

# **A Study on Job Control Occupational Self-Efficacy and Job Performance: After the Covid-19 Pandemic**

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## **Abstract**

This empirical research study aims to explore the relationships between the concepts of occupational self-efficacy, job-control and performance during this abrupt transition in work behavior during Covid-19 Pandemic. More importantly IT skills and Computer literacy levels of the employees intervene as important moderators into this job-control performance research model and thus offers a new empirical contribution to the literature. The study sample consisted of 441 employees from different sectors who were working remotely from home during the Covid-19 Pandemic. PLS SEM is used for analyzing the results. Managers and especially human resource managers can benefit from the results of this research. Two of our main hypotheses and thus the intended major contributions of this work are supported. IT skills moderates the relationship between job control and job performance. Second, occupational self-efficacy mediates the relationship between job control and job performance.

The computer usage ability level of the respondents produced significant differences on the relation between job control and performance. Results indicate the importance of developing training programs to increase the IT skills and computer usage levels of self-confident employees for higher performance with more self-efficacy.

**JEL classification numbers:** M1, M19.

**Keywords:** IT skills, Occupational self-efficacy, Job control, Work transition.

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## **1. Introduction**

In this study we propose and empirically test the assumption that during this new work environment transition period Higher level of IT related skills and computer usage skills are needed for highly performing organizations. This sudden shift to too much dependency on technology for the smooth running of the wok functions influences employees' perceptions of their job control and self-efficacy. With this driver propositions in mind we tried to explore the answers to the following research questions:

- 1) What are the perceptions of the employees about their control over the variety of tasks they perform during this transition period to online home offices and working conditions?
- 2) Is there a positive influence of job control on occupational self-efficacy?
- 3) Does occupational self-efficacy mediate the influence of work control on company performance?
- 4) Do IT skills and computer literacy levels moderate the relationship between job control and job performance?

Understanding the dynamic relationships between those concepts can have several implications for managers at all levels and human resource managers in particular. In the following paragraphs we tried to discuss how we ended up in the proposed conceptual research model.

## **2. Theoretical Framework**

### **2.1 Job Control**

The concept of job autonomy, when used in the same context as job control, is related to the extent to which the employee has freedom, independence, and discretion when determining the planning and processes required for the execution of a particular job. Job autonomy, one of the key job design characteristics developed by Hackman & Oldham (1975), results in high job efficiency and high internal job motivation.

Job control was examined in this study to understand whether it directly affects job performance but also to understand how this effect is achieved through the perception of occupational self-efficacy.

After looking at the initial studies, it was found that self-efficacy is mostly associated with physical and mental health but is also associated with emphasis on mastery, self-confidence, and perception of success in Western societies (Gecas, 1989). However, in later studies, this topic was recognized as an organizational resource and became the subject of many studies in an organizational context (Berings et al., 2007); (Judge & Bono, 2001).

### **2.2 Self-efficacy**

In previous studies, self-efficacy was evaluated in different ways. Originally, Bandura (1977) defines self-efficacy as a task-specific characteristic. Forester,

Kahn & Hesson-McInnis (2004) conceptualize self-efficacy as domain specific, and in some other studies, self-efficacy is assessed in a general concept (Sherer et al., 1982); (Chen, Gully & Eden, 2001).

When evaluating the relationship between self-efficacy specificity and results, the specificity of the results should also be considered (Gist & Mitchell, 1992).

Thus, if one wants to evaluate performance for a specific task, the level of self-efficacy for which one is looking should also be specific to the task. Similarly, if one is going to undertake a performance assessment of an occupation, the specificity of self-efficacy should be domain-based rather than task-specific.

In our study, the subject of self-efficacy in the context of occupational domain rather than task specific definition was used. In this way, a wider audience working in different professions may fall within the scope of this study. This approach is important because the tasks performed usually differ from those in the same profession who work in different companies or those who have different levels of hierarchy within the same company. Differences between employees' perception of these tasks may also be expressed (Hackman, 1970).

Occupational self-efficacy expresses the belief that a person can carry out the necessary behaviors related to the job that he/she does (Rigotti, Schyns & Mohr, 2008). According to Schyns & von Collani (2002), occupational self-efficacy is associated with personality traits and therefore is less stable than general self-efficacy. Therefore, self-efficacy may be more easily affected by relevant experience. In addition, self-efficacy is wide enough to allow easy comparison between different jobs and professions (Schyns & von Collani, 2002). In the study conducted by Schyns & von Collani (2002), a positive correlation was found between occupational self-efficacy and organizational commitment in addition to job satisfaction. In addition, a study by Rigotti, Schyns & Mohr (2008) found a positive correlation between occupational self-efficacy and job performance. These studies show that the concept of occupational self-efficacy could be useful in the field of organizational research and practices.

In summary, occupational self-efficacy is examined in this study to determine how job control contributes to the formation of the perception of efficacy and to show how this perception reflects job performance.

### **2.3 Job performance**

Many researchers define job performance as a multi-dimensional construct (Borman and Motowidlo, 1993); (Campbell, Gasser & Oswald, 1996).

Task performance and contextual performance are two prominent dimensions related to job performance (Borman & Motowidlo, 1993); (Motowidlo & Schmit, 1999); (Motowidlo & Van Scotter, 1994).

Behaviours contributing to transformation and maintenance activities, such as production, sales, purchasing, people management, and/or service delivery are related to task performance (Motowidlo & Schmit, 1999). On the other hand, behaviours that contribute to the culture and climate of the organization express

contextual performance (Beffort & Hatstrup, 2003).

Examples of contextual performance are willingness to work hard, being passionate and enthusiastic about the work, collaborating and helping team members, following corporate rules, and protecting the interests of the organisation (Motowidlo & Schmit, 1999). Contextual performance is of great importance to organisations because an organisation's performance depends on it.

The focus dimension of job performance differs from organisation to organisation. This focus depends on the organisation's goals and mission in addition to the behaviours that are perceived as the most valuable in the organization (Motowidlo & Schmit, 1999); (Murphy & Shiarella, 1997). One study describes that human resources practices take shape in an organisation depending on the relative importance given to task versus contextual performance (Murphy and Shiarella, 1997). Practitioners in organisations and researchers realize that there is a risk of overlooking other potentially important dimensions of overall performance, with only focus on the job dimension.

Milkovich and Boudreau states that "organisations are replacing the notion of jobs' with considering what 'roles' or 'competencies' will be required for the 21st century' (1997, p. 87). This approach has led organisations to focus on people again and enabled them to start developing assessment systems that focus on the skills that people need to have (Lawler, 1994).

Job and non-job performance concepts are recognized by many researchers and were developed as a multidimensional model but needed an integrating theoretical framework to have a view of overall job performance (Borman & Motowidlo, 1993, 1997); (Motowidlo & Van Scotter, 1994). Due to the lack of a theoretical framework, organisations and researchers use the customised performance criterion, which prevents comparison between jobs and organisations. For this reason, some researchers think that this is a narrow view of overall job performance (Welbourne, Johnson & Erez, 1998).

In sum, in order to have an overall view, job performance was examined at two levels in this study:

- 1) Task performance.
- 2) Contextual performance.

In this way, how job performance is affected by job control and occupational self-efficacy was determined.

#### **2.4 Importance of IT Skills**

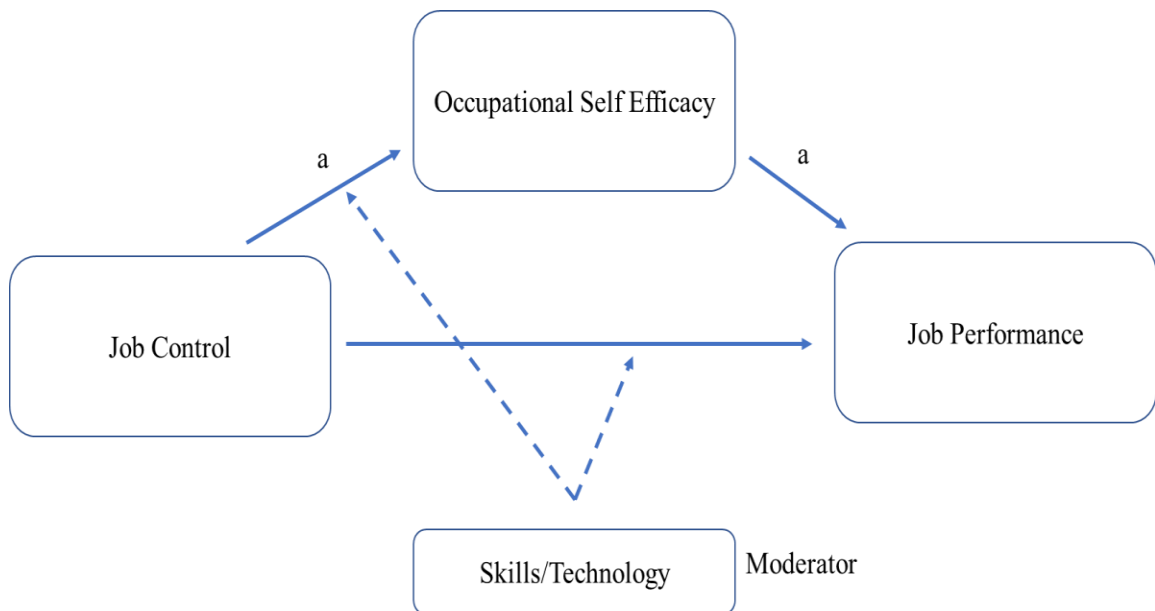
The Coronavirus-2019 (Covid-19) epidemic sentenced the world to quarantine and imprisonment within a few months of its start. The business world was first among those who were/are most affected by this situation. For the first time, the concept of remote working has become such a wide-ranging debate because economies have to survive while the health risks posed by the viral outbreak have continued. In this context, remote working is a research subject that needs to be studied from different aspects. In fact, some research studies in the literature interestingly pointed to this

issue years ago.

‘The economic and social significance of virtual organization in the future is likely to be comparable to that of the factory in an earlier period. This new approach to organization is likely to become a dominant paradigm because it offers unique advantages in the efficiency, cost, and effectiveness of goal-oriented activity, and equally important, because the requisites for its exploitation are in place...’ (Mowshowitz, 1994, p. 269).

Advances in information technologies have revealed that employees do not need to be physically held together to ensure coordination and control (Lucas & Baroudi, 1994). Many researchers argue that information technology (IT) plays an important role in new forms of organisations (Lucas & Baroudi, 1994). The necessity of employees to have IT skills emerges as an increasingly valuable point-of-view. Hinchcliffe (2011) defines IT skills as the design, development, support, and use of technologies, including computer systems, software, and networks, for processing and sharing data. According to Shapiro (1996), IT skills can be considered a liberal art concerning computer use, searching for and finding necessary information, understanding their technical infrastructure, and understanding their social and cultural effects.

Accordingly, Figure 1 gives an overall picture of the conceptual model of this research.



**Figure 1: Proposed Conceptual Model**

## 2.5 Developing the Main Hypotheses

### *Job Control: Occupational Self-Efficacy*

The self-efficacy of a person takes shape and develops throughout his learning process (Bandura, 1986). According to Bandura (1986), four main sources of information play a role in the development of self-efficacy:

- 1) Inactive mastery.
- 2) Vicarious experience.
- 3) Verbal persuasion.
- 4) Physiological arousal.

Inactive mastery is the most important one. If we consider the subject in the context of work, when a person can make decisions, perform challenging tasks, and use his/her competencies, he/she experiences enactive mastery. When enactive mastery is evaluated within the framework of the concept of occupational socialization (Frese, 1982), it mentions some working conditions that lead to the development of self-efficacy. One of the most important working conditions is job control. Control implies that one can make important decisions during performing the task.

If every step is described at work, that is, control is low, and performing the task does not give us much information about the person's personal effectiveness. In this case, the experience of mastering the work does not develop, and ultimately no opportunity to develop self-efficacy exists. In fact, this finding indicates that job control has an impact on self-efficacy.

### *Occupational Self Efficacy: Job Performance*

Various studies have shown that self-efficacy is a critical issue, especially in organisational performance (Stajkovic & Luthans, 1998), persistence in a task (Multon, Brown & Lent, 1991), and new and challenging tasks (Sexton & Tuckman, 1991). An analysis by Judge and Bono (2001) reveals the existence of a positive relationship between job performance and self-efficacy, ( $r = .23$ ). A meta-analysis (Sadri & Robertson, 1993) revealed that there is a positive relationship between self-efficacy and the choice of both performance and behavioural change in the context of organisational behaviour. Empirical research in the past shows that a strong and consistent relationship between self-efficacy and some behavioural results forms. For example, in some studies, the relationship between self-efficacy and job search success has been revealed (Kanfer & Hulin, 1985; Rife & Kilty, 1990). In some others, it has been shown that participation behaviour is improved (Frayne & Latham, 1987; Latham & Frayne, 1989). It was also revealed (Barling & Beattie, 1983); (Lee & Gillen, 1989); (Mathieu, Martineau & Tannenbaum, 1993) that academic success increased (Multon et al., 1991); (Relich, Debus & Walker, 1986).

The positive effects of self-efficacy are well-documented and strong empirical support for the effects of self-efficacy on job performance can be found.

According to the self-efficacy theory, self-efficacy increases job performance by increasing the difficulty level of the self-determined goals, increasing the effort

spent on a given task, and developing the ability to address difficulties (Bandura, 1977); (Bandura & Locke, 2003). Supporting this view, most studies have found positive relationships between self-efficacy and performance. Studies have shown that self-efficacy increases performance by 28%; this rate is higher than the rate associated with setting goals, giving feedback, or behaviour changes (Stajkovic & Luthans, 1998).

Consequently, in our proposed research model we assume that occupational self-efficacy has a direct and positive effect on job performance.

### ***Job Control: Job Performance***

When examining at past studies investigating the relationship between job control and job performance, we first encounter the study of Hackman & Oldham (1975, 1980). Later, many studies were conducted based on the theoretical connection revealed in this research. However, researchers obtained different findings. Some studies have found that the effect of job control on job performance is weak and inconsistent (see Fried & Ferris, 1987); (Morgeson & Campion, 2003). According to some other studies, those working in environments without job autonomy focus more on doing defined jobs as described (see Gellatly & Irving, 2001); (George & Jones, 1997); (Morrison, 1994).

However, other research reveals that job autonomy has a significant impact on job performance (see Dodd & Ganster, 1996); (Eisenberger, Rhoades & Cameron, 1999); (Tyagi, 1985). For example, Tyagi (1985) conducted research on salespeople and argued that a significant relationship between job autonomy and job performance exists. Eisenberger et al. (1999) also found a positive relationship between the right of self-determination perceived by employees and job performance. When autonomy increases, employees will have more flexibility to decide how to fulfil their tasks and thus, will provide better job performance (Barrick & Mount, 1993); (Fried et al 1999); (Troyer et al., 2000).

Gellatly & Irving (2001) found in their research that perceived autonomy had a positive effect on contextual performance. Claessens et al. (2004) found a positive relationship between perceived autonomy and job performance and job satisfaction and a negative relationship with workload. Employees with job autonomy find themselves more skilled and sufficient in performing their duties, which increases their job performance (Langfred & Moye, 2004). Therefore, in this study we assumed that the job control has a direct, positive effect on job performance.

### ***Job Control: Occupational Self Efficacy: Job Performance***

Several empirical studies examined the mediating effects of self-efficacy in different domains. For example, in the study of Speier & Frese (1997), it was found that the relationship between control and complexity and concurrent initiative is partly mediated by self-efficacy.

In addition, Prussia, Anderson & Manz (1998) found that self-efficacy fully mediates the relationship between self-leadership and performance.

Finally, Saragih's (2011) results shows that self-efficacy partially mediates the

relationship between job autonomy and job satisfaction. However, limited research that examines whether self-efficacy operates as a mediator in the relation between job control and job performance exists.

Job control allows the employee to use his skills, knowledge, and creativity. This process increases their belief that they are more resourceful and thus, more self-efficacious (Wang & Netemeyer, 2002). This premise is supported empirically. For example, according to Bandura & Wood (1989), individuals feel that they have little control when restricted, and this restriction lowers their efficacy levels. Job control provides a higher degree of generalized self-efficacy leading to higher confidence by providing mastery experiences. According to Bandura (1997), this confidence will motivate the individual to make more efforts to achieve the best performance. Therefore, it is assumed that there is a positive link between job control, occupational self-efficacy, and job performance, and self-efficacy may have a mediating role in the relationship between job control and job performance. Therefore, we proposed the first hypothesis:

***Hypothesis 1:** Occupational self-efficacy mediates the relationship between job control and job performance for individuals who have perceptions of having high IT skills*

***Job Control: Information Technology Skills: Job Performance***

According to Bandura (1997), self-confidence will motivate the person to put forth more efforts to perform better. Although we have not found a direct determination in this regard in the literature review that we conducted, it is thought that individuals with high level of information technology skills would be more willing to put forth more effort to achieve better performance since the information technology skills would increase the self-confidence of the person about their future performance. On the other hand, high levels of these skills could facilitate job control and increase efficiency, which would improve job performance as has been shown many times in the literature. Therefore, we proposed our second main hypothesis:

***Hypothesis 2:** Information technology skills will moderate the proposed relationship between job control and job performance, such that the relationship will be stronger for individuals who have a perception of having high information technology skills*

***Job Control: Information Technology Skills: Occupational Self Efficacy***

When the literature was analysed, no study was found that in which information technology skills, which have become more and more important in today's world, cause a strengthening of the relationship between job control and occupational self-efficacy. However, it is now known that in cases in which job control is low, occupational self-efficacy does not develop sufficiently.

According to Bandura (1989), one of the most important components is inactive mastery (past performances) and this mastery is limited to the prescribed actions



asked by managers in the absence of job control. At this point, the importance of information technology skills becomes apparent. In cases in which job control is high, it is thought that if the information technology skill is also high, it would be possible to gain more effective control, which is also considered to improve occupational self-efficacy. In cases in which job control is low, it is considered that high information technology skills would increase confidence and motivation; thus, employees would demand more control in this way, and managers may be more convinced to give more control.

Therefore, we proposed the following hypothesis:

*Hypothesis 3: Information technology skills will moderate the proposed relationship between job control and occupational self-efficacy such that the relationship will be stronger for the individuals with IT skills*

Other hypotheses based on perceived level of computer usage skills measured by a demographic item (D9) are discussed in the Results.

### **3. Methods**

The study sample consisted of 441 employees from different sectors who were forced to working remotely from home during the Covid-19 pandemic. Data were collected via on-line tools, such as Survey Monkey and e-mail. SPSS 22 and Smart PLS have been used for data analyses.

#### **3.1 Measurement scales**

The first part of the data collection consisted of **demographic** questions in which **item 9** asks about the perceived level of computer usage level of the respondents. The levels were classified as none, insufficient, medium, advanced, and excellent.

The **Job Control Scale** was adopted from Dwyer & Ganster (1991). Twenty-two items are used to describe a job, and the respondent is asked to indicate the extent to which each one is an accurate or an inaccurate description of one's job by writing a number in front of each statement ranging from very little, little, moderate, much, to very much.

The **Short Occupational Self-Efficacy Scale** was adopted from Rigotti, Schyns & Mohr (2008). The six items are rated on a six-level response scale ranging from 1 (not at all true) to 6 (completely true). High values reflect high occupational self-efficacy.

The **Job Performance Scale** measures employee performance was measured in two dimensions:

- 1) Task performance.
- 2) Contextual performance.

Separate items were used for measuring these dimensions (Beffort & Hatstrup, 2003; Karakum, 2005).

**Information Technology Skills Scale** was adopted from Doelger (2015).

Respondents were asked to indicate if they possess the skills articulated in the statement and indicate how relevant they feel they are to the performance of their job in which they learned or did not yet learn the skill on this 7-item scale.

## 4. Results

Table 1 gives information about the demographic profile of the respondents.

**Table 1: Demographic Distribution**

		<b>n</b>	<b>%</b>
<b>Gender</b>	Female	284	64,4
	Male	157	35,6
<b>Age</b>	18-30	145	32,9
	31-40	126	28,6
	41-50	130	29,5
	51 and above	40	9,1
<b>Education</b>	University and below	274	62,1
	Graduate studies	133	30,2
	Doctorate	34	7,7
<b>Experience</b>	1-3 years	79	17,9
	4-8 years	90	20,4
	9-15 years	90	20,4
	15 years and above	182	41,3
<b>Years worked in present company</b>	1-3 years	175	39,7
	4-8 years	87	19,7
	9-15 years	72	16,3
	15 years and above	107	24,3
<b>Computer and technology usage capability level</b>	Medium level	161	36,5
	Advanced level	229	51,9
	Excellent	51	11,6

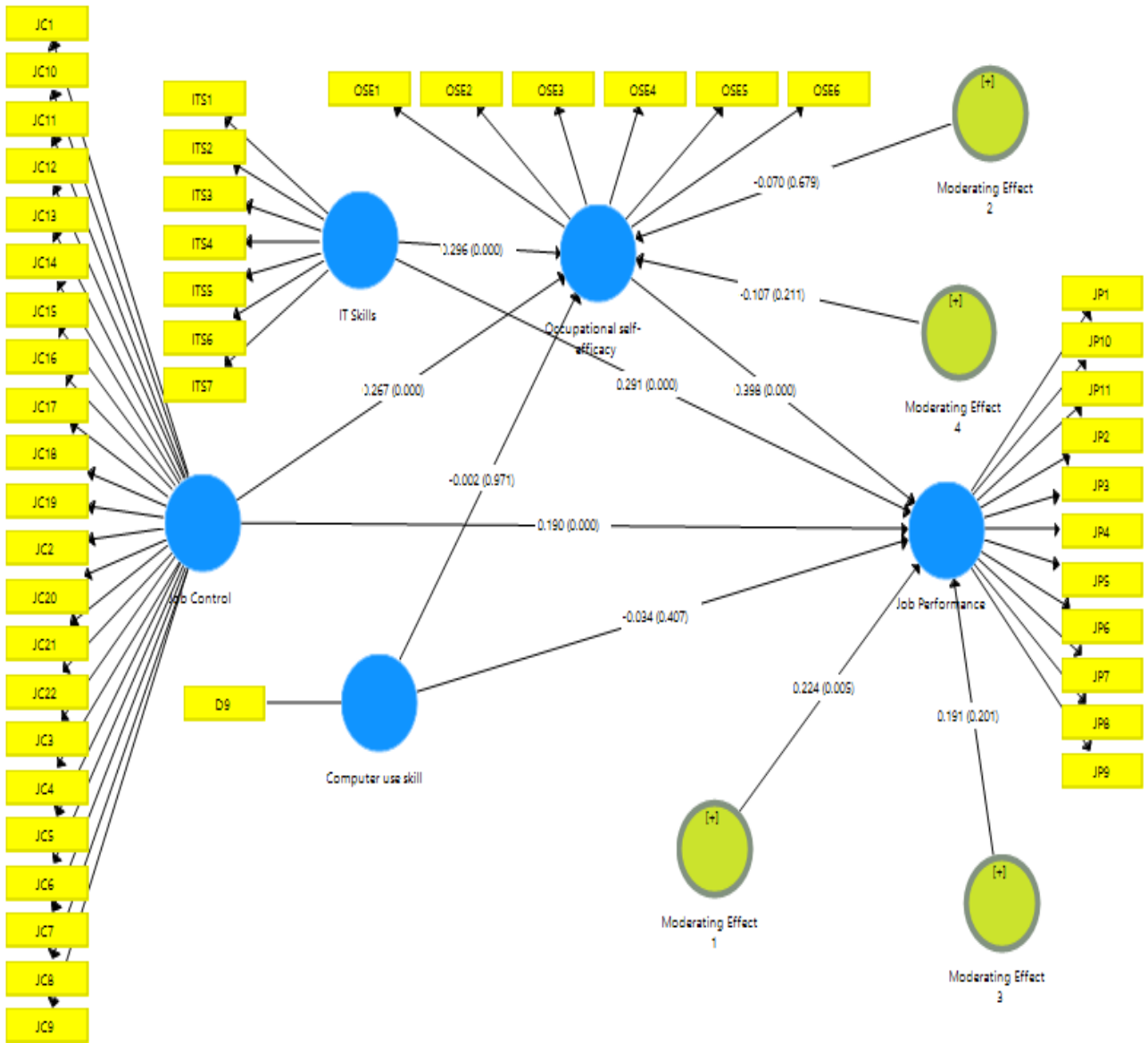
Table 2 below summarizes the reliability coefficients of the measurement scales.

**Table 2: Normality Test and Cronbach’s Alpha**

	<b>Mean ± SD</b>	<b>Min-Max (Median)</b>	<b>Skewness</b>	<b>Kurtosis</b>	<b>Cronbach’s Alpha</b>
<b>Scales</b>					
<b>Job Control</b>	4.39 ± 0.65	2.23–5.5 (4.45)	–0.864	0.869	<b>0.914</b>
<b>Occupational Self-Efficacy</b>	4.88 ± 0.58	2.5–6 (5)	–0.711	1.667	<b>0.779</b>
<b>Job Performance</b>	5.11 ± 0.48	3.73–6 (5,09)	–0.400	0.080	<b>0.830</b>
<b>IT Skills</b>	4.98 ± 0.68	3–6 (5)	–0.478	0.041	<b>0.913</b>

All of our item loadings were between 0.7 and 0.9, which demonstrates that internal consistency of our results is good/acceptable (Tavakol & Dennick, 2011). Therefore, skewness and kurtosis measures were checked. Skewness value may be within the range +1, –1 for normal distribution. Kurtosis value range between +3, –3 for normal distribution (Kline 2011). SD: standard deviation; min-max: minimum–maximum range.

Figure 2 shows the hypotheses analyses results through PLS SEM model:



**Figure 2: Hypothesis Results**

### 4.1 Hypotheses Analyses Findings

- **Hypothesis 1:** The hypothesis for which occupational self-efficacy mediates the relationship between job control and job performance was tested after which hypothesis 1 was accepted with the  $p = 0.001 (< 0.05)$ . We can conclude that occupational self-efficacy mediates the relationship by 0.398.
- **Hypothesis 2:** The hypothesis for which IT skills moderate the relationship between job control and job performance such that the relationship will be stronger for individuals with IT skills was tested after which hypothesis 2 was accepted with  $p = 0.001 (< 0.05)$ . We can conclude that IT skills moderate the relationship by 0.224.
- **Hypothesis 3:** The hypothesis for which IT skills moderate the relationship between job control and occupational self-efficacy such that the relationship will be stronger for the individuals with IT skills was tested after which hypothesis 3 was rejected with  $p = 0.679 (> 0.05)$ .
- **Hypothesis 4:** The hypothesis for which level of computer use skill moderates the relationship between job control and job performance such that the relationship will be stronger for individuals who have perception of higher level of computer usage skills was tested after which hypothesis 4 was rejected with  $p = 0.201 (> 0.05)$ .
- **Hypothesis 5:** The hypothesis for which the level of computer use skill moderates the relationship between job control and occupational self-efficacy such that the relationship will be stronger for individuals who have perceptions of higher level of computer usage skills was tested after which hypothesis 5 was rejected with  $p = 0.221 (> 0.05)$ .

### 4.2 Sub-Group Differences Tests

Following Tables 3 to 8 summarize the sub-group differences tests findings:

**Table 3: Gender**

	Female (n = 284)		Male (n = 157)		<sup>a</sup> p
Job Control	4.37 ± 0.04	2.23-5.55 (4.41)	4.44 ± 0.05	2.36-5.45 (4,5)	<b>0.242</b>
Occupational Self-Efficacy	484 ± 004	2.5-6 (5)	4.94 ± 0.04	3.83-6 (5)	<b>0.073</b>
Job Performance	51 ± 0.03	3.73-6 (5.09)	5.11 ± 0.04	3.82-5.82 (5.18)	<b>0.911</b>
IT Skills	4.87 ± 0.04	3-6 (5)	5.19 ± 0.05	3.86-6 (5.14)	<b>0.001*</b>

<sup>a</sup>Independent t-Test \* $p < 0.01$

IT skills of male and female respondents varied significantly ( $p = 0.001$ ).

**Table 4: Age**

	<b>18-25 (n 56)</b>		<b>26-34 (n=183)</b>		<b>34-44 (n=95)</b>		<b>45 and above n=70)</b>		<sup>b</sup> p
Job Control	4.27 ± 0.06	2.23-5.45 (4.27)	4.34 ± 0.05	3.14-5.5 (4.41)	3.14-5.5 (4.41)	4.45 ± 0.06	2.36-5.55 (4.59)	4.81 ± 0.05	<b>0.001**</b>
Occupational Self-Efficacy	4.78 ± 0.06	2.5-6 (4.83)	4.88 ± 0.04	3.83-5.83 (5)	3.83-5.83 (5)	4.93 ± 0.05	3-5.83 (5)	5.01 ± 0.12	<b>0.055</b>
Job Performance	5.09 ± 0.05	3.82-6 (5.09)	5.13 ± 0.04	4-5.82 (5.18)	4-5.82 (5.18)	5.12 ± 0.04	4.36-6 (5.09)	5.05 ± 0.1	<b>0.752</b>
IT Skills	5.11 ± 0.06	3.29-6 (5.29)	5.09 ± 0.06	3.14-6 (5)	3.14-6 (5)	4.75 ± 0.06	3-6 (4.71)	4.96 ± 0.09	<b>0.001**</b>

<sup>b</sup>One-Way analysis of variance (Anova) \*\* $p < 0.01$

Job control and IT skills differed significantly with respect to age ( $p=0.001$  and  $p=0.001$ , respectively).

**Table 5: Education Status**

	<b>University or Less (n = 274)</b>		<b>Graduate Studies (n = 133)</b>		<b>Doctorate (n = 34)</b>		<sup>b</sup> p
Job Control	4.4 ± 0.67	2.36-5.5 (4.34)	4.34 ± 0.64	2.23-5.55 (4.36)	4.54 ± 0.51	3.82-5.36 (4.41)	<b>0.257</b>
Occupational Self-Efficacy	4.88 ± 0.55	3-6 (4.87)	4.87 ± 0.64	2.5-6 (5)	4.86 ± 0.55	3.67-5.83 (4.83)	<b>0.983</b>
Job Performance	5.11 ± 0.48	3.82-6 (5.17)	5.17 ± 0.41	4-6 (5.27)	4.83 ± 0.63	3.73-5.91 (4.82)	<b>0.001**</b>
IT Skills	4.94 ± 0.7	3-6 (5.16)	5.16 ± 0.6	3.43-6 (5)	4.64 ± 0.69	3.14-6 (4.71)	<b>0.001**</b>

<sup>b</sup>One-Way Anova \*\* $p < 0.01$

Job Performance and IT skills differed significantly among different education groups.

**Table 6: Years of Experience**

	1–3 Years (n = 79)		4–8 Years (n = 90)		9–15 Years (n = 90)		15 Years and Above (n = 182)		<sup>b</sup> p
Job Control	4.24 ± 0.07	2,82-5,45 (4.18)	4.23 ± 0.08	2,23-5,41 (4.3)	4.42 ± 0.06	3,14-5,5 (4.53)	4.53 ± 0.05	2,36-5,55 (4.64)	<b>0.001**</b>
Occupational Self-Efficacy	4.78 ± 0.06	3,83-6 (4.83)	4.76 ± 0.07	2,5-6 (4.83)	4.94 ± 0.05	3,83- 5,83 (4.94)	4.94 ± 0.04	3-6 (5)	<b>0.029*</b>
Job Performance	5.05 ± 0.05	4-5,82 (5)	5.11 ± 0.06	3,82-6 (5.27)	5.19 ± 0.04	4-5,82 (5,08)	5.08 ± 0.03	3,73-6 (5.09)	<b>0.221</b>
IT Skills	5.1 ± 0.07	3,86-6 (5.14)	5.07 ± 0.09	3,14-6 (5.5)	5.17 ± 0.06	4,14-6 (4.8)	4.8 ± 0.05	3-6 (4.86)	<b>0.001**</b>

<sup>b</sup>One-Way Anova \*\*p < 0.01 \*p < 0.05

Job control and IT skills differ among the subgroups of the demographic variable “years of experience”.

**Table 7: Years Worked in the Present Company**

	1–3 Years (n = 175)		4–8 Years (n = 87)		9–15 Years (n = 72)		15 Years and Above (n = 107)		<sup>b</sup> p
Job Control	4.26 ± 0.05	2,23-5,45 (4.32)	4.49 ± 0.05	3,77-5,45 (4.45)	4.46 ± 0.08	2,36-5,5 (4,73)	4.48 ± 0.06	2,64-5,55 (4.59)	<b>0.009**</b>
Occupational Self-Efficacy	4.84 ± 0.05	2,5-6 (5)	4.87 ± 0.05	3,67-5,83 (5)	4.87 ± 0.04	3,83-5,67 (5)	4.94 ± 0.06	3-6 (5)	<b>0.620</b>
Job Performance	5.04 ± 0.04	3,82-5,91 (5.09)	5.24 ± 0.05	4-6 (5.27)	5.11 ± 0.05	4,36-6 (5)	5.1 ± 0.05	3,73-6 (5.09)	<b>0.027*</b>
IT Skills	5 ± 0.05	3,14-6 (5)	5.21 ± 0.06	4,14-6 (5)	4.86 ± 0.08	3,14-6 (5)	4.85 ± 0.07	3-6 (4.86)	<b>0.001**</b>

<sup>b</sup>One-Way Anova \*\*p < 0.01 \*p < 0.05

IT skills, job performance, and job control differed significantly with respect to the “the year worked in the present company” subgroup variable.

**Table 8: Computer and Technology Ability Levels**

	<b>Medium Level (n = 161)</b>		<b>Advanced Level (n = 229)</b>		<b>Excellent (n=51)</b>		<b><sup>b</sup>p</b>
Job Control	4.24 ± 0.06	2.23-5.45 (4.36)	4.49 ± 0.04	2.95-5.5 (4,55)	4.45 ± 0.1	2.73-5.55 (4.55)	<b>0.001**</b>
Occupational Self-Efficacy	4.77 ± 0.05	3-6 (4.83)	4.95 ± 0,03	4-6 (5)	4.84 ± 0.12	2.5-5.83 (5)	<b>0.010*</b>
Job Performance	5.03 ± 0.04	3.73-6 (5)	5.14 ± 0.03	3.82-6 (5.18)	5.18 ± 0.07	4-5.82 (5.18)	<b>0.031*</b>
IT Skills	4.73 ± 0.06	3-6 (4.86)	5.12 ± 0.04	3.71-6 (5)	5.18 ± 0.1	3.29-6 (5.14)	<b>0.001**</b>

<sup>b</sup>One-Way Anova      \*\* $p < 0.01$       \* $p < 0.05$

Job Performance differed significantly according to the sub-groups of the demographic variable “computer usage ability level” ( $p = 0.031$ ).

Occupational self-efficacy differed significantly according to the sub-group of the demographic variable “computer usage ability level” ( $p = 0.010$ ).

Job control differed significantly according to the sub-group of the demographic variable “computer usage ability level” ( $p = 0.001$ ).

IT skills differed significantly according to the sub-groups of the demographic variable perceived “computer usage ability level” ( $p = 0.001$ ).

## 5. Conclusions

This research yielded several interesting theoretical and empirical findings. Theoretically, the introduction and empirical testing of the influence of IT skills and also perceived computer literacy levels on employees’ occupational self-efficacy and job control resulting in higher performance in the most updated context is new to the literature. Our results bring the importance of developing training IT skills and computer usage programs for every level of employees for higher performance in their organisations to the attention of managers.

We are witnessing a new type of workforce totally dependent on-line home offices with different levels of technological literacy.

Managers and especially human resource managers can benefit from the results of this research.

Two of our main hypotheses and thus the intended major contributions of this work are supported. IT skills moderates the relationship between job control and job performance. Second, occupational self-efficacy mediates the relationship between job control and job performance. Furthermore, the computer usage ability level of



the respondents produced significant differences in performance.

Several study limitations should be discussed. First, attempts were made to collect data during the pandemic during which person-to-person contact was impossible. Accordingly, convenience sampling was used. Six-hundred (600) employees from different sectors are reached and returned four hundred forty one (441) valid responses. Also, the data collection period took longer than originally predicted. PLS Sem was used for data analyses in addition to other SPSS tests. PLS SEM was valid for this study's data analyses for several reasons. One reason is the exploratory nature of the study due to the introduction and testing of new concepts, including the influences of computer literacy level and IT skill, into a theoretically strong job control - job performance relationship model. Second, the PLS Sem also allows measurement of one variable if necessary and in this research computer literacy level as one of the moderators was measured by one item, D9, in this study's survey instrument.

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