Mobile Technology Use Among Sales People in Insurance Industry

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Abstract. In recent years, implementing mobile IT management and application are important organizational development strategies for international enterprises. This study aims to explore the insurance salesperson's usage behavior of mobile technology and their attitude toward using mobile technology in workplace by the case study method. A total of 72 valid questionnaires were collected from local employees of an insurance company in Taiwan. The results showed: (1) Smartphones were more often used to support instant communication tasks and read individual's learning resources and (2) were viewed as more helpful to support most tasks than tablets besides reading official learning resources. (3) Using mobile devices in workplace were regarded to improve information communication, images and individual's workflow efficiency. The findings provided information for companies' managers to design a more productive mobile workplace especially for sales departments that have high mobility employees.

Keywords: Mobile technology · Mobile enterprise · Mobile workers · Sales

1 Introduction

In recent years, implementing mobile IT management and application have been an important organizational development strategy for international enterprises [1]. As reported in Accenture's 2014 mobility survey, companies were moving aggressively to adopt mobile technologies and are developing formal strategies [2]. According to iThome's 2015 annual CIO survey, the insurance industry had the highest willingness to implement mobile technology in workplace among other industries in Taiwan [3]. This survey also showed that sales departments often adopted mobile technologies earlier than the other divisions in insurance industry.

Many reports and researches has verified the benefits of implementing mobile technology in the workplace. Accenture [2] showed that more than 45 % senior decision-makers for digital strategy and technologies in companies considered that implementing multiple mobile technologies in workplace could create revenue opportunities, increase product/service development speed and customer engagement,

and also enable rapid responses to customer demands [4]. Mobile technology not only provided the anytime anywhere learning environment to enhance employees' work capability but also facilitated immediate service to clients and finally made company get rid of the existing energy-intensive business environment, to create a low-carbon economy [5–7]. Yueh et al. [8] found that using smartphone on work tasks had a positive impact on individual perceived work performance.

The most revenue in an insurance company is from sales departments. The salesperson should provide efficient service to clients anytime and anywhere to increase individual performance and companies' revenue. Their work is of high mobility and need instant information. As mentioned previously, the advantages of mobile technology support the salesperson's work tasks and improve the workflow. When organizational managers target the specific individual requirements depending on job roles and tasks, a better fit between the type of mobile technology and job demands is likely to increase productivity [9]. Motivated by the aforementioned phenomenon, this study aims to explore the insurance salesperson's usage behavior of mobile technology and their attitude toward using mobile technology in workplace. In doing so, this study provides two main contributions. First, it deliver information for companies' managers to design a more productive mobile workplace especially for sales departments which have high mobility employees. Second, the results shed light on the relevance issue of mobile workplace research.

2 Methods

This study adopted the survey method to collect empirical data from the employees in a regional business establishment of a leading insurance company in Taiwan, which has implemented mobile technology of iPad to support the salesperson's work tasks from 2012. All participants are from the sales department. A total of 72 valid questionnaires were collected from local employees using paper questionnaires.

This study investigated participants' demographic information, attitude toward advantages and applications of mobile technology measured by a 6-point Likert scale, anchored by 1 (strongly disagree) and 6 (strongly agree). The questionnaire also inquired participants' actual mobile technology using experiences measured by a 5-point Likert scale. The using experiences survey investigated users' using frequency (0 = never use, 4 = always use) and perceived usefulness (0 = unhelpful, 4 = very helpful) of various tasks (i.e. making a phone call, using e-mail, checking personal schedule and browsing web pages editing files) in works.

For data analysis, descriptive statistical analysis was applied to report the overall status. In addition, paired-samples T test and Cohen's d effect size was used to analyze the difference using experience between smartphones and tablets.

3 Results

3.1 Demographics and the Using Experiences of Mobiles

The samples were composed of 80.3 % females and 19.7 % males, and nearly 70 % samples' age were above 35. Above 65 % of participants have worked in this companies more than five years (46, 65.7 %). Over 90 % of the participants (67, 96 %) held high school diplomas and 42 % of the participants (29, 42 %) held bachelor degrees.

Almost all participants have smartphones (70, 97 %). The proportion of operating system run on smartphones is iOS:Android = 1:3.5. Compared to the possession rate of smartphone, 81.9 % of the participants have tablets, and more than half of them use iPads. Most employees responded they have adopted mobiles over 1 years (51, 77.1 %) and used them more than twice a day (50, 71.4 %). The respondents considered mobile devices were easy to use (M = 5.01, SD = 1.014). Most of the employees bought their own mobiles personally (28, 45.2 %) or obtained discount to buy mobiles from the company rather (27, 43.5 %) than got allotment of mobiles from the company (5, 8.1 %).

Table 1 shows the using frequency rating of smartphones for different work tasks by the participants in this study. When participants responded the using frequency of smartphones for a task was more than 0, their perceived usefulness of smartphones for the tasks could be analyzed (Table 2). As can be seen in Table 1, participants regarded five tasks – make a phone call, browse web pages, use e-mail and manage individual's schedule– were more usually supported by smartphones (mean > 2.5). Table 2 shows smartphones were useful to support work tasks (mean > 2.5). Participants considered most tasks – make a phone call, use e-mail, browse web pages, read official learning resources, manage individual's schedule, finish work tasks and read individual learning resources–especially could be efficiently supported by smartphones (mean > 3).

Table 1. Using frequency rating of smartphones for work tasks

Tasks	Using frequency (N = 72)	
	Mean	SD
Make a phone call	3.25	1.110
Browse web pages	2.89	1.240
Use e-mail	2.65	1.425
Finish work tasks	2.55	1.302
Manage individual's schedule	2.52	1.403
Edit files	2.46	1.362
Take notes	2.43	1.359
Read official learning resources	2.39	1.405
Read individual learning resources	2.38	1.405

Table 3 reports the using frequency rating of tablets for various work tasks by the participants in this study. Table 3 shows the main task supported by tablets is browsing

Table 2. Perceived usefulness rating of smartphones for work tasks

Tasks	Perceived usefulness		
	n	Mean	SD
Make a phone call	67	3.54	0.628
Use e-mail	59	3.38	0.699
Browse web pages	66	3.32	0.805
Read official learning resources	59	3.16	0.843
Manage individual's schedule	61	3.14	0.828
Finish work tasks	61	3.03	0.803
Read individual learning resources	59	3.02	0.683
Edit files	62	2.94	0.978
Take notes	61	2.93	0.883

web pages (mean > 2.5). Table 4 shows tablets were usefulness to support work tasks (mean > 2.5). Participants regarded some tasks – read official learning resources, browse web pages, use e-mail, and read individual learning resources–could be efficiently supported by smartphones (mean > 3).

Table 3. Using frequency rating of tablets for work tasks

Tasks	Using frequency (N = 72)	
	Mean	SD
Browse web pages	2.64	1.507
Use e-mail	2.48	1.493
Read individual learning resources	2.37	1.467
Finish work tasks	2.37	1.477
Read official learning resources	2.35	1.475
Edit files	2.25	1.471
Manage individual's schedule	2.15	1.443
Take notes	2.14	1.497
Make a phone call	1.67	1.613

This study summarizes participants' mobile devices usage behavior in workplace in Tables 1, 2, 3 and 4. The results shows the using frequency and perceived usefulness of tablets for work tasks both are generally lower than smartphones.

Table 4. Perceived usefulness rating of tablets for work tasks

Tasks	Perceived usefulness		
	n	Mean	SD
Read official learning resources	56	3.29	0.768
Browse web pages	59	3.19	0.83
Use e-mail	58	3.17	0.831
Read individual learning resources	56	3.17	0.784
Finish work tasks	56	3.17	0.716
Edit files	57	2.93	0.882
Make a phone call	42	2.92	0.87
Manage individual's schedule	55	2.89	0.806
Take notes	56	2.73	0.946

3.2   The More Efficient Mobile Technology to Support Various Work Tasks

To verify which mobile device is regarded as more efficient to support different work tasks, this study analyzed using frequency and perceived usefulness of smartphones and tablets for work tasks by T-test for paired samples and Cohen's d. All variables were below the guidelines for skewness and kurtosis (<3 and <10, respectively) recommended by Kline [10]. The participants who both used smartphones and tablets to support a task were analyzed (the using frequency is more than 0).

Table 5 shows the paired t-tests result for using frequency of smartphones and tablets for work tasks. As can be seen in Table 5, using frequency of smartphones for three tasks – make a phone call ($M = 3.48$, $p < 0.001$), manage individual's schedule ($M = 2.89$, $p < 0.05$) and read individual learning resources ($M = 2.73$, $p < 0.05$) – are significant higher than tablets with an effect size of $d = 0.627$, 0.326 and 0.332 respectively. Table 6 reports the paired t-tests result for perceived usefulness of smartphones and tablets for work tasks. According to the results in Table 6, perceived usefulness of smartphones for four tasks – make a phone call ($M = 3.50$, $p < 0.001$), manage individual's schedule ($M = 3.08$, $p < 0.001$), read individual learning resources ($M = 3.50$, $p < 0.001$) and finish work tasks – are significant more useful than tablets with an effect size of $d = 0.578$, 0.480, 0.463 and 0.578 respectively. Although perceived usefulness of smartphones for three tasks – use e-mail ($M = 3.47$, $p = 0.654$, $d = 0.256$), edit files ($M = 3.41$, $p = 0.096$, $d = 0.224$) and take notes ($M = 3.10$, $p = 0.107$, $d = 0.223$) – are not significant more useful than tablets on the p values, their effect size of d shows smartphones are a little more useful for supporting these three tasks than tablets.

3.3   Advantages of Using Mobile Technology in Workplace

Table 7 presents employees' perceived impact of using mobile technology in workplace. As the result in Table 7, participants considered using mobile technology in

Table 5. Paired t-tests (*P* values) result for using frequency of smartphones and tablets for work tasks

Tasks		Smartphones		Tablets		T value	df	Sig.	d
	n	Mean	SD	Mean	SD				
Make a phone call	42	3.48	0.591	2.87	0.994	4.060	41	0.000*	0.627+++
Use e-mail	55	3.17	0.831	3.02	0.843	1.249	54	0.217	0.168
Manage individual's schedule	52	2.89	0.806	2.89	0.808	2.346	51	0.023*	0.326
Edit files	57	3.19	0.830	3.13	0.844	0.424	56	0.673	0.056
Take notes	54	2.93	0.882	2.74	0.900	1.143	53	0.164	0.192
Read individual learning resources	54	2.73	0.946	2.67	0.966	2.445	53	0.018*	0.332+
Read official learning resources	51	3.17	0.784	3.09	0.828	−0.204	50	0.839	0.028
Finish work tasks	51	3.29	0.768	3.05	0.826	0.144	50	0.886	0.085

*$p < 0.05$; +small effect; ++medium effect; +++large effect

Table 6. Paired t-tests (*P* values) result for perceived usefulness of smartphones and tablets work tasks

Tasks	n	Smartphones		Tablets		T value	df	Sig.	d
		Mean	SD	Mean	SD				
Make a phone call	42	3.50	0.582	2.92	0.870	3.742	41	0.000*	0.578+++
Use e-mail	55	3.47	0.654	3.20	0.845	1.897	54	0.063	0.256+
Manage individual's schedule	52	3.30	0.722	2.91	0.815	3.467	51	0.001*	0.480++
Edit files	57	3.41	0.725	3.19	0.835	1.964	56	0.096	0.224+
Take notes	54	3.10	0.900	2.89	0.881	1.640	53	0.107	0.223+
Read individual learning resources	54	3.08	0.784	2.71	0.947	3.402	53	0.001*	0.463++
Read official learning resources	51	3.12	0.553	3.18	0.730	−0.636	50	0.528	0.089
Finish work tasks	42	3.50	0.582	2.92	0.870	3.742	41	0.001*	0.578++

*$p < 0.05$; +small effect; ++medium effect; +++large effect

workplace has positive influences. Using mobile devices in workplace not only can support the communication among colleagues (M = 5.10, SD = 0.981), the company (M = 5.08, SD = 1.003) and clients (M = 5.01, SD = 1.068), but also enhance the company (M = 5.00, SD = 0.890) or individuals' professional image (M = 4.94, SD = 1.005) and improve personal work management (M = 5.00, SD = 0.964) and completion (M = 4.99, SD = 0.986).

Table 7. Influence on using mobile technology in workplace

Item (N = 72)	Mean	SD
Using a mobile device makes me communicate with my colleges more easily in the workplace	5.10	0.981
Using a mobile device is helpful for communicating with my company in the workplace	5.08	1.003
Using a mobile device is helpful for communicating with clients in the workplace	5.01	1.068
Using a mobile device in the workplace will improve company's image	5.00	0.890
Using a mobile device can improve my work management in the workplace	5.00	0.964
Using a mobile device is helpful for finishing my work in the workplace	4.99	0.986
Using a mobile device in the workplace will improve my individual image	4.94	1.005

4   Discussion

The participants of this study were senior sales in the insurance company and have substantial experience of using mobile devices. They generally perceived mobile devices as highly easy to use and regarded using mobile devices in workplace can improve information communication, images and individual's workflow.

The results of descriptive statistics shows the using frequency and perceived usefulness of smartphone for work tasks both are generally higher than tablets generally. Only the perceived usefulness of tablets for reading official learning resources is higher than smartphones. The results of T-test and effect size of d reports that the participants significantly more often used smartphones to support instant communication tasks and read individual's learning resources and considered smartphones are more helpful to support most tasks besides reading official learning resources.

According to these findings, this study proposes that smartphones have higher mobility and more functions to support instant communicating and creating and managing individual's work information than tablets in workplace. The screen size of smartphones become bigger than bigger but still smaller than tablets, so when the applications are more various and accessible, smartphones' mobility could be more helpful for supporting sales' work tasks.

This study is a pilot study to explore sales' mobile technology using behavior in workplace. Future studies should increase the sample size and compare the mobile technology using behavior between the field and indoor jobs to propose more specific suggestions for a high productive mobile workplace design.

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