

# Self-Efficacy Theory Analysis for Indonesian Remote Workers Quality during Covid-19 Pandemic

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**Abstract.** COVID-19 pandemic in 2020 forced billions of people worldwide to practice remote working with little or no prior experience, working for companies that are unprepared for this change. The quality of remote working then becomes an ultimate question, whether people can adapt or not, and what determinants are influencing it. Earlier, a remote working self-efficacy model was developed to accommodate such situations. However, it was meant to assess virtual companies with reliable ICT and enough training for the employees. The research tries to put self-efficacy theory and its antecedent amid unpreparedness. There are 46 respondents in Jakarta, Central Java, and Yogyakarta provinces participating in the study, conducted in May 2021, when increasing virus transmission reinforces companies to close their premises. The study showed how social persuasion, physiological and emotional states affect remote working quality differently from earlier research. It also reveals the mediating function importance of self-efficacy in doing so.

**Keywords:** Self-efficacy; Remote Work; Social Persuasion; Physiological; Emotion

## 1 Introduction

The advances in Information and Communication Technology (ICT) afford the infrastructure to guide the improvement of recent organization forms [1]. Moreover, COVID-19 pandemic conditions in 2020 forced billions of people around the world to practice remote working with little or no prior experience, working for companies and organizations that are most likely unprepared for this change [2] [3]. The remote work research topic is relevant to a variety of fields, including information systems, communication, and psychology, and it frequently contradicts findings [4]. Managing remote workers or running a virtual organization is important and needs to be understood better. A remote working self-efficacy model has been developed to accommodate such situations [5] was the first person to link a little amount of literature available on remote working with self-efficacy theory. According to the theory, better performance will happen if companies learn how they should improve their employees' self-efficacy judgments, and also be able to perform remote working duties [6]. Self-efficacy theory is able to combine some factors [7] believed to be important in a remote working environment. However, nearly none of these research was conducted at some point of

the pandemic. Formerly gathered understanding would possibly have little contextual relevance in the sense of recent COVID-19 pandemic. Thus, the paper investigates the influence of workers' experience, training, social relations, emotional, and psychological states to remote working quality through their self-efficacy.

## **2 Self-efficacy**

Self-efficacy is defined as a person's confidence in his or her capacity to mobilize the cognitive, motivational, and behavioral resources necessary to compete in a certain setting [8]. In 1977, Albert Bandura coined the term self-efficacy which was characterized as a subjective judgment of a person's ability to engage in the actions required to deal with potential future challenges in a particular context. Kathy Kolbe (2009) later posited that believing in one's own abilities is crucial for assessing cognitive power [6]. She believes that self-efficacy, in addition to tenacity and endurance, integrates tenacity and endurance because it helps individuals to overcome obstacles that would otherwise hinder them from harnessing their intrinsic potential to achieve their goals. The source with the strongest effect on behavior is the perceived outcome of a previous performance or mastery experience. Given that persuading oneself that one is capable of completing the task at hand is a key element of developing at anything or learning anything new [6].

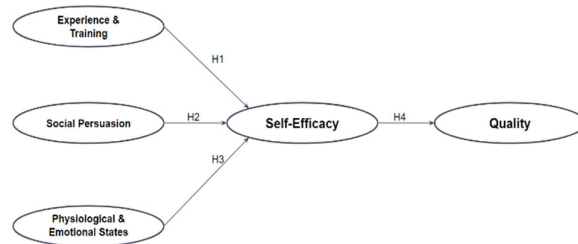
After personal experiences, the vicarious experiences provided by community role models are the second most important source of self-efficacy. When one observes another person effectively do a task, one might have vicarious sensations. Having good role models in one's life enhances the chance of internalizing at least some of their positive attitudes of one's own skills (especially those who have a healthy level of self-efficacy). Older siblings, older friends, camp counselors, parents, aunts and uncles, grandparents, teachers, coaches, and employers all act as social role models for young people [9]. Receiving positive verbal feedback while doing a tough task enhances a person's confidence in his or her ability to accomplish the task effectively and efficiently. This is what verbal persuasion looks like in action when one tells an elementary school child that they are capable of greatness and should pursue whatever their hearts want. Verbal persuasion is effective at any age, but the earlier it is used, the more likely it is to contribute to the development of self-efficacy [5].

When presented with a certain scenario, people's emotional, bodily, and psychological well-being can all have an affect on their appraisals of their own personal talents. Maintaining a healthy level of well-being may be more challenging if you suffer from depression or anxiety, for example. People who learn how to control their anxiety and improve their mood in the face of adversity may be able to boost their feeling of self-efficacy in this way. According to the research, people might have strong or weak beliefs. A strong self-efficacy belief inspires individuals to put in more effort at work in order to overcome problems, whereas a low one motivates people to put in less effort at work and is more likely to give up and quit [5].

## **3 The Research Model**

In order to integrate self-efficacy theory into major remote management challenges highlighted in the literature, a research model was built. The following discussion has been broken down into three sections to make a further examination of this model: (1) self-efficacy antecedents, (2) self-efficacy judgments, and (3) self-efficacy outcomes. Most workers had

little remote working experience prior to the COVID-19 pandemic. Almost none of the organizations were also prepared to support this practice [3] [10]. Whereas, according to [5] Individuals can learn about their past performance accomplishments through previous experience and instruction. The research showed that the longer someone has worked remotely, the easier they deal with the situation. Relevant training will also provide knowledge regarding performance achievement to people's self-efficacy views. Information and technology (IT) is a significant enabler that can be a critical responsibility for successful remote work of the remote work environment [7] [11] [12] [13]. This accelerated shift to digital communication impelled new IT knowledge and skills. As a result, formal and informal training sessions should be held [14]. In line with those studies, [5] found that people's experience and training using remote-access technology have an impact on individual self-efficacy assessment. Self-efficacy theory, in particular, indicates that the more training people have in terms of available IT, the more successful they should be able to use it.



**Fig. 1.** The Research Model

According to self-efficacy theory, giving an example or modeling can increase perceived efficacy. It teaches the spectators effective methods to deal with frightening or difficult situations and also allows an observer to believe that potential problems can be managed more than before [6]. Effective remote working or management practiced by managers, in particular, represents a source of information modeling that can affect workers' own judgment of their ability in doing effective remote work or tasks [5]. Management should provide consistent feedback based on an evaluation of the remote worker's achievement of the goals [15]. Individuals and organizations cannot evolve in ways that meet the standards of others without evaluative feedback [16]. Technological anxiety or well known as technostress is defined as stress on which users experience as a result of application multitasking, constant connectivity, information overload, frequent system upgrades, and consequent uncertainty, continual relearning and consequent job-related insecurities, and technical problems associated with the organizational use of information and technology [17]. A previous study found even if technological anxiety is not anxiety about all information and technology, it seems to capture the general technological anxiety [5]. Theory of self-efficacy believes that high technological anxiety can reduce self-efficacy.

Employee productivity can be influenced by the physical work environment [9] [18] [19]. Recent studies suggest the importance of creating a separate, suitable work environment by maintaining a clear boundary between work and home life [20]. However, physical working conditions could influence assessments of self-effectiveness. Thus, it is a serious issue for a remote worker [7]. Advances in data communication technology have made it possible for any employee, regardless of their location, to join a company's virtual network [11]. Further, the perceived accessibility and ease of collaboration and information sharing via the chosen communication medium has an impact on team interactions and cohesiveness [12]. As a result,

connectivity level becomes a key indicator for people when deciding whether or not they can perform effectively [5]. The ability to use technology is a critical part of employees' ability to effectively perform in the environment of remote management [5]. High levels of information and technology self-efficacy could boost remote self-efficiency and the ability of remotely managed employees to work efficiently [5]. Prior studies found a strong link between self-efficacy and task performance [6] [9]. In the present context, employees with a high level of remote self-effectiveness believe they can accomplish tasks that permit remote work more efficiently. Thus in general, they become more effective remote workers [5].

According to Schall [16], there is a linear, positive relationship between remote work and job satisfaction, implying that employees who work remotely are more frequently satisfied. [7] posited that employment satisfaction perception in a virtual environment varies depending on management support and activities, also its remote skills. These results together suggested that positive assessments of the ability to execute have a positive influence on job satisfaction. Another research also discovered a significant link between self-efficacy and coping ability [17] [18]. It was proposed as a valuable personal resource that can help with coping [29]. Self-efficacy is the belief in individual ability to complete difficult or novel tasks and to deal with adversity in specific challenging situations [10] [11]. Feelings of isolation were found to lower an individual's organizational commitment [7] [12]. Remote workers are more willing to be engaged when they see connections between their own values and the values of their company [13]. Employee engagement can be measured at a high level by an employee's commitment to an organization and motivation to achieve better [14]. Self-efficacy to cope with stress was defined as the belief in one's personal resources to handle stressful conditions in an effective and competent approach [15]. Earlier studies underlined the link between self-efficacy and stress in the workplace [17] [18].

#### **4 Methodology**

The study used a quantitative research approach, chosen to investigate planned relationships among constructs within the model. It provided a form for respondents to facilitate an assortment of knowledge from an oversized and geographically spread sample. Quantitative methods were used to provide information for prediction, correlation, causation, and generalizability [16]. Data in this research was collected during May 2021 by Google form, which has been sent through personal messages. The respondents were selected from several locations in Jakarta, Central Java, and Yogyakarta provinces with the random sampling method, and 46 people participated in the survey. The participants represented work function in the following sectors: Human Resources, Sales, Marketing, Operations, Inventory, Finance/Accounting / AP / AR, Administration, System / Technical Support, Creative / Design, Client Relations, Training / Teaching / Coaching, Research & Development, Legal, Health Care, and others. The questionnaires were close-ended questions containing single-choice response questions and using 5-point Likert scale. where 1 means strongly disagree, 2 disagrees, 3 indicates neutral, 4 reflects agreement, and 5 states strongly agree. All data gathered is then analyzed with SPSS using descriptive statistics.

## 5 Results and Discussion

**Table 1.** Age of Respondent. It summarised respondent's age which 89.1% of them are millennials with an age range of 25-40 years old.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	< 25 Years Old	5	10.9	10.9	10.9
	25-40 Years Old	41	89.1	89.1	100.0
	Total	46	100.0	100.0	

**Table 2.** Descriptive Statistics. Based on the table below, the data analysis showed how Experience & Training variable obtaining a minimum value of 11, a maximum value of 45, and an average value (mean) of 29.65.

	N	Minimum	Maximum	Mean	Std. Deviation
Experience & Training	46	11	45	29.65	7.109
Social Persuasion	46	18	70	50.52	12.976
Physiological & Emotional State	46	14	45	29.80	6.131
Self-efficacy	46	14	60	45.20	9.404
Quality	46	28	91	65.83	14.821
Valid N (listwise)	46				

**Table 3.** Physiological & Emotional State. The research presented how Predictors: (Constant), Physiological & Emotional State, Experience & Training, Social Persuasion simultaneously affect the dependent variable by 69.0%.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.843 <sup>a</sup>	.710	.690	5.237

**Table 4.** ANOVA. Dependent Variable: self-efficacy, Predictors: (Constant), Physiological & Emotional State, Experience & Training, Social Persuasion

Model	Sum of Squares	df	Mean Square	F	Sig.
1 <b>Regression</b>	<b>2827.146</b>	<b>3</b>	<b>942.382</b>	<b>34.355</b>	<b>.000<sup>b</sup></b>
Residual	1152.093	42	27.431		
Total	3979.239	45			

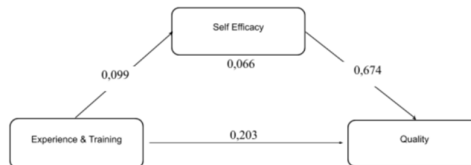
**Table 5.** Coefficients<sup>a</sup>. Dependent Variable: self-efficacy, The F test results in 34,355 in its calculated F and the probability is 0.000. As sig  $F_{count} < 5\%$  ( $0,000 < 0,05$ ), it could be concluded that Physiological & Emotional State, Experience & Training, Social Persuasion jointly affect self-efficacy. Based on the partial regression test then, the t-count value resulted 0.927 and the regression coefficient (beta) was 0.099 with probability (p) = 0.359. Based on the results of data processing where the probability value (p) > 0.05, apparently, Experience & Training had no effect on self-efficacy.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.888	4.181		1.408	.166
	Experience & Training	.131	.142	.099	.927	.359
	Social Persuasion	.332	.085	.458	3.920	.000
	Physiological & Emotional State	.626	.165	.408	3.802	.000

**Table 6.** Coefficients<sup>a</sup>. Dependent Variable: Quality, Based on the partial regression test above, the t-count value was 2,083 while the regression coefficient (beta) is 0.203 with probability (p) = 0.044. Thus, it could be concluded that Experience & Training has a positive and significant effect on Quality.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
	1 (Constant)	1.796	6.075		
Experience & Training	.423	.203	.203	2.083	.044
Social Persuasion	.159	.140	.139	1.129	.266
Physiological & Emotional State	-.153	.271	-.063	-.566	.574
Self-efficacy	1.063	.219	.674	4.851	.000

Based on the figure, the multiplication results provided how the regression coefficient value of Experience & Training on Quality is 0.203 while the coefficient value of Experience & Training on Quality through self-efficacy as a mediating variable was 0.066. It was concluded that self-efficacy is not able to mediate Experience & Training on Quality because the value coefficient is smaller than the direct effect.



**Fig. 2.** Path Analysis



**Fig. 3.** Path Analysis

Self-Efficacy, shown above, was able to mediate the effects of Social Persuasion and Physiological & Emotional State on Quality. The coefficient value was even greater than direct influence, shown in the above results.

## 6 Conclusion

Virtual organizations have grown more prevalent in recent years, particularly during pandemic situations. Employees in a virtual business operate largely in places far from their peers and boss, posing several management and communication difficulties. To adapt effectively to this new style of working, companies must expand their grasp of important challenges and critical drivers. The current study contributes to this effort by predicting links between the antecedents of remote work self-efficacy and its outcomes using self-efficacy theory. The validity of these linkages was determined by a study of different individuals who worked distant from their colleagues and bosses in a variety of firms. In general, the data

indicate that self-efficacy has a considerable influence on remote employees' capacity to perform successfully in their distant occupations. Despite the fact that one of the independent variables, Experience and Training, has a negligible influence on the quality of remote work, Self-Efficacy is a key mediator of this connection. As a result, the findings might also be taken as an optimistic view in the event of a pandemic, when individuals are unprepared and unprepared to deal with such a catastrophe.

Additionally, the researchers discovered a strong correlation between employees' self-efficacy for remote work and two of the study's antecedents. The organization can handle to some extent all three antecedents, particularly those having a direct influence. As a result, as revealed by these research, management actions may be able to increase workers' job performance. Additionally, it is possible to improve the quality of remote work by enhancing employees' self-efficacy. The current study establishes the validity of self-efficacy theory in the workplace through the use of a virtual work environment. Additionally, the creation and testing of a framework for remote management lays the groundwork for future research in the virtual work environment.

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