TOURISM SATELLITE ACCOUNT
(TSA)

A TOOL FOR MEASURING ECONOMIC IMPACTS OF TOURISM ON THE NATIONAL ECONOMY AND EMPLOYMENT GENERATION

A CASE STUDY OF
NIGERIAN TOURISM DEVELOPMENT CORPORATION
(NTDC)

BY

USMAN MUSA

PGD/MCS/2000/2001/1050
PGD COMPUTER

APRIL 2002

i

TOURISM SATELITE ACCOUNT

A TOOL FOR MEASURING ECONOMIC IMPACTS OF
TOURISM ON THE NATIONAL ECONOMY AND
EMPLOYMENT GENERATION

(A CASE STUDY OF NTDC)

BY

USMAN MUSA

FEDERAL UNIVERSITY OF TECHNOLOGY
MINNA, NIGER STATE

A PROJECT SUBMITTED TO THE DEPARTMENT OF
MATHEMATICS/COMPUTER SCIENCE IN PARTIAL
FULFILMENT OF THE REQUIREMENTS FOR THE AWARD
A POSTGRADUATE DIPLOMA IN COMPUTER SCIENCE OF THE
FEDERAL UNIVERSITY OF TECHNOLOGY MINNA.

APRIL, 2002

CERTIFICATION

I hereby certify that this work was carried out by USMAN MUSA of the school of Postgraduate Studies in the Department of Mathematics/Computer Science of Federal University of Technology Minna, Niger State-Nigeria.

....

DR. B. L. ADELEKE   **DATE**

(Project Supervisor)

....

HEAD OF DEPARTMENT   **DATE**

   MATHS/COMPUTER

....

EXTERNAL SUPERVISOR   **DATE**

<u>DEDICATION</u>

This project is dedicated to my parents.

ACKNOWLEDGEMENT

I give thanks to ALMIGHTY GOD for His divine guidance and courage that He gave me throughout the period of my studies.

I wish to thank my project supervisor **Dr. B. L. Adeleke** for his support and useful suggestions in making this project a reality.

Thanks to the entire lecturers of Mathematics/Computer Science Department, for making me become what I am today.

Special thanks to my friends Mohammed Alaya, Bashir, Mohammed and the rest who are numerous to mention for their friendly and moral support.

Finally I thank the University authority for running the PGD in Computer Science programme and I hope in the near future, it will be extended to Master's degree programme.

TABLE OF CONTENTS

CHAPTER THREE

CHAPTER FOUR

CHAPTER FIVE

ABSTRACT

This project is concerned with the analysis of data generated by the inflow of tourists into the country, to measure the economic impacts of their visits to the national economy through their expenditures, using Tourism Satellite Account (TSA).

The project was carried out during the holiday seasons, when the tourists are expected to come into Nigeria in mass number for leisure and other tourism activities.

From the result of the analysis, it is found that, tourism can turn around the economy of the country and hence create job opportunities for thousands of unemployed youths in the country.

CHAPTER ONE

1.1   GENERAL INTRODUCTION

This chapter is intended to define Tourism Satellite Account (TSA) and give account of the contributions of tourism to the socio-political and economic development of the country within the mainstream of macroeconomic statistics.

Tourism is define as the activities of persons traveling to and staying in places outsides their usual environment for not more than one consecutive year for leisure, business and other purposes not related to the exercise of an activity remunerated from within the places visited.

It is an activity, which has grown substantially over the last quarter of this century as an economic and social phenomenon. However, statistical information on the nature, progress and consequences of tourism is mainly based on arrival and overnight stay statistics as well as balance of payment information which do not grasp the whole economic phenomenon of tourism. Consequently, governments, business and citizens may not receive the accurate information necessary for effective public policies and efficient business operations. Information on the role that tourism plays in national economies throughout the world is particularly deficient and credible data concerning the scale and significance is needed.

In the past, the description of tourism focused on the characteristics of visitor, and the condition in which they traveled and stayed, the purpose of their visit etc. Today, there is an increasing awareness of the role that tourism is playing and can play, whether directly, indirectly or through induced effects in the economy in terms of generations of value added, employment, personal income, governm4ent income etc. This increasing awareness of the economic impacts of tourism has been recognized over a number of years and a number of countries and international organizations have been involved in the development of techniques

1

relevant for the measurement of tourisms economic impact. Particular, then type of date on tourism required by both the public and private sector has changed in nature. In addition to quantitative information on the flow of visitors, such as number of arrival and rights and descriptive information on the conditions in which visitors are received and served, countries now need to robust information and indicators to enhance the credibility of the measurements concerning the economic importance of tourism.

1.2   **TOURISM SATELLITE ACCOUNT**:

This is a recommended methodological framework by the World Tourism Organization (WTO), after many years of efforts by numerous institutions, countries and individuals aimed at placing the measurement of tourism as an economic phenomenon within the mainstream of macro economic statistics. The international conference on Travel and Tourism Statistics, held by the World Tourism Organization (WTO) in Ottawa from 24 to 28 June 1991, was the culmination of the great efforts made in the second half of the 1970s and more specifically in the 1980s, not only by internationally organization especially the United Nation, World Tourism Organization (WTO) and the Organization For Economic Co-operation and Development (OECD) but also by a number of countries among which, in addition to Canada, France as pioneer in the measurement of the economic impact of tourism.

The United Nation through its statistical Commission and WTO, since their inception, have been the international organizations that have established a set of definitions and classifications for tourism.

The period between 1937 and 1980 was characterized by the establishment of definitions and classification for international tourism statistics that were barely compatible with other statistics. Those definitions were subsequently examined by the United Nations export group on international travel statistics in 1976 and endorsed by the statistical Commission in 1968.

2

Special mention should be made of the presentation by statistics Canada during the Ottawa conference (1991) of a scheme to establish a credible and comparable means for assessing tourism economic activities in relation to other industries in a domestic economy, develop a frame work for relating other relevant data regarding tourism activities in an organized and consistent manner, and ensure a means of friendly access to data base by potential users. The statistics Canada scheme was based on a project to examine the feasibility of applying the principles of satellite accounting to the tourism industry which was part of the work of the Canadian National Task Force on Tourism Data (1984-86). The report on the proposed tourism satellite account was released in may 1989, when WTO was beginning to develop its idea for international guidelines for a tourism satellite account.

1.3 **STATEMENT OF THE PROBLEMS AND OBJECTIVES**:

There is an acute shortage of information on the increasing role of tourism in National economies in the country, hence the need for reliable data relative to the importance and magnitude of tourism using the same concepts, definitions and measurement approaches as other industries. With TSA, government, entrepreneurs and citizens will be better equipped for designing policies and business strategies for tourism and for evaluating their effectiveness and efficiency.

The objectives of the concept which fuelled its development are:
-   increase and improve knowledge of tourism importance relative to overall economic activity in a given country.
-   Provide an instrument for designing more efficient policies relating to tourism and its employment aspects; and
-   Create awareness among the various player directly and indirectly involved with tourism of the economic importance of this activity, by extension involved in the production of goods and services demanded by visitors.

3

Improved balance of the national economy through a redistribution of the national income. Tourism also heightens the awareness of common interest and contribution to the development of activities favourable to the general economy of the country. The right to holidays the opportunity for the citizens to get to know his own environment, deeper awareness of his compatriots, and the sense of belonging to a culture and to a people are all, major reasons for stimulating the individual's participation in domestic and international tourism through access to holidays and travel.

1.4 THE NEED OF THE STUDY:

Tourism as an industry has rarely received a level of public concern commensurate with its share of economic activity. At least one of the reasons for this is statistical. Within most existing statistical systems, it is impossible to adequately document the full scale and scope of tourism related economic activities (United Nation statistical division report 2001). The inability to convey to public policy official or to the general public the size of tourism financial terms, its broad impacts on economic and societies, and its influence on international relations leads to a lack of appropriate, well-informed public awareness of tourism. Similarly, as a result of reason given above, economic entities dependent on tourism demand may not received adequate data about the related tourism industry, to have effective plan, management and marketing strategies to developed the sector.

These observations are more relevant in the case of domestic tourism as the statistical data available so far is limited. There are also wide variation in the definitions and concepts followed in different countries for the measurement of domestic tourism (concepts, definitions & classification for tourism statistics WTO 1995). This is primarily due the heterogeneous nature of the activity and the varying perceptions that prevail on the utility of such measurement. In fact even the concepts of domestic tourism is understood differently in different countries.

4

The Nigerian Tourism Development Corporation (NTDC), therefore, have the primarily responsibility of obtaining comparable measurements of domestic tourism which is often more important than the inbound tourism (non-resident visitors within country of reference) in terms of its magnitude and social impacts. The corporation should strive to evolve an effective statistical set of concepts, definition and method, and by involving the national statistical agencies like the Federal Office of statistics (FOS).

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

This chapter is to introduce the Nigerian Tourism Development Corporation (NTDC) as the apex tourism administrative organ in Nigerian, outlaying. Its functions the organizational structures and strategies being to implement the objective of the National Tourism Policy.

The need to diversify the Nigerian economy gave rise to structural Adjustment Programmes of 1986, which aimed at shifting emphasis from petroleum to the promotion of non-oil exports. Tourism is recognized today as one of the top three constituents of world trade, a long side oil and motor vehicles. Given the growing global importance of tourism as the world largest industry, the Nigerian government intends to develop the tourism industry in to a major foreign exchange earner, employment generator and catalyst for international good will.

In line with the national goal of developing Nigeria as viable tourist destination in the globe, the Federal Government, has put in place, necessary statutory frame-work for effective administration of the tourism industry, one of which is the Promulgation of Decree 81 of 1992 which established the Nigerian Tourism Development Corporation which is the organization this project intend to put under the search light, as the apex tourism administrative organ in Nigeria outlaying its function, the organizational structure and strategies being adopted to implement the objective of the National Tourism Policy.

Nigeria undoubtedly is a potential tourist destination in the globe, because of the following peculiarities: -

(i)   Huge landmass of about 924,000sq km

(ii)   Population of about 110 millions

(iii)   Warm sunny weather and

6

(iv)   The most populous country in the black world with over 250 ethic from different culture and back ground.

Tourism development in Nigeria has undergone a gradual but progressive evolution with each phase reflecting in growing importance in the economy. Organized tourism started in 1962 when the Nigerian Tourism Association was formed by a group of private practitioners to project the tourist image of Nigeria and encourage both domestic and international tourism activities. Te encourage both domestic and international tourism activities. The effort of the Association led to the admission of Nigeria as a full member of the international union of official Travel organization (IUOTO) now World Tourism Organisation (WTO) in 1964. There after establishing the Nigeria Tourist Board was promulgated in 1976. To meet the challenge of the times and in line with the tourism policy, Decree 54 was amended to give birth to the Nigerian Tourism Development Corporation (NTDC) Decree 81 of 1992.

2.2   NATIONAL TOURISM POLICY

In 1990, the Federal Military Government blue print on tourism was launched to demonstrate the government's commitment to the development and promotion of tourism into an economically viable industry. The main trust of the National Tourism policy is to generate foreign exchange encourage even development, provide tourism based rural enterprise, generate employment and accelerate rural-urban integration and cultural exchange. The implementation of the policy objectives shall be accomplished through: -

-        Promulgation of decree 81 of 1992 establishing the Nigerian Tourism Development Corporation.

-        Establishment of institutional framework for tourism development, including the complementary roles of the three tiers of Government.

-        Provision of basic infra-structural facilities

-        Encouragement of local and foreign private investors in tourism development through creation of favourable climate and provision of

package of incentives e.g. concessional rates and easy access to land for tourism development. As a preferred factor industry it shall enjoy tax holidays, tax rebate and soft loans with long moratorium.

- Opportunities for joint ventures between federal states, Local Government and private organizations.
- Control and regulation of the industry to govern the conduct of tourism practitioners.
- Elimination of inconveniences faces by visitors.
- Publicity and marketing of the nations tourism potentials at home and abroad.

2.3 ORGANISATIONAL STRUCTURES.

The Nigerian Tourism Development Corporation is a parastatal under the Federal Ministry of Culture and Tourism. The Corporation has governing board comprising representatives from relevant public and private agencies with an Executive Director as its Chief Executive. Nigerian Tourism Development Corporation operates the directorate system of administration with five operational departments of: -

- Personnel Management
- Finance and Supplies
- Planning, Research & Statistics
- Hospitality and Travel trade
- Marketing and Promotions

Each Department is headed by a Director, in addition to the Internal Audit, Protocol, and Secretariat/ Legal Units under the office of Executive Director.

To facilitate the growth of grass-root tourism, the corporation adopted a decentralized system of administration through the creation of zonal offices at Bauchi, Adamawa, Kano, Jos, Kogi, Enugu, Calabar, Delta and Lagos each headed by a Zonal Coordinator.

8

2.4 FUNCTIONS;

The functions of the Corporation is to:

a. To encourage people living in Nigeria to take their holidays there in and people from abroad to visit Nigeria and.

b. To encourage the provision and improvement of tourism amenities and facilities in Nigeria including the development of hotel and ancillary facilities.

In addition to the specific power conferred on the corporation by or under the subsequent provision of the decree, the corporation shall have power:

a. To provide advisory and information services

b. To promote and undertake research in the field of tourism

c. To render technical advice to the states and local government in the field of tourism

d. To register, classify and grade all hospitality and tourism enterprises, travel agencies and tour operation in such manners as may be prescribed.

The Corporation shall in particular have power to;

a. Carry on any under taking which appear to the Corporation to be necessary for the promotion and development of tourism industry

b. Assist in the development of Museum and historic sites, parks, game reserves, beaches, natural beauty spots, holiday resorts, souvenir industries.

c. Advise appropriate authorities on ways of improving tourist facilities.

d. Publicized tourism; and

e. Do all such things incidental to the foregoing functions that in its opinion are calculated to facilitate the carrying on of the duties of the corporation under the enabling decree.

2.5 ACHIEVEMENTS/ CONTRIBUTIONS

Within the limits of available resources, the Nigerian Tourism Development Corporation has in various ways contributed to the progressive evolution of the

tourism industry in Nigeria. Among its numerous contributions as the spear head for the overall promotion, marketing and coordination of tourism activities in Nigeria, are:

a. Creation of tourism awareness and education in Nigeria with emphasis on the socio-economic/political benefits and importance of tourism development.

b. Identification of the nation's tourism resources including the attractions/resort, historical and cultural heritage in conjunction with the states and Federal Capital Territory.

c. Ensuring that the proper administrative framework for tourism development is put in place through constant liaison with state government, on the establishment of state Tourism Boards and Local Government Tourism Committees.

d. Direct involvement in tourism project development through joint ventures i.e Ikogosi Warm Spring project in Ondo State and Mambila Holiday Resort in Taraba State. The International Youth Tourism Center, Kurra, Jos is wholly financed by the corporation.

e. Production of promotional material such as Tourism Brochures, Map and Souvenir.

f. Publicizing, Promoting and Marketing the nation's tourism asset through the organization and participation in both domestic and inter-national tourism fairs, expositions, exhibitions, conferences, seminars and workshops.

g. Liaison with regional and international tourism organizations on tourism research, marketing and promotion.

2.6 CHALLENGES

With the institutional framework in place, in addition to demonstrated interest, of both the public and private sector in tourism development, the prospect are bright. The (NTDC) as a commercially-oriented organization, with the attendant stipulation has set the stage for the growth of a virile tourism industry in Nigeria.

The challenge a head is for Nigeria to carve out a sizeable portion of the global tourist market through effective development and management of the rich tourism assets, serious effort will be made by the corporation to ginger up activities geared towards exploiting its foreign exchange earning capacity and latent potential to generate employment and make positive contribution to the GDP. Emphasis will be placed on the Internet connectivity so as to put the tourist potentials and festival on web site to attract tourist flow into the country. Creation of awareness and need to imbibe the tourism culture. The various related ceremonies and festivals will be developed and packaged for both domestic and international tourism. The "preferred sector status" granted to tourism will be actualised through joint, complementary efforts of the three tiers of government and private sector. Maximization of the gains from tourism development through progressive unveiling of the untapped tourism "goldmine" is the goal. The stage is set for a new era – The transformation of NTDC into an aggressive, commercially oriented entity that would turn the national dream for a viable tourism industry into a reality, in no distance future. With booming economy, increased mutual understanding peace and unity within and outside the nations borders.

2.7 The main actors in the implementation of the Tourism Satellite Accounts (TSA) in Nigeria include:-

- Federal Ministry of Culture and Tourism (FMTC)
- Nigerian Tourism Development Corporation (NTDC) and state Tourism Boards:
- Federal Office of Statistics (FOS)
- Central bank of Nigeria (CBN)
- Nigerian Immigration Service (NIS)
- Nigerian Custom Services (NCS)
- Private Sector Tourism Enterprises and Associations

11

CHAPTER THREE

3.1 METHODOLOGY

INTRODUCTION

This chapter tend to described, how the data, of the tourist coming into the country are collected from the point of entry. The statistical technique employed such as the sampling survey and the coding of the data for the purpose of entering it into the computer for further processing and analysis.

We have two sources of getting data, viz: - (i) from embarkation/disembarkation cards (ii) from sample survey. The embarkation/disembarkation cards are monitored or process by the Nigerian Immigration Service (NIS) at the point of entry into the country. In most cases, the first source is not realistic, in the sense that, the (NIS) find it difficult to process the raw data due to lack of serviceable computers. So the Corporation staffs from time to time go to the boarder post to conduct sample survey and collect data from tourists coming into the country and those leaving.

3.1.1 TARGET POPULATION:

The target population as the first step is to clearly define the population from which sample is drawn in order to measure and describe inbound visitors.

3.1.2 REFERENCE PERIOD:

The reference period is the time frame covered by the survey in most cases, we want to measure and described visitors over an entire year.

3.1.3 SPECIFICATION OF THE SAMPLE UNIT

The choice here is between individual visitors and heads of travel parties. The latter are often preferable, since they can report information for the entire travel party, define as one or more members of a household traveling together,

moreover, on certain characteristics, such as expenditures and trips purpose, one response is preferable for the entire travel party.

3.1.4 DETERMINATION OF SAMPLE SIZE

The optimum sample size depend on how detailed the analysis of the result will be. If you are only interested in the characteristic of total in bound visitor to your country. Then a sample of 1,500 to 2,000 completed interviews for the year is adequate. If however, you want to examine seasonal variations, distinguish the behaviour by country of residence, or by demographic characteristics, you need a larger sample for the year.

3.1.5 SAMPLING FRAME IDENTIFICATION:

The sampling frame is a list of all sample units in the population, or instructions for indicating all such units. It is used to draw the sample for the survey. In this case the sampling frame are all people crossing the country's border at the selected venues or points of entry. The definitions may be further broken down to define sub-frames such as airline flights leaving the country, passengers boats and ship leaving the country, and travellers passing through border crossing points.

3.1.6 SAMPLING METHOD:

The most valid survey results come from random or probability samples. These are samples selected in a way that every member of the target population has a known, non-zero chance of being included in the sample.

Multistage stratified sampling is most appropriate for inbound visitor surveys at frontiers. Stratified sampling requires separating the population into groups, or strata, where all members within each group have similar characteristic and the groups are a dissimilar as possible. The best strata here are points of exit, season of the year, and days of the week. Sample selection is multistage a sample of departure points is selected by a random process, if there are relatively few. This can be done by denoting each to a number and then randomly selecting it.

3.1.7 **DATA COLLECTION METHOD**:

There are three alternative data collection methods available for inbound visitors. The most preferable is to conduct personal interview among departing visitors. This encourages high response refers and maximum assistance to respondents in understanding question. However, this approach is the most costly in terms of interviewer time, and limits the number of completed interviews per interviewer in departure loungers and other locations where visitors are waiting to depart.

The next most preferable method is to greet potential respondents, determine if they qualify as inbound visitors, solicits their cooperation, hand then questionnaire for them to complete and for the interviewer to pick up from them. Interviewer need to keep careful count of the questionnaires handed out so that they can compute response rates. All questionnaires should, of course, be picked up before the visitors leave the venue.

The least preferable interview method is to hand questionnaire to respondents and asks then to complete the form and mail them back. Experience has shown that, this produces very low responses rates as visitors lose or forget to mail back their questionnaires. If this method is employ one should consider promising a reward for returned questionnaires.

3.2.0 **PROCESSING AND ANALYSING DATA**

3.2.1 **POST CODE AND EDIT RESPONSES**:

Coding provides a number code for each response either on the form or questionnaire (precode) or of open-ended responses by analysts after the survey (post code). Analyst should examine a number of the open – ended responses at the point and develop categories that can be used to summarize them, with a distinct code representing each category. Then, they should write the appropriate code next to each open - ended response on each data collection instrument, to be keyed into the computer data base like any other response code.

14

Editing is the review of responses to identify errors or points of confusion and to try to remedy them some missing data or incomplete answer can be tolerated. However, if there are a substantial number of erroneous responses or missing answer in an instrument, it may have to be discarded. Specifically, the following problem should cause us to consider excluding the questionnaires or interview form from processing.

- Key questions are left unanswered
- There is evidence that the respondent did not understand the instruction for filing out the questionnaires.
- Pages missing from the returned questionnaire.
- Questionnaire filled out by some one who is not a qualified inbound visitor.

3.2.2 BALANCE THE SAMPLE:

If we obtain completed interviews from too many air visitors are not enough from land visitors, or if we obtain too many interview in the spring season and not enough in the summer, our final sample season will not be representative of all inbound visitors. In such cases, it is suggested that our weight sample to match the target population on specific characteristics of such sub samples before processing or analyzing. It is advised to have the counsel of a trained survey statistician during the balancing process.

The balancing you can do is dependent on the figures you have for the control populations. The control populations are groups for which you have accurate counts, usually through complete count, or "census" of all visitor. Inbound visitor control populations that may be available to you from administrative records include visitors by country of residence, by departure point, by major transport mode (i.e. air, rail, auto mobile, boat/ship), and by month they leave. They are used to adjust the sample so that its distribution approximates that of the control population. For example, if 80 percent of your sample is air visitor, but a census

count indicate that only 40 percent of your actual inbound visitor arrive and depart by air then you need to adjust your sample to approximate this distribution.

3.2.3. DESIGN OF THE RECORD FORMAT:

When data from census or survey are to be processed by computer, it is necessary to design the " related record" for recording the data from the data collection instruments. A data record is simply one data card, or one line of a computer file, or one row in a spreadsheet that can contain all of the information from a single competed data collection instrument or case. A data field is simply the space in a data record devoted to the answer to one question. A field must be long enough to accommodate the possible answers to one question. A field must be long enough to accommodate the possible answers to a question. For example, one may allow a respondent to list all of the places visited on a trip. If so, one must make the field long enough to record up to ten or twelve individual's places. In designing the record format, one should acquire the assistance of a computer-processing expert, to ensure that the data are recorded in a manner to facilitate computer processing.

3.2.4 TRANSFER DATA TO THE COMPUTER:

Those entrusted to transfer the information form the completed instruments to the computer should be well trained in data entry on the computer equipment and be instructed in the design of the data record. Researchers familiar with the survey should be available to answer question during this process.

It is crucial that the information be entered correctly from the instruction. You may request verification of the data entered, that is, that each answer be keyed in twice and the two answers compared by a computer program. If there is any difference, the computer will indicate this, and a correction can be made in the final data file. Verification is an expensive process, and may be ignored if the data entry personnel are highly trained and experienced. The researcher can still spot-check the keyed data against the original instruments to locate any systematic data entry errors.

16

CHAPTER FOUR

4.1   **PROGRAMME DESIGN**:

INTRODUCTION:

This chapter introduces the programming languages, Pascal in particular, the description of algorithm and Tourist expenditure program.

Programmes are designed and developed as one of the necessary communication links between a computer and its users. It provided a means for the computer user to enter, manipulate, and obtain output from data without having to alter the machine hardware.

4.2   **PROGRAMMING LANGUAGE STRUCTURE**- A Pascal program can be classified into the following parts:

(i)   Program heading – a program heading names the program. It has the following format:

program name (input, out put).

The word program in the above is a reserved word. Reserved words are meaningful to the Pascal computer. They are a set of words that have predefined meanings in Pascal program and the user cannot redefine them.

(ii)   Declaration and definition part:

This part of a Pascal program describes the attributes of the data used by the instructions contained in the statement part.

There is a set order for data declaration and definition in a Pascal program. It takes the following format:

-     Label declaration part
-     constant definition part
-     Type definition part
-     Variable declaration part
- Procedure and function declaration part

4.2.1 VARIABLE DECLARATION:

Variable are objects whose value can change during program execution. So also, any name used to denote values that are computed during the running of a Pascal program are designed as variables.

Variables are created by being declared. All the variables that are used by the instruction in the statement part must be declared. The variable declaration part begins with the reserved word VAR, followed by individual variable declarations. Each variable declaration takes the form:

Variable: data type, comment

The reserved word VAR has to appear once, no matter how many different kinds of variables are declared. The variable in the format above is the variable identifier while the data type represents the variable type, like values, variable have types. A variable can only represent or store a value of the variables own type. We can declare any number of variables, of any type, and in any order, as long as common separate variables and semicolon separate types. The data types are described as either INTEGER, REAL, CHAR or STRING.

4.2.2 CONSTANT DEFINITION PART:

Variables hold values that change. Constant, in contrast represent values that cannot change during the running of a program represent values that cannot change during the running of a program. They are used to assign permanent values to identifiers; constants can be defined to represent numbers (integer or real) characters, or strings.

Constant definitions belong in the second part of a program, along with declarations. A constant definition begins with the reserved word CONST, which appears only once. This is followed by individual constant definitions. Each constant definition takes the following form:

Identifier =literal, comment.

4.2.3 TYPE DEFINITION PART:

The type definition part allows a programmer to define an identifier as being the name of new type aside from the predefined type such as integer, real etc. however, the new type has been defined, it has to be followed by the necessary declaration in the variable declaration part.

The type definition part is also used to restrict the value that identifiers accept. That is to specify the domain of values that can be assigned to identifiers. In addition, this part can as well be used to set up an array that will be used in program.

4.2.4 LABEL DECLARATION PART:

This part consist of the list o f all label defined in the program. Label is a position integer in the range o to 9999 used to prefix a statement of instruction within a Pascal program. It is used with GOTO statement to alter the sequence of execution of a program. It has the following format:

LABEL n1, n2, and n3;

Where LABEL is a reserved word and n1, n2, and n3, are positive integers that are used to prefix lines of instruction in the statement part.

4.2.5 PROCEDURE AND FUCTION DECLARATION:

Procedure and function are two kinds of sub program available in Pascal. They are like subroutines which when called upon within the program they exist; they will perform the task they are designed to do. Hence for procedure or a function to be useful in a program, they need to have been declared in the procedure and function declaration par.

The difference between these two forms of sub-programmes in Pascal is that function operates to yield a single result while procedure can yield more than one result. For instance, the use of function allows the introduction of a programmer

(USER) defined function as against the built-in functions, which are predefined within the compiler.

However, the format of these two forms of sub program is the same. It commences with the name of sub-program that followed by the parameter list and their type that are contained in parenthesis e.g.

FUNCTION POWER (Number, index: INTEGER): Integer.

Where power represents the name of the function with which it will be called. Number, indexes represent local variables to be operated upon within the function. INTEGER inside the parenthesis represents local variable type while the one outside the parenthesis represents the function type.

4.2.6 STATEMENT PART:

This is the executable part of a Pascal program and it comprises of a sequence of statement, separated by semicolons and enclosed between the reserved word, BEGIN and END.

This construct is also called a compound statement. The actual manipulation of data depend on the content of this part.

4.3 INPUT/ OUTPUT FILE STRUCTURE

There are basically different types of files structures, but we are concerned in this project with indexed sequential organization. The indexed sequential file organization or indexed sequential access method is a hybrid between sequential and direct file organizations. The records within the file are stored sequentially, but direct access to individual record is possible through an index. This index is analogous to a card catalog in a library. To locate a record, the cylinder index is searched to find the cylinder address, and the track index for the cylinder is then searched to locate the track address of the record.

4.4 PROGRAMMING CODING

Cording is the process of assigning values (codes) to various alternative answers to survey question. Numerical codes should be printed along side closed- end or structured answers on the questionnaire (precoding) to facilitate data entry and processing.

After data collection, analysis assigns codes to answer to pen – ended or unstructured questions, so they can be better entered into the computer and tabulated. The codes and the answer to which they correspond are kept in a 'code list" either printed or in the computer. In this project the coding is done in such a way that, each country has a value assign to it and all the countries are grouped into region. So that, the regions, are also given values or code that will represent them for easy accessibility from the computer.

4.5 PROGRAMME DOCUMENTATION AND SYSTEM REQUIREMENT:

The Input data we used were all gathered, and entered into our tourism economic benefit model, which is given below: the model has been run to produce estimates of the various economic benefits attributable to tourist spending.

TOURISM ECONOMIC BENEFIT ESTIMATES BY SUPPLIER CATEGORY VISITOR

Supplier category	Expenditure	Business receipt generated	Payroll generated	Employment generated	Government revenue generated
Package travel holidays and tours					
Accommodation					
Food and drink					
Transport					
Recreation culture sporting activities					
Shopping					
Other					
Total					

All the input data's of the tourism coming into the country were collected and categories into arrivals by region e.g. Africa, Americas, Europe, East Asia and the pacific, south Asia and middle East. Arrival by mode of transport; Air, Road and sea. Arrivals by purpose of visit; leisure recreation and holidays, Business and professional.

The computer was run to calculate the total number of tourist by region and their expenditure.

The description of the algorithm is as follows:

1. Print the header for the tourist expenditure and total number of arrivals

2. Read in a record for each tourism containing the object code describing the purpose of visit, mode of transport, the number of days spent and his country of origin.

3. If the object code is equal to 1111, the tourist is a domestic no account is taken.

4. If the object codes are equal to 1120, the tourism is international tourist and can be taken account of.

5. Calculate the expenditure of each tourism with a valid object code, or else print an error message.

6. Finally, when the end of the input file is reached, print the totals for the tourist and their expenditure.

The programme will consider the below statistical data from (NTDC) of tourist arrival from five regions selected from different continent of the world, and hence compute the total expenditure.

Countries	1995	1996	1997	1998	1999	2000
South Africa	10,900	16,045	16,847	17,689	18,574	19,459
Northern Europe	37,209	44,681	46,915	51,607	54,187	56,767
Middle East	13,939	20,635	21,667	22,780	23,888	25,026
Northeast Asia	39,857	45,789	48,079	50,483	53,007	55,531
Northern American	20,927	28,966	30,414	31,935	33,532	35,129
Total No. of Tourist	122,832	156116	163,922	174,504	182,188	173,912

```pascal
PROGRAM TouristExpenditure  (Input, Output);


        {The program will find the total expenditure generated}
        {by tourist in a given year. It was constant declaration};
        {of Five hundred US dollars (US$500) as };
        {Basic Travelling Allowance (BTA) per tourist};


        CONST
              BTA= 500;


        VAR
              touristarrivals, year, product, expenditure: integer;


BEGIN
        writeln (`Please state the year in reference`);
        writeln;
        readln (year);
        writeln (`Please supply the total number of tourists`);
        writeln (`that arrived within the year`);
        readln   (tourist arrivals);
        writeln;
        writeln (`Wait a little so that I can analyse`);
        writeln (`the supplied information, please`);
        writeln,
        product := BTA * tourist arrivals;
        If product > 0 THEN
                expenditure := product
        ELSE
                writeln (`This is out of range`);
```

23

```
writeln (`The total expenditure generated`);
writeln (`by tourists within, year`);
writeln (`is US $`, expenditure :8:2);
```

END.

When the program is run, and the data was supplied as in the table above. In the year 1995, the end result of the output is going to be like this:

The total expenditure generated by tourist within 1995 is US$61,416,000.00

The total expenditure generated by tourist within 1996 is US $
78,058,000

The total expenditure generated by tourist within 1997 is US $
81,961,000

The total expenditure generated by tourist within 1998 is US $
87,252,000

The total expenditure generated by tourist within 1999 is US $
91,094,000

The total expenditure generated by tourist within 2000 is US $
86,956,000

Tourist Arrival and their expenditure program written in PASCAL

The following data are the breakdown of tourist arrival by country, region, purpose of visit, mode of transportation. Also attached are the expenditure of the tourist from 1995 to 2000.

CHAPTER FIVE

5.1   CONCLUSION

INTRODUCTION:

This is the concluding part of this project, which highlights the gains and benefits Nigeria tends to derive by implementing the Tourism Satellite Account.

The importance of tourism is often under estimated as the economic benefits that emerge out of tourism are not adequately estimated. The reason for underestimating the economic benefits that tourism produces is basically the fact it is not as visible as other industries such as manufacturing. Although only a small part of tourism spending occurs in what are normally considered tourism industry, in business such as travel agencies or hotel. A very large part of tourism consumption also takes places outside the tourism industries in public and private services such as buses, museum and also retail shops. This had made many countries to evolve a means of measuring and gauging the economic gains from the goods and services provided by tourism with the aim of determining the contribution of tourism to the socio-political and economic development of a nation. And hence the introduction of tourism satellite account which is design to take into account, every single aspect of tourism activities, that will generate personal income, employment and Government revenue. The immense benefit that Nigeria will derive from implementing the recommended methodological frame-work can not be quantify, and will give the country the opportunity to appreciate the importance of data collection, data bank and statistics in National planning and future decision making, moreover, Nigeria is also a member country of World Tourism Organization (W.T.O.).

5.1   RECOMMENDATION:

From the foregoing, it is clear that tourism is capable of turning around the economic status of the country if the present policy statements are effectively

implemented,. Therefore, it is the responsibility of the three tiers of government to strictly adhere to the strategies for the implementation of the tourism satellite account which will be use to determine its contribution of tourism to the Gross Domestic Product (GDP) of the country this will have influence in drawing the attention of government and private sector in investing into tourism sector or otherwise.

The following are therefore, recommended:

i)   The three tiers of government should be adequately funded for the purpose of tourism development.

ii)   Continuity of government policies should be ensured

iii)   The information flow within the three tiers of government should be improved to ensure proper co-ordination and monitoring of the sector.

iv)   Government should encourage the establishment of data bank in all the users/producers of statistical data across the country.

REFERENCE BOOK AND PUBLICATIONS

1. Collection and Compilation of Tourism Statistics, Technical Manual, World Tourism Organization, Madrid, Spain 1995.

2. Management Information System: A User Perspective James O. Hicks, Jr. New York, 1984.

3. Nigerian Tourism Development Corporation (NTDC) Handbook 1986 Edition.

4. Recommendations of Tourism Statistics, United Nations Department for Economic and Social Information and Policy Analysis, Statistics Division. Statistics Papers, Series M. No. 83, New York, 1994

5. Tourism Satellite Accounts (TSA) Recommended Methodological frame work United Nations Publication Sales No. E.01XV11.9 ST/ESA/STAT/SER.F/80 ISBN 92-1-161438-4 New York, 2001

TIERS OF VISITORS FROM ABROAD

COUNTRY NATIONALITY	1995	1996	1997		1998		1999		2000
S.EUSTATIUS									
ST.KITTS NEV									
ANGUILLA									
ST.LUCIA									
SAINT MAARTE									
ST.VINCENT,G									
TRINIDAD TBG	1,215	2,090	2,195		2,305		2,420		2,535
TURKS,CAICOS									
US.VIRGIN IS									
WINDWARD IS									
OTH CARIBBE									
ALL CO CARIB									
CENTRAL AMER	104	234	246	0	258	0	271	0	284
BELIZE									
COSTA RICA	59	133	140		147		154		161
EL SALVADOR									
GUATEMALA									
HONDURAS									
NICARAGUA	45	101	106		111		117		123
PANAMA									
OT CENT AMER									
ALL CENT AME									
NORTHERN AME	20,927	28,966	30,414	0	31,935	0	33,532	0	35,129
CANADA	2,046	4,266	4,479		4,703		4,938		5,173
GREENLAND									
MEXICO	5,580	17,199	18,059		18,962		19,910		20,858
ST.PIERRE,MQ									
USA	13,301	7,501	7,876		8,270		8,684		9,098
HAWAII (USA)									
OT.NORTH.AME									
ALL NORTH AM									
CANADA,USA									
SOUTHERN AME	8,491	12,871	13,515	0	14,191	0	14,901	0	15,611
ARGENTINA	1,510	2,718	2,854		2,997		3,147		3,297
BOLIVIA	103	155	163		171		180		188
BRAZIL	3,021	4,473	4,697		4,932		5,179		5,426
CHILE	1,560	2,406	2,526		2,652		2,785		2,918
COLOMBIA	1,394	1,995	2,095		2,200		2,310		2,420
ECUADOR									
FALKLAND IS									
FR.GUIANA									
GUYANA	115	152	160		168		176		184
PARAGUAY	252	319	335		352		370		388
PERU	331	402	422		443		465		487
SURINAME									
URUGUAY									
VENEZUELA	205	251	264		277		291		305
OTH SOUTH AM									
ALL SOUTH AM									
OTHER AMERIC	0	0	0		0		0		

TABLE 121

OF VISITORS FROM ABROAD

Y NATIONALITY	1995	1996	1997	1998	1999	2000
ERICA						
RICAS						
CI	66,785	75,855	79,648 0	83,630 0	87,812 0	91,994
T AS	39,857	45,789	48,079 0	50,483 0	53,007 0	55,531
	11,835	13,715	14,401	15,121	15,877	16,633
(P.C.)	8,578	9,317	9,783	10,272	10,786	11,300
NA	5,916	6,897	7,242	7,604	7,984	8,364
	4,315	5,121	5,377	5,646	5,928	6,210
D P RP						
REP.	9,213	10,739	11,276	11,840	12,432	13,024
OLIA						
TAIWAN						
RTH AS						
RTH AS						
+HK						
TW						
ST AS	25,926	28,553	29,981 0	31,480 0	33,054 c	34,628
EI DARSM						
MAR	25	31	33	35	37	39
ODIA						
NESIA	6,293	7,016	7,367	7,735	8,122	8,509
DEM.R.						
YSIA	5,041	7,212	7,573	7,925	8,350	8,748
PPINES	7,302	5,938	6,235	6,547	6,874	7,201
TIMOR						
APORE	3,521	4,813	5,054	5,307	5,572	5,837
NAM						
LAND	3,744	3,543	3,720	3,906	4,101	4,296
N COUNTR						
S/E ASIA						
VE ASIA						
LASIA	1,002	1,513	1,589 0	1,669 0	1,753 0	1,837
TRALIA	728	1,012	1,063	1,116	1,172	1,228
ZEALAND	274	501	526	552	580	608
T/N.ZLND						
ESIA	0	0	0	0	0	
OMON IS						
V CALEDNIA						
UATU						
RFOLK IS						
UA N.GUIN						
MELANES						
MELANES						
NESIA	0	0	0	0	0	
NTON IS						
RISTMAS IS						
COS IS						

OF VISITORS FROM ABROAD

...TIERS OF VISITORS FROM ABROAD

Code	COUNTRY NATIONALITY	1995	1996	1997	1998	1999	2000
	OT SOUTH EUR						
	ALL SOUT EUR						
	WESTERN EUR	45,523	57,210	60,071 0	63,075 0	66,229 0	69,383
	AUSTRIA	1,026	1,751	1,839	1,931	2,026	2,121
	BELGIUM	2,158	2,814	2,955	3,103	3,258	3,413
	FRANCE	21,294	25,490	26,765	28,103	29,508	30,913
	GERMANY	19,950	24,863	26,106	27,411	28,782	30,153
	LIECHTENSTEN						
	LUXEMBOURG	103	457	480	504	529	554
	MONACO						
	NETHERLANDS	877	1,547	2,321	2,437	2,559	2,681
	SWITZERLAND	115	288	302	317	333	349
	BENELUX						
	BELG/LUXEMB						
	OTH WEST EUR						
	ALL WEST EUR						
	EAST/MED EUR	6,223	10,191	10,701 0	11,236 0	11,798 0	12,360
	CYPRUS	638	1,117	1,229	1,291	1,356	1,421
	ISRAEL	4,012	6,224	6,535	6,862	7,205	7548
	TURKEY	1,573	2,850	2,993	31,43	33,00	3,457
	OTHER EUROPE	0	0	0	0	0	
	OTHER EUROPE						
	ALL EUROPE						
	MIDDLE EAST	13,939	20,635	21,667 0	22,750 0	23,888 0	25,026
	MIDDLE EAST	13,939	20,635	21,667 0	22,750 0	23,888 0	25,026
8	BAHRAIN						
75	PALESTINE						
68	IRAQ	1,004	1,567	1645	1,727	1,813	1,899
00	JORDAN	489	791	831	873	917	961
14	KUWAIT	114	301	316	332	349	366
22	LEBANON	6,016	7,832	8,224	8,639	9,071	9,503
34	LIBYA	1,370	1,972	2,071	2,175	2,284	2,393
512	OMAN						
634	QATAR						
682	SAUDI ARABIA	432	785	824	865	908	951
720	DEM.YEMEN						
760	SYRIA	205	371	390	410	431	452
784	UNTD ARAB EM						
786	DUBAI						
818	EGYPT	4,191	6,710	7,046	7,398	7,768	8,138
886	YEMEN	118	306	321	337	354	371
943	OT MIDD EAST						
944	ALL MID EAST						
0000	SOUTH ASIA	21,186	28,016	29,507 0	30,982 0	32,531 0	34,080
0000	SOUTH ASIA	21,186	28,016	29,507 0	30,982 0	32,531 0	34,080
4	AFGHANISTAN	105	153	161	169	178	187
50	BANGLADESH	132	181	190	200	210	220
64	BHUTAN						
1.14	SRI LANKA	251	378	397	419	438	457

NTIERS OF VISITORS FROM ABROAD

OUNTRY NATIONALITY	1995	1996	1997	1998	1999	2000
OTAL	1,030,739	1,230,155	1,291,663 0	1,356,246 0	1,424,058 0	1,491,870
RICA	737,762	866,709	910,045 0	955,547 0	1,003,324 0	1,051,101
STERN AFR	30,577	36,721	38,577 0	40,485 0	42,509 0	44,533
BR.IND.OC.TR						
BURUNDI						
COMOROS						
ETHIOPIA	13,289	15,292	16,057	16,860	17,703	18,546
ERITREA						
DJIBOUTI						
KENYA	7,301	8,340	8,757	9,195	9,655	10,115
MADAGASCAR						
MALAWI						
MAURITIUS						
MOZAMBIQUE	3,051	4,101	4,306	4,521	4,747	4,973
REUNION						
RWANDA	25	50	53	56	59	61
SEYCHELLES						
SOMALIA	101	107	112	118	124	130
ZIMBABWE	3,359	4,321	4,537	4,764	5,002	5,240
UGANDA	510	730	767	805	845	885
TANZANIA	2,511	3,320	3,486	3,660	3,843	4,026
ZAMBIA	430	460	483	507	532	557
OTH.EAST.AFR						
ALL EAST AFR						
MIDDLE AFRIC	85,901	96,501	101,326 0	106,392 0	111,712 0	117,032
ANGOLA	1,583	2,517	2,643	2,775	2,914	3,053
CAMEROON	39,651	44,127	46,333	48,650	51,083	53,516
CENT.AFR.REP	2,871	3,018	3,169	3,328	3,494	3,660
CHAD	32,555	35,051	36,804	38,644	40,576	42,508
CONGO	2,507	3,187	3,346	3,513	3,689	3,865
DEM.R.CONGO	2,553	3,166	3,324	3,490	3,665	3,840
EQ.GUINEA	105	208	218	229	241	253
GABON	4,001	5,112	5,368	5,636	5,918	6,200
SAO TOME PRN	75	115	121	127	133	139
OTH MID.AFRI						
ALL MID AFRI						
NORTH AFRICA	51,655	75,315	79,081 0	83,035 0	87,187 0	91,339
ALGERIA	9,758	14,913	15,659	16,442	17,264	18,276
MOROCCO	15,509	23,822	25,013	26,264	27,577	28,790
WESTN.SAHARA						
SUDAN	18,875	25,973	27,272	28,636	30,068	31,500
TUNISIA	7,513	10,607	11,137	11,694	12,279	12,864
OTH NORT AFR						
ALL NORT AFR						
SOUTH AFRICA	10,900	16,045	16,847 0	17,689 0	18,574 0	19,459
BOTSWANA	1,551	2,670	2,804	2,944	3,091	3,238
LESOTHO	1,827	2,711	2,847	2,989	3,139	3,289
NAMIBIA	4,982	6,884	7,228	7,589	7,969	8,349
SOUTH AFRICA	2,540	3,780	3,969	4,168	4,376	4,584

CRIA

Indicators	Units	Code	1996	1997	1998	1999	2000
ND TOURISM							
	Thousands	(1.1)	1,230	1,292	1,357	1,425	1,492
s (overnight visitors)	Thousands	(1.2)	822	611	739	776	813
day visitors	Thousands	(1.3)	136	7	8	9	9
passengers	Thousands	(1.4)	272	14	17	17	18
by region							
	Thousands	(2.1)	867	910	955	1,003	1,051
s	Thousands	(2.2)	48	50	53	56	58
	Thousands	(2.3)	190	200	210	221	230
a and the Pacific	Thousands	(2.4)	76	80	84	88	92
sia	Thousands	(2.5)	28	29	31	32	34
East	Thousands	(2.6)	21	22	23	24	25
by mode of transport							
	Thousands	(3.1)	418	439	461	484	507
	Thousands	(3.2)					
	Thousands	(3.3)	61	64	67	70	73
	Thousands	(3.4)	272	14	17	17	18
by purpose of visit							
recreation and holidays	Thousands	(4.1)	274	204	246	259	271
s and professional	Thousands	(4.2)	411	306	369	388	407
	Thousands	(4.3)	137	102	123	129	136
ght stays and length of stay							
ht stays in H&S	Thousands nights	(5.1)	-	-	-	-	-
ht stays in CE	Thousands nights	(5.2)	-	-	-	-	-
non resident tourists	Nights	(5.5)	-	-	-	-	-
expenditure							
ountry of reference	US$ Million	(8.1)	85	118	142	171	200
STIC TOURISM							
ght stays							
ht stays in H&S	Thousands nights	(5.3)	-	-	-	-	-
ht stays in CE	Thousands nights	(5.4)	-	-	-	-	-
UND TOURISM							
ires	Thousands	(6.1)	-	-	-	-	-
expenditure in other countries	US$ Million	(8.2)	1,304	1,816	1,567	620	730
SM ACTIVITIES							
and similar establishments	H&S	(7.1)	-	-	-	-	-
of rooms	H&S	(7.2)	-	-	-	-	-
of bed-places	Percent	(7.3)	-	-	-	-	-
ncy rate	Nights	(5.6)	-	-	-	-	-
length of stay							

data not available