The Implementation of Mobile Application as Control System of Sales Employees at Private Company

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Abstract

The existence of employees in organization is one of key aspect to achieve certain goals, which usually divided into many divisions based on its function. To make sure that employees work based on the interest of organization, the management should monitor and evaluate their performances. Many ways could used to control employees behavior at work, one of them is using technology. This paper tries to explain the implementation of technology in the private organization, as a means of control of sales division members in their behavior. The control system is using an online mobile applications tool for behavior measurement of sales employees. The objective of this paper is to understanding the utilization of technology and its technical aspects operated by Datascrip especially on mobile applications tool by the sales employees within Datascrip. This research focus on the concept of control in organization using cybernetic model with interpretive paradigm. The purpose of this qualitative research is analytical descriptive, in the implementation of mobile applications tool for behavior measurement of sales employees at Datascrip. The data obtained are from literature study, observation and interview with sales staffs in Datascrip. The result shows that the control system implemented in Datascrip affect sales employees behavior to set their working time in a disciplined manner because of the mobility that stick with their jobs.

Keywords: technology, mobile application, control, sales employee, organization
Introduction

An outstanding operational performance of organization cannot be achieved without managing human factor. One of the key aspect is the communication system from higher level to their employees. Employee is one of the important assets owned by the organization and is divided into divisions based on aspects of its function. One of the divisions formed in the organization is the sales division that works with purpose of increasing sales. Members of the sales division are accustomed to moving systems from one client to another and do not work permanently in the office like other divisions in general because they have to achieve certain sales figure. Kotler (1977) state that sales person tend to think about aiming into increase current sales to meet quota commitments and to achieve bonuses and good commissions. This triggers the issue of oversight and control of sales team with high-mobility.

Many ways could be applied to control employee on organization including sales division, it depends on the strategy and creativity that organization have, one of them is using technology. Previous research from Pierce, Snow, and McAfee (2013) entitled “Cleaning House: The Impact of Information Technology Monitoring on Employee Theft and Productivity” shows a significant effect in reduced theft and improve productivity of employee that appears because of changing behavior of individual staff which helped by technology. This research prove that technology can help management to monitor work implementation in order to compensate for lost theft income. Technology development provide many conveniences, as well as a new way of doing human activities. It is a means to direct thinking and action within the organization and to discipline members to disobey the wishes or expectations of top management (Hatch, 1997). Technology could help organization discipline the members of sales team with its development of application on mobile devices.

Mobility and live report are two big concern in everyday life including within the organization, then mobile apps arise and giving so much impact in people’s activity. Wong (2012) stated that mobile application is one of the most accessible platform through smartphone besides internet mobile. The nature of mobile based on Oxford Dictionaries is “able to move or be moved freely or easily”, and mobile apps is “software application designed to run on smartphones, tablet computers, and other mobile devices” (Bennett & Martin, 2013, p. 191). It means that mobile apps able to run anywhere because it attached to mobile phone that has ‘mobility’. This condition is so much related with what organization needed to applied on controlling sales staffs with high mobility. Mobile apps could be a great opportunity which forever stick to sales staffs’ life. All the sales staffs can open it anytime and anywhere when necessary, based on the nature of mobile application. So, this research tried to explain the implementation of technology as management control system, especially to sales employees, in one of private company in Indonesia named Datascrip – Business Solution.
Literature Review

Communication in Organization

Based on Karl Weick's process of organizing theory a key element that needs to be researched in research-related organizations is communication that focuses on the exchange of information which occurs within the organization and how members take steps to understand it (Weick, The social psychology of organizing, 1969). According to Weick, organizations rely on information to function effectively and achieve their goals, and information environment was created by members of the organization (Weick, 1979). In organizations, the flow of communication is divided into formal and informal. According to Papa, Daniels, and Spiker (2008), formal communication is usually related to the use of communication channels that have been designed within the organization. Formal communication is seen based on the purpose of the message flow in a hierarchy, and is divided into downward, upward, horizontal, and diagonal (Papa, Daniels, & Spiker, 2008).

Downward communication is a vertical communication that goes from leader to subordinate. The types of messages that reflect downward communication include: Job Instructions, job rationales, work procedures and rules, feedback, and ideology of an organization (Katz and Kahn (1978)). Upward communication is a vertical communication that goes from subordinate to superior, or from a lower organization with a higher organizational unit. Horizontal communication within the organization is a communication or message flow that occurs between people on the same level or those who are at the level associated with different divisions within an organization. Diagonal communication, involving communication across both levels and functions as well as departments within the organization (Papa, Daniels, & Spiker, 2008).

Control Systems

Modernist view of organizational control which summarized by American sociologist Arnold Tannenbaum sees that “….control process help circumscribe idiosyncratic behaviors and keep them conformant to the rational plan of the organization. The coordination and order created out of the diverse interests and potentially diffuse behaviors of members is largely a function of control” (Hatch, 1997, pp. 327-328). Different individuals who join with the organizations have different reasons on their participation, which shows divergent interest that may faced by organization as problem or interfere with organizational strategies and goals. Managers need to make sure everything in organization run well, so, management need to set a vertical communication system to control employees behavior in order to ensure that self-interested is minimized and organization-interest served maximized (Hatch, 1997, p. 328).

Robert Simons on his book named “Levers Control: How Managers Use Innovative Control Systems to Drive Strategic Renewal” described much thing about control and its...
management system. Control in organizations could be achieved in various ways, from direct surveillance to feedback system to social and cultural control through systems applied by management. Management control system are the formal, information-based routines and procedures managers use to maintain or alter patterns in organizational activities (Simons, 1995, p. 5). Formal routines and procedures focus on plans, budget, and market share monitoring system, while information-based routines purposes are to signal the domain in which subordinate should search for opportunities, communicate plans and goals, monitor the achievement of plans and goals, and to keep informed and inform others of emerging developments (Simons, 1995, p. 5), they become control systems when they are used to maintain organization activities. Managers need to control the whole organization to make sure everything run well and to coordinate and regulate operating activities.

There are four key constructs to be analyzed and understood for the successful implementation of strategy which are 1. Believe systems; used to inspire and direct the search for new opportunities, 2. Boundary systems; used to set limits on opportunity-seeking behavior, 3. Diagnostic control systems; used to motivate, monitor and reward achievement of specified goals, 4. Interactive control systems; used to stimulate organizational learning and the emergence of new ideas and strategies (Simons, 1995, p. 7). Managers use these countervailing forces to achieve a dynamic tension that allows the effective control of strategy. A balance among the four levers of control requires to implementing strategy effectively (Simons, 1995, p. 10).

The Cybernetic Model

One of dynamic model of control that can be applied on organization management system for performance evaluation and feedback from its members is The Cybernetic Model. Based on (Hatch & Cunliffe, 2013), cybernetic control system align organizational and individual goals throughout an organization using resource allocation to direct employee attention to desire activities and communicating performance data to provide corrective feedback. This system starts with setting goals and performance standard then developing the means for measuring output and/or behaviors (p. 238). Performance standards are typically set with reference to goals and expectations such as demonstrated knowledge, enthusiasm, clarity, and skill at work, and every data derived from evaluating employee outcomes and/or behaviors will be combined and used to assess and compare the performance of individual faculty members relative to established goals and/or to each other (Hatch & Cunliffe, 2013, p. 238).

Developing the cybernetic model starts with setting of targets or standards of acceptable behavior related to goals, followed by measuring and monitoring compliance with the targets and standards, and then giving feedback (Hatch, 1997, p. 330). So, this system is focus on performance evaluation and feedback system on work tasks. Ways to accomplish goals and task that have been defined, and lead the targets or standard to
goal realization are with output and behavioral control (Hatch & Cunliffe, 2013, p. 238). The model of cybernetic system for controlling individual work or group task activity described with figure below.

![Diagram](image)

Figure 1. Individual or work group level model showing task activity and a system for controlling it using the cybernetic approach (Hatch, 1997, p. 330)

**Mobile Apps**

Many ways could be applied to control behavior and output of individual activity in organization, one of that is by using technology. Arnold Pacey on his book "The Culture of Technology", said that the process of human civilization can’t be separated from technological developments. There is a mutual relationship between civilization and technology (Pacey, 2000). Karl Weick argues that high technology is a technology that changes the organizational system in which it becomes part of it. Milan Zeleny adds that argument, when technology requires performance management including awareness of increased productivity, standards and size, goals and motivation, the high technology transforms managers into catalysts of change that drive and support innovation and self-management through hierarchical diffusion and organizational skills and leadership (Hatch, 1997). High technology changes the nature of tasks and performance, interconnections and nature of physical, energy and information flows (Hatch, 1997, p. 132).

The development of information technology and wireless technology has increased the availability of mobile devices such as mobile phones / mobile phones, tablets, and others (Singh, Leavine, & Selvam, 2017) which also give an emerged of operating systems such as Android and iOS. The operating systems will come with a website that publishes digital products, usually in the form of apps, where the visibility and quality of mobile applications are largely realized through two important indicators: product ratings and comment ratings (Liu, Au, & Choi, 2014). An application is software developed and encoded with a specific operating system where users must download it before use (Wong, 2012). Mobile apps refer to the application software, a type of software that allows users to perform certain tasks that can be installed and run on various portable digital devices such as smartphones and tablets (Liu, Au, & Choi, 2014).
One of private company in Indonesia applied mobile apps as a medium that changes nature of tasks and performance of individual arranged in the organizational systems, especially for sales division. Sales person tend to think about aiming into increase current sales to meet quota commitments and to achieve bonuses and good commissions, they try to sell products/services to customers, and oriented toward today’s product, markets, customers, and strategies (Kotler, 1977, p. 68). This condition lead them to have high mobility to set a meeting with the customers to achieve targets, so they mostly spend more time out from the office because of their job desk. High mobility of sales person spur the management to set a good strategy and tactic to make sure every activity of their member is under monitor.

Research Methodology

This research will describe the control system for sales staff at Datascrip – Business Solution in the utilization of Go-SAM mobile apps using interpretive paradigm. Interpretive paradigm concerns about meaningful social action, socially constructed meaning and value relativism (Neuman, 2013, p. 115). Datascrip – Business Solution is a company that markets and sells machinery, digital devices, furniture, survey tools, stationery, and systems needed in business and offices. Datascrip started out as a humble stationery store in 1969 and then continued to expand its product lines from stationery to office equipment, office machines, drafting machines, office furniture, computers and printers. In 1979, Office Systems was the company’s core business and now known as a One-Stop Business Solutions company. Their mission is to become the leading One-Stop Business Solutions company, so they market business products and software and offer business solutions to our clients and partners. They strive to achieve the highest quality standards of customer service and to satisfy stakeholders (Datascrip.com/about, 2018). The purpose of this research is analytical descriptive, therefore the description about the situation, social arrangement or relationship will be very specific (Neuman, 2013), in the implementation of Go-SAM at Datascrip.

The method used in this research is qualitative and the data obtained are from observation, literature review and interviews with the sales division staff at Datascrip – Business Solution who use Go-SAM application. Library studies include literature books, journals, papers, and other relevant documents and provide data input. Data obtained from observations and interviews were analyzed using library studies. Go-SAM is a mobile application dedicated to sales staff who work at Datascrip – Business Solution which aim to help their employee to report work activity when they have to work outside the office. Before Go-SAM was released, report system of sales activity use E-Sam intraweb, then the management improve the system into Go-SAM, a mobile application which can be used anywhere using smartphone.
Result

Datascrip as developer, released mobile apps named Go-SAM on 8 February 2018 and has been downloaded around 500+ downloads in Play Store with download size 6.13 MB with the new version of 1.2.23. The description on the additional information about this apps in Android shown as “mobile sales activity”, so this mobile apps is dedicated to monitor work time and activity of all sales staffs in the organization with high mobility.

![Go-SAM application on Play Store](image)

**Figure 2.** Go-SAM application on Play Store

Go-SAM required username and password to log in and every sales staffs has a company email to help their work activity and the management synchronize those data before giving them an access to log in with the information needed. Manager is the one who can see the data record from this apps which linked to desktop application.

![Log in session](image)

**Figure 3.** Log in session
All activity of sales staffs who work in Datascrip must be reported using Go-SAM application. “This application specifically to monitor working hours and client visit of sales staff” explain Adrian, one of sales staff at Datascrip. Not only for working outside of office for the purpose of meeting with client but also when they work at office. Go-SAM has a feature which connected with live location on Google Maps to help sales staffs report their position when they have to visit the client. This mobile apps already has big data of their previous client with name, code and its address. Sales staffs can type the name of the client they visit on “Cari Customer” column then click OK if it suits the destination. “Go-SAM can only be clicked when we are 50-100 meters around the client office building, so we cannot manipulate the location” said Hermawan who work as sales staff at Datascrip, this application must be log out after they finish visiting the client because every minutes of activity is count.

![Go-SAM Application](image)

**Figure 4. Customer Page**

Go-SAM application collect all information of sales activity each day on page “Kegiatan Hari Ini” with list of place that has been visited, ID number of sales staffs, and history of time management that shows on the bottom line. Datascrip provides provision for sales staffs to be in office for 72 hours / month, visit the client for 56 hours / month, and give travel time estimation to meet client before returning again to office for 32 hours / month. This application record all the time management of sales activity everyday by applying check in and check out system when they make a visit to client and arrived at office. “If our time management less then the time which has been set it will affect our performance assessment, and if our total time each month either at
office, visit client or travel estimation less than work hours, the management will cut off our leave.” added Hermawan.

![Figure 5. History of client visit](image1.png)

All the data of sales activity history in a day which collected by Go-SAM application combined for every month on page “History Kegiatan”. This page shows list of client place that has been visited with detail date of visit, code of client equipped with ID number and serial number, name of client organization, and address of client.

![Figure 6. The whole history of client visit](image2.png)
Discussion

The main question in this study is how the implementation of control system through mobile apps in sales division at Datascrip - Business Solution as an upward communication as Papa, Daniels, and Spiker said that upward communication is a communication that goes from subordinate to superior, or from a lower organization with a higher organizational unit (Papa, Daniels, & Spiker, 2008). Refers to model of cybernetic system for controlling work or task activity shown at figure 1, the management use the goals as indicator to set target or standard of sales employee activity and monitor their performance then assess deviation before giving evaluation and feedback about sales staff activity and set up another goals. The implementation of Go-SAM application based on cybernetic system models also see the attention of each sales staff to their tasks, the intention to work and how they do work activity then all those three aspect become evaluation and feedback to company.

Go-SAM application become a medium to help management achieve company’s goal by set target or standard sales staff activity specifically on their work time management and number of client visit. The process of sales reporting activity shows on figure 4 by typing the name of client they visit, clicking check in and let the system of Go-SAM count every minutes they spend on that activity. If the time management of sales staffs didn’t suit with what has been set by organization could affect key performance indicator (KPI) of employee. This is related to one of information-based routine purpose which is monitor the achievement of plans and goals and to keep informed and inform others of emerging developments (Simons, 1995, p. 5), and become control systems when they are used to maintain organization activities. The management use Go-SAM to monitor performance of all sales staff and relate it with key performance indicator so all the assess deviation can be seen. The history of client visit and time management of sales staff each month can also become feedback to the management if this system need improvement or adjustment about new client prospect and time setting.

Once the sales staffs log in into Go-SAM application, management system of control applied automatically because every progress must be reported through this mobile apps in every work day. As Simon said, “management control system are the formal, information-based routines and procedures managers use to maintain or alter patterns in organizational activities” (Simons, 1995, p. 5). The apps can only be set to check in with live location on 50-100 meters radius from the current place, so this help the manager to monitor their sales staffs work and see the pattern of employee behavior. All the sales staffs will adjust their self to be discipline on time management whether on visiting client, work at office or even on the travel time estimation without being live monitored by the manager, Go-SAM become the watchdog of every work activity. This phase also shows how mobile apps technology become a medium of monitor performance through employee behavior.
Cybernetic model starts with setting goals and performance standard then developing the means for measuring output and/or behaviors (Hatch & Cunliffe, 2013, p. 238). The emphasis control on sales staffs in Datascrip using Go-SAM mobile application is only measuring behavior, even on cybernetic theory said that what measures are two points: output and behavior. It stops on the result of employee behaviors each months, and all the output reported on different intra-web application named MyPros” as explained by one of sales staff, Hermawan. Datascrip’s control system, as cybernetic models described, focus only on behavior which seen by number of client visited every month, time management in client visit, office and travel time estimation. This points help manager to monitor staff performance and see the deviation in every work then evaluate or give feedback on annual sales meeting. Every feedback from Go-SAM mobile application will help manager to see whether the process before achieving goals has been passed or not as seen on figure 2, it also help management to adjust new goals to achieve.

Go-SAM mobile application is similar to disciplinary implementation model named panopticon. Panopticon model put individuals in positions that can be seen at any time from the watchtower. Supervisors can constantly monitor individuals without ever being seen by individuals (Foucault, 1997, p. 108). Go-SAM also put individual on visible and unverifiable panopticon principle which are the sales employees placed in permanent monitoring but they didn’t know when they are being watched (Foucault, 1997, p. 109). Panopticon able to intervene each individual without being able to interrupt, run mechanisms without physical coercion, but only by setting the light and geometry system (Foucault, 1997, p. 112). The practice of Go-SAM is literally disciplining sales staffs to run mechanism of reporting activity without physical coercion or adding variety of regulatory burdens. The management of Datascrip replaced the setting light and geometry system like on panopticon in prison with Go-SAM mobile application. All the sales staffs do those kind of report regularly, automatically and without any force because they assumed someone in managerial level will monitor their activity through this system.

**Conclusion**

This paper indicates the implementation of Go-SAM mobile apps is aimed at improving efficiency in managing and monitoring sales employees performances and behaviors in organization to help management achieve company’s goals. High mobility of sales divisions become a challenge to management to monitor their work activity even on the outside of office. Go-SAM mobile application helps management to be informed every sales staffs behavior by set target or standard sales staffs activity specifically on their work time management and number of client visit. The process of sales reporting client visit activity and time management which could affect key performance indicator (KPI) of employee, if it didn’t suit, can be seen as how monitor performance as cybernetic
models run through mobile apps technology. The data recorded on this application also become feedback and evaluation to management and see assess deviation because the managers could still monitor their staffs even on the different place. Go-SAM mobile application also disciplining sales staffs to run mechanism of reporting activity without physical coercion or adding variety of regulatory burdens and this can be a consideration to supervisors whether their staff put high attention on tasks, good intention to work and run work activity well or not.

The deficiency of this mobile apps is only applied a system to control behavior of sales employees by providing features such as list of client visit and time management of client visit, work at office and travel time estimation, without output performance. Output performance of sales employees at Datascrip applied on different mobile apps outside Go-SAM. The management of Datascrip can evaluate the efficiency of using more than one mobile apps to control their employee especially sales staffs, because every application, of course, take numbers of storage. Limited time of research drives this research with a little scope only on the implementation of Go-SAM application, whereas there are many utilization of technology at Datascrip, and it could be an opportunity for further research.

References


