eric moore", eric
is segment requets for technical information
om the hotel staff
PUT "enter estimated no of casual staff", staf
PUT "enter cost/hour for casual staff", cstaf
PUT "enter other cost", other
PUT "enter overhead %", overhd
PUT "enter net profit %", nprofit
PUT "enter vat %", vat
PUT "enter service charge %", serve
PUT "enter goverment tax %", gtax
PUT "enter today's date", idate$
is segment performs various aspects of the costing
com = acmcost * hrs
od = guest * fdcost
ink1 = (pdrink(1) * minral) + (pdrink(2) * malt) + (pdrink(3) * beer)
ink2 = (pdrink(4) * stout) + (pdrink(5) * fruits) + (pdrink(6) * wine)
ink3 = pdrink(7) * liquor
ink = drink1 + drink2 + drink3
g1 = (pcig(1) * ben) + (pcig(2) * rot)
g2 = (pcig(3) * ciga) + (pcig(4) * eric)

```


- TA "assorted Fruit Juices", "=N=25.00"
- TA "Assorted Wine", "=N=50.00"
- TA "Assorted Liquor", "=N=70.00"

4 Data on types of cigarettes & cost/stick

- TA "Benson", "=N=5.00"
- TA "Rothmans", "=N=7.00"
- TA "Ciga", "=N=25.00"
- TA "Eric Moore", "=N=20.00"

4 Data on prices of drinks

- A 35, 55, 80, 100, 25, 50, 70

4 Data on prices of cigarettes

- A 5, 7, 25, 20