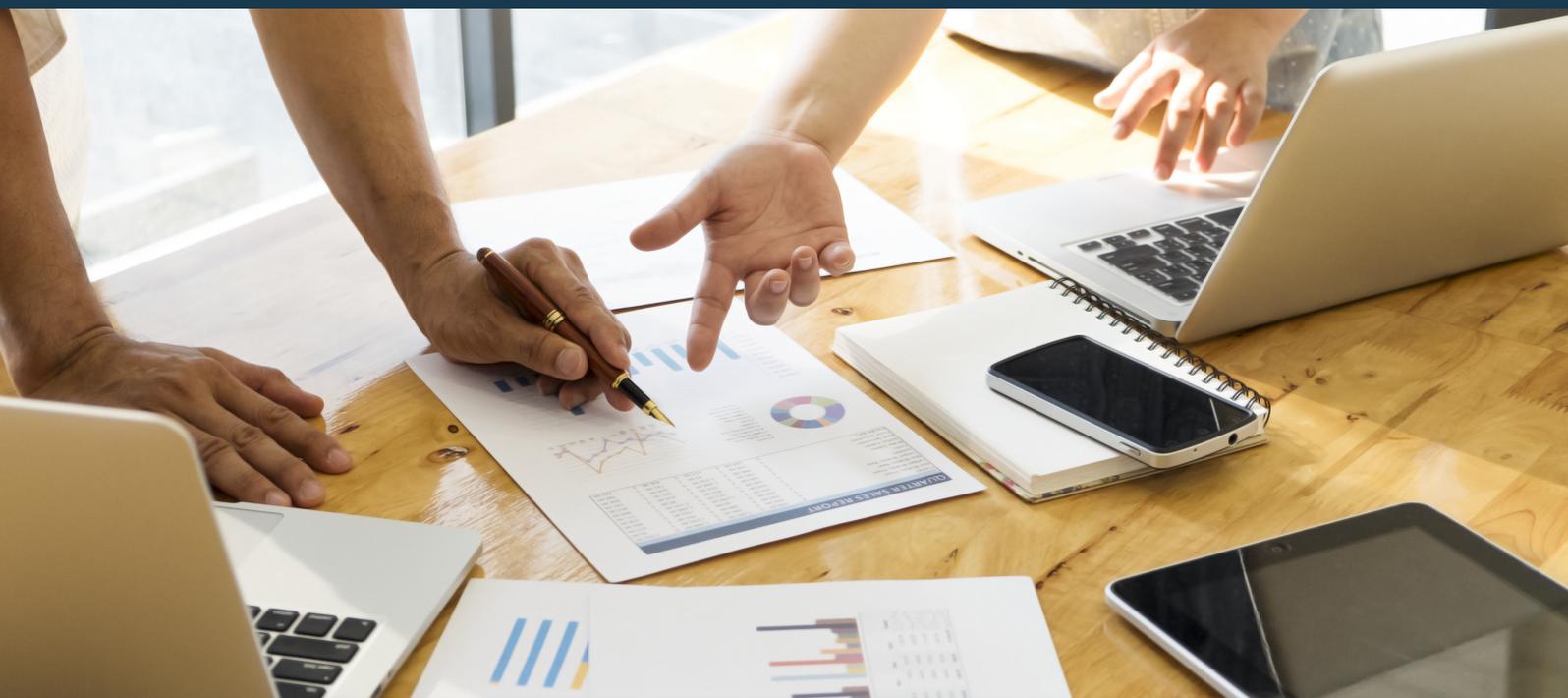


DATA AND METHODS

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In the previous section, various works were reviewed with respect to the contributions that various authors have had in looking at the effectiveness of communication in the successful implementation of software projects. This section describes the methods used to collect data in this dissertation.

It is important to state that the data used in this research is collected both from the primary and secondary sources. Within project communication processes, communication normally occurs in different ways, which mainly features three forms including verbal, written and non-verbal forms. Therefore, using both primary and secondary sources of data will ensure that all forms of communication in software projects are documented to acquire objective data. The secondary sources of information used in this research are those that are readily available and serve as a foundation on which data can be derived. This section will reveal the types of secondary sources used and the manner that they will be used in providing data for this research. This means that the research will partly use data and information provided in the secondary sources. From this form of information, evidence is acquired to support what has been derived from the primary sources. Secondary sources are very important in this research because primary sources alone could not provide enough evidence, especially with respect to the fact that communication occurs in different forms. Therefore, secondary sources serve to supplement data from primary sources.

Secondary data was collected from various books, journals, and newspapers and articles from libraries. This was very important for collecting accurate information on the effect of effective communication to SW project implementation because communication in software project implementation is not a new concept but has existed for many years. Therefore, the

secondary data was important in acting as a background and supplementary information to primary data so that combining them will ensure that a conclusive data can be reached.

The primary data is collected from the company by using two different methods that include issuing questionnaires and interviews to employees and executives in the company. These were not issued to all the employees and executives in the company but to those who are specifically involved in software project implementation because they are directly involved in daily operations of software project delivery and, thus, participate in the communication process irrespective of the communication form used. The research applied 50 questionnaires to different employees and executives who, as mentioned above, are directly involved in software project implementation. The main reason for presenting the questionnaires to employees and executives who are directly engaged in software project implementation was to acquire direct and first-hand data and information with respect to how effective communication affects software project implementation and delivery issues.

Some of the important areas that the questionnaires sought to find out were the effect of communication to overall software project implementation, its effect on the relationship between employees and executives and the effect of this to project implementation and its effect on issues such as timeliness and use of resources in software project implementation. The questionnaires had 20 questions each and were given out during a normal day at work, in the morning during a meeting when the employees and the executive were present as part of software project implementation. All people were given the questionnaire and they were collected in a box in the middle of the office after a period of about ten minutes.

In using the questionnaire, the measurement of communication effectiveness is based on the evaluation of responses to the questions. Questionnaire-based evaluations are common in project management and implementation because abstract concepts, for instance, project commitment, teamwork, leadership, and employee-management relationship, are difficult to analyze quantitatively yet this research investigates these issues in relation to software project success. Therefore, the approach is used in the development of a quality project management and delivery metric for software project delivery. In this research, the questionnaire was developed to investigate the effects of effective communication to successful software project implementation and delivery. Based on the responses to the questions, the success of software projects is measured.

The methods also feature interviews as stated above. The research featured 3 interviews, which was important because subjective evaluation was significant in terms of getting participants' perception in the evaluation of the effect of effective communication on software project implementation. These interviews were given to one executive and two employees directly involved in a software project. This is a subjective evaluation because it is based on the perception of the participants themselves. In this approach, the participant is interviewed on issues of communication as they link to software project implementation and delivery. It is important to note that despite the fact that this approach is considered subjective evaluation, its validity cannot be overlooked because participants' perception of communication in software projects is important in revealing its influences in implementation and delivery.

Furthermore, the entries in the interview were developed such that participants can give factual information with respect to the application of effective communication in software project implementation. The participants interviewed are practitioners who have a clear sense of the best practices in software projects and whether effective communication influences such best practices to effect success in the projects. It is also important to categorically state that the interview was meant to receive responses that only provide an insight or information regarding the effect of effective communication on software project implementation. It does not provide any insight into how improvement can be done with respect to communication so that software projects become successful. However, this is not to rule out the fact that interpretation can be done using the results to help in the improvement of communication despite the fact that this research specifically concentrates on the effects side of communication.

The questions were open ended because the research serves to find full, meaningful answers using the knowledge of the subject/participant. It allowed the subject to give all the information they have on the topic of research. This is very important for the research because for the results to be valid, the responses must be valid too.

Questionnaires were divided into two sections. In the first section, names were anonymous, and the questionnaire asked for the grade or specialism in order to know how to sort the results. The exact reason for anonymity was to ensure that respondents felt comfortable to participate in filling the questionnaire and give the information they heard without fear or favor. The intended age for the participants was middle aged people. The second part asked about communication in specific terms with respect to

its link to successful software project implementation. For example, the questionnaire had questions that featured areas such as the importance of communication in an IT project, the type of communication breakdown existing in the department, effectiveness and effect on project implementation and success.

This study use purposive sampling in the sense that it will be a judgmental sample because it will be based on the knowledge of the population and the purpose of the research. Tongco (2007) states, "The purposive sampling technique, also called judgment sampling, is the deliberate choice of an informant due to the qualities the informant possesses" (Tongco 2007). A representative sample was collected, as stated above, depending on employee responsibility in projects and managerial importance and involvement in project management. Having a representative sample as participants is important because it reflects the overall perception of the other employees and executives who participate in software project implementation.

The population from which primary data was taken in this study was from the IT department mainly dealing with SW project work and delivery. Among the people intended for the study include the project manager, technical lead, tester, and infrastructural leader. It is from this population that the sample was taken. This research featured 53 people from which data was taken. 50 participants were given the questionnaire while 3 were interviewed. The participants were chosen based on their employee responsibility, participation in software projects and their overall managerial importance in software projects. This was done to ensure that primary data is valid for the study.

The data analysis techniques used in the research will be relatively less as the project is qualitative in its nature. Data analysis will use the exploratory form of data analysis. Exploratory

data analysis will be used to study patterns with respect to the use or failure to implement effective communication in SW projects. In the exploratory form of analysis, the available information will be assessed and used in the development of the research. The approach will explore the data from secondary sources to make a conclusive discussion.

Data from primary sources will be collected into excel and an analysis can be conducted. This data will then be interpreted to inform on the effects of effective communication on software project implementation. The data from secondary sources that will be built from the readily available sources of information will be formulated into certain preconceptions, and the primary data will be used to test out this data. The project will use qualitative data and will assess the answers that have been developed.

Summary

This section describes the methods used to collect data in this dissertation. It is important to state that the data used in this research is collected both from the primary and secondary sources. Within project communication processes, communication normally occurs in different ways, which mainly features three forms including verbal, written and non-verbal forms. Therefore, using both primary and secondary sources of data will ensure that all forms of communication in software projects are documented to acquire objective data.

The primary data is collected from the company by using two different methods that include issuing questionnaires and interviews to employees and executives in the company. These were not issued to all the employees and executives in the company but to those who are specifically involved in software

project implementation because they are directly involved in daily operations of software project delivery and thus, participate in the communication process irrespective of the communication form used. The questions were open ended because open-ended questions because the research serves to find full, meaningful answers using the knowledge of the subject/participant.

This study uses purposive sampling in the sense that it will be a judgmental sample because it will be based on the knowledge of the population and the purpose of the research. A representative sample was collected depending on employee responsibility in projects and managerial importance and involvement in project management. Population from which primary data was taken in this study was from the IT department mainly dealing with SW project work and delivery.

Reference List

Tongco, DC 2007, Purposive sampling as a tool for informant selection. Retrieved from <http://scholarspace.manoa.hawaii.edu/bitstream/handle/10125/227/i1547-346505-147.pdf?sequence=4>