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# Smartphones in the workplace: Changing organizational behavior, transforming the future

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## Abstract

*In the past decade, Smartphones have been developed and increasingly integrated with people's lives not only for social use, but for professional use as well. Many researchers claim that Smartphones can have negative consequences in the workplace such as lowering productivity, separating people from their realities, bringing stress from personal issues to work, and creating bad manners. Companies, however, have a difficult time mandating a policy in regards to prohibiting the use of Smartphones. Therefore, CEOs and corporate leaders should encourage their employees to use their Smartphones as tools for increasing their company's efficiency. This research aims to examine the results of the use of Smartphones in the workplace as integrated internal connection tools. Using Smartphones in the workplace can be valuable in three ways: promoting autonomy, strengthening relationships with peers as well as superiors, and improving knowledge-sharing. Moreover, these three main factors can increase employee job satisfaction, which leads to better efficiency in the workplace. Organizations will be better able to successfully adapt with changes that are occurring every day by integrating the use of Smartphones in the workplace.*

**Keywords:** Smartphone, work efficiency, workplace, job satisfaction, work engagement, transforming, organizational behavior

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The word 'Smartphone' was introduced years ago, but the meaning has been changed over time. It began in the past when people only had mobile phones or cellular phones. Smartphones are wireless-transmission-devices that can receive and transmit through digital or analog shortwave (Rouse, 2007). Thus, people can communicate with each other by using these devices. Later on, there were developments and evolutions of the mobile phone, which made the mobile phone smarter; eventually people started calling it 'Smartphone.' The main factor that distinguishes between a mobile phone and a Smartphone is that "[a] smartphone is a mobile phone that offers more advanced computing ability and connectivity than a contemporary basic 'feature phone'" (Litchfield, 2010, para. 8). Additionally, the internet also makes the Smartphone even better. Litchfield concludes in his article "*Defining the Smartphone*" by defining the Smartphone as a device that "runs an open (to new apps) operating system and is permanently connected to the internet" (Litchfield, 2010, para.21). He may be right about this because the Smartphone with accessibility of the internet lets people do many things on this device.

In addition, the population of Smartphone users has been increasing over the last few years. According to Pew Research Center's Internet and American Life Project, almost half of

American adults own a Smartphone. There is a sharp increase in Smartphone users in the United States by 11% from 35% in 2011 to 46% in 2012, but the number of users who use other cell phone has been decreasing by 7% from 48% in 2011 to 41% in 2012 (Smith, 2012). This statistic shows that regular cell phone users are tending to shift their behavior from using regular cell phones to Smartphones.

Workplaces show the same trends of more people tending to own Smartphones. A research company, Forrester, estimated that in 2016 there will be about 350 million employees who own Smartphones and 57% of these people, which are about 200 million people, will bring the Smartphones to work (Chen, 2012). Likewise, Smartphone users between the ages of 18 to 24 years old have significantly increased 18% from 49% to 67% from 2011 to 2012 (Smith, 2012). These people are the new generation workforces, which potentially have Smartphones that always connect their lives to their workplaces. Companies should think carefully about how to manage Smartphone issues when they become ubiquitous.

#### *Purpose of the study*

This study constructs from an analysis, and integration of the existing research, which provides necessary information to develop a new model in this research. The existing research shows that although allowing employees to use Smartphones in the workplaces could have negative impacts like lowering productivity, disconnecting people from their real lives, bringing stress to their lives, and creating bad manners in a company, Smartphones also have the potential to promote employees engagement and they can be used as a social connection tool. For instance, Smartphones can promote autonomy, relationships with peers as well as superiors, and knowledge sharing, which can lead to job satisfaction and contribute to work efficiency.

### **Negative effects of Smartphone usage**

There is a lot of research that shows the Smartphone phenomenon has negative impacts on workplaces (Bozeman, 2011; Ebelhar, 2009; Rush, 2011; Smith, 2012; The Economist, 2012). The main concern is that excessive use of Smartphones can lead to addiction, which has a negative effect at work in terms of lowering productivity. The Smartphone is connected to peoples' lives; it becomes a part of daily life. Smartphone users are obsessed with their Smartphones. For example, some people treat their Smartphones the same as they treat their pets; they name them and buy accessories to make their Smartphones look good (Bozeman, 2011). For this reason, some researchers or managers claim that employees do not fully use their time and attention into their work, but they focus more on their Smartphones, which can harm productivity. Besides, excessive use of Smartphones separates people from realities. People tend to have their Smartphones in their hands all the time. They bring Smartphones to a party or social event and use them as tools for avoiding socializing with others, or when they use their Smartphones, they totally ignore people nearby them (Bozeman, 2011). In addition, Smartphones can make employees stress out. When employees use their Smartphones to work on their projects from their work, sometimes they bring stress from their workplaces into their private lives at home, so they cannot separate their work from their non-work lives (The Economist, 2012). "Working excess hours, including being constantly accessible via Smartphone or the expectation of needing to be so may result in negative consequences, for example, workplace-related stress" (Rush, 2011, p.2). Vice versa, employees also bring personal issues to work, which can be resulted in negative consequences as well. Finally, Smartphone usage in a workplace destroys business manners. There are some issues that have been raised about workplace etiquette because

people bring their Smartphones into their business meetings, which can be annoying because Smartphones may interrupt the meeting (Ebelhar, 2009). Although these signs may show the negative impacts of Smartphone usage in a workplace, the number of Smartphone users are increasing (Smith, 2012), so corporate leaders cannot get rid of the Smartphone, which is here to stay; they should find some ways to manage and utilizing Smartphones to make positive impacts on workplaces.

Once Winston Churchill said that “A pessimist sees the difficulty in every opportunity; an optimist sees the opportunity in every difficulty”. This quote is useful for the discussion of Smartphone usage because the quote suggests to readers to look at the positive sides of Smartphones that can potentially benefit companies. In the case of the negative effects from the Smartphone, this happens to be a normal situation because when new technology is introduced, there are always some criticisms on that technology. Technology always has two-sides but people can manage and bring more positive values. For instance, when the Email system was first introduced, employers were afraid of the Email system because they did not want their employees to get distracted by email. However, the Email system has proven that with a right usage, it is useful and creates high productivity at work, rather than ruins productivity (Jackson, Dawson, & Wilson, 2003). Researchers who have studied the email phenomenon claim, “The implication for managers in other organizations is that if their own employees handle email this way they would also benefit in terms of employee productivity despite regular email interruptions” (Jackson, Dawson, & Wilson, 2003, p.84). Similarly, with Smartphone, CEOs or managers should not make a policy to prohibit their employees from using a Smartphone. It is almost impossible to ban Smartphones from a workplace, so leaders in companies have to think about how they can manage this issue in order to bring their companies up to the environment that they want. Instead of, punishing their employees who use Smartphones in the workplace as private devices, why do not managers reward their employees for using Smartphones for the purpose of work? They could give their employees a full functional usage of Smartphones by building a framework or trying to lead them to the way that a company can benefit from them.

### **Potentials of Smartphone in a workplace**

In 2012, almost every company is using technology, which they believe can help increase productivity. “Many of the newest internal communication tools used today (e.g., micro-blogging platforms, internal social networks, wikis, and internal instant-message services) are similar to their external counterparts, except that they are private and secure tools to reach employees in a way that best suits their lifestyles and interests. These internal tools offer a way to reach employees instantly without the hassle, character/word-filled, and time-consuming channels like e-mail” (Miller-Merrell, 2012, p.2). The most useful and compatible technology that can work best with these internal tools seems to be the Smartphone because people always carry it with them all the time (GoogleMobileAds, 2011). The Smartphone has three main potentials that can benefit companies.

#### *Autonomy*

Smartphone promotes autonomy in a workplace, which makes employees feel better. As technology engaging to human lifestyles, people tend to have their own laptops or Smartphones, which often are better than the devices that a company might provide (Zielinski, 2012). Many

companies have started using a Bring Your Own Device (BYOD) policy, which can reduce costs and increase productivity. Instead of buying new devices, employees can bring their own devices to work and a company can also give them an extra incentive (Miller-Merrell, 2012). For instance, Ford Motor Co. uses a BYOD policy with employees. The company allows employees to have their own favorite Smartphones for usage in the company. At Ford Motor Co., this program is called individual-liable device program (ILD), which had been utilized in 20 countries since 2009 (Torode, 2011). Managers at Ford Motor Co. found that a lot of employees owned Smartphones, and that they would love to have their Smartphones available at work (Torode, 2011). Randy Nunez, senior network engineer, Ford's Mobile Computing Enterprise Technology Research division, gave one good reason why people like to have their own devices. Nunez reported that "people want to be able to use it in the way they want to use it. They have certain preferences around either virtual keyboard versus a hard keyboard, for example" (Torode, 2011, para.39). Managers at Ford Motor Co. made a smart move by utilizing a BYOD policy. They recognized a trend of technology and their employee behaviors, and so they designed a program that would benefit their employees and consequently the company. In this case, Ford Motor Co. shows that autonomy is important in terms of satisfying employees in order to increase employee engagement and productivity.

If companies are worried that the BYOD policy will result in negative consequences, they can promote employees' autonomy by giving them companies' Smartphones. As mentioned earlier, Smartphones have been integrated into people's lives. Therefore, it would be counter-productive if companies prohibited employees' Smartphones and did not give them a chance to have one at work. There are some companies that completely prohibit their employees from using their own Smartphones because of security reasons, but they give them a company Smartphone to use at work. For example, Wells Fargo strongly prohibits a BYOD policy. It does not allow employee personal devices to connect with its network at all (Brodkin, 2011). It is understandable why Wells Fargo blocks employee personal devices from accessing through its network because Wells Fargo is a financial services company. Customers' security is one of the most important factors for the company. However, Wells Fargo allows employees to use its company's devices such as Smartphones, Tablets, etc. The company invests on these devices to give employees the best. Moreover, the company gives employees choices on choosing their favorite Smartphones whether they want to use iPhone, Andriod, or Blackberrys (Brodkin, 2011). Although this means employees have to carry two Smartphones(personal and company), they are likely to have no problem with that because they still can use their favorite Smartphones in their workplace. In this case, Wells Fargo also illustrates that employee's autonomy is important in order to boost the company's productivity and employee's morale.

Gagne and Deci (2005), shows that one of the important contexts in a job that can promote autonomy is choices. When employees, who have individual differences, are supported by their company' system, they will have a high motivation to work. Other research by Zielinski (2012) states that "Business leaders find that offering greater choice in work technologies can boost productivity and satisfaction levels of most employee generation" (p.71). When employees know that their company supports their Smartphones and wants them to use for working purposes, they will have satisfaction and tend to do their best for their company. If companies were to use a method like Ford Motor Co.'s or Wells Fargo's, they would be more likely to improve their employee autonomy and morale, which would have positive impacts in their work environments.

### *Relationships in a workplace*

Smartphones help improve relationships with peers as well as superiors. As previously mentioned, Smartphone users tend to disconnect with people in their real lives (Bozeman, 2011). Similarly in a workplace, Smartphone usage distracts employees from information at meetings, and also annoys others (Ebelhar, 2009). However, the Smartphone is a high potential device that gets people together through the internet platform. CEOs or Managers should take this chance to turn their employees' Smartphones into engagement tools. They could make an internal application or system that can connect people in companies together, instead of connecting with their friends outside workplaces. For instance, one of the Fortune 500 companies tried improving on improving employees' relationships by using internal social-communication systems such as an internal blog, Microsoft SharePoint, etc within the company. The result was impressive, "Employee feedback from the beta testing was extremely positive, as employees developed deeper relationships with their fellow employees, increasing their satisfaction with the company culture and work environments. Beta-project leaders reported no incidents of employee misuse, and even at present employees self-police their network use" (Miller-Merrell, 2012, p.4). This example only uses their internal computer system to run the experimental project, but the Smartphone is a higher capable than computers because people always carry it all the time. If companies use this model to connect their employees together, not only employees' relationships with their peers will be stronger, but also their relationships with their superiors will be better.

### *Knowledge sharing*

Smartphone expands knowledge sharing. Every single company needs to work on a flow of information and knowledge in order to develop their employees to make them more productive. With the integration between Smartphone and social network applications, people can share their information and knowledge easily, "Internal social networks have also experienced a rise in popularity, offering employees and managers a knowledge-share opportunity and a virtual collaboration platform that keeps e-mail inboxes from being overwhelmed" (Miller-Merrell, 2012, p.2). One of the most effective and popular tools for knowledge sharing is known as "Cloud computing" (Anderson, 2010, p.1), which is a sharing site hosted by other companies such as a social-sharing site like Facebook, a video-sharing site like Youtube, a document-sharing like GoogleDocs, etc (Anderson, 2010). For instance, General Electric (GE) has been using internal social network as a knowledge sharing tool. The system has more than 100,000 internal experts who answer questions from their internal communities all over the world. This internal system connects GE's employees together; their employees can share information, documents, and questions and answers, which support their works (Naslund, 2010). Furthermore, Ford Motor Co. focuses on information and knowledge sharing among their employees. Instead of investing a lot of money on help-desk support like other companies, Ford Motor Co. chooses to build a forum for their employees, so that they can share information and help each other on their issues, especially with technology issues (Torode, 2011). According to the Pew Research Center's internet & American life project, 71% of their respondents agreed with this statement "By 2020, most people won't do their work with software running on a general-purpose PC. Instead, they will work in Internet-based applications such as Google Docs, and in applications run from smartphones. Aspiring application developers will develop for smartphone vendors and companies that provide Internet-based applications, because most

innovative work will be done in that domain, instead of designing applications that run on a PC operating system” (Anderson, 2010, p.2). The combination of Smartphone and the Cloud computing has a potential to expand knowledge faster and better because Smartphone users can connect and access to information that they need anytime and anywhere, which can open many opportunities for them to learn more. If corporate leaders need to manage it properly, it will be a good chance for a business to grow potentially.

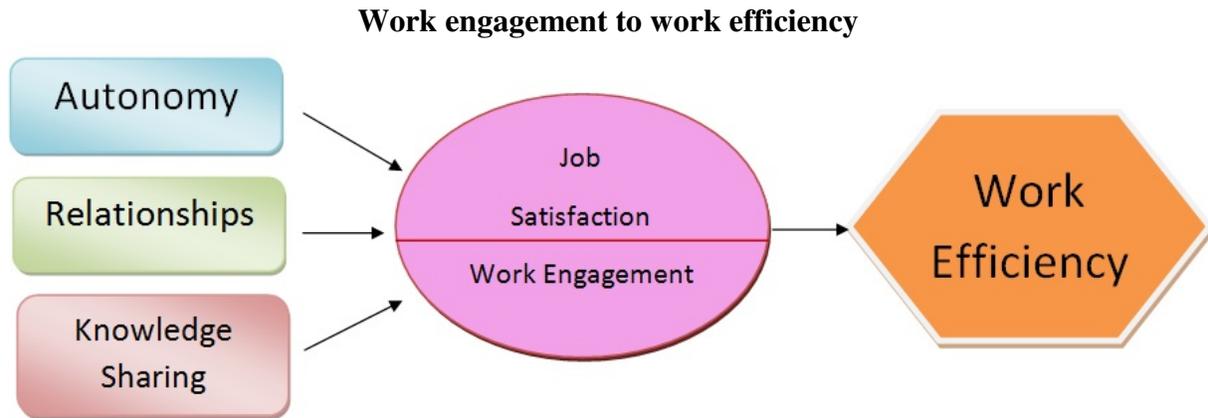


Figure1: Toward work efficiency by utilizing Smartphones at work

A lot of research (Carayannis & Clark, 2011; Gagne & Deci, 2005; Miller-Merrell, 2012), shows that these three main factors, which are autonomy, relationships, and knowledge-sharing, promote a higher level of job satisfaction, which can lead to better work efficiency. If people have autonomy in their work, it will increase their motivation and job satisfaction; even people who work in a mundane job, can be motivated by autonomy that they have (Gagne & Deci, 2005). Moreover, when people in workplaces have better relationships as well as better internal communication or knowledge sharing, they are satisfied with their work-life and tend to be more efficient (Miller-Merrell, 2012). Therefore, Smartphone technology can support work flow in company network, which enable people in the company to become productive and profitable (Carayannis & Clark, 2011). Smartphones provide these benefits to a business. Job satisfaction is one of many important factors that can lead to work efficiency. If employees have a higher job satisfaction level, they are more likely to be efficiency at work.

However, some studies referred job satisfaction as a passive state in contrast to work engagement, which is an active state. Bakker studied about work engagement, which is “an active, positive work-related state that is characterized by vigor, dedication, and absorption” (Bakker, 2011, p.265). His work focused more on work engagement rather than job satisfaction because work engagement is more active and more about high pleasure to work, which is a better state than job satisfaction (Bakker, 2011). There are two main factors that affect to work engagement of employees. These two are job resources and personal resources. Personal resources are about individual factors such as optimism, self-efficacy, resilience, and self-esteem. On the other hand, job resources basically fulfill needs at work, for example social support and feedback from colleagues and supervisors, autonomy, work competence, resourceful work environment (Bakker, 2011). Furthermore, the reasons why engaged employees result in a high performance level because “engaged employees often experience positive emotions

including happiness, joy, and enthusiasm; experience better health; create their own job and personal resources; and transfer their engagement to others” (Bakker&Demerouti , 2008, p.215). Bakker’s model of work engagement illustrates beyond the model of job satisfaction. Some researchers only look at job satisfaction, but Bakker claims that work engagement results in a higher performance level of employees. In terms of utilizing Smartphones at work, Smartphones can possibly create both job satisfaction and work engagement depend on other factors at work, which will not be explored in this paper.

As mentioned earlier, Smartphones can benefit at workplace in three ways by promoting autonomy, strengthening relationships with peers as well as superiors, and encouraging knowledge sharing. These factors are related to job resources from Bakker’s model, which can lead to work engagement, and consequently to work efficiency. Therefore, this model can be illustrated by figure1. Autonomy, relationship, and knowledge sharing appear to be important factors in terms of leading employees to whether job satisfaction (passive state) or work engagement (active state). These factors are three main potential benefits from the Smartphone lead employees to have higher job satisfaction or work engagement, so when employees are highly satisfied and/or engaged with their jobs, it leads a company to have higher work efficiency.

### Conclusion & Further study

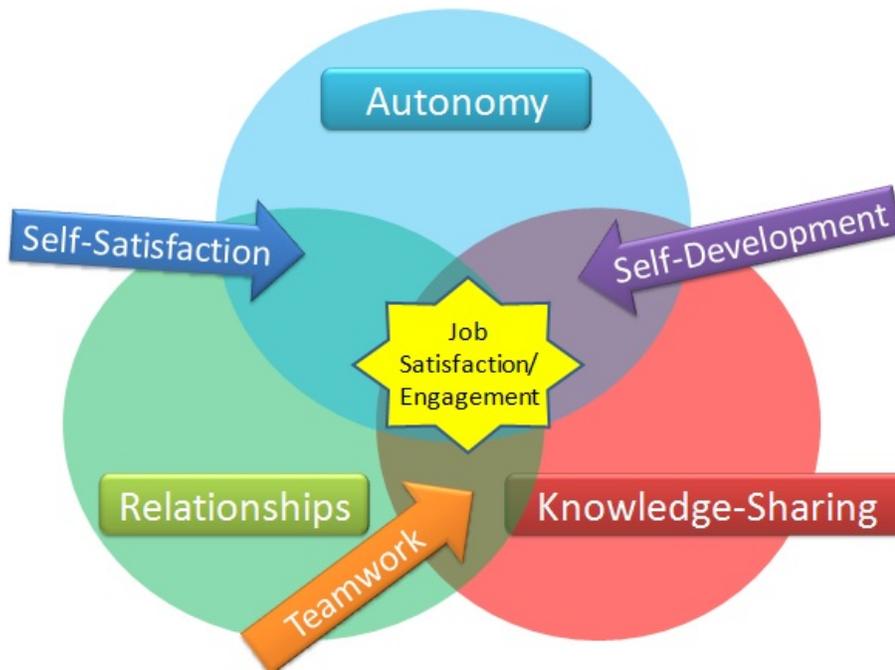


Figure2: Job Satisfaction/ Engagement Factors Diagram

“We are here in the world to change the world”, it can also be said that Smartphones, like other technology, are here in the world to also change the world, especially in the organizational area. There are many research, which have been illustrating both good and bad sides of Smartphones. However, as human beings, we are the one who have control over this technology. The Smartphone is device that can potentially help people in the business world. Corporate leaders will get benefits from their employees who use Smartphones for the purpose of work, and employees will benefit from Smartphones in terms of developing their satisfaction and

engagement at work. Business leaders should use the Smartphone advantage by integrating Smartphone usage with workflow in order to increase the level of work efficiency, so leaders can develop their businesses. During this time, technology has merged with people's lives. It is impossible to eliminate technology like Smartphones, but it is possible to control the negative usages and promote the positive usages in order for businesses to be successful.

My analysis of this research leads me to conclude that Smartphones have much potential for businesses in terms of promoting autonomy, relationships, and knowledge-sharing, which leads to improved job satisfaction and work engagement. Therefore, it can boost up work efficiency. Every business leader should consider integrating Smartphone usage into the workflow.

At this time, there are only few research that focus on how Smartphones affects work efficiency. There are a lot of gaps that researchers can fill in. This paper leads to a call for a future study, which focuses more on the idea of three factors that can increase a level of job satisfaction by matching two factors together in order to form a new factor (figure2). The combinations of these factors are:

- Autonomy and Relationships = Self-satisfaction
- Autonomy and Knowledge-sharing = Self-development
- Relationships and Knowledge-sharing = Teamwork

This model shows a possibility to look deeper into each area and strengthen each of them by using different applications. These three new factors also can support and promote a level of work efficiency. Further research can develop this model by gathering both qualitative data and quantitative data and finding out whether this model is valid or not.

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