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Investigating the current information system use for improving organizational tasks in AAU using grounded theory

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ABSTRACT

Information System (IS) is the interaction between people and organization using a certain type of system. Therefore, in this current study the people are the staffs, the organization is Addis Ababa University and the system is the different applications and tools used to ease tasks. Most universities in developing countries, including AAU, staffs are lacking the basic know how and skills on how to use the IS and to create conducive setting to perform organizational tasks easily and quickly. As it is observed from different perspectives staffs of Addis Ababa University are performing their daily tasks with the traditional way of activities, as well as how they are cop up with the new system is also questionable.

Therefore, there is a need to conduct a research on the issues directly influence on how the staffs behave and use those systems continuously to ensure improvement of organizational tasks performance and create customer acceptance and organizational productivity. With this arguments, the main objective of this paper is to develop a ground theory to investigate the practice of ISs and Applications (tools) use for organizational task effectiveness in Addis Ababa University (AAU). From this the specific

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objectives are: To identify factors that encourage staff to use IS; To identify effective organizational tasks in AAU; To understand staffs use of information system

The method used for this study is grounded theory. The reason for choosing this method is, grounding theory is an interesting research methodology to develop a theory or model from the scratch i.e. plentiful of data and can show how things/scenarios are related and interacted with each other well (Boadu and Sorour (2015). More importantly, the explanations ultimately come from the participants being studied. The study captured data from Addis Ababa University and staffs were selected randomly from School of information sciences in Addis Ababa University and the data was collected digitally by interview and then changed in to written format.

The result of the study is expected to contribute to add value for Addis Ababa University (AAU) quality improvement of tasks in educational sector from the initial stage (i.e. awareness to use) up to the final stage (i.e. improving organizational task) essential attributes has been included. Finally, the research has recommended as future study that, the model can be tested and can be a starting platform for further work of future study using quantitative methods.

Keywords

Grounded theory, Information system tools, Information system use, Organizational task

INTRODUCTION

Currently most people are using a certain type of system for their daily tasks using mobile or computer applications. Universities are leading in creating new technologies, applications, systems and tools as they are closer than the rest of sectors in once country (Schoonenboom et al., 2009). Universities are using this for their organizational tasks. So, they should focus on using integrated systems to be competent in this business world (Japhet et al., 2018).

The main objective of this paper is to develop a ground theory to investigate the practice of ISs and Applications (tools) use for organizational task effectiveness in Addis Ababa University (AAU). As it is clearly stated by Glaser and Strauss (1967), grounded theory involves the collection and analysis of data. The theory is grounded, means starting from the data, can be analyzed and theories will be developed. So the approach uses the transcription of interviews or protocols of observations for the generation of theories. For collection of data, two staffs were selected randomly from School of information sciences in Addis Ababa University and the interview was recorded.

RESEARCH QUESTION FRAME

Currently, delivering quality of technology-aided tasks is one of the policies of countries towards progress to reach a concerned goal for development. Integrating tools and up to date systems for different activities become increasingly familiar in universities. As it is observed from different perspectives staffs of Addis Ababa University are performing their daily tasks with the traditional way of activities, as well as how they are cop up with the new system is also questionable.

Most of universities in developing countries, including AAU, staffs are lacking the basic know how and skills on how to use the IS and to create conducive setting to perform organizational tasks easily and fast.

Problems concerning with; lack of effective use of IS usage, selection of proper tools for specific tasks, knowledge of applications for specific activities and so on are prevalent (Japhet et al., 2018). From here two research questions were drawn as follows:

RESEARCH QUESTION

- What encourage staffs to use ISs and tools for effective organizational tasks in AAU?
- How do staffs use information systems and applications to easily perform organizational tasks in AAU?

DATA COLLECTION PROCEDURE

As narrated in the next paragraph, semi structured interview were prepared and conducted. The interview questions were attached at the end of the document at appendix part. The data was collected digitally and then changed in to written format. The contents of the interview were narrated below:

Interview summary narration

The interviewees reply is narrated here with third person singular to report in a better way:

Interviewee#1:

According to the interviewee he argued that, the use of information systems and tools can help in saving time and also their colleagues can easily understood concepts. He also stated that he is happy and satisfied with the IS and applications existed in the university. For the management of the systems he has good knowledge how to operate and he is interested to use them regularly. Related to the resources in the office; the resources are used fairly for trial and fee needed version software, this is through the use of registered accounts and intra agreement with software companies at university level

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then the resources are installed by practitioners. So, every staff is expected to follow guidelines instructed by practitioners.

Concerning system delivery; even if this is true, he mentioned that there are limited tools and applications in use. Like: there is no up to date software and limited internet connection in the offices but hardware resources including desktop computers are in full installation. The advantage he got from using this system is; first, all prepared resources can be easily made available to staffs to use for their tasks. Next, assigning workloads can be easily provided for each of the staffs so, using this systems staff's effectiveness is now increasing. In general, it makes organizational tasks performed easily with low cost and leads to quality enhancement of the university.

Interviewee#2:

She used IS and other specific tools for her day to day activities; including for registering students, for student allocation, student-copy preparation and other tasks. Last year, when she was in the finance sector of AAU, she used financial software for buying different materials which used for teaching learning process of the university including other computer-aided software. Therefore, this specific sector promoted her work as a model staff and gave her a reward. She got the ability to use these systems through training and by using user friendly and self- learning materials, while working in the university. By using the tools she did not get problem because she had good interaction with the department and staff members within the university.

Next, for easy accessibility of materials; yes, she got the access for all software by consulting with the department and they were so eager to use the adopted information systems and can transfer it to other sectors and departments. And the sector distributed materials accordingly based on workloads because some tasks have priority in the university. Concerning the material integrity and acceptance; yes, they are easily integrate able with the existing tools and can make the organizational task easy. Finally, in the easily use of tools and usefulness; yes, the tools are portable and has small size. By this reason, it can be adaptable and accessed easily.

GROUNDING THEORY CODING STEPS

Categorization of concepts of the two interviewees' will be stated together and organizing the similarities and reducing the differences: The coding techniques are open coding, axial coding and selection coding.

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Step 1: Open coding

Open coding is the first level of coding and concerned with identifying, naming, categorizing and describing phenomena found in the text (Strauss and Corbin, 1998). Now important concepts will be gathered.

| | |
|-------------------------------|------------------------------|
| Ability to use applications | Intra-staffs communication |
| Access of systems | Level of use |
| Access controls | Usability |
| Accessibility of applications | Usefulness of apps |
| Accessibility to use | Portability |
| Adaptability to use | Promotion |
| Intra-college interaction | Reward |
| Easiness | Satisfaction |
| Easily adaptability of apps | Productivity in use |
| End user acceptance | Social influence |
| Enhance organizational tasks | Organizational effectiveness |
| Distribution of resources | System Delivery |
| Existing systems | System Implementation |
| Usefulness of systems | Training support |
| Incentives | User friendly systems |

Step 2: Axial coding

Axial coding is the process of relating codes (categories and properties) to each other. Similar concepts will be together under the bullets as follows:

- Satisfaction
 - Promotion
 - Reward
 - Incentives
- Productivity in use
 - Ability to use Applications
 - Usability
 - Training support
- Social influence
 - Intra-college interaction
- Usefulness
 - Integrated usefulness
 - Level of use
- Easiness
 - Easily adaptability of apps
 - User friendly systems
 - Portability
- Enhance organizational task
 - Enhance excellence
 - Organizational effectiveness

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- Intra-staffs communication
- Accessibility to use
 - Distribution of resources
 - Access controls
 - Access of systems
 - Accessibility of applications
- Adaptability to use
 - Continue to use apps
- System Delivery
 - End user acceptance
 - System Implementation

Step 3: Selective coding

The Selective coding is choosing the one category i.e. the core category, and relating all other categories to that category, validating those relationships, and filling in categories that need further refinement and development.. Finally the following categories are selected and refined accordingly.

- Satisfaction
- Productivity in use
- Social influence
- Accessibility to use
- Usefulness
- Easiness
- Enhance organizational task
- Adaptability to use
- System Delivery

Model development of information system use for effective organizational task:

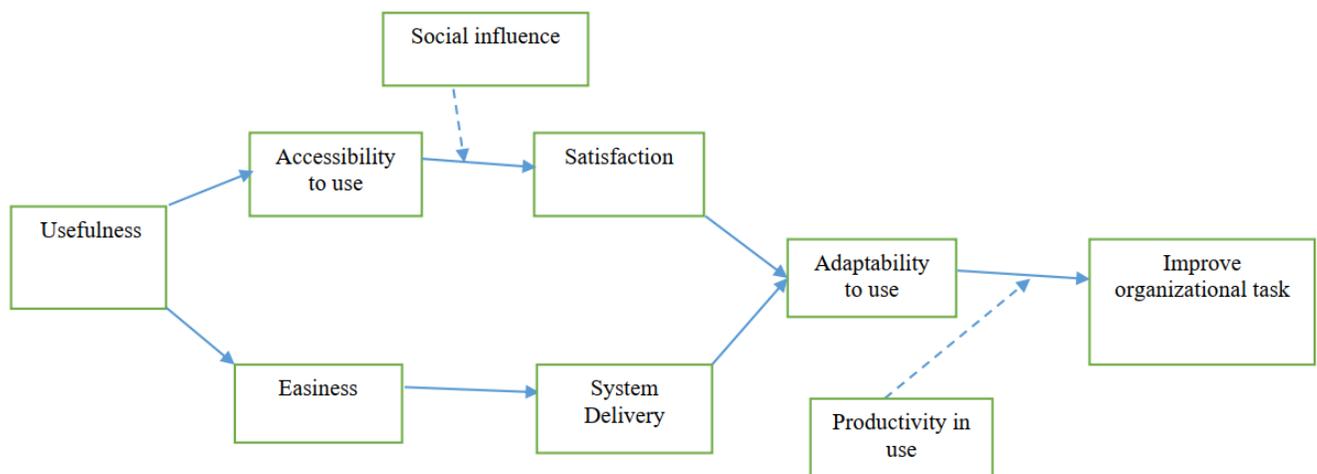


Figure 1: Information system use model using grounded theory

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From the model above, social influence and productivity in use are moderating variables. They both moderating the relationship between accessibility to use & satisfaction and adaptability to use & improve organizational task respectively.

As we can see from the model, all the tests start from the view of the staffs to use the IS technologies. This awareness of usefulness must have a link with accessibility and easiness of the system or tools on hand. If the systems are easy to use, it has to be delivered to each of the staff and at the same time if there is accessibility of technologies we have to make sure that it must be reachable to each staffs, gradually this creates a sense of satisfaction but this may indirectly affected by social influences like each of the sectors interaction, interest of communication to use the systems. But some personal traits of the staffs like training support and operating ability to use the tools has also indirect consequences in adaptability of the applications installed. These two issues directly influence on how the staffs behave and use those systems continuously to ensure improvement of organizational tasks performance and create customer acceptance and organizational productivity.

CONCLUSION

As a conclusion, the value of grounded theory is in its ability to examine relationships and behavior within a phenomenon from an unbiased in-depth perspective (Alsop and Tompsett, 2002). And can conclude that grounding theory is an interesting research methodology to develop a theory or model from the scratch i.e. plentiful of data and can show how things/scenarios are related and interacted with each other well (Boadu and Sorour (2015). More importantly, the explanations ultimately come from the participants being studied.

Indeed, the framework can add value for Addis Ababa University quality improvement of tasks in educational sector from the initial stage (i.e. awareness to use) up to the final stage(i.e. improving organizational task) essential attributes has been included. Finally, the model can be tested and a starting platform for further work of future study using quantitative methods.

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APPENDIX I:

Interview Questions forwarded

- Do you use different tools for your day to day duties? If yes, how often are you using?
- What applications or systems are you using for different tasks?
- What do you get as a result of using these tools?
- What problems did you face in using those tools and systems?
- Do you think these tools and systems easily available and distributed equally in AAU? Please elaborate?
- How do you use these systems? Are those tools easily integrated with other technologies?
- How do you get the ability to use the tools?
- With the use of this system, what improvements and benefits do you get in your organizational task?
- Do you think using of applications or tools have impact in organizational task?

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- How did you develop the attitude towards using systems or tools for organizational tasks? And, what was your initial insight to use the tools?