

Quasi Impact Study on Customers who Shifted from Post Pay to Prepay Electricity Metering System: Case Study of Kenya Power and Lighting Company

Peter Mungai Thumbi

Jomo Kenyatta University of Agriculture and Technology School for Human Resource Development Entrepreneurship and Procurement Department P.O. Box 62000-00200, Nairobi, Kenya

Email: thumbimungai@yahoo.com

Prof. Henry M. Bwisa

Jomo Kenyatta University of Agriculture and Technology School for Human Resource Development Entrepreneurship and Procurement Department P.O. Box 62000-00200, Nairobi, Kenya

E-mail address, bwihem@gmail.com

DOI: 10.6007/IJARBSS/v3-i11/326 URL: <http://dx.doi.org/10.6007/IJARBSS/v3-i11/326>

ABSTRACT

The content of this document emphasizes on the need to carry out a professional quasi research work bearing the titles "Impact of", "Influence of" or "effect of". More often than not, these words are misinterpreted and misunderstood. If it so happens, the researchers will finally end up presenting a half baked research findings.

The researcher, carrying out the work bearing those titles must understand their meaning and the approach required to make the work professional. The importance of understanding the area of study before and after the intervention is ultimately very critical. Why? This enables the researcher to boldly present a proof without any shadow of doubt or contradiction that an impact or a change experienced was indeed as a result of intervention.

This document present practical quasi impact research conducted for customers who shifted from post pay metering to prepay, being a case study of Kenya Power Company. It's a quasi research because it does not reflect a pure impact study. The pure impact study must have a baseline survey study before the intervention was introduced. The samples of research are randomly selected and one group is subjected to an intervention while the other remains as a control group upon which no action is subjected to it.

A study on a control group (upon which no intervention was introduced) is considered important towards clarification of the authenticity of the findings. It's critical in that it promotes the accuracy and affirms strongly that the changes experienced in the findings are as a result of an intervention.

For quasi impact research, surveys are mostly conducted after the intervention had already been introduced. The samples of research are not randomly selected but grouped according to the characteristics they have in common. (Example in this case is for the prepaid customers who shifted from post pay in Kenya Power Company in Nairobi County since 2009). Those grouped as post paid have the same characteristics and the same is true for prepaid customers.

The researcher uses recalling questions to obtain data from the respondents. That means the research conducted should be fresh in the memory of the respondents since an old project will provide misleading information due to forgotten crucial facts.

The writer of this document has conducted a survey for a project on prepay metering which commenced in 2009 and is still ongoing.

The document proposes an introduction of clear guidelines and a check list in the institution of learning to monitor and promote the highest degree of professionalism in conducting research. This will create an acceptable standard format for conducting a quasi impact research. Any research that falls short of the outlined guidelines and standards will be considered incomplete

INTRODUCTION

Students in the institution of higher learning have at one particular time conducted a research as a pre-requisite qualification to graduate. To a larger extent, the title of their research mostly bears the words like-: “the impact” of, “the effect” of or “the influence” of. These words are sometimes misinterpreted or misunderstood in the field of research. Consequently, the research procedure and finding ends up being wrong or inaccurate and fails to pass the required threshold of a well articulated and thought out research.

Before a student undertakes the research with these titles, a clear understanding of these words is paramount towards carrying out a professional work. Failure to do so, the researcher will end up collecting one sided data while ignoring the others. Ultimately, the analysis will be wrong, conclusions and recommendations will be misleading.

Most previous researches conducted on impact during undergraduate studies by many students lacks some key ingredients which are important for a well articulated study. A good percentage of these researches have had their interventions already taken place. Most have no historical baseline data collected for reference to any student who would like to conduct a research in future. Others researchers undertake to do the study but fail to collect their own baseline data. A survey conducted when an intervention has taken place, should use recalling questions while collecting the data of the research. This is what we call a quasi impact research. It’s important to note that most of the researches conducted by the students in the institution of learning are quasi experimental.

The content of this paper will therefore explain an example on how to conduct quasi research on impact, effect of or influence of, while considering a case study of Kenya Power Company which recently launched a first prepayment metering program in Kenya.

STATEMENT OF THE PROBLEM

Most research conducted in the institution of learning bearing the titles, “impact of” or “effect of” or “influence of” do not have baseline data as a proof that the experienced change is as a result of an intervention or an action that has taken place (Bwisa, 2013). Why is this? An impact can only be experienced, when an action or intervention has happened. It’s either that these words are misunderstood or the researcher completely ignores their meaning. Consequently, the researcher’s focus will lean towards collecting a one sided data while ignoring a baseline data. Ultimately, the findings of the research will be wrong and the recommendation thereof misleading.

OBJECTIVE

The objective is to highlight the importance and procedure of conducting a quasi experimental research studies in a professional manner through the collection of a baseline data, before and after the intervention. It should therefore become a rule of the thumb that any impact study conducted must have a baseline survey as a proof of authenticity and professionalism. Anything that fall short of this must be discarded as half baked and unfit to pass the required threshold.

PURE EXPERIMENTAL IMPACT STUDY

Impact studies that are purely experimental are different from quasi. Pure impact studies have the elements of study randomly selected (Bwisa, 2013). A specified group is subjected to an intervention and the other group which serves as a control group is not. The baseline survey is conducted well in advance before the intervention was introduced. The question addressed at that moment is-: how was the situation like? The survey is conducted to capture the clear picture of that moment.

Before the construction of Thika Superhighway by the Kenyan Government for example, traffic jam was heavy during morning and evening hours. Most of the users had to wake up early than usual in order to get to their destination on time. The reasons for this was that the road was narrow (two lanes) and could not accommodate all the vehicles travelling toward one direction. Most of the companies’ offices are located at the capital city and the numbers of cars on the roads have increased over the year. The land along the highway was sold at a relatively low price. Some residents who had constructed their homes along the road relocated to other places when heavy traffic became unbearable. That’s a baseline survey!

After the baseline survey is conducted and an intervention introduced to the specified group, the study is conducted to capture their perception and the information experienced as a result of the new development. E.g. how are the respondents feeling now after the construction of the super highway? The researcher would be interested to identify any notable change(s) brought about by this intervention. For pure experimental research, the aspect of conducting a research on a control group upon which no intervention was introduced to, is important towards verifying the authenticity of the findings.

QUASI EXPERIMENTAL STUDIES

Quasi experiments are observable study which the elements of study are not randomly selected but grouped according to characteristics they have. In this case the study is conducted by grouping post paid and prepay (each separately) because they have the same characteristics. The researcher then uses recalling questions to the respondents to collect the baseline data. To promote accuracy, the baseline survey should not be for a delayed project but a recent one which is still fresh in the memory of the respondents. Conducting a long ago baseline survey has the likelihood of producing misleading information since the respondents may not effectively be able to recall key important information necessary for the study.

For baseline survey, the researcher conducts the research on the characterized respondents (a group with similar character) using similar questionnaire but presented in the past tense. In the shift of post pay to prepaid research for example, one of the questions presented to the respondents was to seek their perception on customer satisfaction before and after the introduction of the prepayment metering system. E.g. Using a liker scale of one to five, (one being strongly disagreed while five being strong agree) the Post pay provided a high level of customer satisfaction? The researcher then compares the findings for each and compiles the report while making conclusion and recommendation.

LITERATURE REVIEW

Business dictionary defines the word impact as measure of the tangibles and intangibles effects or consequences of one thing or entity's action or influence upon another. There are two points which tend to stand out from the definition -:

- a) Impact involves measuring.
- b) It involves an action or an intervention.

An impact can be defined as an effect, impression or influence of one thing on another, (Bwisa, 2013). It's apparent true that for an impact study to be conducted there must be an intervention which will cause an effect or influence to another thing.

Let's consider a general analogy of a patient who visits a doctor when ill. The doctor listens, examines, tests and recommends the best medication based on patient's condition. If a doctor would write a medical report, two scenarios will be put into perspective. First, what was the condition of the patient when he first visited the clinic? Secondly, how is the patient after the diagnosing and administration of medication? Through this short illustration, the doctor can effectively analyze the impact of the administered drug to the patient. The patient health may have either improved or deteriorated. The intervention here is the treatment administered to the patient.

Two of the major questions a researcher must address before conducting an impact study are -:

- i) What used to happen?
- ii) What is happening as a result of intervention?

Kenya government recently constructed one of the most modern super highways from capital city of Nairobi to Thika industrial town.

Before the construction of Thika super highway for example, the land along the highway was cheap and affordable. After the construction of the highway, the price has sky rocketed and has become extremely expensive. Any researcher therefore conducting a research on the impact of super highway will be quasi and must consider the two scenario to make it complete. Without

observing the two scenarios, the research must be considered incomplete and does not pass the required threshold. Since the project has already been completed, the researcher will use recalling questions to collect data from the respondents.

POST PAY AND PREPAY METERING SYSTEM

The writer conducted a research on impact of prepay metering system which is a shift from post pay to prepay. The key objectives were to identify any financial benefits attributed by the shift to the customers, customer satisfaction and assess whether the project was successful.

According to the research findings, the respondents who participated in the research confirmed that, post pay metering connection was susceptible to fraud, customers queued for long waiting for services, and inaccurate estimated bills were forwarded while the perceived level of customer satisfaction was very low.

In 2009, the Kenya power and lighting company came up with a project of shifting post pay customers to prepay by first carrying out a pilot project at Kasarani division of Nairobi County.

After the introduction of prepay metering project (*which was an intervention*), the research findings confirmed that-:

The fraudulent activities had drastically been reduced.

Queuing for services had reduced if not completely eliminated.

The customer satisfaction level had been boosted and the overall success of the project was rated above 80%.

It's possible to draw conclusion that, the newly realized developments whether negative or positive was as a result of the intervention.

The question that arises then is how the researcher was able to make such conclusions. What did he have to do?

The first step was to obtain a baseline data to help paint a clear picture of what was happening before and after the intervention.

BASELINE SURVEY

Baseline data helps the researcher to measure the intangibles and tangibles before the intervention. It's advisable that the data should be collected well before the intervention is introduced. Measuring the effects too early or too late will deliver false findings about the intervention (Hawe, Degeling, & Hall, 1990). In a situation where the project was commissioned without a baseline survey being conducted, the survey can still be done using recalling question as it happened in post pay and prepay research. This type of an impact study is called quasi research. A control group in which no intervention was introduced can be used in comparison with the group subjected to the intervention as a confirmation that the impact was as a result of the action for a pure study.

BASELINE AND IMPACT DATA COLLECTION PROCEDURE

When the researcher conducted an impact study on customers who shifted from post pay to prepay metering, the intervention had already happened and thus it necessitated the introduction of two questionnaires. Part A was to collect a baseline data using recalling questions while part B was to collect the impact data.

The questionnaire addressed three key objectives.

- Financial benefits to the customers.
- Customer satisfaction and
- The success rating of each project

These objectives can be modified to suit the research being conducted.

RESEARCH FINDINGS

A total of 83.7% of the respondents agree and strongly agree that budgeting and control of consumption has become easy with prepaid system of metering as compared to 16.3% who disagree. From the findings, it can be deduced that, as a result of shifting from post pay, customers are in agreement that they are enjoying some financial benefits. That’s what we call an impact.

The level of customer satisfaction has impacted more to the respondents with prepaid metering as compared to post pay. The survey shows that 81.4% of the respondents agree that queuing for services with prepaid annoyed those most. With the introduction of prepay meters queuing has drastically been reduced. The table number 7 below explains fur

QUEUING FOR SERVICES

Table 1

Queuing (baseline)	Percentage
Not sure	4.70%
Strongly Disagree	4.70%
Disagree	9.30%
Agree	23.30%
Strongly Agree	58.10%

Most customers are dissatisfied when they take long hours queuing for services. In post pay metering, 58.1% of the respondents strongly agrees while 23.3% agrees with the researcher. Only 4.7% are not sure of that fact as per the findings.

On prepay, 53.3% of the respondents strongly agrees that they have been able to save time from queuing and are able to attend to other important issues. The finding also shows that

30.2% agrees they are satisfied by the fact that they don't queue for services. Only 4.7 strongly disagree with the researcher.

Table 2

Queuing(prepaid meters)	Percentage
Not sure	2.30%
Strongly Disagree	4.70%
Disagree	9.30%
Agree	30.20%
Strongly Agree	53.50%

Finally, the overall perception of the respondents is that the prepay project had been rated as successful at 80% and above as compared to post pay at 50% and less. The researcher can authoritatively recommend the rolling out of the same project to the other parts of the country. After the launching of prepay system in Nairobi, there was a general complain that the charges were higher than for the post pay.

The research findings have however confirmed that the general misconceptions were untrue. The researcher's analysis confirms that the charges for each are equivalent at ksh8 per unit.

PREPAID			POST PAID		
UNITS	AMOUNT	AVERAGE PER UNIT	UNITS	AMOUNT	AVERAGE PER UNIT
588.4	4459.36		442	4609.2	
640.2	4877.53		629	5341.8	
795.2	7011.98		619	5686.87	
710.7	5449.34		776	5458.55	
938.5	7192.34		747	5032.7	
3673.1	29090.55	7.91989	3213	26129.12	8.132312

CONCLUSION AND RECOMMEDATION

The finding of the research confirms an impact has been realized following a shift from post pay to prepay connection. Baseline survey enhances accuracy and stand out as a proof that the intervention has caused a notable impact. The researcher must draw his conclusion and recommendations from the findings.

The writer recommends to the institution of learning to draw clear guidelines and come up with a check list on how to conduct an impact quasi research. It will be a framework of operation to a professional work. Any impact research that doesn't have a baseline survey should be considered incomplete and unprofessionally conducted.

The researcher looks forward to have the same information cascaded to the undergraduate and diploma levels so as to promote a highest degree of accuracy and professionalism in the field of research.

PROCEDURE

The student intending to carry out an "impact of", "effect of" or "influence of" research must first identify the key objectives of the study. The scope of the study should be zeroed around those objectives. Secondly, the student must develop a strategy on how to collect the data. The data collection method selected depends on the researcher and the nature of the project being worked on. A questionnaire or a structure interview to the respondents may be considered among other methods.

To carry out a quasi impact research, the researcher will be required to generate questions of the study that will guide the respondents in collecting a baseline data before and after the intervention. The study conducted on prepay project for example, the researcher had one of the objectives of the study as to identify financial benefits attributed by the shift from post pay to prepay. And one of the questions to the respondents to assist towards the collection of a baseline data was:- Budgeting and control of consumption while on post paying easy? This is a recalling question since the installation of a prepaid meter (an intervention) had already been installed. The respondents is expected to rate the findings on a given scale. The same question is posted again but in present tense. Is budgeting and control of consumption in prepaying connection easy? The respondent answers the question by rating the findings in a given scale. By so doing, both baseline data and research data are simultaneously collected.

The next stage is to analyze both data and make the comparison. In the example mentioned above, a total of 83.7% of the respondents agree and strongly agree that budgeting and control of consumption has become easy with prepay as compared to 16.3% who disagree.

The final important stage is to draw the conclusion and recommendation based on the findings of the research. It becomes apparently very clear that the shift from post pay to prepay ,which in essence is the intervention in this case has caused a great impact on realization of a great financial benefits to the customers. The research then proves that a shift to prepay has a far reaching financial benefit to customers as compared to post pay. The researcher can then make conclusions and be able to advises the management of the utility company to roll out the prepay program to other parts of the country. Other objectives are treated in the same way and results and recommendation drawn accordingly.

Acknowledgement

I appreciate and acknowledge the encouragement and timely advice of my supervisor, Professor Henry Bwisa, My family for moral support and the management of Jomo Kenyatta University of Agriculture and Technology for creating a conducive environment for research and Learning.

Corresponding Author

PROF. HENRY M. BWISA

Jomo Kenyatta University of Agriculture and Technology School for Human Resource Development Entrepreneurship and Procurement Department P.O. Box 62000-00200, Nairobi, Kenya

E-mail address, bwihem@gmail.com

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