THE EFFECT OF I.T. ILLITERACY ON EMPLOYEE PERFORMANCE A CASE STUDY OF TANZANIA PORTS AUTHORITY

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DECLARATION

I Bholen Luhindi Msangi, declare that I am sole author of this research report, and that no part of it or any of the material has been submitted wholly or partly for any other award. This research report is a result of my own research work, and where other people's research is used, they have been dully acknowledged.

Signature: Date:

....10/08/2009.

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APPROVAL

This research report has been prepared and moderated through profound commitment of the supervisor and the student and has been submitted for examination with my approval as the supervisor.

Sign: Date:

....   10/08/09
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Mr. MALINGA RAMADHAN
SUPERVISOR

DEDICATION

I do dedicate this research report to my parents;-My father-Mr. Luhindi Salim Msangi and my mother-Mrs. Onike Ngarashi, plus my friends.

ACKNOWLEDGEMENT

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List of abbreviations

AMA   American Management Association

HRMS   Human Resource Management Systems

I.T   Information Technology

ITAA   Information Technology Association of America

IVR   Interactive Voice Response

TPA   Tanzania Port Authority

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ABSTRACT

The research was conducted in Tanzania Port Authority on the topic "effect of I.T illiteracy on employee performance". The total percentage of the respondents was 60 in which there were; 10 administrators, 15 finance, marketing accountants, 20 human resource managers, and 15 support officials. The findings were guided by research question of the study.

The first research question sought to find out the the extent of information technology illiteracy in the organization and the study findings revealed that; Very high, high, low, and very low were the answers given by the respondents. The second research question sought to find out how information technology illiteracy affect work performance of employees in Tanzania Port Authority and the findings revealed that; Decreased productivity, increased employee turnover, decreased efficiency, and increased supervision were the answers give by the respondents. The third research question sought to find out how management of Tanzania Port Authority can solve the illiteracy levels at the organization and the study findings revealed that; Training of employees, recruitment of only workers with I.T knowledge, hiring of workers, and provision of free computers to employees were the answers given by the respondents.

Chapter one of study of this research consisted of background of the study, statement of the problem, objectives of the study, research questions, scope of the study, ad significance of the study. Chapter two consisted of review related to the research topic of study. Chapter three is the methodology of the study. Chapter four is the presentation, analysis and discussion of the findings. Chapter five is included the summary of the study, conclusions of the study, recommendations of the study and areas for further research.

The conclusions were then made after interpreting analyzing data

CHAPTER ONE

INTRODUCTION

1.0 Introduction

This chapter will highlight issues such as background of the study, background of Tanzania Port Authority, statement of the problem, research questions, the scope and significance of the study.

1.1 Background of the study

Information literacy refers to the skills and knowledge that enable people to 'recognize when information is needed and have the capacity to locate, evaluate, and use effectively the needed information' (Council for Australian University Librarians, 2002). Information literacy includes library research skills and information technology skills.

Information technology literacy 'requires that persons understand information technology broadly enough to be able to apply it productively at work and in their everyday lives, to recognize when information technology would assist or impede the achievement of a goal, to see opportunities for the use of IT and to continually adapt to the changes and advancements in it.' Technology applications have become more user friendly, resulting in a shift away from having IT professionals perform the work to end users who can query databases, run reports and analyze the data directly. One common use for HR technology is for staffing and recruitment. One of the most valued technological enhancements is the ability of the employee or manager to access data directly. Employee and manager self-service applications provide levels of access to review and change predetermined information fields.

In organizational setting, performance problems are found any time there is a discrepancy between the sought-after results and the actual results. This can occur at various levels which include;

- individual performance problems
- team performance problems
- unit (e.g. department or division) performance shortfalls
- organizational performance problems

There are many causes of performance problems including:

- interference from superiors
- employee attitude
- lack of skills.

The study will however, deal with the lack of skills in particular reference to information technology. That is the use of computers and computer related programs to carry out tasks effectively.

1.2   Overview of Tanzania Port Authority

Tanzania Ports Authority is a public corporation whose mission is to develop and manage ports that provide world class Maritime Services and promote excelling total logistics services in Eastern Central and Southern Africa. Its vision is to lead the regional maritime trade and logistics services to excellence.

The Core business is to Manage and operate the ports on the eastern coastal boarder of the country and all lake ports as shown on the map of Tanzania on appendix D. Tanzania Ports is a member of the following International Port Organizations.

* International Association of Ports and harbours.
* Ports Management Association of Eastern and Southern Africa.
* International Association of Light House Authorities.
* International Cargo Handling Coordinating Association.

Tanzania Port Authority (TPA) presently owns Dar es salaam, Tanga, Mtwara Ports and all lake ports in Tanzania. Tanzania Ports Authority was established on 15th April 2005 following the repeal of THA Act No. 12/77 and enactment of TPA Act No. 17/2004. Its core functions is;

- To establish and coordinate system of Harbours.
- To provide facilities relating to Harbours and provide harbour services.
- With the approval of the Minister, to construct and operate new Harbours.
- To construct, operate and maintain beacons and other navigational aids.
- To carry on the business of stevedore, wharf age or lighter man.
- To act as a warehouseman to store goods, whether or not the goods have been or are to be, handled as cargo or carried by the Authority.
- To consign goods on behalf of the other persons to any place either within or outside the United Republic
- With the approval of the Minister, to act as carriers of goods or passengers by land or sea, and
- To provide amenities or facilities that the Authority considers necessary or desirable for persons making use of the facilities or services.

1.3   Statement of the Problem

IT illiterate workers cause productivity in companies to suffer, according to a report by Kinnie, N.J. and Arthurs, A.J (2005). Almost 60 per cent of companies rely on self-trained staff to sort out everyday computer problems while an alarming 65 per cent of IT amateurs work above and beyond their contracted roles daily. This leads many companies to have IT issues passed on to existing staff in an attempt to keep costs down. However, without proper training, the inherent level of IT illiteracy can end up costing a company far more in terms of productivity and efficiency which may inadvertently undermine the short and long term goals of the company. The study will investigate the effect of information technology illiteracy on the organization and investigate solutions to the problem.

1.4 General Objectives

The general objective of the study is to establish the effect of Information Technology illiteracy on employee performance at Tanzania Ports Authority.

1.5 Specific Objectives

- To establish the extent of information technology illiteracy in the organization
- To investigate how information technology illiteracy affects work performance of employees
- To investigate solutions to eliminate the information technology illiteracy levels at the organization

1.6 Research Questions

- What is the extent of information technology illiteracy in the organization?
- How does information technology illiteracy affect work performance of employees?
- How can management solve the illiteracy levels at the organization?

1.7 Scope of the study

The study was carried out at Tanzania Ports Authority; was concerned with the impact of public relations activities on job satisfaction. The study was carried out in during the period March 2009 – June 2009.

1.8 Significance of the study

The study will be of importance to various stakeholders in the following ways; The study will help company policy makers to learn how to design policies that include the skills and desired skills of the employees into the information technology plans.

The findings of the study will be useful to the organization as it will highlight weaknesses in the current information technology strategies and activities which then can be rectified.

The study will aim to show the benefits to the company that can be obtained by improving on any highlighted weaknesses in the current information technology environment the company operates.

The study will help the researcher achieve the academic goal of acquiring a dissertation since it is part of the requirements of the course.

1.9 Theoretical and Conceptual Framework

INDEPENDENT VARIABLE		DEPENDENT VARIABLE
• Word Processing • Spread sheets • Basic Computer Operation • Internet use • Technology systems • How computers work • Use of software	• Change management • Goals • Technology • Budget • Skills of management • Skills of Employees	• Effectiveness • Optimum Operation • Increased Capacity
Economic, Organisational Culture Political Factors	**MODERATING VARIABLE**	

Figure 1.1

From figure 1.1.the conceptual work shows that the variables in the study include; IT literacy (the independent variable), employee performance (dependent variable) and the moderating variable. The framework shows that spreadsheets, basic computer operation, internet use, technology systems, knowing how computers work or the use of software. The conceptual framework shows that with these skills employees become more

effective increase their capacity to do tasks and they are more able to carry out the operations of their tasks optimally.

However, the framework shows that the change management, goals and objectives of the company, organizational culture, budgetary constraints and skills of both employees and management all play a role in the determination of the level of IT literacy that the staff have. Other factors include the economic, political and social culture that the company operated in.

Definition of Key Terms

Effect: This refers to either of the positive or negative consequences of any activity as a result of any direct involvement of human input in relation to employee illiteracy.

Employee: This is any person in who is involved in activities relating to the attainment of the organizational goals performed so as to receive the commensurate pay.

Illiteracy: This refers to the lack of knowledge that would enable persons understand information technology broadly enough to be able to apply it productively at work and in their everyday lives, to recognize when information technology would assist or impede the achievement of a goal, to see opportunities for the use of IT and to continually adapt to the changes and advancements in it.

Information Technology: the study, design, implementation, support, development, or management of computer-based information systems, particularly software applications and computer hardware.

Performance: The rate at which tasks are completed to satisfactory levels and at satisfactory turnover rates.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

In this chapter, the researcher reviews previous studies, literature and books written that are on similar studies.

2.1 Information Technology

According to Adelman, C. (2000), Information Technology (IT), as defined by the Information Technology Association of America (ITAA), is "the study, design, development, implementation, support or management of computer-based information systems, particularly software applications and computer hardware." IT deals with the use of electronic computers and computer software to convert, store, protect, process, transmit, and securely retrieve information. Today, the term information technology has ballooned to encompass many aspects of computing and technology, and the term has become very recognizable. The information technology umbrella can be quite large, covering many fields. IT professionals perform a variety of duties that range from installing applications to designing complex computer networks and information databases. A few of the duties that IT professionals perform may include data management, networking, engineering computer hardware, database and software design, as well as the management and administration of entire systems.

According to Brockbank, W., (2000), when computer and communications technologies are combined, the result is information technology, or "infotech". Information technology is a general term that describes any technology that helps to produce, manipulate, store, communicate, and/or disseminate information. Presumably, when speaking of Information Technology (IT) as a whole, it is noted that the use of computers and information are associated.

Information technology literacy deals with an understanding of the technology infrastructure that underpins much of today's life; an understanding of the tools technology provides and their interaction with this infrastructure; and an understanding of the legal, social, economic and public policy issues that shape the development of the infrastructure and the applications and use of the technologies. Information literacy, on the other hand, deals with content and communication: it encompasses authoring, information finding and organization, the research process, and information analysis, assessment and evaluation. The content in question here can take many forms: text, images, video, computer simulations, multi-media interactive works.

2.2   Information Technology Literacy

There are two general perspectives on information technology literacy. The first emphasizes skills in the use of tools: word processing, spreadsheets, basic operation of computers (for example, managing computer files and launching programs); and now use of basic internet tools such as web browsers and electronic mail systems. Sometimes, this is also expanded to include a superficial knowledge of a programming language (Cornelius, N.E., 2004).

Cornelius, N.E., (2004) affirms the second perspective focuses on understanding how technologies, systems, and infrastructure work first at a more superficial descriptive level, and later, for those who are interested, at a much more detailed analytic or engineering level. While immediately applicable skill-oriented training is very useful for the short-term goal of gaining employment, it is extremely limited and I would argue that students graduating from the educational system with only these skills are poorly prepared for life in an information and information technology intensive culture - indeed they have in a real sense been cheated. While it certainly true that facility with current information technology tools is very useful and necessary, and also helps people to gain understanding and insight into the underlying principles, skills with tools date very quickly given today's

technology lifecycles. Forty years ago, teaching students how to type (that is, to operate a typewriter) would have served many people well for decades; today, while touch-typing is certainly still a very useful manual skill, knowledge of an early 1980s word processing system offers only a modest start at understanding current authoring technologies and how to use them (including issues such as layout, presentation, capture, editing and integration of graphical or video material, typography, etc.) In the area of skills, believe that the objectives need to include fluency with current tools, experience in the process of learning new tools, a grasp of the design principles and practices guiding the use of tools (including some introduction to aesthetic issues), and perhaps most importantly a level of confidence in learning and operating software. This includes some experience with trouble-shooting, problem solving and debugging at least of software tools; exposure to programming proper is also valuable in understanding the limitations and realities of computers.

As computer-based searching has become increasingly central to information finding and research, an understanding of how searching systems work, and of the interplay between indexing techniques, descriptive practices and organizational systems (cataloging, abstracting, indexing, rating), searching, and information accessibility, visibility and impact is becoming essential. One important point here is the limitations of both digital information resources (much material will not be available in digital form for the foreseeable future) and also of various searching techniques (Greer, C.R., 2005).

People also need an understanding of how information resources and how they are mapped into technological and economic structures, and how these resources interrelate. In essence, they need to form a conceptual map of information space. For example, they need to be guided in developing mental models of the relationships among documents on the Internet, proprietary databases, library collections and the like. As part of this map, they need to develop a sense of what information sources are likely to be most

appropriate for their various information needs. Greer, C.R., (2005) concluded that there are a range of issues related to information policies and practices that are an essential part of information literacy. These include: legal, social, economic, and ethical issues surrounding the ownership and use of intellectual property; privacy questions in the collection and use of information; information authenticity, provenance and integrity; records management, documentation and archiving issues in personal, business, government, and broader cultural contexts; and the management and construction of the social, cultural and intellectual record of discourse.

Information literacy refers to the skills and knowledge that enable people to 'recognize when information is needed and have the capacity to locate, evaluate, and use effectively the needed information' (Council for Australian University Librarians, 2002). Information literacy includes library research skills and information technology skills. The ultimate aim of information literacy is to develop lifelong learning and critical thinking.

Information technology literacy 'requires that persons understand information technology broadly enough to be able to apply it productively at work and in their everyday lives, to recognize when information technology would assist or impede the achievement of a goal, to see opportunities for the use of IT and to continually adapt to the changes and advancements in it.' (The First Step Forward, John Winship, IT Literacy Policy Project, Council for Australian University Librarians 2001.)

In the PPF context, much of our work is increasingly undertaken using technology as the access or support mechanism. This means that staff need IT skills to access and present information they have gathered and evaluated. The table below gives a further understanding of the concepts in Information Technology and how they differ.

Information and IT skills

Information Skills	IT Skills
1. Define the need for information 2. Search and locate resources 3. Assess and comprehend information 4. Interpret information 5. Evaluate and apply the information	1. Operate a computer 2. Use software 3. Create information products (documents, databases etc) 4. Apply information products (eg created useful spreadsheets) 5. Find assistance in increasing IT skills (use online manuals/tutorials, access training) 6. Apply new IT skills to new situations

Table 2.1: Concepts in Information Technology (IT)

Source: Council for Australian University Librarians, 2002

Information and IT literacy is increasingly important because of proliferating information access and more diverse and abundant choices of information available. In addition, information is required to flow electronically through an ever-widening number of organizations such as government, community groups, manufacturers and service providers, media, libraries, and the Internet.

2.3 The role of information communication technology

Haines, V. and Petit, A., (2002) affirm that today, not only do all major HR organizations have Web sites, but HR practitioners also can conduct research online, retrieve white papers and receive automated e-mails of topical interests. Technology applications have become more user friendly, resulting in a shift away from having IT professionals perform the work to end users who can query databases, run reports and analyze the data directly. One common use for HR technology is for staffing and recruitment. One of the most valued technological enhancements is the ability of the employee or manager to access data directly. Employee and manager self-

service applications provide levels of access to review and change predetermined information fields. The cost and initial programming of a full self-service application may be prohibitive for organizations with fewer than 1,000 employees. However, organizations may be able to implement smaller versions of self-service applications within the HR management system or with the assistance of a 3rd-party administrator software. Not all employees and managers will embrace the changes and accept the new technology. Change management for HR staff and employees is a requirement to gain acceptance of the new technology.

Hagood, W.O. and Friedman, L., (1999) state that the cost and initial programming of a full self-service application may be prohibitive for organizations with fewer than 1,000 employees. However, organizations may be able to implement smaller versions of self-service applications within the HRMS or with the assistance of a third-party administrator software. Many organizations find that self-service payback is approximately 24 to 28 months. The tangible and measurable Return On Investment (ROI) may be calculated with a formula adding the cost of the software, installation costs and employee training against the current level of transactional activity and the time and resources required.

What is more difficult to quantify is the level of improved service, improved data accuracy, benefits appreciation, employee/manager satisfaction and reduced cycle time. The staff time savings from self-service applications may result in a staff reduction through attrition or in freeing up internal FIR staff to perform other activities. Sears, Roebuck and Company introduced new HR technology and was able to reengineer processes resulting in a reduction of its human resources staff from 573 to 125 and a reduction of HR costs by nearly 75 percent. Consequently, HR was able to shift from a transaction based operation into a highly efficient and service-oriented HR division to support organizational goals.

2.4 The challenges facing the use of information and communication technology

While most aspects of technology are very positive, technology also has its share of drawbacks. Not all employees and managers will embrace the changes and accept the new technology. A perception may exist that HR is shirking its duties and passing the buck. Change management for HR staff and employees is a requirement to gain acceptance of the new technology. Employees and managers are able to view more information, such as salary data, that previously was considered confidential and protected by HR. This may create problems, especially if the compensation program is not sound and defendable (Larry M., 2000).

According to Liff, S.,(2001), privacy and access issues, particularly with global employers and the European community, need to be examined to determine who should have what level of access to view and make changes. It is important to ensure adequate protection from hackers and outsiders, including former employees. Additionally, employees may abuse the new technology with emailing company secrets to competitors, leaving passwords on sticky notes on the monitor, viewing pornographic Web sites, spending hours surfing the net, sending threatening emails originating from the "company.com" and viewing salary information from corporate recruiters online. It's a good idea to appoint a "data steward" to review data and provide guidance for IT staff programming access, provide Internet policy, determine privacy issues and insure data integrity.

Technology is changing the way HR professionals are conducting business and communicating with employees. The shift toward self service is freeing up HR staff time to provide the value-added services desired by employees and management. This shift comes at a price - not only the initial software purchase and installation, but also with a fundamental shift in the nature of interaction with employees and the level of service provided. Investment in technology may result in HR staff being less available to help employees with

day-to-day questions. Yet, employees are empowered with tools and information to handle changes (Ball, K., 2002).

Caldwell, R. and Champions Vashall, (2001) state that electronic surveillance of employees is increasing every year, according to the annual Electronic Monitoring and Surveillance Survey, done by the American Management Association (AMA) and The ePolicy Institute annually since 2001. The status of employee monitoring and some of the reasons why employers might want to monitor employee email and Internet use. The article also reviewed the consequences both employees and employers are experiencing in the workplace because of inappropriate use of electronic equipment, email, and the Internet. Not every workforce, workplace, or work culture and environment is a candidate for electronic surveillance of employees at work. In fact, in some work environments, depending upon the culture and environment desired, electronic surveillance of employees would injure trust, injure relationships, and send powerfully wrong messages to the workforce.

2.5 Other literature on the subject

Today's human resource management systems (HRMS) have reached generation two status. Generation two systems are more users friendly contain more information, take less time to train staff, shift the report writing capability to end users, accommodate global employees (including foreign currency, language and benefits programs) and allow self-service applications. Integration between HRMS and other company applications (data warehousing, payroll, general ledger, building security and training programs) is common (Cornelius, N.E., 2004).

Hagood, W.O. and Friedman, L., (1999) also state that one of the most valued technological enhancements is the ability of the employee or manager to access data directly. Employee and manager self-service applications provide levels of access to review and change predetermined information fields. Studies have shown that approximately 75 percent of HR information

is "employee owned," meaning that the employee has direct knowledge and control of a variety of information. While the employee controls most of the information, the Human Resource department is required to spend significant resources with transaction-based activities that are "thankless" in most organizations. Additionally, decisions are driven by the spouse, or have significant family or spousal input. The ability of the organization to place this information in the hands of the employee and family members provides additional recognition and appreciation of the benefits the programs offer, as well as improving data accuracy.

Haines, V. and Petit, A., (2002) assert that typical self-service implementations take approximately six to 12 months, based on the number of resources and the data's complexity. With larger projects, it's a good idea to assign staff, including a project manager, on a full-time basis and include representatives from compensation, benefits, HRIS, payroll, finance, information technology and legal departments as needed. Employee acceptance will vary significantly from organization to organization, based on culture and demographics. Younger employees, especially those identified under Generation X and Y, are considered the "sound byte generation." They have a comfort level with PCs and technology, prefer graphical presentation of information and expect information in sound bytes. Employee acceptance is improved if the information is easy to access, forms are "pre-populated" with employee information (security protected via a combination of password, log-in script, employee number and Social Security number), some level of training is provided and there are alternative methods of access. For example, in an environment in which few employees have desktop access, provide interactive voice response (IVR) access over the telephone, provide kiosk access in a private setting and allow remote dialup over a home computer.

Mabey et al (2003) state that employers need to consider the level of employee literacy and comfort with technology to avoid "technophobia." Employees should be able to print hard copies of material and ensure that

any changes to benefits programs are "error proof." in other words, benefits changes may only follow life event changes in accordance with plan documentation (and internal Revenue Service regulations) and employees are notified of exactly what the change means. Employees should be asked for a second positive election before the change is made. A confirmation statement is then issued to the employee as well.

Big bang implementations should be avoided in which everything is done at one time. Involve employees and management to get feedback about the most important items to automate. Implement sure win and highly visible applications first. The rollout with significant levels of communication and training are keys to a successful implementation. Employee survey polling, employee policy lookups, sign up for holiday parties, blood drives and United Way campaigns can increase the level of employee comfort before implementing a more complex program such as flexible benefits enrollment applications. While the amount of timesaving is more significant with programs that are more complex, acceptance and trust of the system also is important (Roberts, B., 1998).

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter put forward and described the research methods and reasons that will be used in the study. It entails research design, study area, target population, sample size, data collection methods, instruments, data processing and analysis and limitations of the study.

3.1 Research Design

A case study design was used since this study looks at an individual area. The study employed quantitative techniques to arrive at an understanding of the relationship between outsourcing and company performance. This was done by acquiring frequencies of respondents' feedback and calculating percentages. The results were then be used to draw up bar graphs and pie charts. This is because the bulk of the data that was collected was quantitative in nature and thereby required statistical interpretation. Qualitative analysis was later used to interpret the quantitative data in terms of the highest and lowest results.

3.2 Study Area

The study was carried out at Tanzania Ports Authority, located in Tanzania.

3.3 Target population

The target population of the study was chosen from all departments of the organisation. This was because of the nature of the study which requires a broad respondent base.

3.4 Sample size

The total sample comprised of a total of 60 respondents. This was selected in the following way:

Sample Technique	Department	Number of Respondents
Purposive	Administration	10
Simple Random	Finance, Marketing, Accounts	15
Simple Random	Human Resource	20
Simple Random	Support Staff	15
	TOTAL	60

Table 3.1: Sample Technique

3.5 Data collection Methods

Primary and Secondary Data Collection Methods

The study used both primary and secondary data collection methods for acquiring raw data. Secondary data collection was carried out by review of available literature, magazines, organization publications and mass media sources at the library, articles and internet. Primary data collection involved the questionnaires and interview guides as stated below;

Questionnaire

These are preformatted written set of questions to which the respondents record their answers. They were preferred because they give straight forward answers, easy to evaluate and they can be stored for future reference.

Interviews

In this technique the researcher carried out a face to face interaction with the respondent about various aspects of the research objectives. This method is preferred because it offers opportunity for the researcher to have direct conversation with the respondents and be able to ask probing questions relevant to the study.

3.6   Procedure

The researcher obtained a letter of introduction from the university and used this letter as proof that he is a student of Kampala International University. He showed it to the before administering the questionnaire or interview guide to the respondents. The researcher assured the respondents of utmost confidentiality and thanked the respondents after they have participated in answering the questionnaire or responding to interview questions.

3.7   Data processing and analysis

The data to be collected included both qualitative and quantitative which was analyzed and processed to make it useful and understandable. Data was collected, tabulated and then analyzed using percentages and frequencies.

CHAPTER FOUR

PRESENTATION, ANALYSIS AND DISCUSSION OF THE FINDINGS

4.0 Introduction

The data was collected using both quantitative and qualitative methods, which was then analyzed and processed to make it useful and understandable. Data was collected, tabulated and then analyzed.

4.1 Social Demographic Characteristics

4.1.1 Age of the respondents

Respondents were asked questions related to their age and the results are shown in the table below:

Table 4.1: Age distribution of respondent

Age group	Frequency	Percentage
Below 24	4	7
25 - 29	16	27
30 – 39	12	20
40 – 49	22	37
50 – above	6	10
TOTAL	**60**	**100**

Source: Primary data

Figure 4.1 Age distribution of respondent
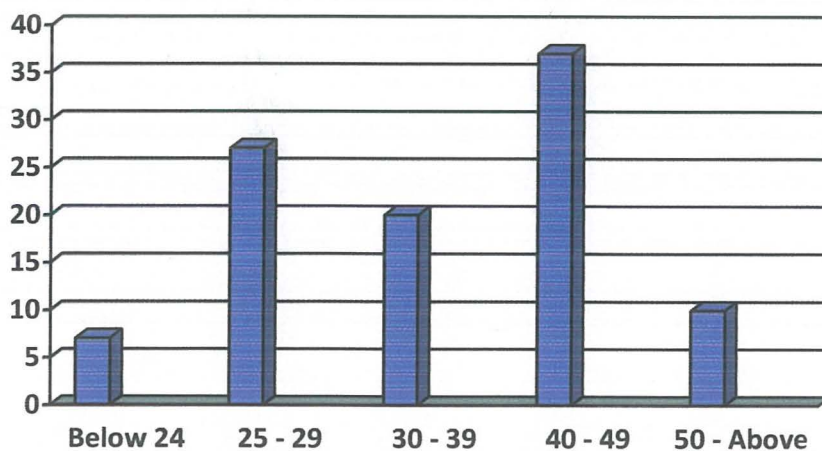
The table 4.1 and figure 4.1 above show that; 7% of the respondents were below 24 years, 27% were between 25-29 years of age, 20% were between 30-39 years of age, 37% were between 40-49 years and 10% were above 50 years of age.

4.1.2 Marital Status of the respondents

Another variable which was important in respect to the situation of the people in the area was marital status. Information regarding marital status of the respondents was obtained by asking them whether they were married, single, widowed or widowers.

Table 4.2: Marital status of the respondents

Marital Status	Frequency	Percentage
Married	30	50
Single	8	13
Widow	16	27
Widower	6	10
TOTAL	60	100

Source: primary data

Figure 4.2: Marital status of the respondents
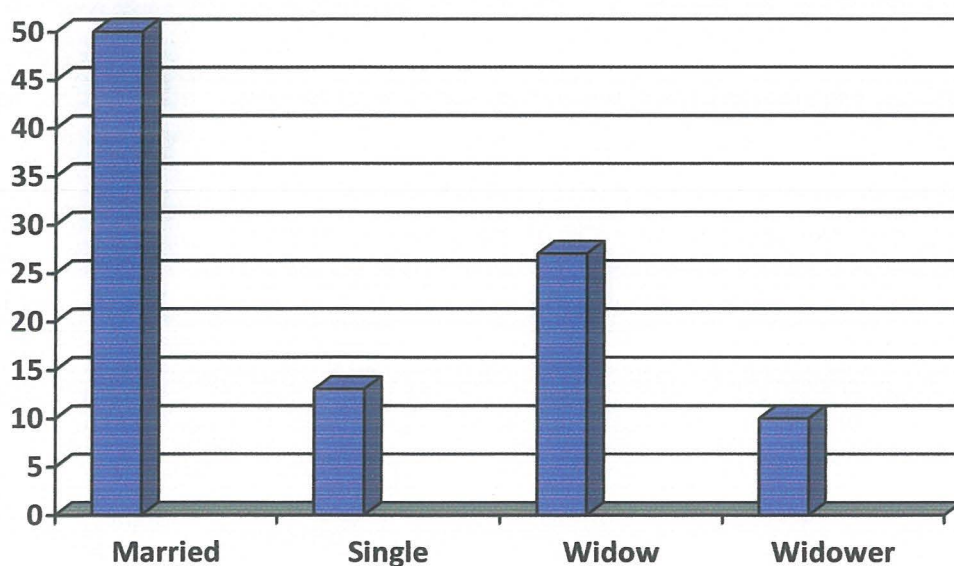
Table 4.2 and figure 4.2 above show that 50% of the respondents were married, 13% were single, 27% were widows and 10% were widower. And this shows that majority of the people are married.

4.1.3 Sex of the respondents

Sex was also another factor which was considered during the study. This is because the researcher was interested in finding out the number of females and males in the whole of the population, and compares the percentage composition of the two.

Table 4.3: Sex of the respondents

Sex	Frequency	Percentage
Female	20	40
Male	40	60
Total	60	100

Source: primary data

Figure 4.3: Sex of the respondents
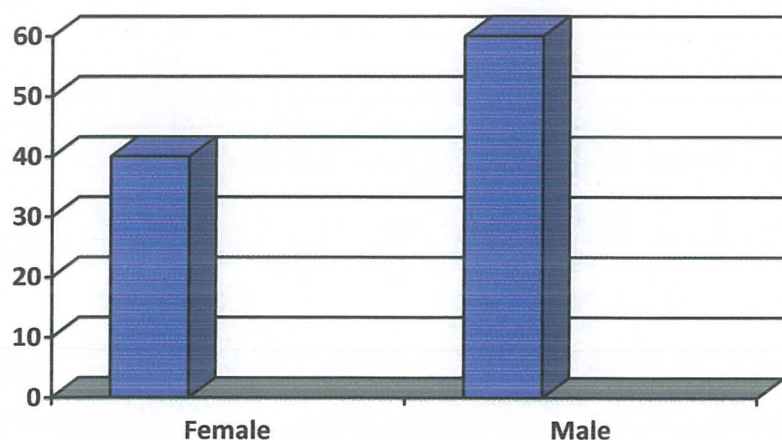
Table 4.3 and figure 4.3 above show the sex of the respondents and it was found that 40% of the respondents were females and 60% were males. And this shows that majority of the people are females which means that there are many females than men in the district

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4.1.4 Educational status of the respondents

Respondents were asked questions related to their educational status and their responses are shown in the table below;

Table 4.4: Education levels of the respondents

Education levels	Frequency	Percentage
Uneducated	4	7
Primary	14	27
Secondary	8	13
University	22	37
Tertiary	6	10
Others	4	7
Total	60	100

Source: primary data

Figure 4.4: Education levels of the respondents
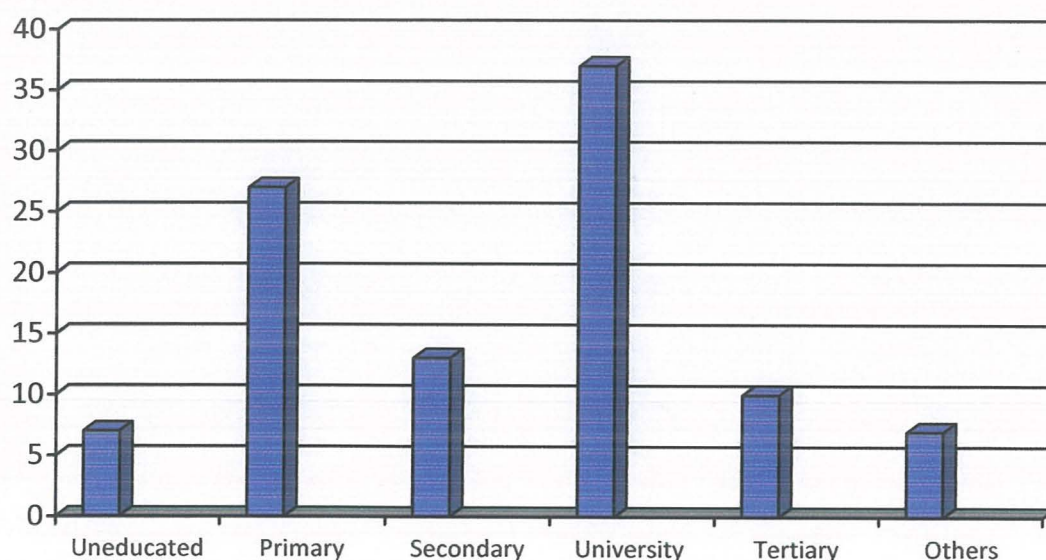
Table 4.4 and figure 4.4 above show education levels of the respondents and it revealed that 7% of the respondents were uneducated, 27% were of primary level, 13% had secondary education, 37% received university

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education, 10% had tertiary education and 7% fell under other levels of education. And this shows that majority of the people are uneducated in the district.

4.2: The extent of information technology illiteracy in the organization

Table 4.5: The extent of information technology illiteracy in the organization

Answer	Frequency	Percentage
Very high	17	28.3
High	15	25
Low	13	21.6
Very low	10	16.6
No answer	5	8.3
Total	60	100

Source: Primary data

Figure 4.5: The extent of information technology illiteracy in the organization
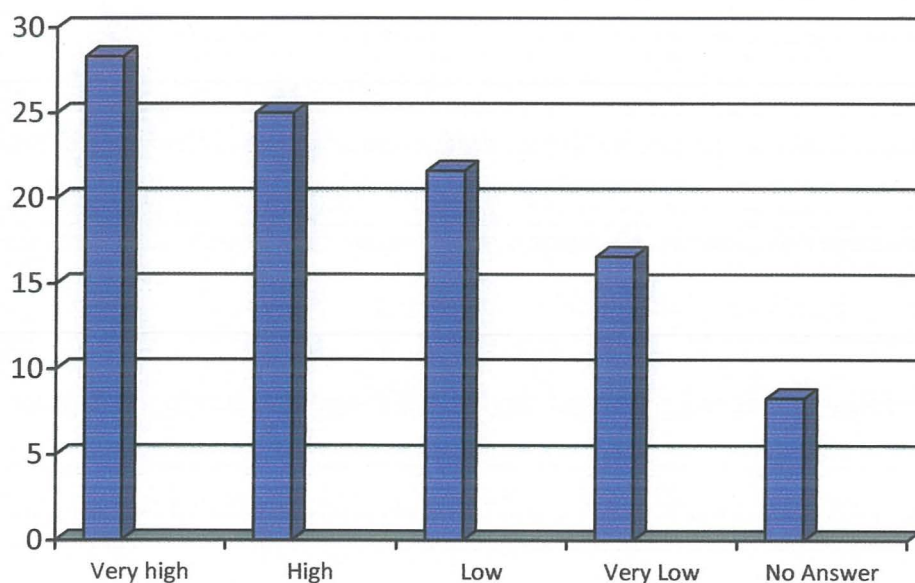
In the table and figure above, the respondents had different views/answers of on the question of the extent of information technology illiteracy in

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Tanzania Ports Authority. It was revealed that illiteracy level in the organization is at 28.3% with 17 people as the total number of respondents.

Over 15 people (25%) of the total percentage of the respondents noted that the I.T illiteracy levels in the organization are high but really very high as the 17 people (28.3%) of the respondents noted. They said that there are at least the workers of the organization are exposed to some software programs that they can use which is opposed to totally saying that the workers' I.T illiteracy levels are very high

The researcher also found out that 13 people (21.6%) of the total percentage of the respondents said that the I.T illiteracy levels in Tanzania Ports Authority are low. The respondents here stated that many of the workers in the organization have been exposed to computer technology and that they are able to use the latest software and this qualifies them to be literate than being illiterate in I.T.

Over 16.6% of the respondents noted that the I.T illiteracy levels of employees in Tanzania Ports Authority are very low. In this, they emphasized that as long s one can open and close a computer, she of she becomes literate other than being illiterate. They argued that workers' illiteracy levels of the employees are very low.

Over 8.3% (five people) did not answer the questions asked by the researcher. These respondents did not return the questionnaires which were supplied to them by the researcher and the two of them said that the questionnaires got lost and three of them said that they did not get time to answer the questionnaires and that they could not return empty questionnaires.

In general analysis therefore, the researcher found out that the illiteracy levels of the employees in Tanzania Ports Authority are very high given the number of respondents who noted that employees' I.T illiteracy levels are

very high. This means that many of the employees are not exposed to I.T training by their employers who in other words are supposed to have the employees routinely trained so as to be advanced with the latest levels of technology.

4.3 How Information Technology illiteracy affect work performance of employees

Table 4.6: How information technology illiteracy affect work performance of employees

Answer	Frequency	Percentage
Decreased productivity	18	30
Increased employee turnover	12	20
Decreased efficiency	8	13.3
Increased supervision	22	36.6
No answer	0	0
Total	60	100

Source: Primary Data

Figure 4.6: How information technology illiteracy affect work performance of employees
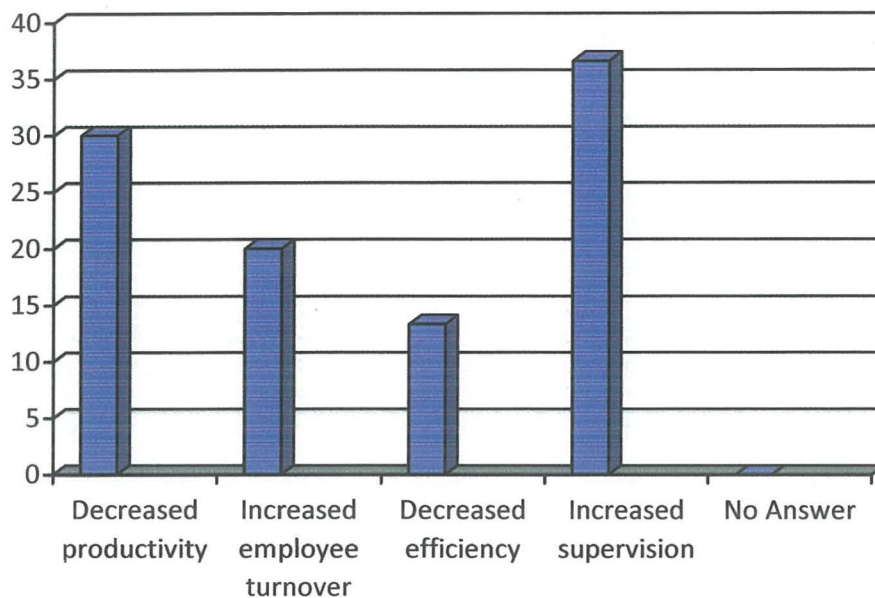
4.2.1 Increased productivity

The respondents noted that decreased productivity is one of the effects of Information Technology illiteracy on employees' work performance in Tanzania Port Authority with over 30% of the respondents. The respondents here noted that there has been decrease in the productivity of the workers and this has been attributed to the employees' I.T illiteracy levels. There has been decreased employee productivity because of employee I.T illiteracy levels yet this is an information age where a company's' workers need to be informed about Information Technology.

4.2.2 Increased employee turnover

The respondents also noted that effects of Information Technology illiteracy on employees' work performance in Tanzania Port Authority reduces employee turnover of the company. Over 20% of the respondents noted that employees' I.T illiteracy levels increases risks and loses which are caused by the workers mainly due to lack of knowledge and skill to perform particular tasks which would need Information Technology skills. The respondents said

that the Tanzania Port Authority company has for long increased the risks imposed by lack of I.T skills in performance of a given task.

4.2.3 Decreased efficiency

Decreased efficiency has also been noted as one of the effects of Information Technology illiteracy on employees' work performance in Tanzania Port Authority with over 13.3% of the respondents. It was noted by the respondents that competence has not been achieved by the company for a long period of time because of employee I.T illiteracy levels. Information Technology skills increases competence/effectiveness on the workers in the way that the workers tend to perform better than they performed before when they lacked Information Technology skills.

4.2.4 Increased need for supervision

The respondents also noted that there is increased supervision as a result of employees' illiteracy levels in Tanzania Port Authority. Over 36.6% of the respondents noted that when the works are illiterate in Information Technology, there is increased supervision of the workers because workers do not know what to do since they are meant to use the technology that they are not familiar with. The primary reason of supervision of workers is to ensure that the right thing is done and this means that when the workers are illiterate in I.T, there will be an increase in the supervision of the workers because they do not know what to do.

In an analysis therefore, the findings reveal that all respondents the respondents gave answers to this research question and it seemed to the researcher as the respondents had interest on the research question and that the respondents were knowledgeable about the question.

4.4 How management can solve the I.T illiteracy levels at the organization

Table 4.7: How management can solve the I.T illiteracy levels at the organization

Answer	Frequency	Percentage
Training of employees	20	33.3
Recruit only workers with I.T knowledge	14	23.3
Hiring of workers	10	16.6
Provide free computers to employees	16	26.6
No answer	0	0
Total	60	100

Source: Primary data

Figure 4.7: How management can solve the I.T illiteracy levels at the organization

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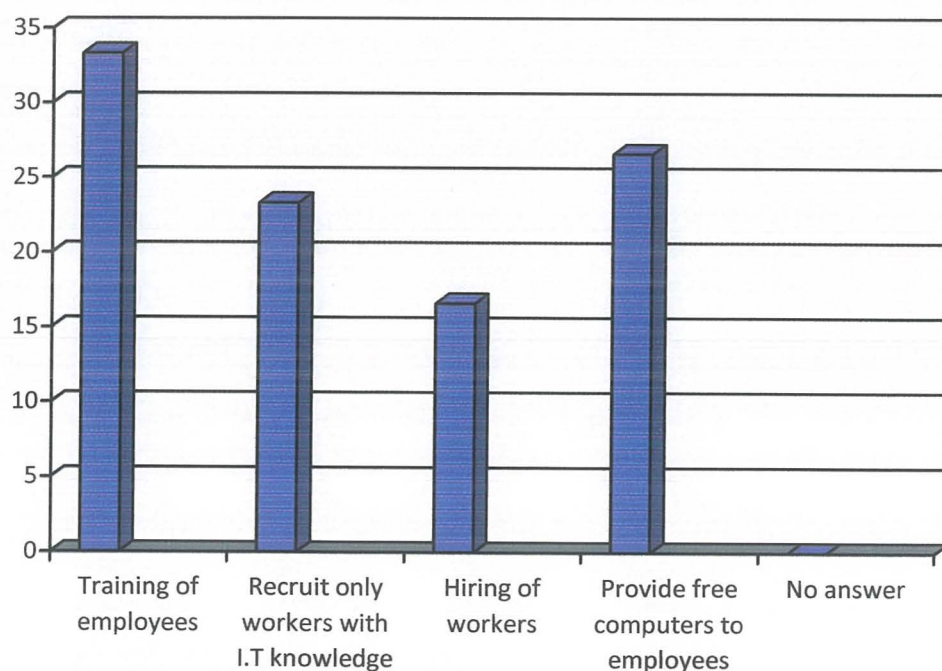
4.4 Training of employees

Over 33.3% of the total percentage of the respondents noted that training is one of the ways in which management can solve I.T illiteracy levels at Tanzania Port Authority. Training has been defined as the systematic development of knowledge, skills and attitudes required by an individual to perform a given task. According to floppy (2000), he defines training as the act of increasing the skills of an employees for doing a particular job. The respondents here noted that workers need to be trained by the company since these are some of the incentives that the workers gain from the companies. The respondents noted that the company need to carryout trainings like on-the-job training, off-the-job training, orientation, lectures, role playing and simulation, audiovisual method, job rotation and programmed learning types of training so as to equip the workers of Tanzania Port Authority with Information Technology Knowledge.

4.4.2 Recruit only workers with I.T knowledge

The respondents also noted that recruitment of only workers with Information Technology skills is another way how management can solve I.T illiteracy levels at Tanzania Port Authority Company. Over 23.3% of the respondents noted that the company needs to only recruit those workers who have I.T skills since this is an information age where workers need to know the demands in the market and therefore learn what is necessary in the job market so that they can sell their labor effectively. The respondents here revealed that the company's motive is to maximize profits and this is the prime reason to the company's existence. So that company need not to inject more cash in training workers yet there are workers who are already trained in I.T and they do poses the knowledge

.

4.4.3 Hiring of workers

Over The respondent 16.6% of the respondents hasted not to say that Tanzania Port Authority need to hire the workers from different companies if need be. The respondents here argued that workers need to be hired by the company so as to cut off the cost of administration in the company. They

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asserted that management needs not to spend on training labor which is never permanent but rather ever mobile due to their increase in number. The respondents stressed that it is better for the management to only hire professionals who can give relevant knowledge to the organization when needed than training workers who may be expensive in their maintenance.

4.4.4 Provide free computers to employees

Over 26.6% of the respondents said that provision o free computers to the workers is another way in which management of Tanzania Port Authority can solve employee I.T illiteracy levels in among their workers. The respondents here noted that workers need to be provided with free computers so that they can be exposed to I.T knowledge and training since one of the causes of illiteracy among the employees of different organizations. The respondents here stated that once computers are provided to the employees, there will be exposure to computer services which will lead to learning of computers and hence increased knowledge of Information Technology.

In an analysis, all the respondents got involved in the answering of this research question and all the respondents at least had a say in the questions. Not even a single respondent lacked an answer to the research question.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter was concerned with the summary of the study, conclusions and recommendations.

5.1 Summary

The research topic was on effect of I.T illiteracy on employee performance in Tanzania Port Authority. The total percentage of the respondents was 60 in which there were; 10 administrators, 15 finance, marketing accountants, 20 human resource managers, and 15 support officials. The findings were guided by research question of the study.

The first research question sought to find out the the extent of information technology illiteracy in the organization and the study findings revealed that; Very high, high, low, and very low were the answers given by the respondents.

The second research question sought to find out how information technology illiteracy affect work performance of employees in Tanzania Port Authority and the findings revealed that; Decreased productivity, increased employee turnover, decreased efficiency, and increased supervision were the answers give by the respondents.

The third research question sought to find out how management of Tanzania Port Authority can solve the illiteracy levels at the organization and the study findings revealed that; Training of employees, recruitment of only

workers with I.T knowledge, hiring of workers, and provision of free computers to employees were the answers given by the respondents.

The conclusions were then made after interpreting analyzing data

5.2 Conclusion

The research conclusions were made after collection, tabulation, analysis and interpretation of data by the researcher. The researcher therefore concludes that;

Information Technology illiteracy levels in Tanzania Port Authority is still high and this has been mainly attributed to lack of exposure to computers, and lack of employee training by the company. The researcher found that many of the employees are not informed about Information Technology skills and that they do not portray signs knowledge in Information Technology.

The researcher further conclusions that there are remarkable effects of employee Information Technology illiteracy on the performance of workers in Tanzania Port Authority. These effects are witnessed in the performance of the organization itself likedDecreased productivity, increased employee turnover, decreased efficiency, and increased supervision reduced and these affect the organization negatively.

The researcher also concludes that serious remedies need to be put forward by the management of the organization in order to see to it that the organization survives in this information age.

5.3 Recommendations

The researcher came up with several recommendations in an attempt to address the effects of employee Information Technology illiteracy in Tanzania Port Authority. The following recommendations were the advanced by the researcher;

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Learn about the needs and proficiency of each and every employee before an organization invests its effort, time & money on training. It is better to identify the needs & shortcomings in an employee before actually imparting training to him/her.

Experienced & skilled trainer, who possesses good amount of knowledge & understanding about the organization's objectives, individual abilities & the present environment, should give training to the workers so as to give adequate and relevant knowledge and will reduce the cost of training of the side of the company.

Feedback should be taken from the trainees after the training is over, so that the organization comes to know about the deficiencies in the training program & also suggestions to improve upon the same.

Focus of training should be on priority development needs and to produce strong skill of Information Technology to bring change in employees but not have trainings because the workers have taken long without being trained.

The cost incurred on the training program should not exceed its benefits because companies aim at making profits than loses, hence great care needs to be done by Tanzania Port Authority Company.

The government should put more emphasis on the education system whereby students while at school need to be trained in the fields which are very vital in the country so that the employers do not face more problems in training the employees because of inadequate training during school time.

5.4 Areas for further research

Given the observed gaps during the study, the researcher came up with some suggestions in the areas for further so that the gaps need to be covered. The researcher asserts that more researches need to be done on the available Information Technology Programs in organization and their impact of the performance of the employees in such organizations.

More research also ought to be done on the current management effort to solve employee Information Technology illiteracy.

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APPENDIX A: RESEARCH TIME SCHEDULE

Activity	Duration(months)											
	Nov 2008				May 2009				Aug 2009			
Orientation/ Familiarization	██											
Research design		██										
Data Collection			██	██	██	██	██	██	██	██	██	
Data analysis and interpretation									██	██	██	
Report writing and submission											██	██

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APPENDIX B: BUDGET OF STUDY

The study will be guided by the following budget.

	ITEM	COST (Tshs)
Proposal	Literature review collection	80,000
	Typing and printing	30,000
Dissertation	Typing and printing	60,000
	Data collection	140,000
	Transport	280,000
	Miscellaneous	100,000
TOTAL		690,000

QUESTIONAIRE

Dear Sir/ Madam,

I humbly ask you to participate in this research on **EFFECTS OF IT ILLITERACY ON EMPLOYEE PERFORMANCE.** Your responses will be treated with utmost confidentiality.

Instructions: TICK the appropriate answer and **FILL-IN** the blanks where necessary.

BACKGROUND INFORMATION

1. Sex:
   - ☐ Male
   - ☐ Female

2. Age:
   - ☐ 21-24
   - ☐ 25-30
   - ☐ 31-34
   - ☐ 35-40
   - ☐ 41 and above

3. Department
   - ☐ Administration
   - ☐ Supplies and Procurement
   - ☐ Finance
   - Marketing

4. Academic qualification attained
   - ☐ Bachelor's Degree
   - ☐ Masters
   - ☐

PhD

Others...

SECTION A:

WHAT IS THE EXTENT OF INFORMATION TECHNOLOGY ILLITERACY IN THE ORGANISATION?

1) **Do you understand the term IT illiteracy?**

    a)   Yes ☐

    b)   No ☐

If yes, which of the following terms best describes IT ILLITERACY?

a)   No having computer training ☐

b)   Not being able to use the computer

c)   Not being able to use computer software ☐

d)   None of the above

e)   All of the above ☐

2) **Do you have any computer skills?**

    a)   Yes ☐

    b)   No ☐

If yes, which skills do you have?

a)   Word processing   ☐

b)   Spreadsheets   ☐

c)   Database   ☐

d)   Presentation software   ☐

e)   Internet   ☐

f)   Basic use of Computers   ☐

g)   None of the above   ☐

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3) How well can you use the above software?

	Not Able	Poor	Fair	Good	Very Good
a) Word processing					
b) Spreadsheets					
c) Database					
d) Presentation software					
e) Internet					
f) Basic use of Computers					
g) None of the above					

4) How well can your colleagues use computers?

a) Fair ☐

b) Good ☐

c) Very Good ☐

5) How do you rate the organization's capacity to use Information Technology?

a) Poor ☐

b) Fair ☐

c) Good ☐

d) Very Good ☐

SECTION B:

HOW DOES INFORMATION TECHNOLOGY ILLITERACY AFFECT WORK PERFORMANCE OF EMPLOYEES?

1) **What type of work do you do?**

....

....

....

....

2) **Does the work you do require computer use?**

a) Yes ☐

b) No ☐

3) **Do you know how to use the software/computers to do your work?**

a) Yes ☐

b) No ☐

4) **If no, do you rely on other people to do your work?**

a) Yes ☐

b) No ☐

If yes, do you experience any challenges with the software/computers in your work?

a) Yes ☐

b) No ☐

5) **Do you think you need to improve your computer and Information Technology skills?**

a) Yes ☐

b) No ☐

If yes, in which areas do you need to improve your computer and information technology skills?

....

....

6) **In which way do you think your work is limited by not having complete Information Technology knowledge/skills?**

   a) Takes longer to do tasks
   b) Make more errors
   c) Can not do many tasks concurrently
   d) Have to wait for colleague for assistance
   e) When computer has problem have to wait for IT dept staff

7) **Which of the following are you able to perform?**

    a)   Operate a computer   ☐

    b)   Create word documents   ☐

    c)   Create spreadsheets   ☐

    d)   Search and look for information on computer   ☐

    e)   Use the internet   ☐

    f)   Advanced use of the computer   ☐

SECTION C:

HOW CAN MANAGEMENT SOLVE THE ILLITERACY LEVELS AT THE ORGANISATION?

1) Do you think the organization has an IT illiteracy problem?

    a)   Yes ☐

    b)   No   ☐

2) In your opinion, what can management do to solve the challenge of IT illiteracy?

    a)   Retraining of workforce   ☐

    b)   Sensitize the workforce on benefits of IT   ☐

    c)   Seminars and workshops   ☐

    d)   Other

3) Do you think employees have a role to play in solving the problem of IT illiteracy at the organization?

    a)   Yes ☐

    b)   No   ☐

If yes, what do you think employees at the organization should do?

....

....

....

....

If no, give reasons for your answer.

....
....
....
....
....

THANK YOU

FOR YOUR PARTICIPATION IN THIS STUDY.

APPENDIX D: MAP OF TANZANIA
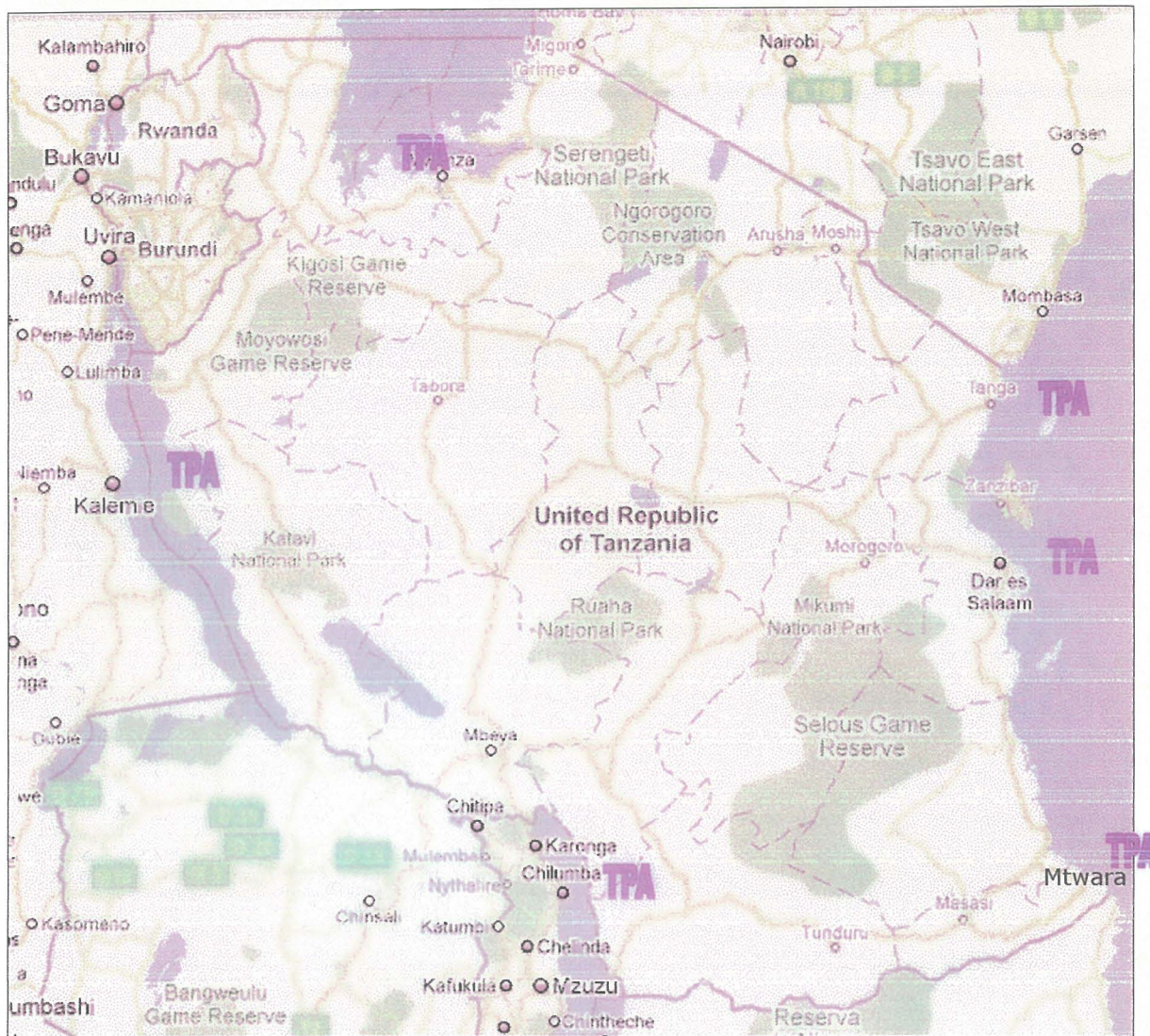
KEY

TPA   Tanzania Port Authority

OFFICE OF THE DEAN
SCHOOL OF BUSINESS AND MANAGEMENT

Date: 8th June, 2009

Our Ref: KIU/SBM/RL/002-06/09

THE HUMAN RESOURCE MANAGER,
TANZANIA PORTS AUTHORITY,
TANZANIA.

Dear Sir/Madam,

RE: BHOLEN MSANGI REG.NO. BHR/11673/61/DF.

The above mentioned is a bonafide student of Kampala International University pursuing a Bachelor of Human Resource Management in the School of Business and Management of the University.

He is currently conducting field research and the title of the Research project is "EFFECTS OF IT ILLITERACY ON EMPLOYEES PERFORMANCE" A CASE STUDY OF TANZANIA PORTS AUTHORITY. As part of his studies (research work) he has to collect relevant information through questionnaires, interviews and other relevant reading materials.

The purpose of this letter is to please request you to avail him with the necessary information he may need.

All and any information shared with him will be used for academic purposes only and we promise to share our findings with your institution.

Any assistance rendered to him in this regard will be highly appreciated.

Yours Sincerely,

DR. ALFRED NUWAGABA
DEAN SCHOOL OF BUSINESS AND MANAGEMENT