Archives of Business Research – Vol. 11, No. 9
Publication Date: September 25, 2023
DOI:10.14738/abr.119.15534
Abdul, O., & Kozlovski, E. (2023). The Role of Communication Management Within the Virtual Team in an International Projects-Based Organisation. Archives of Business Research, 11(9). 205-218.

The Role of Communication Management Within the Virtual Team in an International Projects-Based Organisation

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ABSTRACT

This paper examines the practice of communication management within the different geographically spread virtual teams in the attainment of project goals in a cost-effective manner. The panel research has been carried out in UK companies working in collaboration with virtual teams from Africa. Data for the research was collected through a face-to-face interview with 6 participants from a different organisation that has an internationally spread workforce; this research concentrates on examining how the practice of communication management can lead to a successful project, this study adds together different approaches to a joint strategy. The aim of this research is to examine the practice of communication management within virtual teams and by looking at how communication is managed within projects. Then, this can help to deduce the best practice of communication that convey success to projects within virtual teams. The finding from the participants confirmed that communication management is vital to achieving timely successful results within a project. However, they identified some communication challenges, but it is clear that a plan for managing communication is missing. Additionally, virtual communication is more effective when there is occasional face-to-face communication.

Keywords: Communication management, face-to-face communication, project-based organisations, types of communication, Virtual teams

INTRODUCTION

Many organisations use ''virtual teams of different geographically spread people to work on short and time-consuming projects to reduce costs and acquire competitive benefits''. As stated by Grosse (2002, p. 1), A ''virtual'' team carry out its work through electronic technology, such technology has changed the working environment of many business establishments therefore allowing business of all sort to participate in the international market. PMI (2004) further observes that using virtual teams will create the likelihoods of gaining more project team participants and finally the PMBOK guide (2009) also identifies the importance of communication planning among virtual team to acquire a smooth running and success. However, the guide gives no further information as regards to the steps to follow.

A virtual team can officially be defined as a collection of ''geographically and/or organizationally'' spread co-workers gathered using a mixture of data and communications

tools for achieving an administrative chore (Malhotra, Majchrzak, & Rosen, 2007; Townsend DeMarie; & Hendrickson, 1998) cited in (Kuruppuarachchi, 2009).

Managing virtual team efficiently requires knowledge and understanding of team basic values of team dynamics irrespective of period, ''space, and communication'' Berry, (2011) effective communication influence the objectives of a team both negative and positively regardless of their place, culture, nonverbal communication. This research work is very essential when considering the issue and management of communication within project teams and teams at large. The focus of most research project and body of knowledge is on the analysis of communication between ''project team and outside world'' (Kisielnicki, 2011). In contrast, PMBOK (2013) noted only communication management plan in details but has no review of in-house communication among the team members. Most body of knowledge like PRINCE2 and PMBOK has given lot of concentration on communication between the project managers and the project stakeholders. Meanwhile, it is illustrious that stakeholder is internal and external which makes the members of the team to be stakeholder but there is no special mention of the communication among the project team.

RATIONAL OF THE STUDY

According to Blumberg et al. (2005), two features are crucial in individuals writing a research project: (1) "Professional research ability" (2) "related management experience". Similarly, Saunders et al. (2000) stated that, the researcher topic must be something that excites the imagination of the researcher "having a profession skills and experience to carry out the research topic".

The basis for the choosing this research topic is based on the background of the researcher and her interest in the topic. The researcher has a year of experience working in an international project team, which works together between the UK and Nigeria. The researcher at most times wonders how communication has been managed in such a team that has most of the stakeholders abroad. This experience led the researcher to investigate the successful management of communication within a virtual team in international projects. Conducting this dissertation will encourage a practical application of the finding in the researcher's future endeavours. Saunders et al. (2000) also cited that; a research topic must be something that the researcher has a deep interest in.

LITERATURE REVIEW

Project Management, Projects Success and Effective Communication

Project management can be identified to be one of the fastest growing disciplines and this is illustrated by the yearly rise of 20% in the number of people taking PRINCE2 examination PRINCE2 (2009) and it explains the growth of project management institute from a member of 259,172 to above 500,000 members (PMI, 2013). Project management has "expanded as a course of study and as a profession with great approaches for any establishment that wants resourceful and effective operational outcomes". PRINCE2 (2009), "defines a project as a temporary organisation created for the aims of delivering different business products in compliance to a contracted business case". In agreement with this body of knowledge (Koster, 2010) defines projects as an undertaking whereby ''human, material and financial'' resources are organised in a novel way which allows an enterprise of a special range of work based on a

specified factors that is within the constraints of cost and time in other to achieve a resourceful change specified by the project objectives.

Project management according to Gardiner (2005) outlines that ''project management is the design, observing and controlling of all aspects of a project and the motivations of all those involved in it to achieve the project objectives on time and to specified cost, quality, and performance''. (APM, 2000: 14) cited in Gardiner (2005) stated that ''project management is a persuasion of managing projects successfully''. Kerzner (2009) implies that, successful project management is when a project activity is completed within the time frame and stipulated cost and making use of the resource in a way that will be acceptable by the stakeholders. Moreover, Kerzner further gave an overview of ''project management as the planning, organising and directing of project resources for a short time objective that has been establish to complete specific goals and objectives'' (Kerzner ,2009).

Project Success and Effective Communication

Over the last three years, project success has received attention within the project management research studies (Anantatmula, 2010). Several researchers have given a view of project success based on a different criterial, some of the criterial used by (McLeod, 2012) are built on the "stakeholders expectations of the project effects". In contrast, Anantatmula & Thomas (2010) implies that establishing "strong communication and cooperation with project managers, stakeholders and project team are the criterial for project success." Anantatmula, (2010) stressed that, communication in a virtual environment is non-verbal, that is the main reason for apprehension on communication as to determining the success of virtual team, in the traditional team physical communication takes place between the managers and the project teams but in the virtual team has a reverse case. In virtual team members has no privilege of reading the body language of team members or project managers as "e-mail, text messages and instant messages are used in communicating". For that reason, mistaken emotions and messages can be easily assigned in the absence of facial contact.

Communication was found to be an important factor when measuring project success, the only way to resolve project issues is by communication. Effective Communication has been seen as the largest influence when defining the worth, competence, contentment, and productivity of a project group. To ensure project success, there is a need for flawless information such as anticipations, needs, objectives and reports communication from time to time during the life cycle of a project, (Koster, 2010). Furthermore, Koster implies that effective communication is an essential element in international projects success.

The International Projects

International project according to Koster, (2010) may be seen as global, which consist of the whole world. International projects are at the same time, a multicultural project that is associated with different cultural group. It maybe "national, organizational or functional cultures'' international projects are made of virtual team or group which consist of the sub-group because the stakeholders within virtual team are geographically spread. According to (Anantatmula & Thomas 2010), an international project is a transnational project. Also, it is an endeavour which is temporal whereby the project group is made personality form different countries working in different cultures, business units and purposes. Similarly,

URL: http://dx.doi.org/10.14738/abr.119.15534

(Adenfelt&Lagerström, 2006: Marmer, 1998; Schweiger, 1998) cited in (Anantatmula & Thomas 2010) implies that international virtual team can be defined form three angles (1) they are team without a past or future (2) they are culturally different and are spread through different region (3) communication among them requires electronic method.

Recently, companies and organizations are multiplying across regions and time zones. Day by day the number of project member that speaks different languages is becoming enormous; let's say the project world is now international. According to (Binder, 2007) international projects are a mixture of projects and virtual members, the international projects comprise of individual from diverse industry but has come together to share skills and work together to achieve an objective within a certain period. Because international project consists of virtual project team, this study will consider the characteristic of international project. (Kerzner, 2009) identified characteristic of international project as follows:

Table 4: characteristic of international project (Kerzner, 2009)



Binder, (2007) further said that international projects members consist of members of various cultures and organization that are spread all over the countries where there is different time, weather condition and above all they have language differences. (McDonough and Athanassious, 2006) cited in Mariam et al (2003) discovered that, the major challenges virtual team leader encountered are due to the fact that most team member speak different language, work in different parastatals, come from different countries and have diverse cultural upbringing which totally comes up to communication management.

Virtual Teams and Challenges

Teams and their special attribute contribute to project success. PRINCE2 (2009) implies that, direction, controlling, and communication are essential element in project management. Hence, creating effective project management team and structuring the right strategy of communication at the start of the project and all through the life cycle of the project are important component of project success. Virtual teams are commonly used in business surroundings. Kerzner (2009) infers that, based on the "complexity and size of a project. The approach to project management has changed, from a situation whereby team meetings involved all performers gathering in a room and having a face- to- face meeting.

Literature related to virtual teams shows a lack of depth in the definitions, the definition shows that many areas of the study has not been examined (Elbrahim et al, 2009). Nevertheless, there are several controversies in literatures on what makes a virtual team.

- Elbrahim et al. (2009) "added two key characteristics to the definition ''small temporary groups of geographically, organizationally and/or time dispersed knowledge workers who coordinate their work predominantly with electronic information and communication technologies".
- PMBOK "defines virtual teams as a group of people with a shared goal who fulfil their roles with little or no time spent meeting face to face".
- Duarte and Snyder (2006) "added that virtual teams operate without the physical limitations of distance, time, and organizational boundaries".

For this purpose of this study the following definition of virtual team will be used: according to (PMBOK 2013, Duarte and Snyder 2005, Elbrahim et al 2006) which stated that, "virtual team is a group of people and sub-teams with a shared goal that operate without the physical limitation of time, therefore network through telecommunication technologies to achieve one or more goals of the organisation".

Virtual teams are faced with diverse challenges: starting with its struggle with communication which is the major factor of determine project success, communication in terms of language barriers or difference in time Zones. ''Cultural difference, technical challenges, and resource management'' can also be identified as some of the challenges facing virtual team (Duarte and Snyder, 2006). Project managers should develop appropriate skills to manage these problems within project and project teams (Anantatmula , 2010).

Basic Communication Tools and Theory for Selecting Communication Technology for Virtual Teams

The formation of virtual project teams is to promote teamwork in different location, time and organisation boundaries. Developments in technology has made this work easy for virtual teams so that success can be attained, the development in technology entail of video conferencing, mobile technologies. It is important that a project achieve its objectives, therefore organisations when planning to virtual should consider communication and tools to use (Weimann et al, 2010). Due to need for permanent connectivity, technologies are taking a leading role to support task completion and communication in organizations, tools such as teleconferencing, e-mail and more of the instant messaging tools are becoming global in industries (Khazanchi & Zigurs, 2005).

Social Presence Theory:

In categorising and picking communication technology and tools for virtual teams, the social presence theory was mentioned in Pazos et al (2013) implies that, Media has different levels of social presence which define the level to which media takes the physical presence of the members and provides sign necessary to develop interactive relationships, the theory went further to argue that communication is effective when the medium used offers enough" social presence to effectively carryout the task, such as conflict resolution, negotiation engagement, require media with high level of social presence" (Pazos et al, 2013).

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Information Richness Theory:

Information richness theory is one of the most common theories mentioned in literatures and it can sometimes be referred to as media richness theory. Information theory can be used to explain the capacity of communication media to transfer information. The theory suggests that media vary in the levels of richness they provide, although media might have a different number of cues e.g., "timely feedback, body language and facial expression". They are not able to convey the timeliness of feedback, therefore face-to-face communication can be the richest medium (Weimann et al, 2010).

Characteristic for determining the most suitable media for communicating message:

- Immediate feedback, which centers on the quickness of a two means communication.
- The second is Signals, which can cover physical signals, vocal cues or even body signs.
- The third is Language diversity, which emphases on how language is used in communication.
- And the fourth is Personal emphasis which examines the emotional wants and moods of the sender or receiver (Barrow, 2009).

The level of richness is displayed in the table listed below and the more a medium has this characteristic the richer it becomes.

Table 6: Stage of Richness of communication means (Weimann et al, 2010)

Medium	Feedbacks	Body language	Facial look	Tone of voice	Send emotion	Send Message
Face-to-face	✓	✓	✓	✓	✓	✓
Video conferencing	✓		✓	✓	✓	✓
e-mail						✓
Chat	✓				✓	✓
Written paper						✓
Text message						✓
Phone	✓			✓	✓	✓

METHODLOGY

For this purpose of this research, the research choice will be qualitative method which will support the researcher to collect and analyse information taken through language and behavior showed in natural setting. Qualitative techniques help to capture sensitive information not taken in "quantitative data about the observation, worth, needs, approaches and motivation that feature behaviours of an individual" (Saunders et al, 2000). Similarly, an "explorative study gives a clear understanding of research problem and serve as a ground for future research" (Singh, 2017) cited in (Abdul, 2018). This research is an explorative study is explorative with a choice of non-probability techniques (Saunders et al., 2016). There are kinds of non-probability sample. This study has not tried to sample interviewed participant randomly and so; a purposive sampling technique was used. The goal of this sampling techniques is to be able to gather related participants to the research questions (Bryman & Bell, 2011). Since the research aim to explore and understand the effect of communication on the virtual team member and project success, this method was chosen. Meanwhile, purposive sampling is a non-probability

sampling approach it does not allow this research to make a generalization to a population and it cannot be statistically expressive (Saunder et al., 2016).

Data were collected from 8 participants from service industry that have team across Nigeria and UK. The research collects this data through an in-depth interview that lasted for 40 minutes. I needed to get personal thoughts, takes and viewpoint from the project teams. there were to be able to answer the research questions. Participant were emailed prior to the interview to get their consents. in order to collect empirical data for this study, interviews were chosen. According to Saunder et al (2016, pp. 390-391) there are two interviews' categories standardize and non-standardized. Therefore, this research opted for a semi-structure interview. Semi-structure interviews are good when is researchers want to follow particular questions and themes, and can change the sequence of the question along the way (Bryman & Bell, 2011). A face- to- face interview was conducted with the three participants and three skype interview with other three.

The collected data were analysed using a content analysis as it is a scientific, clear and organized way of analysing qualitative data to come to a conclusion (Saunder et al., (2006). Similarly, the empirical study of Mayring (2000) explain content analysis as a process whereby a researcher makes use of the objectives and logical code into a qualitative account. So, in using this method, the researcher uses the themes based on the objectives of my study and make a frequency distribution on excel to arrive at a quantifiable value. Before the research tool, the researcher did a pilot testing with one of her colleagues to prepare to the main interview. Abdul (2018) pilot testing is an efficient way that help researchers identify reliabilities and problems with choice of methods.

Furthermore, Saunder et al., (2017) noted that etic is the appropriateness that a researcher conduct concerning the right of who becomes part of your work and are affected by the study. Therefore, this study ensure that participants are free to withdrawal at any point if they feel uncomfortable, consent were obtained before the interview day and confidentiality is maintained by editing personal information.

RESULT AND ANALYSIS

The researcher gathered information from different 6 Participants to examine how different institutions manage communication within virtual teams in an international project. The information generated has been used to study the processes of managing communication within virtual teams in international projects is expressed by the virtual team members within the organisation. This study aims at understanding the process to successful communication management and the useful tools for achieving virtual communication management success, the interview from various participants helped to reveal a complete picture of communication management practices within different organization and as this chapter progresses: the final report will be presented.

Impact of Virtual Communication on Project Success

The reason for this question is to understand the connection between real communication and "project success". Thus, considering participant one, the team member within the establishment experienced several unpleasant challenges due to communication breakdown of

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the virtual methods; a picture of this breakdown was made clear as a result of the meeting held with the virtual groups by the consultant. The "participant complained that the "lack of face-to-face communication is affecting the group efficiency as most times we have poor internet connection which most often hang us on the hedge during an important conversation" Participant 6. However, the participant agreed that virtual communication was able to reduce the negative effect of distance on the project effectiveness and team efficiency.

"Using different form of virtual meeting equipment really saved our company from unnecessary cost of paying for flight. All we need do is organise a virtual meeting where issues are resolved and training are conducted, these online meetings allow us to get immediate feedback from some of our foreign experts" Participant 6

According to participant 5, there group also felt that virtual communication will help the organization and the client, end users and the team to have a good collaboration." reporting to our expect abroad is easier and most time he is able to share slides and train us virtually, and we often give an update on our progress" Participant 5

"Recently we had an issue with our plant in one of our factories in Nigeria, the manager that knows more about the repair is on course in the UK. Thanks to the effect of virtual communication which was amazing, just a dial the team gathered, and he was able to talk to one of his junior colleagues as how to resolve the situation" Participant 4

Participant 2 explained that communication will be difficult when members are spread all over and the cost of managers travelling for a face-to-face meeting will be much on the company. "However, she also expresses that team feedback from the virtual groups will benefit the manager in managing virtual teams" Participant 2

In conforming to literature finding from the participants agree with Anantatmula & Thomas (2010) which implies that establishing "strong communication and cooperation with project managers, stakeholders and project team are the criteria for project success". Although the participants highlighted some of the challenges that might cut across projects and international organisation when communicating, finding show that effective communication will help in resolving project challenges. More so, the participants give a good illustration of how effective communication can be used to define worth, competence and productivity of a project team. This shows an agreement with the PMBOK communication model thus communication was seen as a two-way process with reference to feedback (PMBOK, 2014).

Challenges of Managing Virtual Teams

According to the participants the challenges of managing virtual teams are enormous. Participant 2, experience of challenges of managing virtual team "How interesting will be to be able to have a reliable connection, so we just need something that is reliable and efficiency, as our expansion has made the group have pressure to communication on time to time." Similarly, Participant 3 identified that "the challenges we face in our virtual teams are lack of communication tools or the absence of poor connection which disrupt our meeting from time to time, also the absence of face-to face communication on a timely intervals and distance based

on the fact that team member is geographically spread, as such that deprive the member of the opportunity to have a direct communication"

"We are faced with the challenges of time in our meetings for example our project manager based in the UK, so he fixed a meeting start to 2pm and that happen to be our lunch break in Nigeria while he would have had his between 12 and 1pm. Also, most we have a slow approach to work in Nigeria as the Muslim's go to Mosque which means meeting on Friday afternoon might not work".

"The challenge we faced on time to time is the internet connection or signal lost during conversations or training. We also experience huge argument maybe because of bad network or misconception because we can see our body language" Participant 1

"We had a case were one of the team members was talking in Nigeria and another one in the UK complained that this team member was shouting while trying to explain things to him in the meeting. Unfortunately, that was not the case as I was in the meeting from Nigeria, so we had to calm the situation." The challenges identified from the participants conform to Elbrahim et al. (2006) which identified virtual team's challenges as "time zones, cultural issues, lack of face-to-face communication, trust problems, diverse communication style, and language accents" and further implies that project manager needs special skills and structure to resolve these issues.

Best Communication Strategy for Managing Virtual Projects Teams

It is essential for communication strategy to be established by the project management so that it will define the rule of the game. Project managers are to bear the responsibility of finding the suitable communication plan to pass information's to stakeholders and the virtual project teams (Kerzner, 2009). Participants interviewed in this study experienced a structured communication plan which has helped in the smooth running of their project "what really worked for us is the time table of meeting that was put in place by our project manager, we have a stated time of meetings and prior to that, we will be sent a plan of the purpose of meeting/ training and that gives an insight into what is to come" Participant 3

"This organisation has a draft for past and upcoming meetings which is sent round through emails for us to add any issues you will like to discuss before we converge" Participant 4. "I introduced this idea when I joined this project team, they were nonchalant about having a good communication strategy. There was a time that we had a serious fight among members of the team during virtual meetings with one of our contractors because of lack of prior information of the issues we are facing in delivering a project. So, I must come up with the idea of meeting agenda which worked for us" Participant 6

"We do not have a plan for communication, we most often receive an email for meetings two days to time. This affects our project end date and gives us problems with one of the big stakeholders in Nigeria "Participant 2

According to these participant's experiences work was done within the team without any problems because of the communication structure which has helped to enhance project team

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trust and conflicts. Thomas (2010) cited that, communication plan for virtual project teams should have three useful results: relaxed environment with conflict free, avoid inflexible structure and communication tools. Meanwhile, the experience of Participant 2 was not in line with theory, and such gave them problems

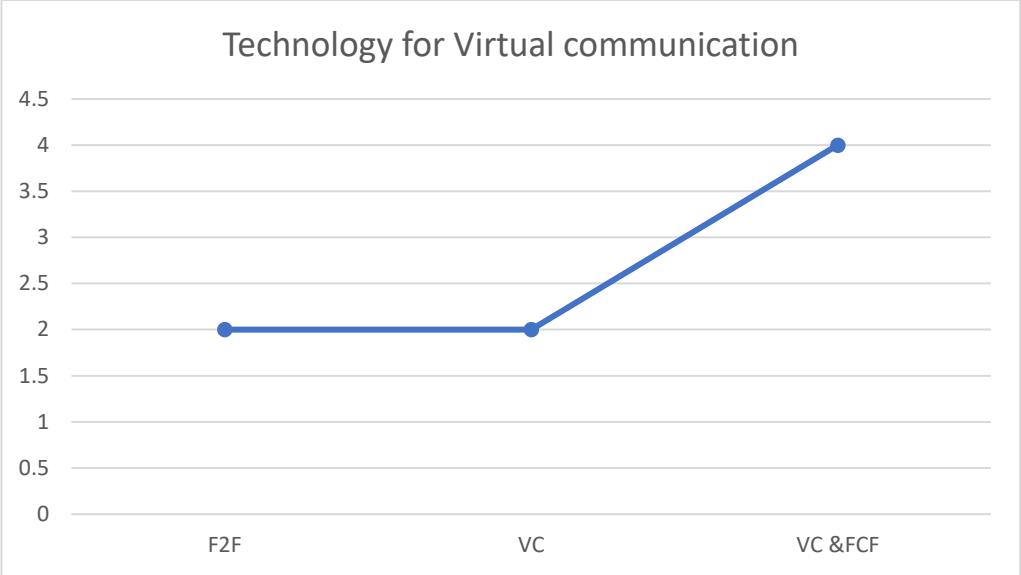
Appropriate Technology for Communication Within Virtual Project Teams

Participant 1, complained the use of a "computer facilitated communication technology rather than a face-to-face meeting, I appreciate that we can communicate without having to wait so long with our colleagues abroad but it will be good if we can have face-to-face meetings sometimes". For instance, there was a time my project coordinator was in the UK and we had a challenge in Nigeria with the government which needs our attention. There was no time to send emails for an urgent meeting so I called him and through skype, and he was very furious and was on top of his voice while talking"

The participant belief that, computer facilitated means of communication does not enhance proper feedback and that it is difficult to study the body language, to understand the initial intention of the communicator, the company was limited to the use of "teleconference call and the use of power point slides" in their virtual meetings. In analysing this practice, the "information richness theory" suggested that media might have different numbers of cues e.g., "timely feedback, body language, facial expression" but they are not able to convey the timeliness feedback, therefore face-to-face communication can be considered to be the richest medium.

Participant 2, the use of videoconferencing as a means of communication within this project helped my company to resolve team's problems, build trust, cooperation and team's work. Therefore, the use of Videoconferencing helped the project. Likewise, Participant 3 and 4 experience that the combine use of telephony and video-conferencing enhance good performance and reduce the organisation budget. Furthermore, the participants explain how tools like "electronic mail, mailing lists, threaded conferencing systems, wikis and blogs" that has been used in the time past but now has been substituted for the adoption of videoconferencing and the tool has helped in the creation of literate environment. However, Participant 2, 5 and 6 experience that the absence of face-to-face within their project teams delayed the project completion. "Before we can conclude our present project, we need our contractor and project manager to come to Nigeria, as the local government we are working with presently will want them to be present to sign appropriate documents before we deliver the project" if this is done virtually our stakeholders will think of it as fraud"

To relate the above practice to theory, and identified the best communication technology that should be used based on the ability of such technology to convey immediate feedback. "Social presence theory stated that, the appropriate technology should carry the social presence that is: easy to study moods and understand the intension of the communicators" (Pazos et al, 2013).



F2F= face-to-face VC= Video conferencing

CONCLUSION

The research finding gives evidence that communication is one of the strongest criteria for determine project success, the analysed case study identified communication to be an important factor for project success and good collaboration among virtual project teams although their view was in line with the literature but the practice of the communication process was not in conformance with the theories on the focus. In identifying the challenges encountered when managing virtual teams, the reviewed cases above shows that lack of face-to-face communication was common to the project and industries in the case study. There were challenges of distance of virtual teams and organisation culture, conflict of interest and insufficient-shared languages. The lack of face-to-face communication in virtual team is more challenging because of the lack of physical interaction which can enable the sender receives a perception or feedback by studying the receiver body language. Powell et al (2004) propose that, "when non-verbal signal is absence and unspoken knowledge transfer makes communication difficult". Also as identified within the case, is the inability of the project managers to put adequate structure and plans in place to manage communication effectively. Kerzner (2009) explains that, within the project environment the project manager should have a good communication skills and personalities which often dictate the communication style.

The result of this research shows that the impact of communication plan, plays an important role when talking about communication effectiveness in virtual teams, the plan will build into a structure and style. PMBOK (2013) explains that, "communication management plan designates how project communication will be planned, structure, monitored and controlled" likewise Koster (2010) and the diffusion theory also emphasize on the essential of a communication plan within international projects and the virtual project teams as leading to a smooth running of the projects and aids the management of communication for project success. This study will conclude that to determine project success and the best practice for communication management within international project, virtual project teams need more attention on a good communication management plan which will solidify the structure, style and lead to success communication management.

URL: http://dx.doi.org/10.14738/abr.119.15534

RESEARCH LIMITATIONS AND RECOMMENDATIONS

This study interviewed 6 different project members within an international project to gain an insight into the research phenomena, although inability to reach out to more participant because time limit was a constraint to this research. However, it is believed that this research gives an intuition to the indulgent of the method of communication management within "virtual teams in international projects". Throughout the period of this study, the study has considered how communication management, within teams and projects can be simplified for a successful project and teams. Nevertheless, it is of vital important to consider how challenges encountered during communication management breakdown can be resolved. Consequently, this study is important to understand the solution to communication management and challenges come across within virtual teams in international projects.

This study has several numbers of limitations which affect the overview of the findings; among the limitation is the issue of time limitation. The amount of time given for research was insufficient due to other academic engagements, based on the time constraint findings cannot be generalized and are not representing the conclusion of most company practices. Also, the research topic examined communication management within a virtual team which is an internal, however the external communication has not been considered in this study.

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