Understanding the Acceptance of Work-From-Home Solutions Adoption During COVID-19: A Case Study in Bangkok

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Abstract

The COVID-19 pandemic has significantly affected corporations, affecting their revenues and employees' health. Many companies are implementing remote work arrangements to prevent the spread of infection. This study aims to understand the acceptance of work-from-home solutions during the COVID-19 pandemic. The study examines personal factors, education level, and working period, and their relationship with the adoption of work-from-home solutions. The study also examines motivation factors, such as perceived utility and perceived ease of use, and their relationship with the effectiveness of working from home. Additionally, the findings reveal that more than 80% of employees expect their companies to embrace work-from-home initiatives to maintain a low rate of COVID-19. Furthermore, the study shows that employees prefer their employers to emphasize production more than hours worked and desire job stability. The study also found that personal factors, such as age, education level, and working period, do not significantly affect the adoption of work-from-home solutions. However, the study found a significant relationship between motivation factors and the effectiveness of working from home. Additionally, the study demonstrates that the motivating factors of perceived utility and perceived ease of use have the greatest influence when planning and integrating technology across the curriculum to fit a future model that allows hybrid working. The study suggests that the COVID-19 pandemic has created a new work paradigm that allows people to work from home and reduces their chances of contracting a disease while driving. However, the study also identifies operational issues that may be present due to incorrect coordination or other variables.

In general, the study provides valuable information on accepting work-from-home solutions during the COVID-19 pandemic. The findings can help companies develop strategies to effectively implement work-from-home solutions and ensure employee productivity, job satisfaction, and work-life balance.

Keywords: Motivation, User acceptance of technology, effectiveness, working from home

1. Introduction

Due to the current COVID-19 pandemic problem, all corporations must deal with a large market impact that could affect the organization's income and the health of its employees. To prevent the spread of infection, an increasing number of companies are implementing remote work arrangements (COVID-19). According to a study conducted by The Adecco Group (2020) more than eighty percent of employees expect companies to embrace work-from-home initiatives. To maintain a low rate of COVID-19, the schedule should incorporate work-from-home days. Furthermore, more than 54% of workers say that showing up at work is as important for organizing a team as maintaining a healthy work-life balance. Most employees would prefer their employers to place greater emphasis on production than on hours worked, and they also desire job stability. Although major digital companies, such as Twitter, Facebook, and Google, increasingly encourage their employees to work from home and use long-term telecommuting solutions, they are not the only companies that provide such working arrangements.

Although work-from-home concerns and restrictions affect, many firms, companies and senior executives have experienced difficulties with more familiar models (Karl et al., 2022). Several developments require more time to complete than actual projects. Furthermore, it has become increasingly difficult to train workers using conventional training programs. IBM, which has a long history of fostering remote work and has sought out many employees who were formerly stationed in remote places, is an excellent example (Useem, 2017). Yahoo and Bank of America, among others, allow their former employees to return to the workforce. Fear of the worst-case situation, according to The Wall Street Journal, motivates early morning vigor and focus on work. According to the National Bureau of Economic Research, a 50-minute increase in work time per week results in an additional 13% of staff members meeting, and according to a 2017 United Nations study by Messenger et al. (2017) more than 25% of office workers and 41% of employees are stressed due to their inability to distinguish between work and rest. In general, according to a Harvard Business Review article, 52% of professionals who work from home and encounter workplace disagreements report feeling worthless (Grenny and Maxfield, 2017). As a result, the content we did not wish to express was conveyed, and the overall offensiveness of the material increased. A new work paradigm has been devised that allows people to work from home and reduces their chances of contracting a disease while commuting. However, since there are several key issues to analyze, it is also necessary to identify and investigate operational issues that may be present due to incorrect coordination or other variables (Birimoglu et al., 2022).

This study aimed to evaluate the relationship between motivating factors, such as perceived utility and perceived ease of use, and the effectiveness of working from home. This study of employee motivation and readiness to use technology must incorporate the work-from-home paradigm, as work productivity requires more than a high-speed Internet connection and mobile devices. This study also demonstrates which motivating factors have the greatest influence when planning and integrating technology across the curriculum to suit a future model that allows hybrid working.

2. Research Objective

1) To conduct a study of the Demographic Profile of employees who work from home.
2) Investigate the relationship between perceived utility and perceived ease of use and productivity of working from home.

3. Review of the literature

3.1 Effective Management Theory

Taylor suggested to the company that they devise an efficient management structure that would be based on a scientific method of instruction (Taylor, 2004). Developing a management theory requires an all-encompassing strategy that considers experimental testing procedures, processes, rules, and work practices. This is necessary to complete the task successfully. First, the organization must establish a list of employment requirements before moving forward. The first thing that needs to be done is an observational analysis, which includes things like monitoring, pacing, taking notes, evaluating, and examining in depth. This configuration offers the highest degree of efficiency. Taylor laid the foundation for four principles that would later revolutionize scientific management (Wren, 2011).

Establishing a scientific approach to one's work should serve as the jumping-off point for improving one's performance. Regarding the workplace, standardization is an absolute necessity, as all tasks must be organized according to their respective functional characteristics. It is imperative that all parts of the position, including the amount of work required, the number of hours worked, the compensation obtained, and the benefits obtained, be consistent. It is important to prioritize the type of operation that can produce the best results. In the second step of the process, a list of individuals must be generated based on scientific criteria. The outstanding compensation for management and staff may be based on the quality of everyone's work, which means that everyone must perform at their highest level to attract the most qualified candidate for the position (Coccia, 2022). This is done to ensure

that the position is filled by the person with the most relevant experience. According to the findings of several pieces of research, the process of choosing an applicant for a position requires taking into account their level of experience, as well as their skills and level of enthusiasm.

3.2 Herzberg motivation theory

The "motivation factor" refers to an individual's natural aspirations that determine the level of job satisfaction that the individual derives from his or her work. This aspect is intricately connected to employment in the sense that it encourages workers to take pleasure in their work and boosts workers' levels of productivity so that they can perform their jobs more successfully. Immutability is essential given that an individual's level of happiness can be affected by factors such as his own personal growth, the nature of the work he does, his level of achievement, the acknowledgment he receives and the responsibilities he takes on (Chiu, 2022). It was revealed that the same questionnaire that Herzberg used to collect data was also used to collect data on job opportunities, which served to provide evidence that Herzberg's premise was correct (Wall et al., 1971). When conducting interviews with potential employees, sometimes known as "job seekers," the material was predictably presented through the prism of Herzberg's two-factor theoretical incentive attitude. Personal growth, pleasure in one's work environment, and overall accomplishment are all linked to employee engagement and organizational participation. Motivating aspects play a vital role in increasing work productivity because they encourage employees to become more involved in activities associated with their occupations (Oubibi et al., 2022). Because of this, it contributes to job satisfaction, which is a characteristic that is exclusive to employment and that encourages people to love and enjoy the occupations they have (Moslehpour et al., 2022). Additionally, it has been discovered that positive interactions between employees and their supervisors or subordinates at work might boost morale (Ferrer et al., 2022).

3.3 Theory of technological acceptance

According to Everett Rogers, a professor of communication studies Davis (1985) the introduction of computers in the early 1960s has significantly increased people's willingness to embrace new forms of technology. Davis (1989) gave presentations on theories of social change and the diffusion of innovation (DIT and SCT). As a consequence of this, this would decide whether or not an innovation is recognized. Davis (1985) also developed the Technology Acceptance Model (TAM), which includes components that are both independent and dependent on one another. Variables that depend on external factors (system characteristics, user characteristics, and ultimate behavior).

However, independent variables are those that relate to beliefs (such as perceived usefulness and perceived ease of use), attitude toward using, behavioral intention toward use, and actual system use (Davis, 1989). User acceptance tests were carried out with the help of TAM for a variety of different technologies. This made it possible to provide a more precise account of the characteristics that determine user acceptability for both emerging and well-established forms of technology (Sukma and Leelasantitham, 2022b). However, even if modern machines have become mobile, it is possible that a positive outcome will be achieved by studying the technology that is applied to a specific job and circumstances. An example of this would be to work with a massive machine that cannot move or using a software computer that has limited capabilities. The present application can be used on a wide variety of hardware, including mobile phones, smartwatches, and devices connected to the Internet of Things (IoT).

3.4 Conceptual Framework

The conceptual framework that connects the Effective Management Theory and Herzberg's Motivation Theory with the theory of Technological Acceptance can be traced back to several sources. Effective management theory suggests that successful organizations require effective management practices such as planning, organizing, leading, and controlling. Herzberg's motivation theory, on the other hand, emphasizes the importance of intrinsic motivation, job satisfaction, and job enrichment in employee performance and productivity.

First, it is important to study the relationship between effective management practices, employee motivation, and technology adoption because technology is constantly evolving; new technologies are introduced all time and organizations must adopt and use them to remain competitive effectively. However, this can be difficult, as employees may resist change or need more skills or motivation to use new technology effectively. They understand how management practices and employee motivation impact technology adoption and can help organizations develop strategies to address these challenges and successfully implement new technologies.

Second, another reason why further study in this area is important is that technology adoption and use can significantly impact organizational outcomes. Technology can increase productivity, streamline processes, and provide new opportunities for innovation. However, if technology adoption is not effectively managed, it can also lead to increased costs, reduced productivity, and decreased employee morale. Therefore, it is important to understand the factors that contribute to successful adoption and use of technology so that organizations can maximize the benefits of technology and avoid negative outcomes.

Furthermore, effective management practices and employee motivation are key factors impacting the adoption and use of technology. Management practices that support technology adoption can include providing training and resources to employees, creating a culture of innovation and continuous improvement, and involving employees in the decision-making process around technology adoption. These practices can help build employee confidence and increase motivation to use new technology. Similarly, employee motivation can be enhanced by creating opportunities for skill development, providing recognition and rewards for using new technology effectively, and involving employees in designing and implementing technology solutions. Organizations can develop strategies to support successful adoption by understanding the relationship between these factors and technology adoption.

In conclusion, the relationship between effective management practices, employee motivation, and adoption of technology is an important area for further study. Understanding the factors that contribute to successful adoption and use of technology can help organizations implement new technology effectively, maximize its benefits, and avoid negative outcomes. By studying this relationship, organizations can develop strategies that support employee motivation, build support for new technologies, and ultimately improve organizational outcomes.
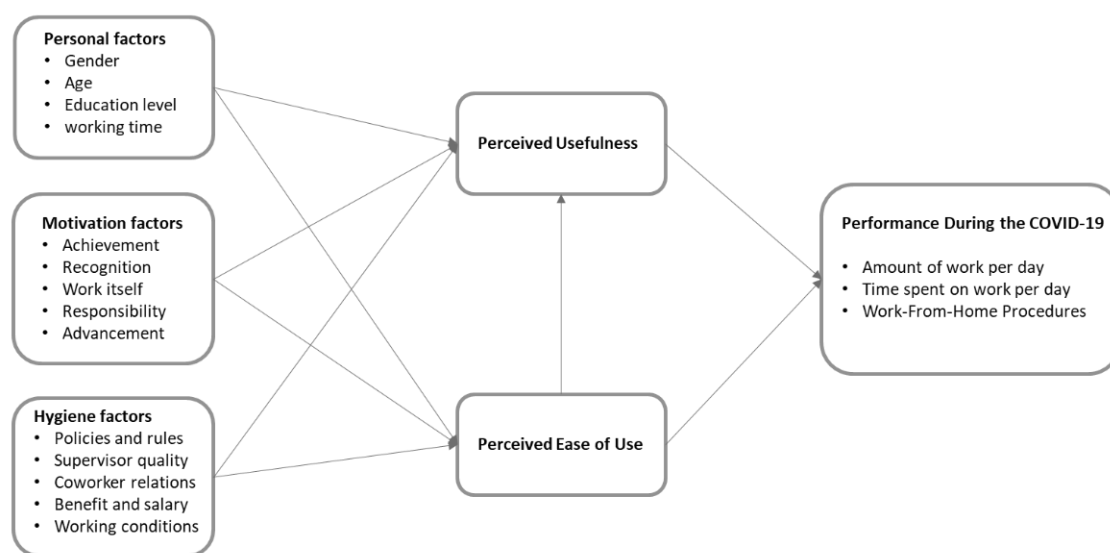

Figure 1 Conceptual Framework

4. Research Methodology

The information required for this study was collected using online questionnaires and a stratified random sampling system. The online administration of the questionnaire was done using the Google Forms application. The alpha coefficient for this questionnaire was 0.949 percent. According to the demographic survey findings, the representative nongovernmental organization has 155 staff. In the case of Taro Yamane, the number of people in the sample group amounts to 112, which provides a confidence level of 95%. If there was a dropout rate of 10% that did not involve replenishment, then the sample size would be 123. Although some of the crawl forms are missing information, there were 116 unique individuals in the final data set.

4.1 Sample size

The minimum number of samples required was 112, but after validating and cleaning the data, 116 valid simple go-to analysis processes were obtained. The researcher used calculations from statistical formulas. In this investigation, the formula to calculate the known population size using the Taro Yamane formula is shown below.

$$n = \frac{N}{1 + Ne^2}$$

n = number of samples

N = population size

e = acceptable sampling error value.

substitute the values in the formula to

N = 155

e = 0.05 (an acceptable sampling error of 5%.)

n = 155 / (1 + (155 * (0.05)^2)

= ~ 111.71 = 112

Therefore, the sample size = 112 people.

After ensuring that the data was correct, they were put through the SPSS processing pipeline to be analyzed. The results of the investigation are shown in Figure 1, together with the theoretical foundation of the investigation. First, descriptive statistics use frequency distributions, percentages, means, and standard deviations to characterize individual factors. Second, to examine the data associated with the supporting and motivating variables of the technology acceptance model, inferential statistics were used. For cases with two groups, we will use the t-test; for cases with more than two groups, we will use the F test (one-way

ANOVA). last. To determine which variables are connected, Pearson's correlation coefficient analysis is utilized. The connection between all independent and dependent variables was analyzed using stepwise multiple regression analysis to investigate factors that affect online work performance.

5. Research Findings

The researcher investigated. The following information is acquired by dividing the study findings and analyzing the data in Tables 1, 2, 3, and 4.

Part 1 studies personal factors such as gender, college years, and availability of technical equipment required for work-from-home when employees work from home.

Table 1 analysis of personal factors using the t-test and the F test (one-way ANOVA).

Personal factors	n	$\bar{\mathbf{X}}$	S.D.	
Gender				t = -1.383, Sig. = 0.669
Man	34	3.56	0.786	
Women	82	3.78	0.786	
Total	**116**	**3.67**	**0.786**	
Age				F = 0.594, Sig. = 0.620
Age < 30	17	3.82	0.728	
30 - 40	63	3.63	0.829	
41 - 50	24	3.75	0.676	
Age > 50	12	3.92	0.900	
Total	**116**	**3.72**	**0.789**	
Education level				F = 1.488, Sig. = 0.230
Lower Bachelor's Degree	1	3.00	0.000	
Bachelor's degree	43	3.86	0.861	
Upper Bachelor's Degree	72	3.64	0.737	
Total	**116**	**3.72**	**0.789**	
Working Period				F = 1.178, Sig. = 0.322
< 5 years	30	3.83	0.699	
5-10 years	42	3.57	0.887	
11-15 years	11	4.00	0.894	
>15 years	33	3.70	0.684	
Total	**116**	**3.72**	**0.789**	

Part 2 to study the relationship between motivation factors and work efficiency when employees work from home.

Table 2 The mean and standard deviation of each factor when employees work from home. (Motivation factor and Technology acceptance factors)

Factors	n	$\bar{x}$	S.D.	Level of S.D.
1. Hygiene Factors				
1.1 Supervisor quality	116	3.54	0.785	High
1.2 Benefits	116	3.16	0.768	High
1.3 Policies and rules	116	3.71	0.758	High
1.4 Working Conditions	116	3.55	0.726	Medium
1.5 Collaboration relations	116	3.91	0.692	Medium
Total		**3.57**	**0.746**	**Medium**
2. Motivation factors				
2.1 Advancement	116	3.55	0.817	High
2.2 Recognition	116	3.47	0.796	High
2.3 Work itself	116	3.64	0.690	Medium
2.4 Responsibility	116	3.75	0.631	Medium
2.5 Achievement	116	3.99	0.611	Medium
Total		**3.68**	**0.709**	**Medium**
3. TAM factors				
3.1 Perceived ease-of-use	116	3.85	0.857	High
3.2 Perceived usefulness	116	3.89	0.852	High
Total		**3.87**	**0.856**	**High**

The study of the relationship between perceived ease of use and perceived usefulness, which influences online working efficiency when employees work from home, is the objective of part 3 of this project.

To discover the characteristics that influence the ability to work from home while the COVID-19 epidemic is ongoing, a correlation study was carried out using stepwise multiple regression analysis. This study included all independent and dependent variables.

Table 3 Pearson's correlation coefficients for each component when employees work from home.

Factors	Pearson correlation (r)	Sig. (2-tailed)
Policies and rules	0.161	0.085
Supervisor Quality	0.417**	0.000
Coworker relations	0.406**	0.000
Benefit and salary	0.158	0.091
Working Conditions	0.362**	0.000
Achievement	0.354**	0.000
Recognition	0.234*	0.011
Work itself	0.194*	0.037
Responsibility	0.237*	0.010
Advancement	0.309**	0.001
Perceived usefulness	0.785**	0.000
Perceived ease-of-use	0.788**	0.000

** The correlation is significant at the 0.01 level (2-tailed).

* The correlation is significant at the 0.05 level (2-tailed).

Table 4 Stepwise multiple regression analysis for each component with respect to work-from-home when employees work from home.

Stepwise (Criteria: Probability-of-F-to-enter <= .050)

Independent variable	B	S.E.	β	t	Sig.
(Constant)	0.030	0.260		0.117	0.907
Perceived usefulness	0.401	0.071	0.428	5.648	0.000
Perceived ease-of-use	0.382	0.071	0.409	5.347	0.000
Worker relations	0.211	0.059	0.183	3.582	0.001
R = 0.856, R^2 =0.732, Std. Estimate error = 0.419, adjusted R square = 0.725					

As a result, the following forecast equation can be expressed in the form of raw scores and standard scores.

The raw score is Y = 0.401 (Perceived usefulness) + 0.382 (Perceived ease-of-use) + 0.211 (Coworker relations) + 0.030

The standard score is Y = 0.428 (Perceived usefulness) + 0.409 (perceived ease of use) + 0.183 (Coworker relations)

The multiple correlation coefficient was 0.856 when all independent variables were included in the forecast equation, and the predictive power was 0.732.

6. Discussion and Conclusions

According to the research, there are three factors that make working from home productive. First, individual factors while individual components are important personal determinants (gender, age, amount of education, and length of employment), the study found that they were not associated with productivity during the COVID-19 epidemic in the same way as Whitfield et al. (2021) also, align with Smerek and Peterson (2007) questioned roughly 2,700 employees in accounting, finance, human resources, and operations to determine the impact of personal attributes (gender, age, education) and job characteristics (duties, responsibilities, tenure) on performance. Furthermore, while the individual components of Vévoda and Cakirpaloglu (2017) conducted a study with 120 nurses to investigate whether annual evaluations have an impact on their motivation for work and personal variables, disease characteristics, perceived treatment characteristics, and external facilitators. Then Singh and Dixit (2021) involves two main factors that influence patient treatment decisions.

Second, when something has a convoluted user interface or is difficult to use, it is typically criticized. Regardless of where we operate, we can solve problems with information technology. Problems are unavoidable. There are numerous potential solutions to the issue. Due to the nature of the work, one solution may not be applicable to another assignment. Furthermore, according to the study of Chen et al. (2019) the solution may or may not incorporate information technology. Consequently, it is necessary to adhere to the principle of methodical problem solving. Each solution is tailored to a particular activity to prevent wasted time, wasted time, or confusion. Before implementing the solution through the information technology process, a comprehensive step-by-step strategy will be required. Additionally, using information technology techniques to identify and resolve problems previously, a variety of techniques were discussed to handle complex circumstances. In general, information technology is required to increase the speed, precision, and reproducibility of information technology processes to facilitate problem solving. It is essential to adjust one's working style with the utilization of information technology (Sukma and Leelasantitham, 2022a). To overcome the difficulties encountered in computer-related procedures, this method closely resembles engineering problem solving. To boost the efficiency of any activity that involves the use of computer systems to address problems, the problem must be thoroughly studied and addressed, as computers do not have magical tools capable of solving all problems. To avoid wasting money, it is necessary to do a final review of the investment's viability. There exists a solution that is appropriate for the current task.

Third, coworker interactions define the nature of the working group, with positive relationships contributing to the department's great relationships. The company must adapt to the new reality of working from home by relaxing existing procedures and providing opportunities for all to participate in collaborative decision making. Furthermore, the company should create a formal communication channel that is easily accessible to all department members to encourage effective collaboration and communication (Pfrombeck et al., 2020). Work relationships are crucial to a successful career as they influence productivity, advanced capabilities, and employee performance. Even if there are minor miscommunications at work, employees are more at ease talking or bargaining when the relationship is favorable. The degree to which employees feel socially connected to their bosses and co-workers has a direct and indirect impact on their productivity. Examining the effects of relationships with colleagues on motivation and organizational commitment Ramaditya et al. (2020) collected data from a sample of 70 individuals. Organizational involvement was found to have a significant positive effect on employee motivation. Furthermore, interpersonal contacts with co-workers and organizational involvement have a substantial positive effect on job motivation. Regardless of the COVID-19 scenario, working from home will be an option for many companies.

Furthermore, many organizations are expected to keep their current WFH policies, allowing most of their employees to work from home, which may improve the quality of life of employees, but does not entirely satisfy job requirements with certain advantages and disadvantages, work from home functions similarly to a conventional workplace. Working in the early phases of the new era of work from home was innovative in some ways. Additionally, many employees have been waiting for it, as it would allow them to avoid getting up early and reduce traffic on their way to work. Access to a communications system or the Internet is required to work remotely from home.

However, productivity is a concern when working at home. The findings of this study indicate that working from home presents major issues in terms of equipment failures and information technology systems. Due to communication breakdowns between team members and supervisors, additional work must be completed outside of normal business hours. There is a lack of shared understanding of business policies and work between teams and there are issues of trust between employees and supervisors, making coordination between many teams difficult. Most importantly, the organization must have employee advancement and welfare programs that encourage employees to create new positions. Employees at all levels must be able to communicate in a way that fosters trust and motivates them to work together to

move the company forward if they want to continue to perform well and retain quality workers.

7. Limitation and Future Research

To begin, the mechanism works: The purpose of this research is to analyze the relationship between staff motivation, job performance, and user approval of technology. Therefore, future research can take into account additional elements in addition to those that were investigated in this study to understand the mechanism of action of these processes on employee behavior and analyze the differences between them.

Second, the causal relationship: Data for this study were collected exclusively through online forms; It was not a longitudinal study in the conventional sense. In the not-too-distant future, there is the possibility of including interview surveys in order to determine whether or not there is a causal relationship between the variables. Purposive sampling is used in this investigation of traditional employment paradigms that have evolved to include more labor that can be done at home. It may be possible to collect samples from a wide variety of fields and locations in future research that is being conducted, which would result in more convincing conclusions from studies.

Third, data source: This investigation of new job paradigms that have been altered to include work-from-home options uses a purpose-sampled approach. A total sample size of 116 people is appropriate in the event that limitations are placed on the collection of data due to sample cooperation and permission. It may be possible to collect samples from a wide variety of fields and locations in future research that is being conducted, which would result in more convincing conclusions from studies.

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