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AN ASSESSMENT OF THE EFFECTIVENESS OF ELECTRONIC TAX MANAGEMENT SYSTEMS IN MALAWI; CASE STUDY OF THE AUTOMATED SYSTEMS FOR CUSTOMS DATA WORLD SYSTEM (ASYCUDA WORLD)

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Abstract: This study assessed the effectiveness of electronic tax management systems in Malawi taking a case study of AYSYCUDA World system inspired by the fact that there was a little local research in this area hence the remained unknown of the effectiveness of these introduced systems. The study looked at the user satisfaction of the electronic tax management systems, the cost effectiveness of electronic tax management systems and the time effectiveness of the electronic tax management systems. Problems affecting the performance of these systems were also analyzed and possible solutions provided. The study adopted a case study and cross-sectional survey design to obtain information on electronic tax management system effectiveness taking into account of ASYCUDA World users. A sample of 79 respondents were selected using a simple random selection. Data was collected by using questionnaires (with a 96% response rate) and documentary review. Quantitative data were analyzed by using Statistical Package for Social Science (SPSS) and Microsoft Excel while qualitative required the use of Microsoft Word. Findings revealed that the users are satisfied with the systems although there are some structures that are hindering the user satisfaction hence affecting the effectiveness of the electronic tax management systems. It also revealed that the ASYCUDA World is not cost effective although the cost benefit analysis indicated that the benefits that are being realized by the user are outweighing the costs. The ASYCUDA World has also led to the reduction in the time taken to clear goods due to easiness of payments. However, the study revealed some of the challenges affecting the effectiveness of electronic tax management systems including the ASYCUDA World. These problems were: lack of user awareness campaigns, power outages, poor ICT infrastructures and poor network connectivity. The study recommended that the user awareness campaigns be provided, MRA should improve on solving the system query once received from the users, and MRA improve on the accessibility and availability of electronic tax management systems that is through different electronic gadgets like phones and tablets.

INTRODUCTION TO THE STUDY

The developing countries like Malawi are facing a lot of challenges in tax collection and management (Awasthi and Engels chalk, 2018). This affects the delivery of the public goods and services by collecting the taxes below the budget in different fiscal years. As a solution to tackle this challenge, the Malawi Government through the Malawi Revenue Authority (MRA) embarked on having the major tax reforms. These reforms involved both the taxation systems and the tax administration reforms. For example, the administration reforms involved include the implementation of the electronic systems of tax management such as the Electronic Fiscal Devices project, the launching of electronic payment systems in 2016, the

upgrade of the Automated System for Customs Data ++ to Automated Systems for Customs Data World (ASYCUDA World) and the newly introduced Msonkho Online System.

Lemgruber et al (2015) argued that the sound taxation systems should identify the surpluses in the economy and should tax in a fashion as to cause minimal damage to productivity. The tax collection should act as a catalyst for economic growth. In addition to that, while designing the tax collection systems, they should be made in a manner such that they should supply adequate revenue in an effective and efficiency manner, achieve practical and workable tax systems, achieve economic stability and reduce the economic inequality. As such, the implemented systems are supposed to be assessed over time to determine their efficiency and effectiveness.

This paper begins with the background information which provides the general overview of the Malawi Revenue Authority (MRA) history and its tax collection systems and their efficiency and effectiveness. Chapter two presents literature review, chapter three the methodology of the study, chapter four study findings, chapter five interpretation of result, and concludes with recommendations in chapter six.

1. BACKGROUND TO THE STUDY

The MRA is a government agency that was established in 1998 by the section 3 of the Malawi Revenue Authority Act. It started its operations in the year 2000 in place of the Division of Customs and Excise and Income tax in the Ministry of Finance. The Authority has two revenue Divisions the Customs Division and Domestic tax Division (MRA, 2017). The Customs Division is responsible for administration and enforcement of customs and excise Act and for the collection of Imports Duties, Export Duties, Import Excise, Import Value Added Tax (VAT) and trade statistics. The Domestic Tax Division administer and enforce the Taxation and VAT Act and for the collection of direct income taxes from individuals and corporations in the form of Pay as You Earn (PAYE), Provisional Taxes, Fringe Benefits Taxes and Withholding Taxes and for the collection of domestic VAT and domestic Excise.

As a response to increased population and the increased business activities, the expansion of the tax base has been an important policy goal. The MRA has more than 30 stations spread across the country to help with its mission of maximization of revenue and to promote voluntary compliance. These include the Lilongwe Inland Port, Blantyre Inland port, Mzuzu Inland Port, Kamuzu International Airport, Chileka Airport, Dedza Border and Songwe Border post among others. According to the article by the MRA (2017) and the Malawi Revenue Authority working paper by Chafuwa *et. al* (2017) the Authority has conducted different reforms to implement the electronic systems in place of manual paper systems to help the Authority in maximizing the revenue collection and compliance by the taxpayers. These reforms include the implementation of electronic payments, implementation of Electronic Fiscal Devices Project, the roll out of cargo scanning and tracking at the major boarders, the ongoing implementation of Msonkho online service and the roll out of ASYCUDA World which is the focus point in this paper. The ASYCUDA World system aimed at improving the efficiency and effectiveness of management of the customs in the borders of Malawi in order to improve the tax collection. With the adoption

2. RESEARCH METHODOLOGY

Chapter Overview

This chapter describe the research design and methods employed in this study. The first part describes the main aim and the supporting objective that are the frame for the data collection process. The next section is the area and the population of the study explaining the main respondents in this study. This is followed by the data collection strategies and the research design used in conducting this study. The subsequent sections are the data analysis procedure, ethical considerations and the summary in general.

2.1 Research Design and Methods

Bryman *et al.* (2018) recognizes five major types of research designs which are experimental, cross-sectional also known as survey, longitudinal, case study and comparative research designs. This study adopted a case study and cross-sectional survey design to obtain information on electronic tax management system effectiveness taking into account of ASYCUDA World users. The qualitative data was used to a large extent with a little of quantitative data. On the other hand, the quantitative study involved the collection of data using system user statistics. Data were collected from primary sources through the use of a well-structured questionnaire distributed to the target respondents randomly. The questionnaire was

designed to apply to a heterogeneous population, where the respondents come from the general open public, with no bias to gender, education and background. The methods and techniques adopted are described below.

2.2 Area and the Population of the Study
This study focused on the users of ASYCUDA world system used by the MRA in the Customs and Excise Division. The whole data collection process was conducted around Lilongwe city as the respondents are reachable at minimum costs being the area where the researcher resides. The population involved include the Clearing Agents, the Bonded warehouse owners, Selected Commercial banks and Importers and Exporters and the MRA Customs Officers.

2.3 Sampling
According to Bryman *et al.* (2018) sampling is an element of data collection and is defined as the fragment or section of the population that is selected for the research process. The sampling technique used for the selection from the study population was the simple random sampling. The basic idea of sampling the population was that the sample draw the conclusions and generalization about the entire population. The research attempt to assess the effectiveness of electronic tax management systems. As such the sampled population include the users of the electronic systems of managing the revenues by the MRA especially the ASYCUDA World system. These involved the clearing agents, MRA officers, and importers. The recommended sample size is 30 items when the statistical analyses are adopted (Bluman, 2012). This study adopted a sample of 43 respondents.

2.4 Methods of Data Collection
This research adopted a case study approach to collect data from the involved participants following a survey strategy. It involved both primary and secondary data. The researcher collected primary data from respondents by the use of self-administered questionnaires to those with a capability to interpret the questionnaire and interviews to other respondents. Secondary data involves the data previously collected by someone else prior to this research project. This source of data was taken from related literature like recognized journals and the published MRA reports also available on the MRA website.

2.5 Tools for Data Collection
This research adopted questionnaire in the collection of data to assess the effectiveness of electronic tax management systems used by the MRA. It therefore involved two types of questionnaires namely the self-administered and interview administered. The self-administered questionnaire was to be completed by the respondent without intervention or guidance of the researcher while the interview- administered, the responses were to be recorded by the researcher. The questionnaire consisted of both open ended and close ended questions, and it was divided into different sections whereby the first section consists of the respondent's background information and the other section consists of questions structured to obtain the information on the perception of respondents on the effectiveness of electronic tax management systems.

2.6 Tools for Data Analysis
The large part of this analysis was based on inferential and descriptive statistics and these included frequencies, percentages, whereby Statistical Package for Social Sciences (SPSS) and Excel was used to analyze descriptive statistics. This was used to come up with the estimates of frequencies, percentages, and means.

3 Theoretical Literature Review

3.1 Information System Efficiency and Effectiveness
Effectiveness of a system can be measure using the two views; system-resource view and goal-centered view (Eydi, 2015; Eydi, 2015). The system-resource measures the success of a system in terms of viability of the resources. For example, the assessment of the quality of the system is a system resource view. On the other hand, the goal-centered view evaluates the effectiveness by looking at the achievement of the objectives of the system.

The information system effectiveness can be measured using the economic, financial and non-financial indicators (ACCA, 2017). The economic measures include the measure of impacts on the economic performance of an organization and the cost and benefit analysis or the measure of economic benefits of the information system or the technology. The financial measure includes the return on investment as a result of investing in a technology or an information system by an

organization. On the other hand, the non-financial measures of effectiveness of an electronic system include the system usage measures which can also be called the user perceived effectiveness. Such measures include the relevance of an electronic system which can be assessed by looking at the timeliness of the system, understandability of the system which may include the flexibility of the language used during the modeling of the whole system, and the accuracy which may be measured by the quality of the system (Eydi, 2015). All these described measures relate to different theories that relate to different technologies and systems as described by different authors. Some of these theories include the Technology Acceptance Model (TAM), DeLone and McLean Information Success Model and Task Technology Fit (TTF). These have been used by different researchers when assessing the efficiency and effectiveness of different technologies. In this paper, they are described below as regard to the effectiveness of the electronic tax management system in Malawi.

3.2 The Technology Acceptance Model (TAM)

In the opinion of Marangunic and Granic (2015), the constant improvement and progress in technology, especially ICT related applications, makes the choice to decide on matters of acceptance and rejection a dilemma. This research utilized the technology acceptance model for revenue administration system since it is an information system theory that models how the users accept and use the electronic system. The theory was advanced by Venkatesh and Davis (1989) and provides an explanation on what determines the usage of technology adopted by an organization. It describes that the user behavior to use the technology is determined by two believes that is the perceived usefulness and the perceived ease of use (Taherdoost, 2018). The perceived usefulness is explained as the way people tend to use or reject the technology to the extent that in their opinion, they think will accelerate the performance of their work (Hussain, 2017). As such it can be noted that the perceived usefulness influences the user attitude towards the acceptance of the technology directly while indirectly affecting the behavior to use it. On the other hand, the perceived ease of use is simply defined as the belief that the usage of a technology will be free from much effort (Taherdoost, 2018). Even if the technology is much useful to the population, it will only be accepted if the costs and efforts of usage are outweighed by the benefits that the users get in using the system or the technology. Thus, it can be explained that the easiness of a technology will be a dependent variable to the usefulness of an electronic system taking other variables to be constants.

These two variables, the perceived usefulness and the perceived ease of use can be affected by variables such as the accuracy, completeness of the system, reliability, flexibility, accessibility, timeliness, cost effectiveness and all these affect the system and information satisfaction which will lead to the usage of the system. This is shown in the diagrammatic presentation in the figure 2.1 below. This theory can thus be used in this study as it relates to the system usage behaviors and believes variables which are the indicators to the efficiency and the effectiveness of the system.

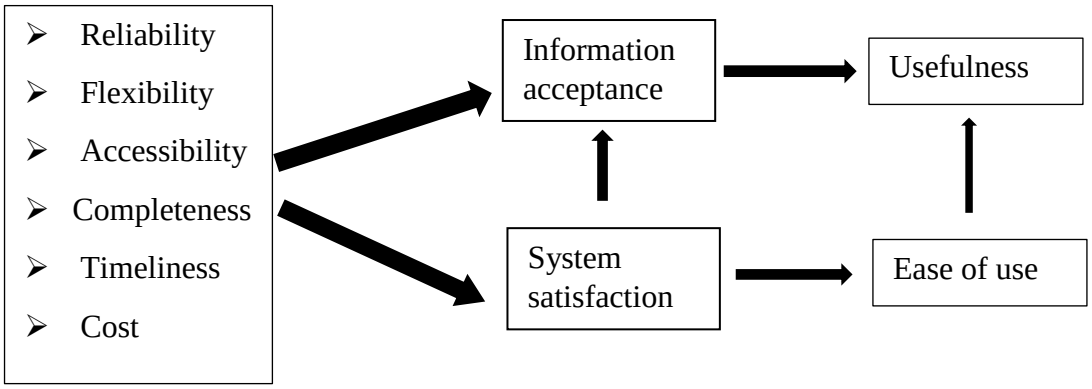

Figure 2.1: Technology Acceptance Model

Source: based on the work by Davis et al (1989)

3.3 DeLone and McLean Information System Success Model

To evaluate the effectiveness of an information system or a technology, there is a need to identify and understand the factors that can be used as the indicators to measure the technology (Smith, 2017). In this model developed by DeLone and McLean, the indicators to measure the success and effectiveness of a technology were identified as the system quality, information quality, user satisfaction, the individual impact and the organization impacts (DeLone and McLean, 2016).

The system quality was defined by Smith (2016) as the ability to produce the necessary information which can be measured through the ease of use, reliability, flexibility, portability, data processing and the compliance to the system. On the other hand, the information quality is all about the output quality of the information processed. This can be characterized by the accuracy, accessibility, completeness, timeliness, the system intelligence, and the information system consistency. The user satisfaction measures the usage of the system and how the individuals using the system are satisfied with the system. Lastly the individual and organization impact measures in general, the effectiveness of the information system as regards to the individuals and organizations using the system or the technology. These include the general reduction of costs, increased revenue, and expanded revenue area and time savings as a result of using the system.

3.4 The Task Technology Fit (TTF)

This theory emphasizes on the individual impacts towards the technology or an information system. It refers to the degree at which a certain information system or a technology supports the task at hand (Chung Woo, 2019). The individual impact in this regard refers to the improved efficiency, effectiveness and quality. As long as the technology fits the user's tasks and workflow, the user will accept and use the technology during the performance of his or her tasks. On the other hand, if the technology interrupts the user's workflow and tasks, the user will not use the technology at all. The good fit between the task and technology is to increase the likelihood of utilization and also to increase the performance impacts since the technology meets the task needs and wants of users more closely. The user perception approach of measuring the technology success can be a good measure of effectiveness of an electronic tax management system in this regard (Rabes, 2017). This will measure the degree at which an organization electronic system meets the information needs of users. These measures include the accessibility, compatibility of the system and data accuracy. Different dimensions can be used to measure the fit of a technology which includes the task march, ease of use and ease of learning. The task march is defined as the ability of a system functionality to serve the intended user tasks. On the other hand, the ease of use refers to the levels of believe that the users view that the system will be free of effort to be used. The ease of learning is the adequacy of the user of the user support methods provided for ease learning of the system (Chung Woo, 2019).

3.5 Conceptual Literature Review

Kapera (2017) conducted research to evaluate the effectiveness of the Electronic Fiscal Devices (EFD's) on the tax collection process following a case study approach by targeting the city of Arusha, Tanzania. The study used both descriptive and explanatory research design whereby data was collected using the questionnaires and interviews targeting the registered Value-Added Taxpayers and the Tanzanian Revenue Authority staffs. It was found that the introduction of EFD's has a negative impact on the revenue collection. Before the EFD project, the VAT collection was increasing while after the project revenue collected started to fall.

Maisaba and Atambo (2016) conducted a research to evaluate the effect of electronic tax management system on the revenue collection efficiency of the Kenya Revenue Authority. They followed a case study design whereby the Uasin Gishu country was the target area of study. According to these researchers, any computerized system designed with the purpose of handling the tax management processes such as the registration of clients, claiming of refunds from the Revenue Authority, and the general payment of the tax liabilities to the Revenue Authority, is an electronic tax management system.

Bekere, (2015) explored the efficiency of electronic service delivery taking the Ethiopian Revenue and Customs Authority ASYCUDA system as a case study. The questionnaire was employed to gather data from a sample of 130 respondents. The findings in the study indicates that even though the ASYCUDA system is facilitating the importation and exportation process, it faces a lot of implementation problems which creates the inefficiency in the maximization of the economic benefits expected from the implementation of the ASYCUDA system.

4 PRESENTATION OF RESEARCH FINDINGS

4.1 Chapter Overview

This chapter presents the findings that were collected from the users of the ASYCUDA World system to help in assessing the effectiveness of electronic tax management systems in Malawi. Firstly, this chapter provide the demographic information of all the respondents involved including the gender, education background and the professional of respondents. This is followed by the presentation of the research findings based on the specific research objectives. As such the findings are divided under into three sections, of which each one represents a single specific research objective. Section A covers the user satisfaction of the electronic tax management systems, section B covers the cost-effectiveness of electronic tax management systems, and lastly the section C presents the time-effectiveness of the electronic tax management. These sections are at last supported by the presentation of opinions of respondents on what can be done to tackle the challenges affecting the effectiveness of electronic tax management systems in Malawi.

The quantitative data presented in tabular forms and pie charts were made up of a sample size of 79 ASYCUDA users including the MRA staffs, Clearing agents and importers. This represents a 96% response rate. Data from documentary sources were used to support the raw data in order to provide concrete results.

4.2 The Analysis of General Information or Demographic distribution of respondents

This study started with examining the demographic and social details of its respondents. Under this section the aspect of sexes of respondents was given prior consideration.

4.2.1 Sex of Respondents

The aspect of sexes of respondents was assessed and presented to justify the participation of both genders in the study. This would also help the researcher to know the group which was more willing to cooperate in the course of the study. Findings on this aspect are presented in figure 4.1.

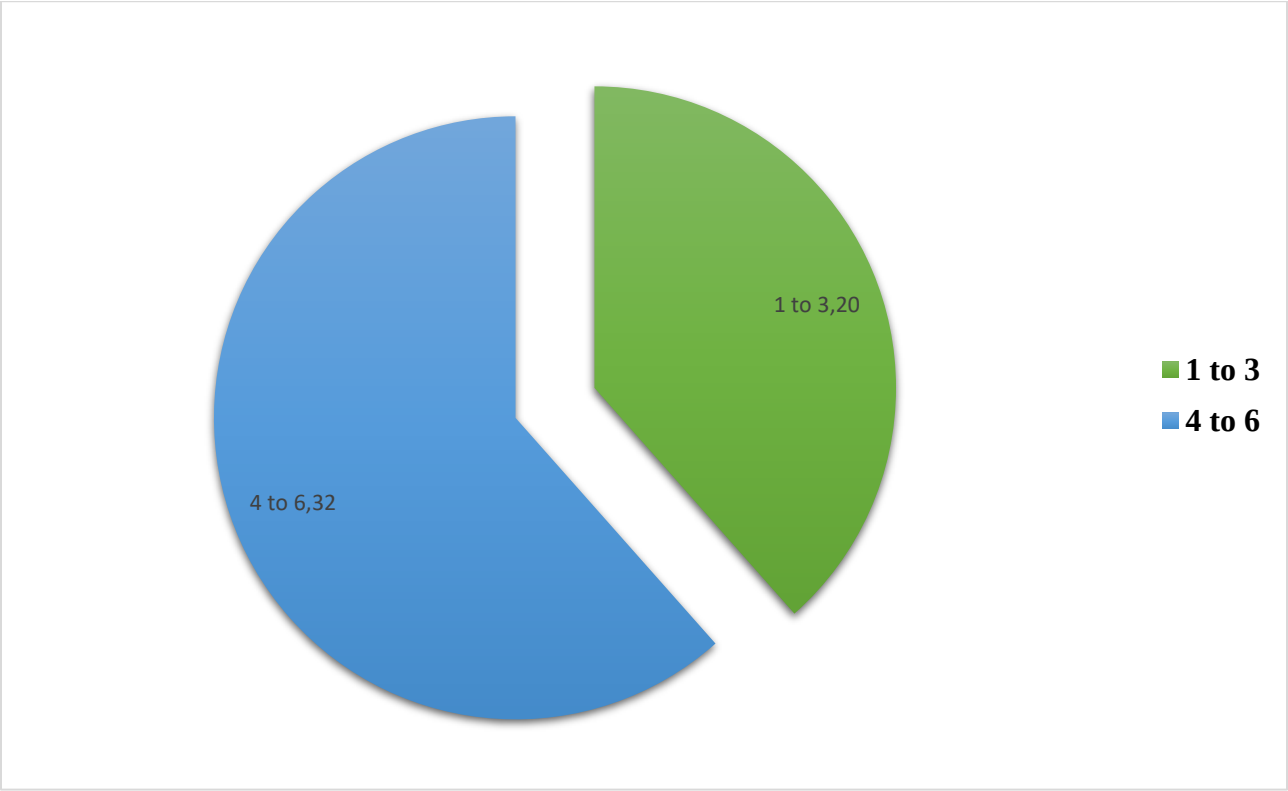

Figure 4.1: Sex of Respondents

According to the analysis in Figure 4.1, 67% of the respondents were males while 33% were females. This implies that the participation of men in the study surpassed that of women.

4.2.2 Academic Qualification of Respondents

The distribution of respondents according to education level is presented on the figure 4.2. The aspect of education levels of respondents was scrutinized in this study as the education level presents the knowledge of an individual in a specific field besides the capacity working of an individual.

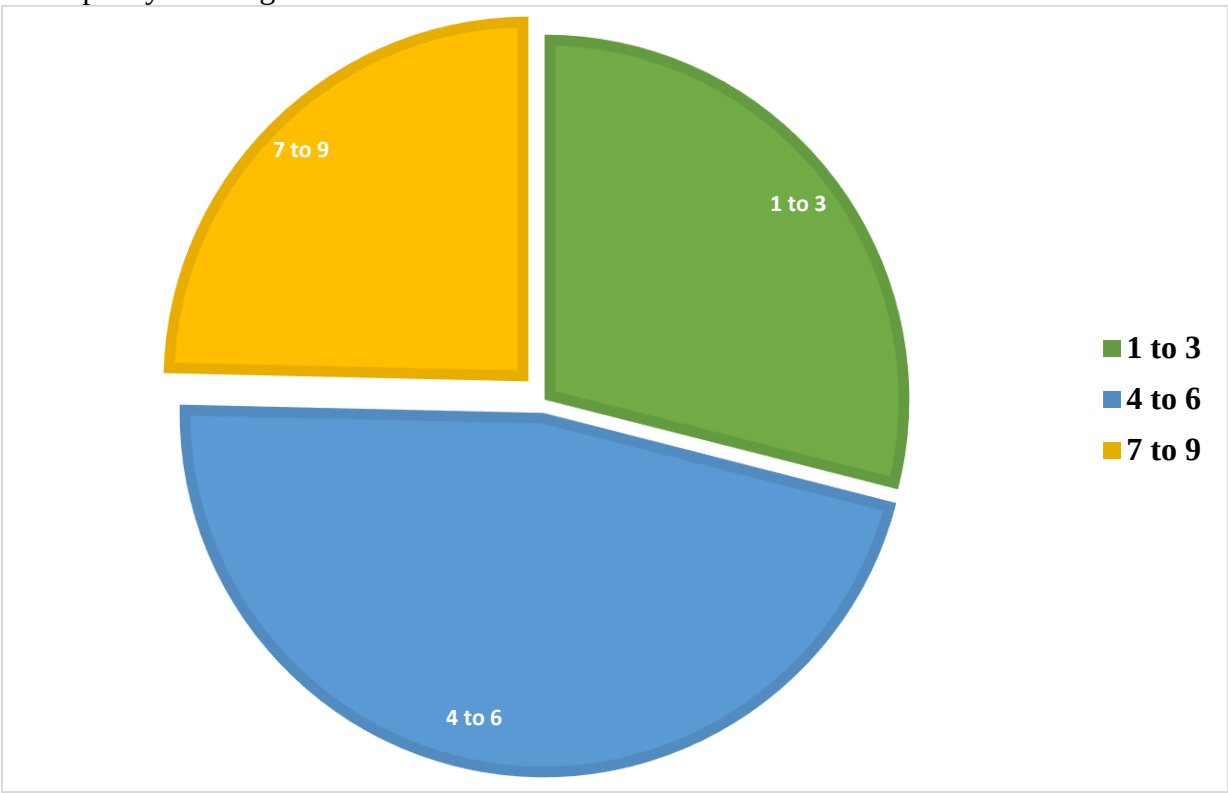

Figure 4.2: Education Background of Respondents

As presented in Figure 4.2 findings show that 46 % of respondents were bachelor's degree holders, 42% were diploma holders, and 12% of respondents were certificate holders.

4.2.3 Profession/ Occupation of respondents

The professionalism of the respondents using the ASYCUDA World system is presented in figure 4.3. The occupation was ascertained to make sure the participation of different users of electronic tax management systems including the ASYCUDA World. These incudes the clearing agents, importers and the MRA staffs.

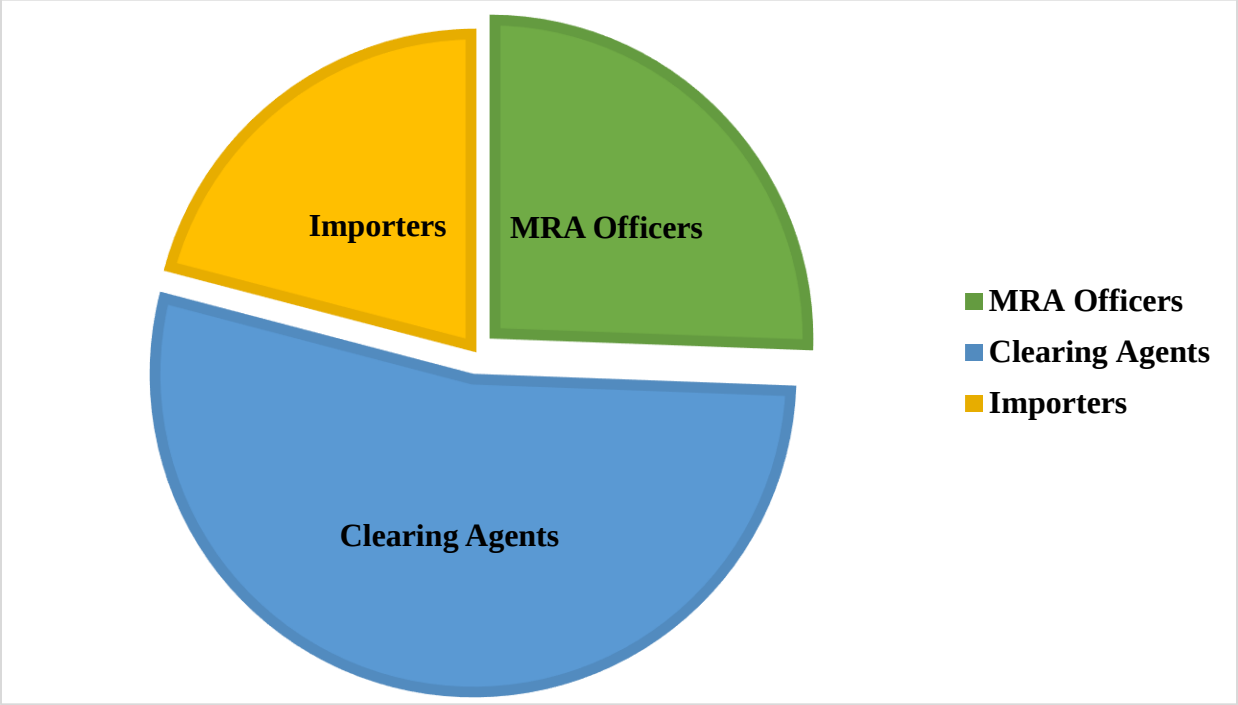

Figure 4.3: Occupation/ Profession of Respondents

As presented in Figure 4.3, Most of the respondents are the clearing agent representing 53% of the total respondents. The MRA staff are the following majority with a percentage of 26 while the remaining 21% represents the importers.

4.2.4 Number of Years in Business/ Work

The figure 4.4 presents the distribution of respondents by the number of years involved in clearing of customs or they have been engaged in importation of goods. The greater the number of years engaged the more will be the experience in both manual and automated customs clearing systems.

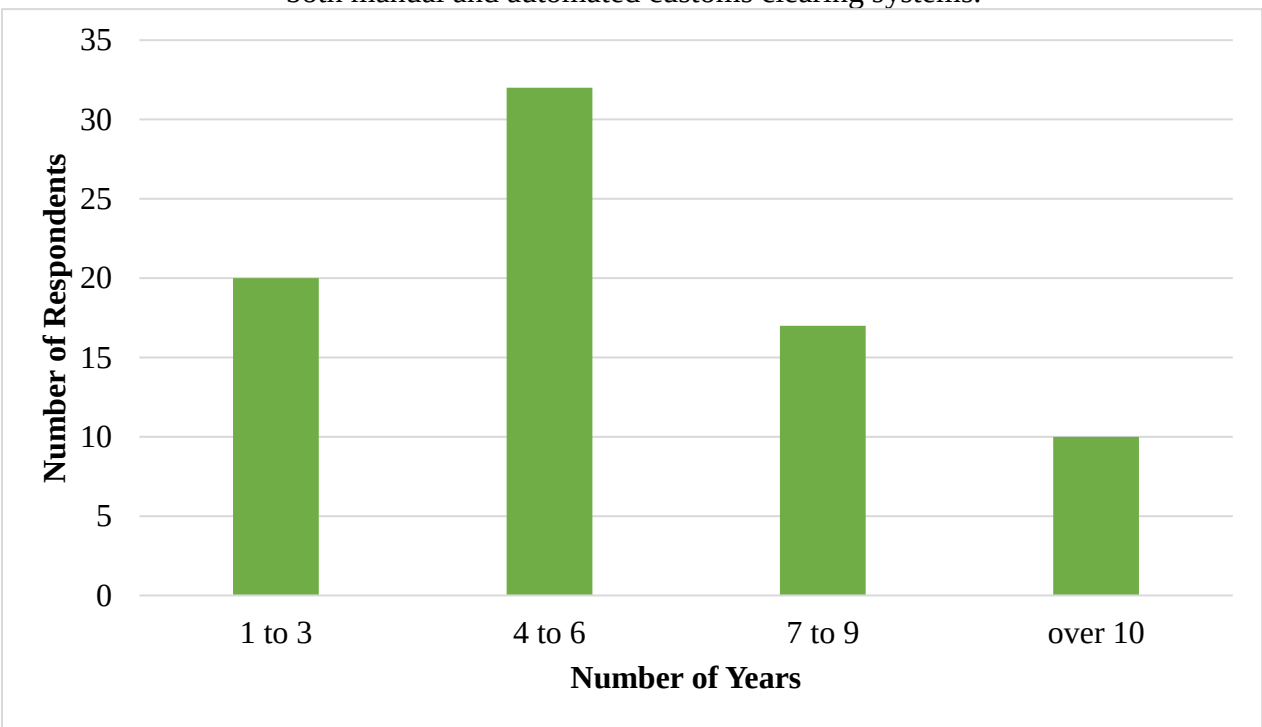

Figure 4.4: Number of Years Involved by the Respondents in Clearing of Customs

The findings from the study show that most of the respondents have been involved in clearing for a period between 4 to 6 years. This came out with a total of 32 respondents. 20 respondents have been involved in the business for a period between 1 to 3 years, 17 respondents said they have been involved for a period of 7 to 9 repents and lastly 10 respondents have been involved in clearing for over 10 years.

4.2.5 ASYCUDA World Knowledge

Under this sub-section respondents were primarily asked to indicate if they know about the ASYCUDA World system. This is presented in figure 4.5 below.

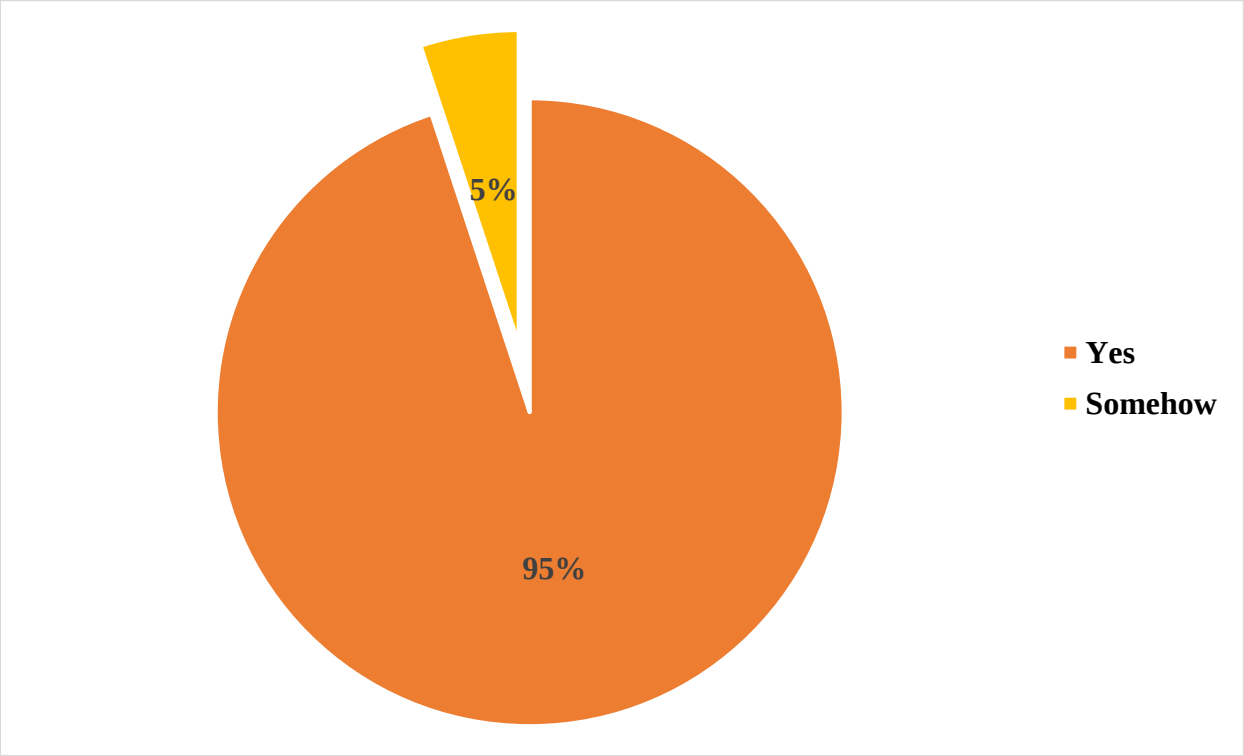

Figure 4.5: ASYCUDA World Knowhow by the Respondents

As depicted in figure 4.5, findings indicate that 95% of the respondents said they know about the ASYCUDA World as they say yes "Yes". 5% of respondents somehow have heard about ASYCUDA World system while No respondent indicate that they don't know ASYCUDA World. As such the research dealt with only the respondents with knowledge about the subject matter.

4.3 The System User Satisfaction to the Electronic Tax Management Systems

In this study on the assessment of the effectiveness of electronic tax management systems in Malawi, the first research objective was to assess the user satisfaction of the electronic tax management systems taking into account the ASYCUDA World system. Under this specific research question the researcher aimed at examining whether the users are satisfied with the ASYCUDA World in terms of structure, connectivity, security and the availability or information dissemination by the system among others. To come up with findings to achieve this objective, various questions were posed to respondents. These are presented next.

4.3.1 The Level of Agreements to Some Statements Regarding the User Satisfaction to ASYCUDA World System

The respondents were asked to rate how far they agreed to the following statements according to their experience regarding usage of the ASYCUDA World system. The statements were to be ranked on a scale of 1-5 where 1= Strongly Agree; 2= Agree; 3= Disagree; 4= Strongly Disagree; 5= Maybe.

These were analyzed by mean rankings and standard deviations of the responses obtained, which are as shown in table 4.1 below.

Table 4.1: Extent of Agreeing or Disagree to Some Statements Regarding User Satisfaction

STATEMENTS	Mean	Standard deviation
ASYCUDA World is easy to use and understand (structure and interface)	1.3721	.81717
ASYCUDA World connectivity and accessibility is easy (24 7 operation)	2.4651	1.18219
The queries are quickly solved	2.8605	1.08192
The ASYCUDA World system captures all the information required	2.0465	1.30846

As illustrated in table 4.1 above, most respondents strongly agreed that ASYCUDA World is easy to use and understand, in terms of structure and interface, with a mean of 1.3721 and standard deviation of .81717. The other statement which the respondents agreed for is that the ASYCUDA World system captures all the information required. This has a mean of 2.0465 and standard deviation 1.30846 indicating that the respondents agreed for the statement. However, the respondents disagreed that the ASYCUDA World connectivity and accessibility is easy, and that the queries are quickly solved. These two statements were ranked with a mean and standard deviation of 2.4651and 1.18219, and 2.8605 and 1.08192 respectively.

4.3.2 Clients Profile Availability after Registration

Respondents were required to agree or disagree with the statement that the client's profile is readily revealed after the registration with the MRA for the ASYCUDA World system. These were put on a scale of 1 to 5 again for 1= Agree; 2= Strongly Agree; 3= Disagree; 4= Strongly Disagree; 5= Maybe. The results are as indicated in the table 4.2 below.

Table 4.2: Respondents responses on the Clients Profile availability after ASYCUDA World registration

	Frequency	Percent	Mean	Std deviation
Strongly Agreed	30	38		
Agreed	46	54		
Disagreed	4	5		
Strongly Disagreed	2	3		
Total	79	100	1.4884	.70279

As indicated in table 4.2, the majority of the respondents agreed that the client profile is readily revealed which is 46% of the total respondents. 30% strongly agreed to the statement. 5% and 3% disagreed and strongly disagreed to the statement that the client profile is readily revealed after registration. As such a cumulative total of 92% of the respondents agreed to the statement while only 8.0% disagreed. This is also indicated by the mean ranking and standard deviation which is falling at 1.4884 and 0.70279 respectively.

4.3.3 ASYCUDA World Security

Respondents were asked if they view that the ASYCUDA World is more secure than the manual system. These were again analyzed on a scale of 1 to 5 where 1= Agree; 2= Strongly Agree; 3= Disagree; 4= Strongly Disagree; 5= Maybe. The results are as indicated in the table 4.3 below.

Table 4.3: The Respondents Responses on the ASYCUDA World Security

	Frequency	Percent	Mean	Std deviation
Strongly Agreed	33	42		
Agreed	40	50		
Strongly Disagreed	3	4		
Maybe	3	4		
Total	79	100.0	1.6047	.82056

The results in table 4.3 indicates that 50% of the total respondents agreed that the ASYCUDA World is more secure as compared to the manual systems while 42% strongly agreed that the ASYCUDA is more secure. This indicates that 92% of the respondents cumulatively agreed that the ASYCUDA World is more secure as indicated by the mean ranking and standard deviation of 1.6047 and 0.82056 respectively. Only 4% and 4% respectively disagreed and were uncertain as to whether the ASYCUDA World system is more secure than the manual system.

4.4 The Assessment of the Cost Effectiveness of Electronic Tax Management Systems

This section addresses the second objective of the study which is to assess the cost effectiveness of the electronic tax management system by analyzing the ASYCUDA World. To achieve the objective different questions were asked through the questionnaire to the respondents. These are analyzed in the following sections under this heading.

4.4.1 The Level of Agreement to whether ASYCUDA World has decreased the Clearing Costs

The respondents were asked to give opinion on whether the ASYCUDA World has decrease the costs that they spend to clear goods. The results are shown in table 4.4 below.

Table 4.4: Extent of Agreeing or Disagreeing on Clearing Cost Decrease after ASYCUDA World Introduction

	Frequency	Percent
Strongly Agree	38	48
Agree	15	19
Disagree	17	22
Strongly Disagree	9	11
Total	79	100.0

Table 4.4 indicates that 38 respondents strongly agreed that the ASYCUDA World has decreased the clearing costs which represents 48% of the total respondents, while 15 respondents agree that ASYCUDA World has decrease the clearing cost representing 19%. On the other hand, 17 respondents disagreed that the ASYCUDA World has decreased the cost of clearing goods while 9 respondents strongly disagreed representing 22% and 11% respectively. Cumulatively 67% of the total respondents agreed while 33% disagreed.

4.4.2 Service Cost Effectiveness

Under this, the Respondents were asked to agree or disagree if they are able to get the services with the ASYCUDA World at an effective cost. They were required to indicate “Yes” or “No” and the results are shown in figure 4.6 below.

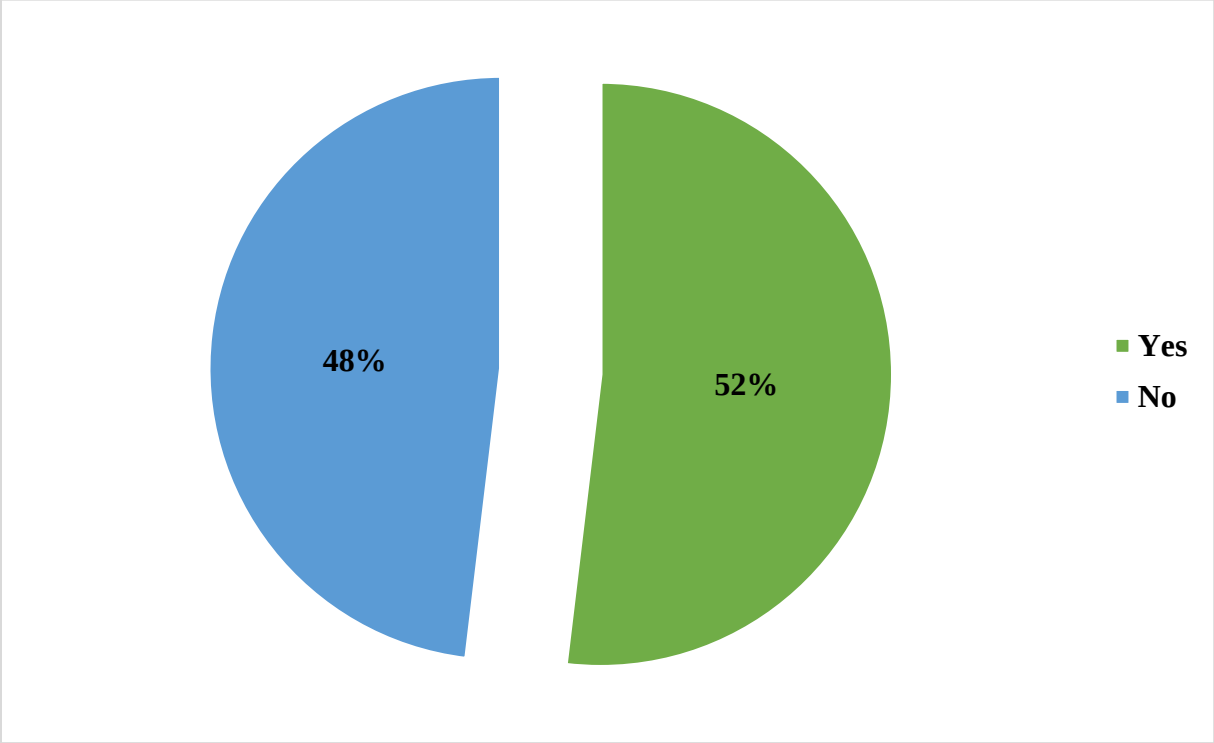

Figure 4.6: Responses on whether the users are able to get ASYCUDA World Service at an Effective Cost

From the figure 4.6 above, 52% of the total respondents indicated that they are able to get the services at an effective cost by using the ASYCUDA World system. The remaining 23% of respondents indicated they don't receive the services at an effective cost. Hence the majority of the respondents agreed that they are able to get the services at an effective cost.

4.4.3 The Comparisons of Processing Fees Expenditure before and After the Introduction of ASYCUDA World System

This section also addresses the second objective of the study which is to assess the cost effectiveness of electronic tax management systems. The respondents were asked in two different questions to indicate the processing fees before and after the introduction of ASYCUDA World system. The results of this analysis are indicated in Figure 4.7, Figure 8.8 and in Table 4.5. Different fees were rated under this analysis to come up with a concrete analysis. The fees under Mk2, 000 were presented by 1, fees between Mk3, 000 and Mk5, 000 were presented by 2, fees between 6000 and 8000 by 3, and lastly fees over 9000 were presented by 4.

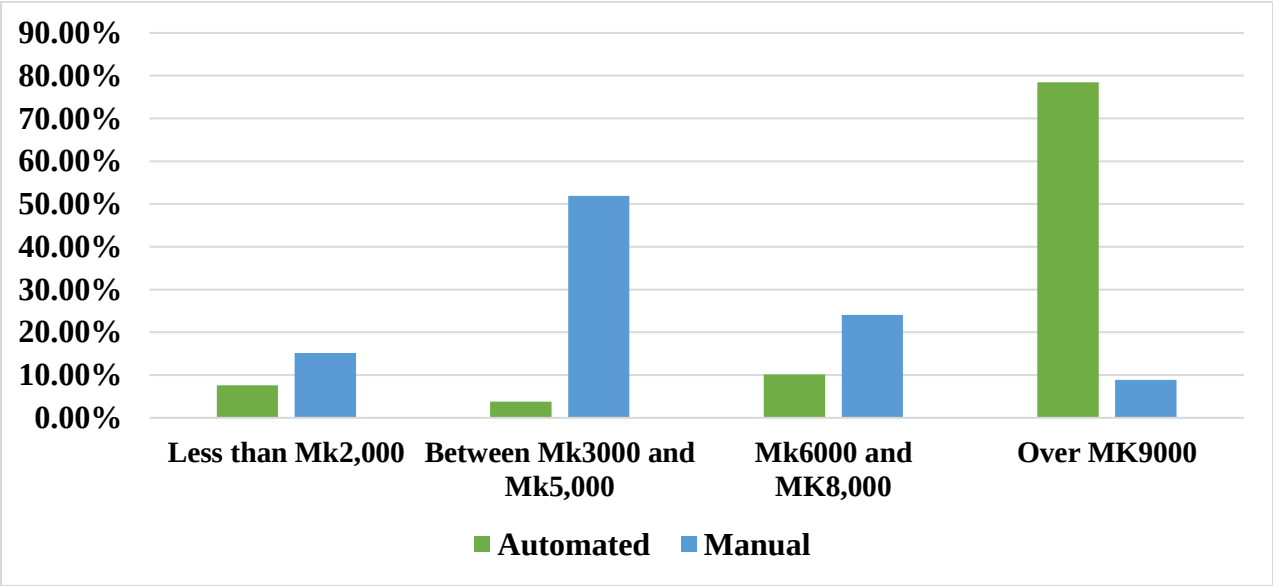

Figure 4.7: Respondents Expenditure in processing Fees before and After the Introduction of ASYCUDA World system

Table 4.5: Means for Respondents Expenditure in processing Fees before and After the Introduction of ASYCUDA World system

	ASYCUDA World processing fees Expenditure	Manual system processing fees Expenditure
Valid	79	79
Mean	3.6744	2.2791

As indicated in figure 4.7, the majority of the respondents, 78.48%, indicated that they use a processing fee of over MK9, 000 with ASYCUDA World system which is far more to the processing fee usage with the manual system. This is shown as the majority indicated that they used to spend a processing fee between MK3, 000 and MK5, 000 before the introduction of ASYCUDA World system.

These processing fees were also rated using the mean and median as shown in table 4.5 above. The ASYCUDA World processing fees Expenditure came with a mean of 3.6744 indicating that the majority used processing fees of over Mk9, 000 again. Manual processing fee expenditure came out with a mean of 2.2791 indicating that the majority of respondents really indicated that the used a processing fee between Mk3, 000 and Mk5, 000.

4.5 The Time Effectiveness of Electronic Tax Management Systems

4.5.1 The Level of Agreement to whether ASYCUDA World Allow for the Timely Access to Information

The respondents were asked to give opinion on whether the ASYCUDA World has made the access to information easy and faster. The results are shown in table 4.6 below.

Table 4.6: Extent of Agreeing or Disagreeing on Timely Access to Information with ASYCUDA World

	Frequency	Percent
Strongly Agreed	31	39
Agreed	28	36
Disagreed	12	15
Strongly Disagreed	4	5
Maybe	4	5
Total	79	100.0

Table 4.6 exhibits that 39% of respondents strongly agreed that the ASYCUDA World allow for a timely access to information, while 36% of respondents agreed. On the other hand, 15% of respondents disagreed that the ASYCUDA World allow for a timely access to information while 5% strongly disagree that the ASYCUDA has led to timely access to information. The remaining 5% were uncertain to whether the ASYCUDA World has led to a timely access or not. Thus, in total, 75% of respondents agreed and 20% disagreed.

4.5.2 Service Timeliness

The Respondents were asked to give their opinions on whether the ASYCUDA World has made it possible to provide services in time by indicating “Yes” or “No”. The results are shown in figure 4.9 below.

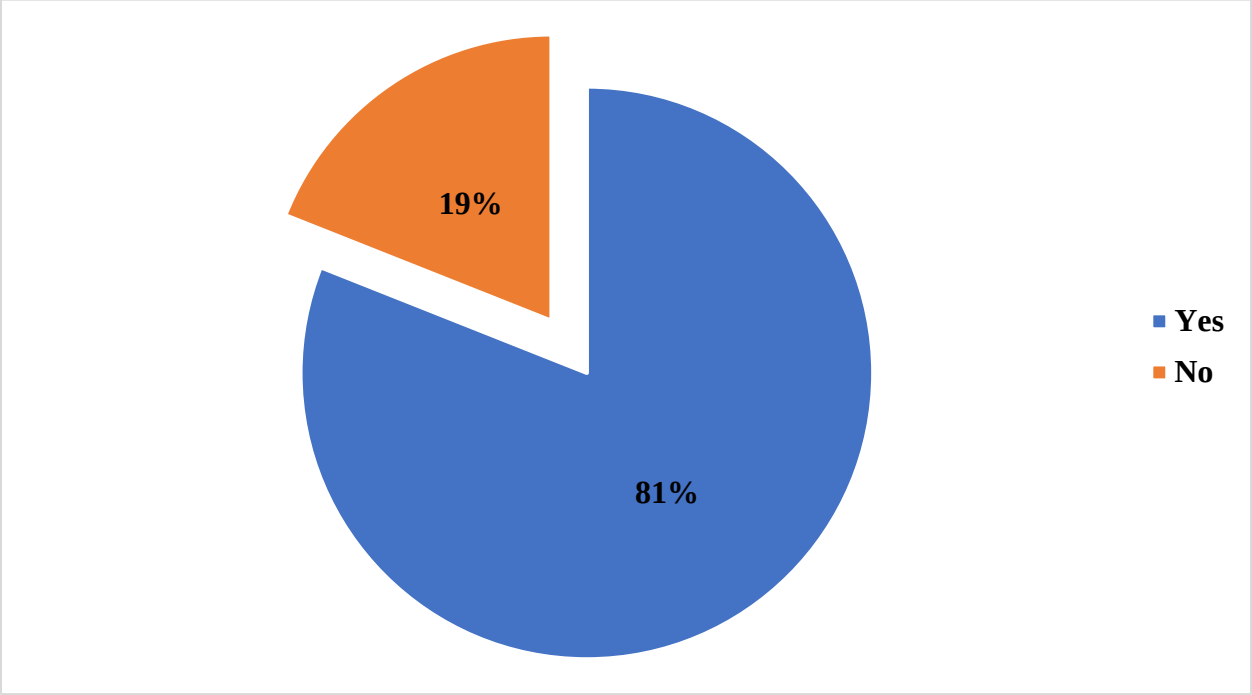

Figure 4.8: Responses on whether the users are able to get ASYCUDA World Service in time when assisting others or being assisted

Figure 4.9 indicates that 81% of the respondents agreed that they are able get ASYCUDA World services, either when being assisted or assisting others in case of the MRA officers, in time. The 81 percent is equal to 64 out of the 79 respondents who retained the questionnaires. The remaining 19% indicates they don't get the services in time. Hence the majority of the respondents agreed that they are able to get the services at an effective cost. Thus, the majority of the respondents get service in time with the coming of ASYCUDA World.

4.5.3 The Comparisons of Time Taken to Clear Goods and to Receive Feedback on System Queries before and After the Introduction of ASYCUDA World System

The respondents were asked in three different questions to indicate the processing time before and after the introduction of ASYCUDA World system in addition to the solving of the system query problems. During the SPSS analysis different periods were ranked on a scale of 1 to 4 whereby 1=Minutes, 2=Hours, 3=Days, and 4=Week. Figure 4.10, figure 4.11 and the Table 4.7 shows the results from the analysis.

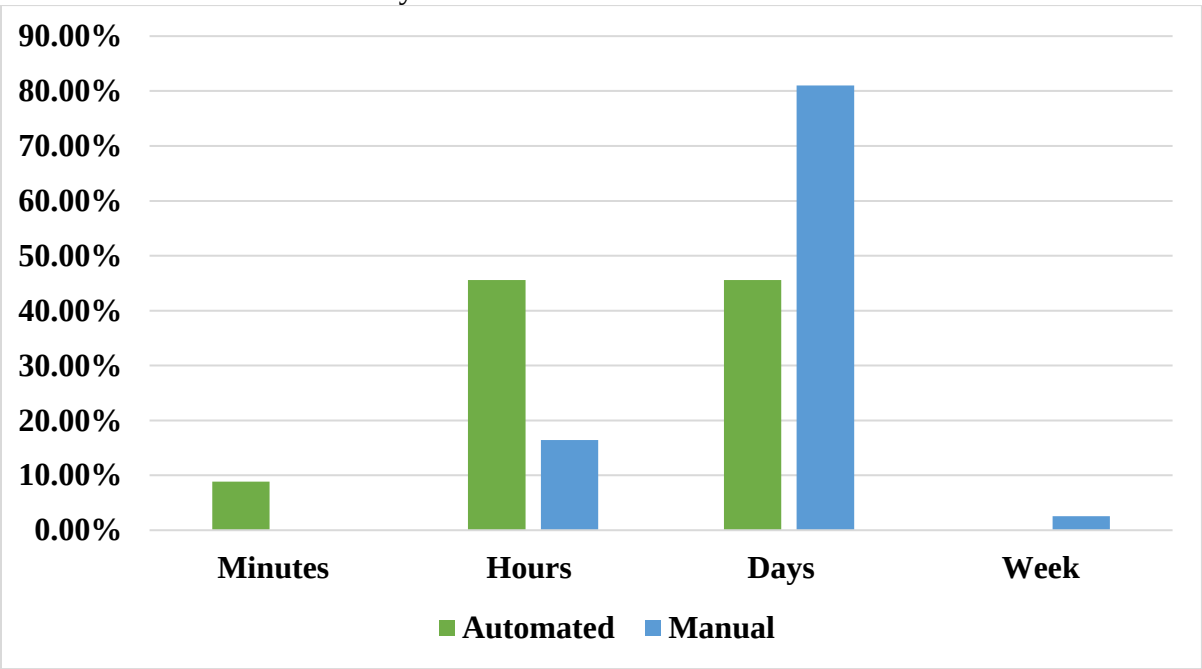

Figure 4.9: Time Taken to Clear Goods before and after ASYCUDA World

Table 4.7: The Respondents Response on the Processing time taken to Process Everything with and Without ASYCUDA World

	Goods Clearing with ASYCUDA World	Goods Clearing with Manual System
Valid	43	43
Mean	2.3256	2.8140

As indicated in figure 4.10 the majority of the respondents indicated that it takes days to clear the goods with both the manual and automated systems. 81.01% of the respondents indicated that it takes days to clear the goods with the manual system and only 45.7% of the respondents indicated that it takes days to clear goods with the automated system. The figure also indicated that 8.86% of the respondents indicated that it is possible to clear goods in minutes using automated system, but it is not possible using the manual system to clear goods in minutes.

The figure also shows that 2.53 of the respondents indicated that it takes even weeks to clear the goods with the manual system as opposed with using automated system.

In conclusion, as indicated in table 4.7, on average it took only Hours to clear goods with ASYCUDA World system. This is indicated with a mean of 2.3256 which is falling in the ranking of hours processing time of 2. The table also indicates that it used to take about days for respondents to process all what they want before the introduction of ASYCUDA World. This is indicated by the mean of 2.8140.

4.6 Electronic Tax Management Systems Challenges and Future Improvements

This section intends to scrutinize some challenges that the users of ASYCUDA World are facing in sing the system. The areas that can be improved were also assessed. These are under the following subsections.

4.6.1 Factors affecting the ASYCUDA World Performance

The respondents were asked to give their ratings on how some of the factors that affect the performance of a technology or an information. The statements were to be ranked on a scale of 1-5 with 1= Agree; 2= Strongly Agree; 3= Disagree; 4= Strongly Disagree; 5= Maybe. The results are shown in table 4.7 below.

Table 4.8: Extent of Agreeing or Disagreeing on Challenges affecting ASYCUDA World

	Poor network connectivity	Lack of user awareness Campaigns	Poor ICT infrastructures	Corruption	Power outage
Valid	79	79	79	79	79
Mean	1.5581	1.8140	1.7674	3.4884	2.1628
Std. Deviation	.73363	1.02947	1.34230	1.09918	1.34395

According to the results in table 4.8 on the factors affecting the ASYCUDA World performance, on average the respondents agreed that the poor network connectivity affect the performance of ASYCUDA with a mean and standard deviation of 1.5581 and 0.73363 respectively. The respondents also strongly agreed that the lack of user awareness campaigns affect the performance of ASYCUDA World system. This came out with a mean and standard deviation of 1.8140 and 1.02947 respectively. The other statements in which the respondents agreed for to be affecting the ASYCUDA performance is poor ICT infrastructure and power outage, yielding a mean and standard deviation of 1.7674 and 1.34230, and 2.1628 and 1.34395 respectively. However, the respondents disagreed that corruption is affecting the performance of ASYCUDA World as it came out with a mean of 3.4884 and standard deviation of 1.09918.

4.6.2 Future Improvement Expectations

In addition to the above analysis on the on the challenges affecting the ASYCUDA World performance, respondents were asked to demonstrate the extent to which they agreed or disagreed on whether they see any future improvement expectations towards the system. Findings on the extent of their agreement and disagreement are presented in Figure 4.13.

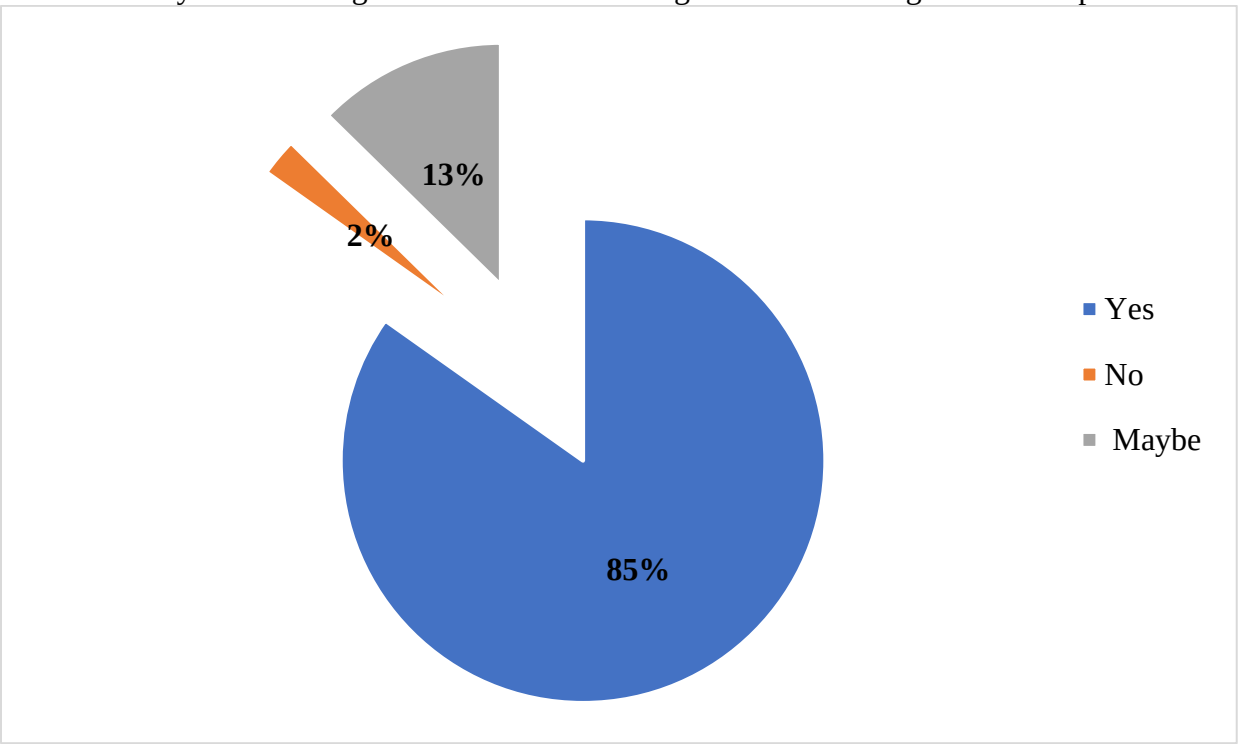

Figure 4.10: Respondents Expectation on Future ASYCUDA World Improvement

As indicated in figure 4.13, the majority of the respondents expect a future improvement with the performance of ASYCUDA World yielding 85% of the total respondents. A cumulative 15% either don't expect any future improvement or are uncertain to whether there will be a future improvement with ASYCUDA World system.

In addition to the above finding on expectation for future ASYCUDA improvement, information from questionnaires as mentioned by respondents has outlined the areas in which MRA can improve as regard to the ASYCUDA World system. The respondents were also asked to give their recommendations on what can be done to improve the electronic tax management systems including the ASYCUDA World in general. These are presented in table in Table 4.9.

Table 4.9: Areas That Can Be Improved in ASYCUDA World

Areas to be improved/ recommendations to improve electronic tax management systems including ASYCUDA World
MRA officers must improve in resolving queries as it is doubtful that MRA gets notification after queries are sent by agents
Frequent Civic education to the users of ASYCUDA and other electronic tax management systems
Release orders to be done within an hour
Government should help with computer cost reduced for the ASYCUDA users
Improving physical examination department in terms of break bulk trucks. They should introduce other ways of checking goods rather than sending officers to check with their eyes
Building reliable network that may improve access to information

Seeing Table 4.9, it is showing some of the suggestions provided by the respondents on the possible areas in which MRA can improve to facilitate the performance of the ASYCUDA World system. It also shows the recommendations in order to improve the ASYCUDA World system and other electronic tax management systems.

4.7 Chapter Summary

In this chapter descriptive and inferential statistics were used to present the findings. These includes the tables and figures which presented the frequencies and percentages, and the mean, median and the standard deviations. The next chapter present the discussion of the above findings.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Chapter Overview

Research findings should be treated scientifically and used by different consumers for different purposes including solving the problem that inspired the conduction of the research study. As regard to this study, this chapter presents the research summary, conclusion, and recommendations which the major stakeholders to this research study should work on to enhance the effectiveness of the electronic tax management systems in Malawi.

5.2 Conclusion

5.2.1 Summary of the Major Findings

Based on the analysis, it was indicated that the study was centered on three objectives. These are to assess the user satisfaction of the electronic tax management systems, to assess the cost effectiveness of electronic tax management systems and to assess the time effectiveness of the electronic tax management systems. In addition, the study also evaluates some of the challenges that are affecting the effectiveness of electronic tax management systems including the AYSCUDA World and the improvements that can be done.

In order to achieve objectives, set for the study.

i. It was found that the users of electronic tax management systems including the ASYCUDA World are being satisfied with some of the components of the electronic tax management systems while dissatisfied with other components which the MRA must work on to facilitate the effectiveness of these systems.
ii. The cost of meeting the electronic tax management systems is not that affordable as compared to the former manual system. These costs are in form of processing fees paid per transaction, the costs of purchasing the computers and the cost of getting access to the internet connection. However, the benefits that user are realizing still outweigh the costs that they spent as per findings from the study.
iii. The electronic tax management systems have facilitated the timeliness of payments for the goods to the MRA. The findings indicated that the introduction of ASYCUDA has decrease the time taken to clear goods by the importers and the clearing agents as compared to the old manual system. However, the MRA has to work on query solving when sent by the users as it takes long for the users to get feedback than expected.
ii. Lastly the study has revealed some of the challenges that are hindering the effectiveness of electronic tax management systems which both of the stakeholders of the systems including the MRA must work on.

5.2.2 Implications of this Research

The Government

It was found that the power outages and poor internet connectivity are among the challenges affecting the effectiveness of electronic tax management systems including the ASYCUDA World as such this study will be useful to the government in correcting power outages problems and internet availability to facilitate revenue collection.

The MRA

The Malawi Revenue Authority can employ the findings in this research study since to a large extent it has based on the electronic tax management Systems (the ASYCUDA World) which was introduced for effective collection of customs by

it. It can use the findings of the study to take necessary steps in improving the general electronic systems such as the EFD's, electronic and mobile payments, *Msonkho* Online and the much-discussed ASYCUDS World system.

Taxpayers

It has been reported that there is a need for public awareness campaigns to the general public that are the users of the electronic tax management systems. The enhancement of taxpayer's education on how to effectively use the electronic systems of paying taxes through the media is important for the facilitation of effectiveness of these systems.

5.3 Recommendations to Electronic Tax Management Systems Users

The Malawi Revenue Authority needs to continually review its electronic systems of tax collection, and strategies to keep pace with the effectiveness of the systems. That is why study suggests the following:

The MRA should ensure that the ASYCUDA World connectivity and accessibility is improved. Possibly the system should work 24 7 for the primary users to be satisfied with it.

The MRA should improve on solving the system query problems once have been sent by the users of the ASYCUDA World. This is similar to the other electronic tax collection systems.

5.4 Recommendations for Future Studies

This study assessed the effectiveness of electronic tax management systems in Malawi, A case of Automated System for Customs Data World. Further studies need to be done in the future on the following issues.

Since this study based on the ASYCUDA World system, another study, for comparative purposes, is recommended to assess the effectiveness of electronic tax management systems in another area such as the EFD machines, electronic and mobile payments.

The challenges affecting the effectiveness of electronic tax management systems as tis research study did not based on that matter.

To what extent has the MRA been able to solve the challenges affecting the effectiveness of electronic tax management systems?

5.5 Summary

This chapter concludes this research study. The data that was collected for the study effectively answered the research objective and the supporting objectives.

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