Facilitation of Intergroup Communication Skills with the Help of Mobile Applications

Serkan Varol\textsuperscript{a}, Asaf Varol\textsuperscript{b}
\textsuperscript{a}Lamar University, Beaumont, Texas, US
E-mail address: serkanvarol23@gmail.com

\textsuperscript{b}Firat University, Elazig, Turkey
E-mail address: varol.asaf@gmail.com

Abstract

Misleading information can cost money and time for organizations. Usually, problems arise from undeveloped, unshared and scattered information. Mobile applications enable users to enter, develop and share information from any locations on compatible devices. Mobile applications facilitate quick and easy access to information. The purpose of this research is to investigate the effects of selected mobile applications on the intergroup communication in organizations. Thus, the features of mobile applications can be analyzed about how they facilitate intergroup communication skills at organizations. In this study, several android-based mobile applications are selected based on their similarities and popularity. A survey was administered to a variety of end users. A rubric was created to review the extent to which these selected applications enhances overall communication skills at organizations. The results and recommendations of this study are presented in order to determine the best practices for intergroup communication skills.

Keywords: Intergroup relations, organizations, communications skills, mobile knowledge sharing

I. Introduction

Group and intergroup relations have become an important concept for the discipline of social psychology, conflict resolution and group decision making (Singh, 2010). Intergroup relations are the ones that are influenced by the social identities and perceptions of groups. Thus, intergroup relations are becoming more of a problem for organizations. It is also believed that the quality of intergroup relations show the characteristic of the organization. As population increases along with technological advancements and economic volatility, the nature relation between group members may be unsteady.

There are many groups in organizations. Some of these groups are connected to each other naturally because they need to exchange information as a part of their job (Natemeyer & Hersey, 2011). The way of researchers are defining group and the characteristics they understand has been a matter of debate for many years. In a famous piece Kurt Lewin (1997) noted, “it is not similarity or dissimilarity of individuals that constitutes a group, but
interdependence of fate”. In literature, there are two types of groups available in organizations; formal and informal groups. A formal group is created by an organization or a company to achieve objectives laid down in the organization goals. Informal groups always arise if an opportunity exists and they consist of a small number of people participate in routine daily activities (Natemeyer & Hersey, 2011). Informal groups in organizations increase dependent on workers that directly reflects into higher productivity levels. The intense communication between formal and/or informal groups can have both positive and negative impacts.

A major issue in intergroup communication which exists for decades is the distinction between in-group and out-group members. Individual differences not only flavor reactions to out-groups, they are also central to the development of in-group attachments. Identities based on religion, ethnicity, or class are increasingly a matter of choice in modern society (Pettigrew, 2010). In today’s business world, one of the main problems for intergroup relations is the social categorization. Social categorization describes a kind of organization used by people to remember social interactions (Ariyanto & Hornsey, & Gallois, 2009). As a human being, we come in contact with many people of different colors, sizes, genders and cultures. However, it also creates several social problems including such as discrimination, racism, and more importantly stereotyping (Huddy, 2001). However, when intergroup relations are harmonious, members of different groups will be less sensitive about the distinctions between in-groups and out-groups. When there is a conflict, identification with one’s group becomes stronger, out-group differences can become more obvious where intergroup conflict increases. The conflict can be countered by having strong communication between in and out groups.

Major companies consist of different departments for different servings, but aiming for the same target. Each department is unique and carries its own individual plans and goals that are driven by a group. Group members are selected based on their knowledge and abilities as well as the communication skills. Miscommunication usually occurs when there is no correlation between what is being said and what is heard or seen. The lack of communication is a major issue for organizations, other than the distinction between in-group and out-group members. Companies lose millions of dollars when a connection between individuals or units within the same organization is lost. There are five fundamental causes for intergroup miscommunication; complex messages, withheld information, hierarchy and ineffective communication skills, lack of trust, and language barriers:

**Complex messages:** They can be written or verbal. In organizations, it is important use a common language that everybody can understand. A typical organization consists of diverse departments, thus some technical terms may be completely foreign to other departments under the same organization.

**Withholding information:** Because of privacy issues at organizations, important information may be kept confidential. As they are hidden from public access, they should be also available to those in the company who want to access to the information whenever and wherever needed. Major companies such as Honda Motor Company uses a common database for its employees to obtain valuable data and information. Each selected worker uses his or her employee number to access the database in order to pull the needed information without taking time off other employees. This enhances productivity and improve intergroup communication skills.
Hierarchy and ineffective communication skills: Hierarchy is one of the obstacles in intergroup communication skills. Increased hierarchical levels often cause miscommunication. Knowledge transfer process, from top to bottom levels in an organizational structure, must pass from certain stages in order to reach its destination (Krogh, 1998). In order to be effective and successful, managers should keep employees informed all the time. Reducing hierarchical levels would help organizations to build better communication skills and increase the pace of knowledge transfer.

Lack of trust: Competition is the key element that induces lack of trust in intergroup relationships. Many employees in retail and sales work based on salary and bonuses from sales and promotions. In these fields, knowledge sharing is minimized due to competition between salespeople. It is important to keep coworkers, employees accountable in decision making process so that intergroup interaction and communication can increase.

Language barriers: Language barrier is a crucial factor in business and intergroup communication. Organizations consist of different people from different parts of the world. Companies hire people based on personal skills as well as technical knowledge and ability to perform a job. Good communication skill in terms of speaking a native language is also required, but not a primary factor when recruitment occurs for the position that requires more technical knowledge than practical knowledge which is only to be absorbed and imparted. Although face to face interactions are highly suggested, using written reports, graphics can eliminate some language barriers at organizations.

The common problem, lack of communication, of all these causes arose from unshared and undeveloped information. These issues exist for companies, small and large. Many companies look for alternative ways to build an intergroup communication culture by utilizing from latest technological platforms such as hardware and software. Even though the term of technology is known to brake communication bonds among individuals, it may become very useful for organizational use (Derballa & Pousttchi, 2004).

II. The Effect of Smartphone and Operating Systems on Intergroup Communication

Many other factors can cause miscommunication that can cost money and time for an organization. Thanks to the rapid development of technology, sharing knowledge is quicker and more efficient nowadays. Advanced hardware and software tools are used to facilitate the transformation of information from one unit to another one. Ideally, smartphones are very convenient for sharing knowledge regardless of distance and time. According to official numbers from Business Insider's subscription research service, one in the every five people in the world own a smartphone that is equipped with advanced computing capability and connectivity. Researches show that more people in industry are tending to own Smartphones. The Forrester Research Company calculated that approximately 350 million employees will own smartphones as of 2016 (Chen, 2012).

There is no doubt that the smartphone market is growing irrepressibly. Intense competition force manufacturers to offer the best products at reasonable prices. Operating systems behind smartphones such as android...
and IOS show incremental progress. Open source codes enable users to edit and develop mobile applications that serve for various purposes.

Today’s manufacturing facilities carry advanced multitask robots to replace labor force in order to save time and increase productivity. They are also taking place to perform the jobs that human beings cannot execute. The bottom line is that technological devices and their operating systems can cure the existing problems in intergroup relations.

In this research, several android applications are selected based on their functionalities and effectiveness on intergroup communication. The research question is “to analyze features of mobile applications (in android platform) and how they facilitate intergroup communications skills at organizations”. A rubric was developed to analyze the extent to which these applications improve overall communication skills and eliminate some of the challenges, five fundamental causes for miscommunication. The results of this preliminary study are presented. Results of this study will be valuable to those companies seeking to use mobile applications as part of their technical and practical communication strategy.

III. Corresponding Survey and Rubrics

Four android applications, Google drive, Dropbox, Evernote, SkyDrive, are chosen based upon discussed criteria. We have determined that all these four mobile applications can facilitate intergroup communication skills as they are loaded with certain features. They are not limited to but include common points of Knowledge Acquisition, Preservation, Development, Distribution/Sharing. We are more interested in the distribution/sharing and development/editing part of the model as they have the most impact on intergroup communucation skills in organizations based on literature reviews and personal observations.

44 people (31 male, 13 female) participated in our rubric survey. The selection was random among college students who aged from 20 to 22. The participants used an android compatible device, smartphone or tablet, and given 5 days to complete the rubrics. The rubrics seek for certain answers as well as personal opinions about specific features of the applications. In brief, we asked students to focus on what they are examining on applications rather than the written features that can be easily found online.

IV. Rubrics Results and Recommendations

The desired features of each phase are listed in the rubrics. All these features such as events tracking, simultaneous document editing/tagging facilitate intergroup communucation in a manner that traditional face to face approach fails. The features on each phase is selected basen on user’s ranks and preferences subject to given list of options that are choosen to partly cure for the mentioned five fundamental causes . Please note that the specified features of each rubric can vary depending on what a certain organization is facing with.

Document editing/tagging (table 1) is an important step of our four phase model. One key feature is to edit somebody else’s file and share it with coworkers and colleagues when needed. This feature is more appropriate to organizations that have field engineers at different locations. It will enable the instant decision making with more accurate outcome.
Table 1: Development/Editing

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>3-Best Choice</th>
<th>2-Acceptable</th>
<th>1-Below Expectations</th>
<th>Google Drive</th>
<th>Dropbox</th>
<th>Evernote</th>
<th>SkyDrive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Events tracking</td>
<td></td>
<td></td>
<td></td>
<td>Score</td>
<td>Score</td>
<td>Score</td>
<td>Score</td>
</tr>
<tr>
<td>The user is notified with an active alarm when an event day approaches, instant event tracking on homepage.</td>
<td>The user is notified with an active alarm when an event day approaches. No instant event tracking on homepage.</td>
<td>The user is notified when an event day approaches. No alarm or instant event tracking on homepage.</td>
<td>2.8 2.9 2.9 2.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Simultaneous document editing/tagging</td>
<td>The user can edit documents simultaneously on different devices from multiple locations.</td>
<td>The user can edit documents simultaneously on different devices from a common location (Same IP).</td>
<td>No simultaneous document editing is allowed.</td>
<td>2.5 2.4 2.8 2.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adding audio and video files to existing notes</td>
<td>Recording video or audio interfaces exist on the app. The user can add or tag or remove audio and video files to/from existing notes</td>
<td>Recording video or audio interfaces exist on the app, no audio files are allowed. The user can add or tag or remove video and audio flies to/from existing notes</td>
<td>No video or audio interfaces exist on the app. The user may add files from the “gallery/files” section of their devices.</td>
<td>2.4 2.5 2.4 2.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supported formats/apps</td>
<td>The app is compatible with other apps and receive frequent updates</td>
<td>The app is compatible with other apps. No frequent updates</td>
<td>The app is not compatible with other apps</td>
<td>2.8 2.7 2.6 2.7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total Points:** 10.5 10.5 10.7 10.7

In the development/editing phase of the rubrics (table 1), the average scores are close to each other in most elements. This clearly shows that all four apps carry similar characteristics and offer comparable features. Evernote and SkyDrive are the most preferred applications of this phase. Both are leading in events tracking and simultaneous...
document editing whereas Google drive and Dropbox stay behind their competitors in these areas. The user must be able to keep track of past and future events and edit them when needed.

Knowledge sharing/distribution (table 2) is lacking in intergroup relations as stated before. Sharing methods is the initial step of this phase. The user may want to share information on more than one platform. This can be done by performing by simultaneous distribution. Information can be private to some institutions and individuals, thus appropriate settings must be done to increase the level of privacy at organization.

Table 2: Knowledge sharing/distribution

<table>
<thead>
<tr>
<th>Outcome Rubric: Distribution/Sharing</th>
<th>Google Drive</th>
<th>Dropbox</th>
<th>Evernote</th>
<th>SkyDrive</th>
</tr>
</thead>
<tbody>
<tr>
<td>CATEGORY</td>
<td>3-Best Choice</td>
<td>2-Acceptable</td>
<td>1-Below Expectations</td>
<td>Score</td>
</tr>
<tr>
<td>Sharing methods</td>
<td>Sync with web. The user can share/distribute the files (as a file or a web link) to facebook, twitter and other applicable storage accounts</td>
<td>Sync with web. The user can share/distribute the files to facebook, twitter and other applicable storage account. The user may only store files (cannot create a web link for files) to online storage accounts</td>
<td>The user may not share/distribute the files and web links to facebook, twitter and other accounts</td>
<td>2.6</td>
</tr>
<tr>
<td>Sharing limits</td>
<td>Data sharing is unlimited</td>
<td>Data sharing is limited to certain amount of data.</td>
<td>Data sharing is limited to daily use.</td>
<td>2.4</td>
</tr>
<tr>
<td>Sharing privacy</td>
<td>The user may adjust privacy settings in file sharing such as adding/removing multiple users, restricting information to unauthorized individuals</td>
<td>The user may adjust privacy settings only extend to adding/removing multiple users. No restriction of information to unauthorized individuals</td>
<td>Privacy settings do not exist.</td>
<td>2.4</td>
</tr>
<tr>
<td>Total Points:</td>
<td></td>
<td></td>
<td></td>
<td>7.4</td>
</tr>
</tbody>
</table>

In development/editing phase, the user must be able to share and distribute links (table 2) if necessary. Sharing methods vary depending on the type, size and load of the file. All four apps satisfy the needs of sharing methods. They are all compatible with major networking services such as Facebook and Twitter. However, the user can not...
share some formats such as voice and other documents with different formats. This creates an issue when it comes to sharing files. The participants think that distribution and sharing methods phase address individuals rather than professionals who work for larger organizations. Dropbox is the best application in this phase our rubrics.

To sum up, selected android applications can facilitate intergroup relations and communication by fully implementing the desired features of each phase of our model. These features may vary depending on miscommunication types in organizations. Since most of these android applications are open sourced, they can be edited, developed and personalized to a specific company.

V. Conclusion

Knowledge transfer should be made in a way that it can be efficient as well as productive for organizations. Knowledge development and sharing are an emerging areas in all industry fields. In spite of the fact that there are certain advantages of using smartphones and portable communication devices at work, disadvantages are certainly inevitable. Smartphones in the workplaces could reduce productivity and more dangerously disconnect people from their real lives thus bringing more stress to their lives which eventually creates bad atmosphere in an organization.

The level of competition is high in today’s market because consumers have variety of options to choose from when a purchasing decision is made. For example: In retail and manufacturing industry, computerized inventory systems offer instant assessment of inventory levels, because the time is equal to money. In order to survive and be powerful in today’s industry, companies must be able to make instant decisions on spot, and technology itself is the main key to unlock opportunities for next generations.

References


