

THE ACT OF EFFECTIVE COMMUNICATION IN IT MULTINATIONAL PROJECTS

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Abstract

The purpose of this study is to investigate the barriers and challenges to effective communication within IT project teams in multinational organizations. Effective communication within IT project teams is a key pillar to project success. A lack of proper communication would hinder the achievement of project outcomes. Current communication practices adopted by team members will be explored and analysed extensively. Barriers to effective communication will be determined and consequent strategies to adopt, to improve communication among project team members, will be defined. However, IT projects performances are still heavily affected by poor communication, due to the lack of adoption of effective communication practices. Failure to give enough importance to these practices contributes to compromising the expected outcome of an IT project. The research will analyse several factors affecting the communication process in IT projects. It will focus on the best practices project managers should adopt, such as delivering high-quality communication and providing clear direction about the realization of project objectives. This study wants to identify strategies for the adoption of effective communication practices among team members.

This study will adopt a qualitative multiple case study approach, by focusing on five IT multinational organizations. Five project managers will be interviewed using interview schedules to generate data for the study. This study will seek to find answers to questions about current communication practices among project team members, determine the barriers and challenges to effective communication, and determine the strategies that can promote the adoption of effective communication practices among project team members.

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1 Introduction

1.1 Background

The key to successful project management, particularly Information Technology (IT) projects, always begins and ends with effective internal and external communication (Schmidt, 2017). Without proper communication, IT projects would fail to achieve project outcomes. Project management has been defined as the act of controlling and monitoring project activities from initiation to completion (Schmidt, 2017; Seabra & Almeida, 2015). Communication plays a crucial function in the coordination and monitoring of this process. Despite the importance of effective communication in project management, and the availability of different principles and methodologies of communication, IT projects continue to perform dismally due to poor communication, caused by a failure to adopt effective communication practices (Muszynska, 2015; Carvalho, 2014). Furthermore, effective communication practices are not given enough attention in many IT projects (Papke-Shields et al., 2010; Stoica & Brouse, 2013), therefore contributing to the failure of projects to achieve their intended outcomes.

Several factors affect the communication process in IT projects including barriers to communication, such as; environment, priorities, semantics, project manager's communication skills, and trust (Carvalho, 2014). Project managers should focus on high quality communication and provide clear direction to enhance the realization of project objectives, in addition to actively engaging the project team members in project activities (Schmidt, 2017). This study therefore seeks to determine the current communications practices, barriers and challenges to communication in IT

projects, with the aim of identifying strategies for the adoption of effective communication practices among team members, to ensure project attain their objectives.

1.2 Problem Statement

It has been argued that the key to successful project management is effective communication whereas poor communication contributes to the failure of projects to realise their objectives, especially projects in the IT industry (Talukhaba, Mutunga & Miruka, 2011). Effective communication would therefore contribute to the realization of project goals by linking project team members and synergizing their activities towards a common shared goal (Talukhaba, Mutunga & Miruka, 2011). Despite the advancements in communication technology, and availability of different principles and methodologies of communication, several IT projects are failing to realise their project goals due to the lack of effective communication. Additionally, despite the assertion that effective communication contributes significantly to project success, many IT projects have not adopted effective communication practices. Evidence reveals that the gap between literature and current communication practices is huge, despite the wealth of literature on effective communication practices; the current situation in different organizations reveals a dearth of effective communication practices (Gillard, 2005). Therefore, it is important to investigate the act of effective communication among members in IT projects by focusing on the following objectives.

- Explore current communication practices adopted by team members and analyse extensively.

- Determine barriers to effective communication and consequent strategies to adopt, in order to improve communication among project team members.
- Evaluate the obstacles and challenges to overcome and achieve effective communication within multinational organizations in the IT sector.
- Examine effective communication skills need within IT project teams to accomplish project outcomes.

1.3 Aim of the Research

Through this study, an in-depth understanding of effective communication practices in IT projects will be achieved. Additionally, barriers and challenges to effective communication and strategies to enhance adoption of effective communication practices will be identified.

This study will also aim to investigate the gap between literature and current communication practices. The research approach will adopt qualitative methods because they are effective in evidencing the perceptions that people give to their experiences, such communication.

2 Literature Review

2.1 Project Management

Project Management is the main area of interest in this research. The performance of a project is affected by how an organisation is structured, its culture and style.

Organisations have different levels of project management maturity which influence the project execution. Additionally, the organisation's project management systems affect the project (PMBOK, 2013). It is relevant to analyse the act of effective communication in IT teams by focusing on current communication practices in use by team members, determining the factors to non-adoption of effective practices and the skills required to fulfil effective communication.

Main business disciplines involved are Project Management, Project Communication Management and Project Communication Practices. Communication style contributes heavily to project management success and this becomes more evident in projects involving stakeholders on a global scale.

Organisational communications capabilities play a major role in keeping all team members aware of the project goals and about changes in direction happening from time to time in the project lifecycle.

According to PMBOK (2013), Project Communications Management consists of three processes: Plan Communications Management, Manage Communications and Control Communications. All those processes have a positive impact on project information. Specifically, plan communications management helps to develop a consistent plan for communications determined by stakeholders' requirements. Manage communications assists in defining a policy for the manipulation of information according to the communications management plan. Finally, control communications process is to monitor communications during the entire project life cycle and assure the stakeholders' needs are met.

Project Communication Practices analyses all different communication approaches adopted in a project and the underlying means of communication. One of the objectives of this research is to determine the current communication practices

specifically in IT multinational companies and how these practices influence the success of a project.

Project management, and effective communication in project management, have gained much prominence in recent years as core activities in the success of various projects, especially IT projects (Kerzner, 2009; Holzmann & Panizel, 2013). Companies can be compared not only by their products but also by how they are managed (Samáková et al., 2017). The competitiveness of companies is heavily impacted by the approach used to manage internal projects. Furthermore, the advancements in communication technology that promote exchange of information in real time, have brought profound changes to the industry, that include enhanced collaboration due to technologies like video conferencing, Facebook, WhatsApp, among others (Wojcik, 2014; Papadopoulos, 2015). A project is a temporary venture focusing on the development or production of a new service, system, or product, with a beginning and end that are clearly distinct (Wojcik, 2014; Seabra & Almeida, 2015). A single project may be performed by one-person, or a group of people working together in different sectors, or a group of organizations working together to realise shared goals (Wojcik, 2014; Seabra & Almeida, 2015).

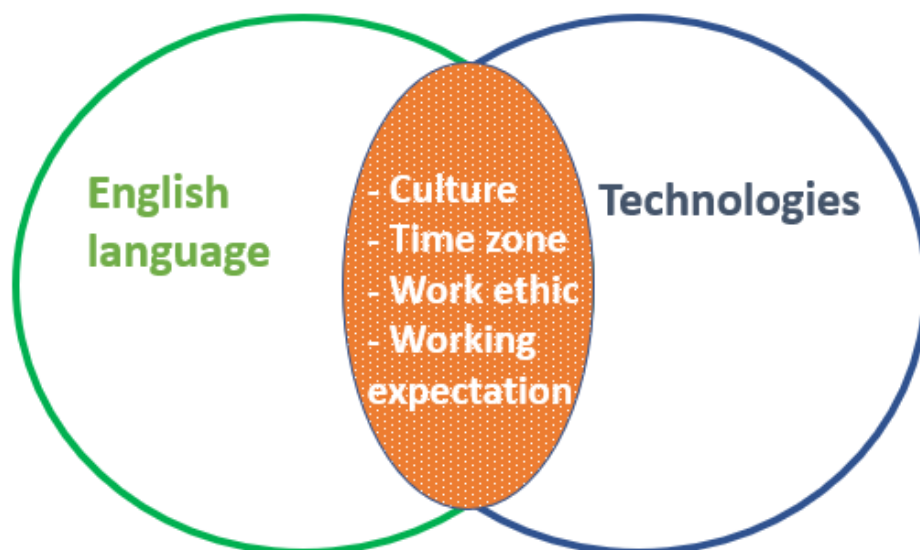
The hallmark of a successful project is the realization of project objectives within the agreed timelines and budget. This can only be attained with effective project management (Kerzner, 2009) which in-turn can only be realized with effective communication amongst project team members. Willis (2010) argues that project communication is usually affected by the project structure; this is particularly the case in IT projects, because they may include temporal and geographical distances in their scope of implementation (Papadopoulos, 2015). Larson (2011) reveals the existence of two types of projects; domestic and overseas.

These different types of projects may include different types of team members, including a project manager, project management team, and other project team members who perform different project activities (PMBOK, 2013). Without effective communication among team members and other stakeholders, the shared project goal may not be realised in an effective manner. Across the globe, IT projects have continued to perform dismally because of poor communication. For instance, in the UK from 2000-2011, only 45% of the projects were completed on time, and only 63% of the projects met budgetary requirements; while in the US, project productivity decreased by 0.8% annually in the same period (Rivera & Kashiwagi, 2016).

2.2 Impact of Culture and Communication Style in IT Projects

Culture can be defined as a group of individuals who share the same historical experience from which derives a set of values, beliefs, notions and life goals (Parboteeah and Cullen, 2003). That group of individuals will elaborate and share such knowledge and customs with their offspring so that the cycle will be repeated from one generation to the next. The culture is shaped in a unique way and it is different from the one developed with other distinct groups (Parboteeah and Cullen, 2003). This process is known also as education, which is at the foundations of most societies to preserve the cultural heritage.

The commonalities used within multinational IT project teams' organizations are English language and the Technologies. Culture, time zone difference, work ethic practices and working expectation are the overlaps within multinational environments.



In a determined culture, like in a national culture, the ensemble of values, beliefs, notions and life goals drives individuals of that community away from what is not tolerated and towards the acceptable behaviours. This phenomenon is reflected down to the organisational level in a way that is consistent with the broader national culture.

National culture is intrinsic with its country development. It has been noted (Parboteeah and Cullen, 2003) that the more a country is developed, the more its people will dedicate and prioritise time to personal life and recreational activities, rather than focusing on work. Furthermore, still developing countries aspire to increasing material wealth, whilst post-industrial countries give more importance to the quality of life and self-realisation. Consequently, it is safe to state that in the most industrialised countries, there is a predominant aspiration for other activities unrelated to work. According to Maslow's (1943) Hierarchy of Needs theory, Physiological, Safety, Belongingness are the fundamental level of needs for each individual. Those values are fulfilled in order to achieve the higher-order needs, such as; self-esteem, achievement, creativity and problem solving.

According to Quing et al. (2016), people's orientation towards work is related to demographic characteristics, personalities, generalized beliefs, culture, political and economic conditions and certain institutional conditions. Work ethics, working expectation and work-life balance can be varied based on different cultures.

In general, based on national culture, the different types of communication styles are used in the workplace. Broadly speaking, project management is the act of monitoring and controlling of project activities from the beginning to the completion. In this process, communication has a vital role in coordination and monitoring. It is important not to confuse good project management with micromanagement, but it is easy to do so. Micromanagement is a style of communication which can be commonly found in dominant hierarchical cultures. Whilst, it is less present in politically stable democratic cultures. In micromanagement style, a manager or supervisor follows closely the work of the employees and often gives directions on how to proceed. This approach has more negative impacts rather than positive on employees, according to

Rajkumar, Ajay and Gayathri (2016). Among the negative aspects, there is the creation of a sense of disengagement so that employees feel less engaged to fulfil their duties. This usually leads to a lack of commitment and initiative to improve the process of working, whilst quickly draining energies and increase mistakes. Planning every single detail and keeping track of the time to complete them is the foundation of micromanagement. This management style approach tends to put pressure on to subordinates and, therefore, increases stress levels on people managed in such a way. In a stressed and pressured environment, it is harder to work and to be focused just on the tasks so, low productivity can be caused. This reflects heavily on the quality of communication, making it worse due to situations of tension, lack of respect for each other's point of view and general lack of empathy. It is enough that few employees feel distressed by this kind of management to negatively affect the entire workplace and the other people they interact with.

However, the demands of multinational IT projects require project managers to use a micromanagement style of communication with some team members according to cultural aspects and expectations.

2.3 Project Communication Management

The key to a successful project is effective communication management. In contrast, the realisation of project objectives is jeopardised by poor communication, especially in the IT industry. Therefore, maintaining a high quality of communication in a project helps project team members to stay linked and focused towards a commonly shared target. Communication management determines the success of projects with teams spread over different locations, therefore this is especially true in IT projects.

Malcher et al. (2017) argued that exchange information between employees is one of the most important factors in a project because it helps to build relationships and the success of the company in general. The authors point out that, in a company, the preferred way to acquire new information of employees is from the employees' manager using a direct verbal channel.

The communication management plan is part of the process of organising a project and it must be defined prior to starting any communication. The aim of this plan is to figure out the requirements about communication in the project and in which form the information will flow between the project stakeholders. The pillars of this plan are the type of information exchanged, the way this information will be communicated, and at which point in time it will be distributed. In addition, the plan should identify the people accountable for communicating project information, the resources allocated, the handling of changes in the communication process, any external and internal constraints affecting the communication, the access authorisation of information classified with different levels of sensitivity. Finally, standard templates for the documentation used for communication should be prepared.

The authors define communication as an approach to exchange all the required information to make decisions for the project. The primary goal of communication in project management is to minimize project uncertainties, because when uncertainties are incessant there is increased anxiety, and the resolution to this scenario is effective communication among project members and other stakeholders (Parker et al., 2017). Effective communication within project teams ensures apt generation, collection, storage, and dissemination of information (Muszynska, 2015). At all levels of the project life cycle, members need to adopt a clear and open communication system. This may include having a communication plan with all project stakeholders

(Muszynska, 2015), building strong relationships that are based on mutual respect and trust using social media (Remidez, 2012; Parker et al., 2017), which allows team members to initiate friendships. This is because effective communication helps to create a link between different stakeholders in a project, thus enhancing the realisation of project activities.

Adera (2013) revealed that most project communication activities are poorly organised and usually supported only by the project manager. In most teams, project managers spend almost 90 percent of their project time communicating with stakeholders and other project team members. Effective project communication will guarantee delivery of the precise information to the right people at the correct time, through a cost-effective approach throughout the life of the project (Wojcik, 2014). These messages may include project expectations, activities, goals, and reports. Therefore, effective communication is crucial to the realisation of project objectives as it keeps team members on track and informs stakeholders of the status of project implementation based on the project plan (Dow & Taylor, 2008; PMI, 2013). It is also through communication that various problems, challenges, risks, and misunderstandings related to project completion are identified and resolved amicably (Dow & Taylor, 2008), thus enhancing the performance of the project towards the realisation of project outcomes.

Project managers together with their team members may agree from time to time to adopt different communication methods based on their communication needs and circumstances (Culo & Skendrovic, 2010). Throughout the literature, three main methods of communication are identified: firstly, interactive communication that takes place when two or more people exchange information (PMBOK, 2013). This has been argued to be the most efficient way of promoting mutual understanding of project

goals among project members which usually occurs through phone calls, meetings, and video conferencing. Secondly, push communication occurs when a message is sent to an individual or group of people without necessarily confirming whether it reached the intended receiver or not, and it includes the use of emails, press release, memoranda, letters, voice mail and faxes (PMBOK, 2013). Lastly, pull communication is very important when sending large quantities of information to large groups of people, through means such as knowledge repositories.

All these methods of communication are geared towards delivering the correct message, to the right people, at the correct time, in a cost-effective manner (Dow & Taylor, 2008). PMBOK (2013) identifies the strategies that can be adopted to enhance delivery of information. They include: identification of all people impacted by project activities; identifying the information requirements of the project and methods to convey the information; providing the relevant information to project members and stakeholders; managing stakeholder expectations through working with them and addressing their issues; and reporting project performance including provision of status reports and forecasts (PMBOK, 2013). These strategies ensure the efficient and effective flow of information between project stakeholders.

Communication goes together with project management and they are tightly connected areas, Samáková et al. (2017) found that four main areas exist in the project communication management: communication environment, communication channel, communication cognitive and communication system. Communication is supported by tools, mainly software, which are to be defined to enable effective communication and to increase the speed at which communication happens. Samáková's work denotes that the communication channels are only briefly described by the prominent international methodologies and standards (e.g. PMBoK, PRINCE2).

Functional-oriented enterprises make a reduced use of communication methods. Process-oriented enterprises, instead, take advantage from communication methods and tools, especially in medium and large size projects. Overall, telephone, email, planning software and presentation slides are the most adopted communication tools regardless of the size of the project. The authors suggest including the project communication management plan as part of the project plan, specifically the "identification of methods, tools and support of communication" (Samáková et al., 2017).

Considering the relevance of communication in a project and that all kinds of communication (i.e. formal and informal) happen at every level of an organisation, the effective communication skills are fundamental for the success of a project.

Samáková et al. (2017) stress the importance of communication channels, such as communication tools, communication methods, communication frequency and the communication support that make the difference in the planning of project communication.

Malcher et al. (2017) argue and reinforce that IT projects still fail to realise their goals despite the availability of advanced means of methodologies and technological communication tools.

2.4 Project Communication Practices

The literature explores the impact of different sets of communication practices adopted in different projects. For instance, Wojcik (2014) identified the following communication practices in virtual teams; direct oral communication; the use of video conferencing; the use of websites; the use of groupware software to store and pass information; the use of asynchronous and synchronous communication such as email; all of which helps to build trust between team members, develop a clear line of

responsibilities, and ensure the effectiveness of face to face meetings. A study by Xiao et al. (2014) identified two forms of communication practices; communication within teams and communication between teams. Within teams, members communicated through face-face, email, phone calls, regular team meetings, and instant messaging. This implies that different projects adopt different communication practices. This study will therefore seek to determine the current communication practices in specific IT multinational companies, and the influence of these communication practices on the success of the IT projects being undertaken.

Research reveals that control over any project team member limits the success of a project since it contributes to decreased performance, the increased cost of a project and individuals becoming overly reactive; therefore, information should flow naturally from one end to another without anybody exercising any control over the communication process, and the message being delivered (Rivera & Kashiwagi, 2016).

Samáková et al. (2017) discussed that communication is also important to happen across all levels of an organisation. A smooth flow of information can only be achieved with good communication practices between each department and role in the hierarchy.

Gillard (2005) identified valid communication practices adopted by project managers. Those practices include an appropriated use of terms for the receivers and explain with clarity technical terms, ask the listener for feedback to see if he is understanding and pay attention to non-verbal communication. It is important to adopt metaphors and multiple approaches to explain a concept. Additionally, reinforce explanations and presentation with the support of graphics. Another practice is to define user requirements as a sort of contract between the request of customers and

the developers' commitment. Furthermore, Gillard (2005) considers that widely adopted technological communication means contributed to reducing the interpersonal interactions. The author concludes that face-to-face communication is, on average, concise but more significant.

Social media can also be used to enhance effective communication within IT projects. It can be used to bridge the gap in distributed teams, thus create friendships that could culminate in the development of strong relationships based on mutual trust and respect (Remidez, 2012; Parker et al., 2017). This is because information transmitted through social media has the potential to be a valuable resource for project team members. It was reported that 64% of 1700 companies that participated in a survey on the use of social media, such as Facebook, were using social media for effective internal communication (Remidez, 2012). Using social media such as Facebook and WhatsApp, organizations can support the development of trust among team members, by enhancing effective communication (Remidez, 2012; Van Zyl, 2009) because of the reduced response time. Additionally, small talk facilitated by social media promotes familiarization, thus helps to build rapport and a cooperative and trusting work environment (Pullin, 2010).

Cameron and Webster (2005) state that Instant Messaging (IM) has been used as a "replacement technology" for more established communication media, i.e. telephone, email and face-to-face conversations. The Instant Messaging (IM) technology is a medium to let employees communicate in real-time via text messages and to be aware instantaneously of another employees' presence on the IM platform. On a media richness scale, this communication tool is considered halfway between face-to-face communication (high richness) and email (low richness). The authors

continue underlining that IM enabled a new approach of handling communications with several different people in parallel (polychronic communication).

Using IM, it is not only easy to interact, but also to overcome the limitation of distance, time and even a cost-effective way which helps to enhance collaboration and mutual trust. Regarding privacy, Cameron and Webster (2005) make few contrasting considerations. Outside the workplace, there are scenarios and population groups which see in IM an enhancement of their privacy. However, when instant messengers are used in a work environment, employees generally perceive them as an invasion of their privacy because they can be used as a monitoring instrument. Moreover, IM is also considered unfair by the employees because they increase the exposure of workers to more frequent interruptions of the main activities, as stated also by Ou and Davidson (2011).

Based on Ou and Davidson (2011) study, polychronic communication is seen as disruptive with regards to the main activity carried out by the employee. Dedicating immediate attention to each notification of new messages and being engaged in parallel conversations of different topics with multiple people results in a major disruption of focus on the work in hand. Although, the authors add that IM is just one source of interruption, along with other media, e.g. telephone, meetings and emails. As a solution to this phenomenon, they propose that companies should define specific windows of time in which the workers shouldn't be allowed to be reached by IM communications, in order to let them keep focused on the work.

IT projects are usually developed by teams spread over different geographical locations. The absence of physical interaction among peers leads to feeling disconnected and discourages collaboration. Interacting through IM usually has the

benefit of creating mutual trust, connection and collaboration (Ou and Davidson, 2011).

The study of Ou and Davison (2011, p. 63) identified that “Trust is a critical factor in accomplishing group work”. However, trust is difficult to establish in a workplace distributed over different locations.

One of the positive characteristics of enterprise IM is the immediacy and availability of communication to speed up the flow of useful information.

However, Ou and Davidson (2011) add the downside of showing the status in IM, which is that users tend to indicate they are available, therefore exposing them to more interruptions.

2.5 Challenges and Barriers to Effective Communication in IT Projects

There are different barriers and challenges to effective communication in IT projects. It is easier to detect communication barriers than to address them (Kurland & Pelled, 2000). The following barriers to effective communication have been identified: trust promotes effective communication since it allows people to share information freely, take risks and accept new challenges; while a lack of trust creates fear in people and exchange of information is minimized (Carvalho, 2014). Semantics and mental models refer to the gap between IT personnel who speak using IT jargon with other stakeholders, making it difficult for all stakeholders to speak seamlessly and understand each other (Carvalho, 2014).

When employees of an organisation working on the same project are scattered on different geographical locations, the terminology of virtual team applies (Malcher et al., 2017). Usually, communication in these virtual teams happens through

electronic communication. This kind of team is more and more frequent in organisations nowadays and its presence is not only limited to the IT sector.

Written communication is the preferred mean of communication used by virtual members of such teams. This written exchange of information becomes mandatory in situations where employees work in different time zones, therefore their shifts do not overlap, and they can only communicate to each other leaving asynchronous written messages. In conclusion, the existing literature used in the study is not exhaustive yet, regarding the issues around communication in virtual teams.

According to Malcher et al. (2017), another relevant aspect in IT projects is the coordination between different teams and members. Coordination consists of three fundamental constituents: communication, capacity and cooperation.

Priorities in different projects may differ, due to different specific objectives, which may result in conflict, for example; where different IT personnel and users may fight for decision making powers which may affect the communication process (Carvalho, 2014). In addition, the working environment, including issues like noise, affects the communications process (Carvalho, 2014).

According to Gillard (2005), barriers for effective communication appear when team members are in large numbers and disperse on different geographical locations or the team consists of members from various disciplines. The project manager must coordinate such diverse groups of employees. It is challenging for the project manager to deal with different types of stakeholders both internally and outside the organisation. Further barriers can emerge from conflicts of interest in employees managed by more than one manager. The author affirms that semantic gaps exist between managers and technical people which literally use different languages

specific to a discipline which can be difficult or impossible to be understood immediately by others belonging to a different discipline.

According to Cilliers and Greyvenstein (2012), there is a barrier in organisations which does not belong to organisations but it lives in the mind of employees. This barrier is known as silo mentality which creates a boundary between one department and another in organisations. As a consequence, there is tension, fear and anxiety because of departments, sites or teams splitting.

Gillard (2005) talks also about a gender imbalance that exists in a still male-majority working environment in IT. A barrier to effective communication is posed also by the variety of technological means of communication at the employee's disposal who can easily disperse copies of similar information on multiple channels, making the goal of communicating something, barely futile.

An aspect that drains energies from the project manager, continues Gillard (2005), is negotiation which can lead to stress, power games and chaos. In such circumstances, the communication is potentially biased by people with power to maintain their position.

Power politics involves the project management level and it is tightly related to perceived power. The vertical development of an employee is determined by the caution put towards managers in a position of power and by the dedication to fighting for a position of power. Communication with people of power is, therefore, more difficult mainly because giving negative information is detrimental to the vertical development.

Communication also plays a key role in matrix management. This kind of management is applied in those companies where resources, such as employees, are shared between different parallel projects. Schnetler et al. (2015) states that matrix

structures are nowadays underestimated, however they are still at the base of a company success. The authors investigated how matrix structures influence the three most important factors for success in a company, i.e. quality of communication, trust and collaboration between team members. They focused their research on matrix structures, which they define as a different organisational structure from the traditional one where an employee reports to a single boss. In a matrix organisation, an employee can have two or more bosses, depending on how many projects he/she is involved at the same time.

Compared to typical organisations, it must be noted that in matrix structures there is a lack of equality between responsibility and authority, for each employee there is not a just a single supervisor, departments are not necessarily specialised and separated by function.

In these kinds of organisations, the frequency of communication is increased by lateral communication channels. This situation can generate conflicts between project managers and functional managers due to an ambiguity over roles and employees. Therefore, there are both positive and negative aspects of matrix organisations regarding communication.

One of the main risks of a matrix approach comes from an employee reporting to more than a single manager. Because of this situation, loyalty conflicts may subsist, and the accountabilities can become vague, as well. Other negative aspects of this situation are the ambiguity of role, the presence of contradictory objectives, difficulty in prioritising. All those combined may raise stress levels of the employees and consequently push them to find another job. Further negative points are the risk of anarchic behaviours, power struggles, potential weakness in periods of economic

crises, overhead costs too large and in some situations functional managers find themselves covering the role, as well.

However, there aren't just negative consequences regarding this kind of structure. The dual reporting situation described above also shows positive outcomes. Schnetler et al. (2015) listed a collection of those, which are an increase in the employee's adaption to business and technical requirements, a proper and useful allocation of resources, a better use of lateral communication and human resources. To summarise, having multiple bosses to report to, will train a person to be more flexible in the work environment.

Considering the problems that affect matrix structures, this model is widely applied to organisations. Since most of those issues are known, it is strange that they haven't been resolved during the time. To assess the issues in a company, a popular measure is through key performance indicators (KPIs), and those measurements are done also in matrix organisations. Therefore, it would be expected that KPIs would identify the problems and over years such issues would be addressed. Schnetler et al. (2015) point out that such organisations measure generic KPIs, e.g. "return on investment, market share and profitability" neglecting to record the progress of their matrix structure.

The challenges faced typically in these organisations can be resolved or limited thanks to cooperation between teams bypassing the formalities of a management layer. In this approach, the team members become more accountable for their decisions and actively define priorities for the different projects they are working on, without the traditional direction coming from a project manager. A drawback of this approach is the difficulty that sets in when there are several projects worked in parallel.

2.6 Skills Needed for Effective Communication

Project team members and project managers need an assortment of skills if they are to communicate effectively. Skills sets required for effective communication comprise three categories; cognitive, technical and communication (Zulch, 2014). Project managers need ability to establish cooperative relationships, create an enabling environment, and support the flourishing of trust and mutual respect among project team members. Additionally, both the project managers and other team members need to possess good interpersonal and emotional skills (Zulch, 2014). In the effective management of communication, three forms of communication are experienced: vertical communication, which entails the flow of information along the organisational hierarchy; horizontal communication, that is the exchange of information among peers and colleagues; and diagonal communication, exchange of information with managers and with other stakeholders, such as suppliers and other project team members (Campbell, 2011).

As pointed out by Gillard (2005), an effective project manager should master and use both verbal and non-verbal interpersonal skills and dress them with a sense of humour.

Gillard (2005) studied the semantic gap that originates from different levels of technical language used by distinct groups of employees. A project manager should understand the IT jargon used by IT personnel as well as being able to explain very technical concepts in a manner more comprehensible by the management. The greater the semantic gap, the better communication skill is needed to be able to handle the jargon and semantic for IT terminologies both with IT expertise and non-expertise. He or she needs good interpersonal skills to communicate effectively in face-to-face

sessions. For virtual teams or remote workers, a manager should be good at balancing task-oriented communications with informal chats to build a stronger relationship.

According to Gillard (2005), a project manager must have negotiation skills to find an agreement between the customers' expectations and what is realistically deliverable by the developers. The author found in addition that, in case of conflict between employees with different amount of power, it is an important skill being able to damp down the tensions and save the project. A project manager is a mediator who needs to have conflict management skill and resolve them, he doesn't just mask them.

Schnetler et al. (2015) state that collaboration is worth the investment to put an effort in, done by a group of people sharing one or more very same goals. A healthy relationship smooths the collaboration process. At the base of a solid collaboration, there must be trust.

An ambiguity in the leadership role, according to the authors, can lead to a better collaboration between project team members. Communication plays a central role for collaboration and trust. It improves those two aspects of team working.

There are other factors apart from communication, collaboration and trust which influence the outcome of a project and they are directly tied to human nature. People in a team develop relationships with each other, have feelings and emotions which come into play when there are decisions to make.

In matrix structures organisations a correlation exists between good collaboration and communication in a cohesive team to achieve successful results. Schnetler et al. (2015) remark that when a high communication frequency subsists, then the quality of that communication improves. The path to success can be defined as good quality communication and strengthened trust, which in turn results in better

collaboration. It should be a manager responsibility to promote both frequency and quality of communication by creating spontaneous informal communication.

In conclusion, the authors found out that communication, collaboration and trust are not always affected by negative features. As a matter of fact, negative characteristics may raise positive outcomes on those three factors.

3 Research Question

Why IT projects fails to realise their goals despite the availability of advanced means of technological communication?

The purpose of the research question is to analyse the following outlined objectives:

1. To determine the current communication practices among members in IT multinational projects
2. To establish the challenges and barriers to effective communication in IT multinational projects
3. To determine the skills needed for effective communication in IT multinational projects
4. To determine the factors contributing to non-adoption of effective communication practices in IT multinational projects.

4 Research Methodology

4.1 Research Philosophy

Complex problems, uncharted territories of knowledge or questions no one has yet answered. All the aforementioned categories need to be resolved, explored or answered through a research. Every social research involves collecting data to analyse

which can be obtained through different techniques, such as observations or interviews and surveys (Saunders and Tosey, 2012).

As Bryman (2008) points out, the research methods leveraged by social scientists are biased by how they picture the nature of social reality and the methods that should be used to analyse it.

The selection of the method used to investigate and collect data must be designed by the researcher's personal choice. Saunders and Tosey (2012) use the metaphor of the "Research Onion" to represent the relationship between all factors to be considered to reach a specific decision over which research method to pick.

The model is divided into six main layers, which are, from the outer to the inner, philosophies, approaches, strategies, choices, time horizons, techniques and procedures.

At the outmost layer exists a research philosophy through which the researcher discerns the useful purposes of the research and how proficiently the knowledge is acquired. The researcher understands what is useful to attribute value to the research and his assumptions are categorised in two fundamental dimensions, as Burrell and Morgan (1979) found out, i.e. the nature of society and the nature of science. The value derived from a research is created upon assumptions on the nature of reality and the meaning given to the information so that can be considered knowledge. There are two main currents of thought, which are positivism and interpretivism. The former supports the idea that only observations based on the senses are valid to prove a theory. The latter, on the contrary, accepts a separation existing between the human behaviour and the world of the natural sciences. Its aim is to attribute a subjective meaning to social actions. The premise of interpretivism is that individual human beings give a meaning to natural phenomena to create the perceived reality. Researches in such

paradigm rely on a predominant component of subjectivity. The collected data is qualitative and includes people perceptions and feelings.

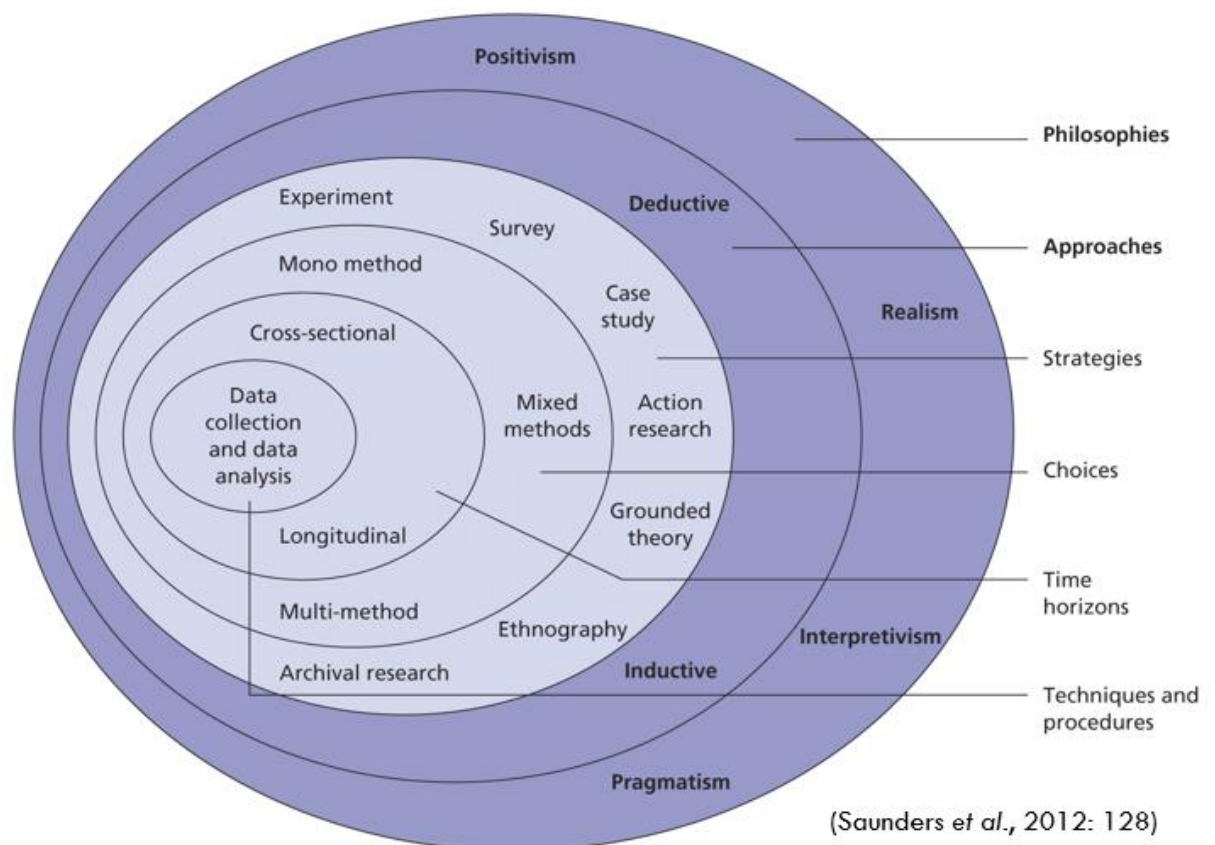
The role of the researcher is directly involved and in contact with the data population of the research (in this case the people from whom to collect the information). The typology of data retrieval should be one or more of ethnography, unstructured interviews and observing subjects' behaviour. It is fundamental that the researcher builds up a connection with the people interviewed through empathy.

Saunders et al. (2012) define two distinct approaches to design a research, i.e. quantitative and qualitative. In quantitative methods, the researcher keeps an objective and a detached attitude towards the examined people. That's why the data must be collected in the most unambiguous and straightforward way, using tools such as surveys and possibly in large quantities. After collection, the data is analysed with statistical techniques (graphs and charts) to make it more meaningful and extract from it informative insights.

In contrast, a qualitative approach sees the researcher involved in first person with the data collection. She evaluates with subjectivity the people interviewed because she must interact with them, face-to-face or mediated by communication tools. As Bryman (2008) points out, in this method, words have a major weight when collecting and analysing data.

During the interview, along with the subject's main answers, it is of vital importance to observe the interviewee reactions and body language to capture further data to expand the context of the interview. The importance of the context of the main questions and the involvement of the researcher, may modify the process of investigation and adjust it for improvement during the research.

Qualitative methods are suitable to include the interviewer and especially the respondents' point of view on the matter. It has the advantage of describing complex phenomena happening in the communication in organisational projects. A strong point of qualitative research is that is perfect to investigate social environments from the inside and in a natural way so that what happens during the investigation is not controlled or made up like a laboratory experiment. It is the opposite because the researcher might carry out the interview to the project manager in his company office, therefore using the context of the settings to keep the interviewee focused on the topic and giving to the researcher the opportunity to report her own feelings and impressions of the environment to enrich the findings. It must be noted that both methods (qualitative and quantitative) can be used together in the same research, mixed in different proportions in accordance with the type of research.



4.2 Research Design and Approach

This study adopted a qualitative multiple case study approach of five purposively selected IT multinational organizations. The companies' size (Irish subsidiaries only) can be broken down into three distinct categories. One with a very large company composed of more than 800 employees, another with a large-sized company of nearly 500 employees and the last one comprises three medium-sized companies between 100 and 200 employees.

The largest company operates in social media, the second one is in IT consultancy and the remaining three are involved with the insurance and telecommunications sectors.

All selected interviewees role is Project Manager from the ages of 35 to 50 years old, male gender and with different years of work experience. They are employed in either the IT department or in companies which operates in the IT sector. They work in multicultural environments and they are exposed to face-to-face or technology-mediated communications with several different nationalities on a daily basis. This sample of interviewees was chosen to best possibly suit this research in terms of requirements considering the limitations of time, availability and location of the interviewees.

Qualitative methods were selected because they are useful in unearthing the connotations that people assign to their experiences, communication being one of those experiences (Bogdan & Biklen, 2003). Qualitative methods when combined with case studies support an in-depth investigation of specific phenomena in their natural environment (Eriksson et al., 2008). Additionally, a qualitative study permits the investigation of feelings, opinions and perceptions, which this study focused on (Jones, Torres, & Arminio, 2006). Qualitative research approaches are particularly

useful when investigating relational problems and trying to comprehend social circumstances in their natural contexts (Esterberg, 2002). Qualitative research is holistic, and the abundance of qualitative data has the potential to enhance the comprehension of complex phenomena (Eriksson et al., 2008).

4.3 Data Collection Procedures and Analysis

Non-standardised one to one interviews were used to collect data among five project managers in the five IT multinational organisations. To ensure well thought-out responses, appointments were secured well in advance, and the interview schedule provided to the research participants before the date of the interview. An interview schedule was selected because it allows the researcher to conduct an in-depth study into a subject, and can reveal more than the spoken word, since the researcher can observe facial expressions, tone and emotions (Acsai, 2016). The interview schedule had three major sections, the first section comprised the introduction, where the researcher introduced herself and the study, the second section consisted of the administrative and personal details of the research participant, while the third section contained the questions of the study that were divided according to the research objectives (Creswell, 2014). The researcher took notes of the interview sessions. This allowed the researcher to refer to discussions and ensure all objectives were captured during the data analysis process (Acsai, 2016).

Data from this study was analysed qualitatively using content analysis. During this procedure, data was categorized by objective using Microsoft Office Word 2016.

4.4 Limitations of the Study

This study is limited to internal communication within IT projects in multinational organizations, in the quest to develop an in-depth understanding of the barriers and challenges to effective communication in IT projects.

The research is supported by data gathered from interviewing five IT project managers operating in multinational teams. The analysed sample size of interviewees is limited by the existing contacts network of the researcher, though large enough to provide meaningful insights.

Time is also another limiting factor in this study. Before starting the actual interviews, the time planned to gather the data was narrowed to a reasonable period of time to fit the academic scope whilst satisfying a valuable sample size. The total time dedicated to this data gathering activity sums up to six weeks.

4.5 Ethical Considerations

This research does not contain risks of ethical nature for the interviewed individuals, nor for the companies where they are employed. All sensitive data gathered through the interviews, which includes, but is not limited to, name of individuals and organisations, facts and opinions related to identifiable people, organisations and events, has been treated according to National College of Ireland ethical standards. The interviewees were explicitly informed prior to the beginning of the interview session that such sensitive information will never be disclosed for any reason. All interviewees gave explicit formal consent with regards to this matter. Handwritten and digital notes from the interviews were kept private and safe on the researcher personal computer.

5 Interview Analysis

An interview is a method to acquire data in the form of a verbal exchange of questions and answers between at least two people. The subjects that make the interview happen can be identified by the role they play. The person who asks the questions is defined as the interviewer, the person who replies with the answers is known as the respondent or interviewee.

Interviews can be categorised into different types depending on the medium used to carry and exchange the information. These media are mainly face-to-face, where people meet in person, via telephone, electronic – with the mediation of internet and electronic devices – and using paper questionnaires. Types of interview depend also on the number of participants; therefore, a single respondent will suffice a one-to-one session. Many people together will require a focus group, instead.

Questions must be chosen carefully. The way they are formulated is designed to transmit the inquiry rather than intention originally thought by the interviewer. Neutral questions should be asked to the interviewees to avoid biasing the respondent point of view. The quality of crafting the questions and the outcome of an interview are tightly dependent on the skills of the interviewer.

In addition to the preparation phase, other skills are required to conduct effective interviews, such as listen carefully, encourage a comfortable environment and induce the interviewee to feel comfortable in order to let him/her be more open and honest in answering. Establishing a good relationship is fundamental to establish trust with the respondent to obtain answers rich in information. Therefore, solid interpersonal skills may be decisive for an effective interviewing. Interviews play also an important role in the research because they may help to clarify generic research questions.

The following questions have been asked to each Project Manager during the interview.

1. What are the current communication practices among members in IT multinational projects?

- i. List the current communication practices you use while communicating with team members.
- ii. List the current communication practices you use while communicating with external stakeholders.
- iii. In your opinion, are the current communication practices effective? If not, would you list effective communication practices? Give reasons as to why you are still using ineffective communication practices?
- iv. If the practices are effective? Please explain how they are contributing towards the realization of project outcomes.

2. What are the challenges and barriers to effective communication in IT multinational projects?

- i. Are you experiencing any challenges while trying to adopt effective communication practices? If yes, what are the top five challenges? What are you doing to overcome the challenges?
- ii. Are you encountering any barriers in the adoption of effective communication practices? If yes, what are the top five barriers you encounter? What are you doing to overcome the barriers?

3. What are the requisite skills for effective communication in IT multinational projects?

- i. Do you think as a project manager you need to possess specific skills to be an effective communicator? If yes, what are the skills necessary for effective communication?

4. What are the factors contributing to non-adoption of effective communication practices in IT multinational projects?

- i. Are effective communication practices necessary for the survival and success of IT multinational projects?
- ii. If yes, why are many IT projects experiencing minimal or non-adoption of effective communication practices?

Objective 1: To determine the current communication practices among members in IT multinational projects

Every workplace uses both verbal and written communication practices. The traditional practices such as face to face meeting, phone calls and written letter and email communication have been used both in non-IT and IT fields.

Nowadays, with advanced technologies, in IT multinational project teams, different digital collaborative tools are used, such as; Messenger, Skype for Business, Slack, Conference calls, Confluence, Cisco Webex, Tribe, Jira, SharePoint, Excel, MS Project and AID (Action, Issue, Decision) template and RAG (Red, Amber and Green) reports to communicate and share each other the information to be able to collaborate and work with different demographics, nationalities, different languages, cultures and different time zones.

However, in IT multinational project teams, more digital tools are used together with the traditional communication practices to ensure that each communication message is delivered to each team member in a more effective and efficient way.

Despite technologies advance, IT multinational project teams are using not only digital tools but also the traditional practices of communication such as; verbal

and non-verbal communication, face-to face meetings and written emails both with internal and external stakeholders.

The increase of mobile connectivity facilitates a faster way to communicate in an efficient manner. Collaborative tools are designed to provide both the context and the tools for fast updates, review and approvals. For example, Atlassian's Confluence has also a mobile version (as Jira) that allows users to debunk stoppers and help users to speed up resolution of issues. Decision logs also help in this sense which raise, invoke decisions and store outcomes in a clear and secure way. Dynamic instant messaging over emails is also used as it is more interactive to use for the informal communication.

However, written email communication is still in use as it is considered more official as a record which must be created to prove that something has been done.

The following sentences are some of the direct key quotes from the interviewees:

"Depending on the stakeholders, their attitude and engagement levels, face to face conversation and meeting are the most effective compared to other practices but cannot be employed all the time when teams are dispersed".

"Verbal communications are good for quick understanding and clarification. Whilst, written communication captures points of reference and tangible deliverables which may form part of commercial agreements."

"However, emails seem to hold still nowadays a status as form of communication of "official" more than other channels like instant messaging."

“Current communication tool such as RAG reports are relatively effective as it demonstrates clear milestones, expectations and demonstrating progress or lack off. RAG reports give a good top-level view to senior leaders and external stakeholders.”

“I don’t believe everything to be effective. Email are least effective and ignored. People tend to ignore emails when the length of text is too long. This is due to receiving too much information from different channels. The most effective is the face to face. Written is still using as there must be a record of the communication for the proof that we have done something.”

Objective 2: To determine the challenges and barriers to effective communication in IT multinational projects

English language and Technologies are the common factors used in IT multinational projects. However, there are overlaps of cultural differences, language skills, different time zone, time pressure, subject complexity can cause misunderstanding, challenges and barriers to effective communication. IT multinational projects teams face the challenges such as; cultural differences, language skills, disparate technologies, different time zones, level of expertise and knowledge, subject complexity, number of stakeholders involved, time pressure, silo mentality, misunderstanding, lack of executive support and lack of funding.

The top five challenges that the project managers find most within the projects are:

Culture differences, language barrier, coordination of geographical locations with different time zones, semantic gaps, trust and transparency among team members.

Culture differences can be a conflict generator. This can be mediated by communicating in a formal way and showing cultural and social awareness. Based on demographic and age, often stakeholders belong to a generation which is still adapting

to new and effective way of communications. Language barriers can cause misunderstanding, assumptions, misinterpretation and wrong expectations.

While team members are dispersed over geographical locations with different time zones, coordination is challenging, and it must be ensured that everybody is able to adapt to the meeting times. During communications, semantic gaps may occur due to different level of expertise in language skillsets and technical knowledge. In order to avoid misunderstanding, it is necessary to use rephrase and paraphrases and confirm frequently that everybody has common understanding.

Silo mentality within the organisation causes lack of communication which leads to a low trust and transparency working environment when the teams are located either in the same or a different workplace. Interactivity and relationship with team members are required to get them to involve, share information, build trust which is necessary for collaborative work.

Apart from culture barriers, the resistance to change, the individual's ego and attitude are also other challenges that the Project Managers are facing.

Eventually, giving education and advocate the new ways of communications by highlighting the effectiveness to all level of stakeholders can be a possible solution to overcome some challenges.

The following sentences are some of the direct key quotes from the interviewees:

“Culture can be initially a barrier but can be understood by skill and make culturally awareness to overcome.”

“Language and Cultural differences are the most barriers and I try to maintain conversations formal to avoid conflicts and if there are conflicts try to understand what the conflict generator is, but

outside of the meeting. I rephrase what is discussed and agreed, provide in writing at the end of the meeting. “

“Transparency and trust amongst the members is not always happening”.

“Be mindful when scheduling meetings and consider tone communications”.

“Confirm frequently in the meetings that everybody has common understanding to avoid the assumption and misunderstanding”.

“Lack of awareness in the wider company as to reasons for certain Projects and their importance to the day to day running of the business. A regular briefing session with both internal and external stakeholders that can be cascaded in regular team talk events”.

“Reluctance to onboard new methods...we've always done it this way... hold regular breakout sessions with different project teams to find out what's working for them”.

Objective 3: To determine the skills needed for effective communication in IT multinational projects

As a project manager, it is necessary to possess specific skills to be an effective communicator. Project managers are seen not only as a manager but also as a mediator or a facilitator of different parties. There are specific skillsets that are the most needed while communicating within IT multicultural environments.

Good interpersonal skills and emotional skills are one of the basic skillsets need to establish a healthy relationship, build trust and mutual respect in every workplace.

From the interviews, it has emerged that of relevant importance are clarity and control of conversations with all levels of stakeholders. Project managers should establish relationship, trust and mutual respect with others and they should be able to promote this good interpersonal skill among all teams. With collaborative relationship and trust, the motivation, commitment and engagement can grow in the group work.

Having emotional skills, social and culture awareness, any type of conflict, negotiation and compromise can be handled both with internal and external stakeholders. Nowadays, with new technologies and rapid organisational changes, managers must be flexible and resilient enough to open and ready to adapt to different circumstances. He or she needs to tailor and change his/her style of communication and leading based on the audience.

The following sentences are some of the direct key quotes from the interviewees:

“Listen actively and building relationship can improve collaboration and trust”.

“Clarity, ability to remove Tech speak. [...] You need the ability to communicate effectively across multiple parts of the organisation in order to meet specific goals and milestones in the project, to be able to then communicate the progress or lack of to senior management and external stakeholders.”

“Look at your audience to see how do I best communicate and what is the most efficient way of communicating. If there is no communication, there is no project.”

“Be open, be flexible and talk to people to have the understanding and ground work”.

“Flexibility in your communication style on every level is the most need skill. Depend on your audience, you need to amend style or message to communicate.”

“Ability to encourage adoption of new communication methods, knowing the right communication method for the right audience (i.e. does the CEO need more than a RAG report? What about the CFO etc...?)”

Objective 4: To determine the factors contributing to non-adoption of effective communication practices in IT multinational projects

The interviewees denoted several factors acting against the adoption of effective communication practices. One point that all of them agree with, is the individual's mindset, something that originates from the inner ego. This reflects not having an established common vision and mission and brought in by the project team or sometimes the organisation. Silo mentality is not broken down. As a result, there is a lack of sharing attitude and transparency and lack of team cohesion. Another factor to consider is having a wrong staff involved in the organisation or team who does not fit with organisational culture.

Moving upward the hierarchy in the organisational structure, an ineffective leadership and scarce executive support are also counterproductive. More effort should be put in advocating substantial changes. IT professionals are too often seen as suppliers and therefore their voice is not sufficiently heard when it comes to introducing radical changes. Quantifying the improvements introduced by more effective communication tools could prove to give an advantage to IT projects. Therefore, that would have the effect to promote the change in favour of more effective communication tools.

With social media the expectations of communication have been changed. The communication has become more dynamic and available on multiple channels. This has been accompanied by a massive increase of information. Therefore, the message should be brief and composed in an appealing fashion.

The following sentences are some of the direct key quotes from the interviewees:

“Silo mentality and lack of executive support are decisive factors for non-adopting effective communication.”

“It is very important to get the right people on the bus and give the right seats to get the work done.”

“Our attention span has changed. Instantaneous communication is the game. The length of the message need to be in a certain fashion to grab the audiences’ attention and engagement, otherwise it will be rejected. Keep your message short and concise”.

“Company culture sometimes is not aligned with standard communication practices, especially in not projectized company structures.”

“Fear of the new, lack of knowledge, ineffective Project Management, no buy in from project team members.”

6 Findings and Discussion

6.1 Key Findings and Discussion

According to Gillard (2005), face-to-face communications are the most significant and concise which reflect the interviewees’ personal experiences while

communicating with team members. In contrast, Cameron and Webster (2005) state that Instant Messaging (IM) has been used as a "replacement technology" for more established communication media, i.e. telephone, email and face-to-face conversations.

However, as mentioned by the interviewees, face-to-face communication is the most effective but there should be also written, formal communication, to formally consolidate and prove what has been said and communicated. With social medias communication and instant messaging, people tend to read less emails in practice, but interviewees stated that it is a formal and an official way of communication in most of the project teams.

Samáková et al. (2017) explored that it is also important that communication is widespread across all levels of an organisation. Only with good communication practices between each department and role in the hierarchy, a smooth flow of information can be guaranteed. In practice instead, according to the responses from the interviewees, communication is not spread all over the organisation. Despite technological advancements and usage of a large variety of communication tools, project managers are still facing silo mentality, lack of transparency and trust among team members. It is difficult to ensure that the communication message is spread over across all levels of an organisation.

The interviewed Project managers mentioned that coordination of dispersed team members over geographical locations with different time zones is challenging as also mentioned by Gillard (2005).

According to Zulch (2014), the skill sets required for effective communication are comprised of three categories; cognitive, technical and communication. Campbell (2011) reinforced that in the effective management of communication, three forms of

communication are experienced: vertical communication, which entails the flow of information along the organisational hierarchy; horizontal communication, that is the exchange of information among peers and colleagues; and diagonal communication, exchange of information with managers and with other stakeholders, such as suppliers and other project team members. All those required skill sets for effective communication in IT multinational projects are not only well described in the literatures but also significantly mentioned by the interviewees.

In keeping with Gillard (2005) who identified effective communication practices, the interviewees proposed that creating a glossary of technical terms and references used in the project would aid communications with non-technical personnel. In addition, it is vital to clarify technical terms, ask the listener for feedback to see if he/she is understanding and paying attention to non-verbal communication. On top of those practices, use of sense of humour often helps to add strength to the interpersonal relationships.

It is important to adopt metaphors and multiple approaches to explain a concept. Additionally, reinforce explanations and presentation with the support of graphics. However, in practice, all interviewees reported using PowerPoint supplemented by appropriate imagery in project presentations. Sense of humour, as described by Gillard, is effectively a personal style and is determined by personality, context, and cultural sensitivity.

The study of Ou and Davison (2011, p. 63) identified that “Trust is a critical factor in accomplishing group work”. However, it is difficult to establish trust in a workplace distributed over different locations. This is not only mentioned in the literature but also another type of challenge that the project managers are facing in practice.

Three out of five interviewees mentioned that silo mentality is one of the challenges that prevents to establish trust and an open-minded working environment as also described by Cilliers and Greyvenstein (2012).

The challenge of culture differences was mentioned by all five interviewees. In addition, none of the interviewees had received formal training in working in a multicultural environment. However, culture challenge tends to be neglected in the literature comprising this research in relation to communication practices adopted in IT multinational projects. Further investigations need to be taken into consideration regarding this issue.

6.2 Further Research

This study provides the literature and real-world experiences regarding effective communication practices within multicultural IT project teams.

Further research should focus on key challenges such as; addressing culture differences, encouraging collaborative relationships to promote employee's engagement and commitment and building resilience in order to guarantee and add values and benefits of multicultural projects.

7 Conclusion and Recommendations

7.1 Conclusion

Everyone has a common understanding of IT tools (e.g. IM, email), project methodologies (e.g. Agile, Waterfall) and programming languages (e.g. Java, Python) when we are talking about IT which has a universal language. However, there is no universal way of communication within multinational IT Projects. Therefore,

communication practices and management styles must be changed and adjusted according to the needs of audiences.

Communication is a simple word, but it is difficult to achieve a common understanding as evidenced by the literature and real-world experiences. The impact of culture differences can be neglected by project managers while managing diverse groups of people. Communicating and managing team members in the workplace can be very different based on their national cultures.

Managers are facing a cultural challenge, those with unclear views over duties of their subordinates lean towards a micromanagement attitude. As well, managers inclined to carry out most of the work themselves without confidence in delegating tasks to others have a high probability to become micromanagers. However, there are some contexts where micromanagement is beneficial. Depending on the national culture of both managers and subordinates, it may be required to ensure that productivity is maintained. In addition, the impact of cultural tensions can cause not only conflicts in communication but also can create wrong expectations between managers and subordinates.

Most of the literature mentioned that relationship really matters for collaboration. Interacting through social media and instant messaging usually bring the benefit of creating mutual trust, connection and collaboration.

However, in practice, IT project teams are bombarded with a vast number of messages and information through advanced technologies, different methodologies and tools. So, it is inevitable that the attention that needs to be focused on all circulated information to maximise understanding while communicating to each other. Misunderstanding can be the result of the cause of less human interaction within the team and impede the building of a real relationship. In case of social media, there is a

tendency to create a virtual connection which is good for remaining connected, but it is necessary to find a balance to promote a real relationship for team building, sense of belonging to a group or community to gain trust and mutual respect.

7.2 Recommendations

In many literature sources of IT Project Management, different methodologies and rules for managing IT projects are explained, but the impact of communication style and cultural challenges are often overlooked. It is vital to be aware of these while managing and communicating to people with different culture.

As technology grows in an ever-changing environment, individuals' attention span and attitude towards communication have also changed. Individuals seem to prefer to interact with graphical, entertaining, short and concise memos rather than sticking to, what by contrast they consider to be, long and boring messages. According to this trend, the means and mode of communication needs to be flexible by fitting the style to the needs of the audience and to the situation at hand.

The Project manager can be seen as the conductor of the project orchestra who should be able to send subliminal messages, mediate and harmonize the rhythm of the project outcomes by using both cognitive and technical skillsets. Flexibility and tolerance of the ambiguities are the key characteristics that the project managers should adopt to achieve the most successful communications.

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