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## Article

Psychological empowerment and organizational citizenship behavior in the information communications and technology (ICT) sector: A moderated- mediation model

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## MANAGEMENT | RESEARCH ARTICLE

# Psychological empowerment and organizational citizenship behavior in the information communications and technology (ICT) sector: A moderated- mediation model

Ahmad Almohtaseb<sup>1</sup>, Maha Shehadeh<sup>2</sup> and Jehad Aldehayyat<sup>3\*</sup>

**Abstract:** This study aimed to examine the influence of psychological empowerment on job crafting. Moreover, it analyzed the relationship between job crafting and organizational citizenship behavior. In addition, conscientiousness was considered as a moderator between psychological empowerment and job crafting. Whereas the mediation effect of job crafting was examined among psychological empowerment and organizational citizenship behavior. The data were gathered from the ICTs of Jordan and AMOS was used for analysis. The results highlighted that psychological empowerment can influence job crafting, which can lead to organizational citizenship behavior. Therefore, job crafting can significantly mediate the relationship between psychological empowerment and organizational citizenship behavior. In addition, the findings revealed that conscientiousness being an important personality trait can moderate the relationship between psychological empowerment and job crafting. This research can be considered as a guideline for researchers and practitioners focusing on job crafting and organizational citizenship behavior. The focus of this research is merely on the employees of ICTs and it has considered only one personality trait i.e. conscientiousness. Therefore, future studies can emphasize any other sector and include other personality traits as moderators.

**Subjects:** Psychological Science; Organizational Change; Human Resource Management

**Keywords:** Psychological Empowerment; Organizational Citizenship Behavior; Job Crafting; Conscientiousness; Icts

## 1. Introduction

Job crafting (JC) is an activity that is spontaneously undertaken by employees to meet their preferences and needs in the workplace (Kira et al., 2010). Over the last two decades, the concept of JC gained much popularity, particularly after the research of Wrzesniewski and Dutton's (2001)

## PUBLIC INTEREST STATEMENT

This research has employed the quantitative research method to analyze the mediating role of job crafting between psychological empowerment and organizational citizenship behavior of employees working in ICTs. Moreover, it examined the moderation of conscientiousness between psychological empowerment and job crafting. The results revealed that organizational citizenship behavior can be developed among employees by focusing on psychological ownership and job crafting.

who claimed the employees as the crafters of their own job. Further, they explained JC as “the physical and cognitive changes individuals make in the task or relational boundaries of their work” (p. 179). Niessen et al. (2016) differentiated JC from other job design approaches and presented that instead of modification, shaping, and designing by organizations, JC is based on job designing by the individual job holder. The JC practices are volitional, noticeable, potentially intrinsic, self-targeted, and don't require the approval of management (Bruning & Campion, 2018).

The concept of empowerment has great importance because it's essentially required for competitiveness where business operations are being facilitated by information technology (IT) (Collins, 1995). The employees' autonomous behavior in the organizational settings is linked with their psychological empowerment (PE) and sense of controlling the work (Spreitzer, 2008). Organ (1988, p. 4) as “individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization”.

Prior studies have highlighted the relationship of PE on organizational commitment (Bani et al., 2014), organizational innovation (Nikpour, 2018), organizational support (Abdulrab et al., 2018), job satisfaction (George & Zakkariya, 2018), and many other employee attitudinal outcomes (Shah et al., 2019). The results of the majority of these studies are consistent with self-determination theory (SDT) which focuses on the role of an autonomous motivational orientation in increasing psychological development, health, and performance (Deci & Ryan, 2008). When the employees feel that their needs for autonomy, relatedness, and competence are satisfied, they perform more proactive work behavior like JC (Parker et al., 2010). Similarly, Coehoorn (2017) contends that JC behavior is undertaken more frequently by PE employees because they consider themselves more autonomous and competent. In addition, Kamdron and Randmann (2022) highlighted PE is positively related to Job crafting.

PE can affect organizational citizenship behavior (OCB) (Turnipseed & VandeWaa, 2020). Shusha (2014) gathered data from nurses working in Egyptian Medical Centers to analyze the relationship between JC and OCB. The nurses with JC behavior were found more efficient in exercising OCB. Conscientiousness being an important element of personality traits can lead to JC in psychologically empowered employees. Therefore, it's important to analyze the moderation mechanism related to JC that how conscientiousness can mediate the relationship between PE and JC in the ICTs of Jordan which are always ignored.

The ICT sector is the fastest growing sector in Jordan's economy as it is accounting for 3.8% of the gross domestic product with total annual revenue of more than 2.3 billion \$. Despite of challenging economic environment in COVID-19 pandemic, this sector strengthened Jordan's economy with a phenomenal growth of 6% (Country Commercial Guide, 2021). To support the ICT sector of Jordan, the Information Technology Association of Jordan (Intaj) came into being. Intaj considered skilled and qualified human resources as the essential asset in IT firms. Moreover, the main goal of the establishment of Intaj was to provide IT products and services from Jordan (Al Dalahmeh et al., 2021). ICTs are linked to the aspiration of community empowerment which entails different dimensions including building regional capacity, increasing social capital, and enhancing democracy (O'Neil, 2002). Therefore, this research has emphasized PE in the ICTs of Jordan.

In today's business world, the developments in environmental conditions and information technologies are continuously enhancing and shaping organizational innovations which have changed the job designs in the working environment by making the tasks more complex for employees (Demerouti, 2014). In this scenario, to maintain competitiveness, the organizations are seeking for employees to develop proactive behaviors in their non-routine tasks besides merely emphasizing specific job requirements (Demerouti et al., 2015). This research has highlighted psychological empowerment as an important proactive behavior that can lead to job crafting and OCB. The first and foremost important objective of this study is to portray the behavioral

factors of employees working in the ICTs of Jordan. The job of employees working in ICTs is very tough and there is an essential need of JC. Al Dalahmeh et al. (2021) highlighted that the ICT sector requires highly skilled and talented employees. Besides quality work force/employees, there is essential requirement of strategies or behavioral approaches that can help in better job designing of employees. Among them, the most important strategy is PE which can lead to JC. Mat Aji et al. (2010) showed that constructs of Zimmerman's psychological empowerment theory contribute to the PE of telecentre users. However, there is little to know on how the employees of telecommunication companies can do JC and develop OCB. This research addressed this gap by analyzing how behavioral strategy contributes to a proactive behavioral approach. Therefore, this study is aimed to highlight the role of PE on JC under the moderating effect of conscientiousness that can strengthen the aforementioned relationship. In addition, it is also presented how PE can further lead to OCB with the mediation of JC.

The critical literature-based investigation and extensive research highlighted a research gap in analyzing how PE can enhance JC that can lead to OCB of employees working in ICTs of Jordan. Thus, this study is an attempt to bridge this gap by examining the relationship among the aforementioned variables. This research has answered the following questions:

- Does psychological empowerment enhance job crafting?
- Does job crafting lead to organizational citizenship behavior?
- Does conscientiousness moderate the relationship between psychological empowerment and job crafting?
- Does job crafting mediate the relationship between psychological empowerment and organizational citizenship behavior?

## 2. Literature review

### 2.1. Psychological empowerment and job crafting

Spreitzer (1995, 2008) explained PE as a psychological state based on four cognitions including impact, meaning, self-determination, and competence. It can be the ideal autonomous psychological state for enhancing the performance and well-being of employees (Matsuo, 2019). SDT contends that an autonomous motivational orientation clears the way for a process that helps in meeting psychological needs such as relatedness, competency, and autonomy for the improvement of psychological performance and health (Ryan & Deci, 2000). Many studies focusing to examine PE with proactive behaviors in work settings have used the SDT. Psychologically empowered employees consider themselves as more competitive ones who can design or shape their working environment and jobs in way to facilitate proactive work behavior (Parker et al., 2010; Spreitzer, 1995). JC is an important proactive behavior and Berg et al. (2010) explained it as a behavior that required an adaptation to the constraints and challenges imposed by the employer for employees working in an organization. Even these changes or challenges are not in line with the organizational goals but still, JC can be a strategic advantage for organizations and especially the employees (Van den Heuvel et al., 2010). The mobilization of resources by employees through JC behaviors can enable them to develop a better working environment that is in line with their core abilities and meets their needs (Tims & Bakker, 2010).

JC is initiated by employees but it's beneficial for both, the organizations and the employees (Hakanen et al., 2017) and it can be the outcome of PE. The relationship between PE and JC can be explained by SDT because JC is a proactive work behavior (Khan et al., 2021). In the lens of self-determination theory, human motivation is linked with three intrinsic psychological needs including competence, autonomy, and relatedness (Ryan & Deci, 2000) but one more important factor leading to motivation is psychological empowerment (Zimmerman, 1995). Prior studies have reported relation of PE with several other work-related outcomes, like organizational commitment (Joo & Shim, 2010), work engagement (Moura et al., 2015), organizational citizenship behavior (Turnipseed & VandeWaa, 2020), and job performance (Sun, 2016) but ignored the proactive

behavioral approach (i.e. job crafting). According to Kamdron and Randmann (2022), this PE is positively related to job crafting.

Only a few studies have actually analyzed the relationship of PE with JC in different work settings but up to the author's knowledge, no research is available in context on ICTs in Jordan. Kilic et al. (2020) also highlighted that there is a scarcity of literature about employees' psychological empowerment on JC. The results of their highlighted that psychological empowerment can enhance job crafting behaviors. Similarly, Coehoorn (2017) concluded that four-dimensional PE is related to SDT and work as an intrinsic motivator to lead job crafting. PE and job crafting are sequential mediators between servant leadership and innovative work behavior but still, psychological empowerment can lead to job crafting (Khan et al., 2021). Harbridge (2018) highlighted the significant impact of PE on the JC of registered nurses working in public health in Canada. There is a paucity of literature highlighting the relationship between psychological empowerment and job crafting in the context of ICTs in Jordan. Therefore, the following hypothesis is developed:

**H1:** *Psychological empowerment is positively related to job crafting.*

## **2.2. Job crafting and organizational citizenship behavior**

Job crafting is one's ability to manage his or her own resources, and it can reinforce OCB (Srivastava & Pathak, 2020). It can influence the satisfaction of employees (Cheng & Yi, 2018), well-being (Devotto et al., 2020), employee creativity (Tian et al., 2021), job performance (Zhang & Liu, 2021), and most importantly the OCB (Irvin, 2017). OCB can lead to cost reduction, productivity, customer satisfaction, and efficiency (N. P. Podsakoff et al., 2009). Shin and Hur (2019) analyzed the relation of bosses and workers in the context of the Chinese manufacturing industry and the results of their study highlighted that job crafting can positively influence the OCB. Similarly, Nonnis et al. (2020) found a positive effect of job crafting on organizational citizenship behavior. Shusha (2014) examined the relationship of JC with OCB in Egyptian medical centers and highlighted that employees with JC would be more likely to engage in OCB. In addition, Irvin (2017) indicated that there is significant positive relation among JC and OCB and creative self-efficiency can mediate this relationship. In comparison with the millennial generation, the workforce of earlier generations was more interested in organizational citizenship behavior but when the millennial initiate JC, they tend toward OCB. Therefore, the JC being a career development factor can influence the OCB (Gong et al., 2018). The literature has discussed the role of JC on OCB in different contexts but there is a paucity of studies in Jordan and particularly the ICTs. Thus, we posit that job crafting is positively related to the organizational citizenship behavior of employees working in ICT of Jordan, accordingly, we hypothesized that:

**H2:** *Job crafting is positively related to organizational citizenship behavior.*

## **2.3. Psychological empowerment, job crafting, and organizational citizenship behavior**

The practices of JC will lead to change the meaning of job and enforce beliefs of employees about the importance of their own work (Rosso et al., 2010). JC being a proactive and self-initiated factor can enhance the OCB in employees. The concept of OCB has gained a lot of attention among researchers and practitioners due to its wide implications towards enhancing the performance of employees (Becton et al., 2017; P. M. Podsakoff & MacKenzie, 1997). Many researchers have diverted their interest towards exploring the antecedents to OCB (Ding et al., 2020) and some of them have also identified its determinants such as emotional intelligence (Turnipseed, 2018), ethical leadership (Q. I. Yang & Wei, 2018), perceived organizational support (Thompson et al., 2020) and most important, the psychological empowerment (Turnipseed & VandeWaa, 2020).



In the lens of self-determination theory, JC is related to competence, relatedness, and autonomy. Job crafting can enable employees to redesign their jobs according to skills, values, and needs for enjoying and getting meaningful experience on the job (Wrzesniewski & Dutton, 2001). Mousa and Chaouali (2022) highlighted that individual job crafting influences the meaningfulness of work, which can lead to affective commitment. Moreover, individual job crafting can enhance organizational inclusion (Mousa et al., 2022) which can lead to positive employee outcomes such as organizational commitment (Shore et al., 2011), psychological contract (Mousa, 2019), and organizational citizenship behavior. According to Spreitzer (2008) psychological empowerment theory contends that self-empowered employees are more oriented toward their work. Therefore, in the context of this theory, we posit that psychological empowerment is positively related to job crafting and organizational citizenship behavior.

PE contains different task cognitions including the meaning of work, autonomy, influencing organizational outcomes, and self-efficacy. Due to these, OCB has the ability to influence JC (Kilic et al., 2020). Magdaleno et al. (2022) highlighted the importance of JC of social resources as a mediator of OCB when employees have sufficient job autonomy. The deep analysis of literature indicated that studies have used JC as a mediator between the relationship of servant leadership and OCB (Bavik et al., 2017) and the relationship of humble leadership and OCB (Magdaleno et al., 2022) but ignored the mediation of JC between PE and OCB. There are two reasons behind considering the JC as a mediator between PE and OCB. First, in organizations, the self-initiated change behaviors of employees can be because of intentional involvement in the self-change process and self-motivation. Second, PE along with job crafting can lead to OCB. Thus, to investigate the mediating effect of job crafting between PE and OCB, the following hypothesis has been designed:

**H3:** *Job crafting mediates the relationship between psychological empowerment and organizational citizenship behavior.*

#### **2.4. Conscientiousness as a moderator**

Personality is a combination of traits of complex behavior which include temperament and unique emotions of individuals which vary from person to person (Jalal et al., 2019). In the model of Big Five personality traits, the personality is analyzed by several important dimensions that differentiate individuals from each other, these dimensions are agreeableness, conscientiousness, neuroticism, openness to experiences, and extroversion (Najari et al., 2011). These traits can improve the performance of employees and can be the most effective if targeted at OCB (Udin & Yuniawan, 2020). Organizational psychology has highlighted that conscientiousness is not really a single entity but it is a system of several special features (Roberts et al., 2009). Therefore, it is the most important trait of personality in predicting job performance (Wilmot & Ones, 2019) and JC (Liu et al., 2020).

Personality can strongly predict OCB and it has been analyzed by several studies that the big five personality traits can be influential to OCB (Mushraf et al., 2015; Patki & Abhyankar, 2016; Pletzer et al., 2021). Similarly, these traits can also enhance JC. Shusha (2014) considered conscientiousness as the dimension of OCB and highlighted that job crafting is exercised by the employees having more conscientiousness. PE is the autonomous behavior and job crafting is also self-initiated proactive behavior, and conscientiousness can strengthen the relationship between PE and JC. In order to fill this gap in literature, we formulated following hypothesis:

**H4:** *Conscientiousness moderates the relationship between psychological empowerment and job crafting.*

On the basis of the discussion and hypothesis shown above, the following conceptual framework is designed for this research (see figure 1).

### 3. Methods & results

#### 3.1. Population, sample, and respondents

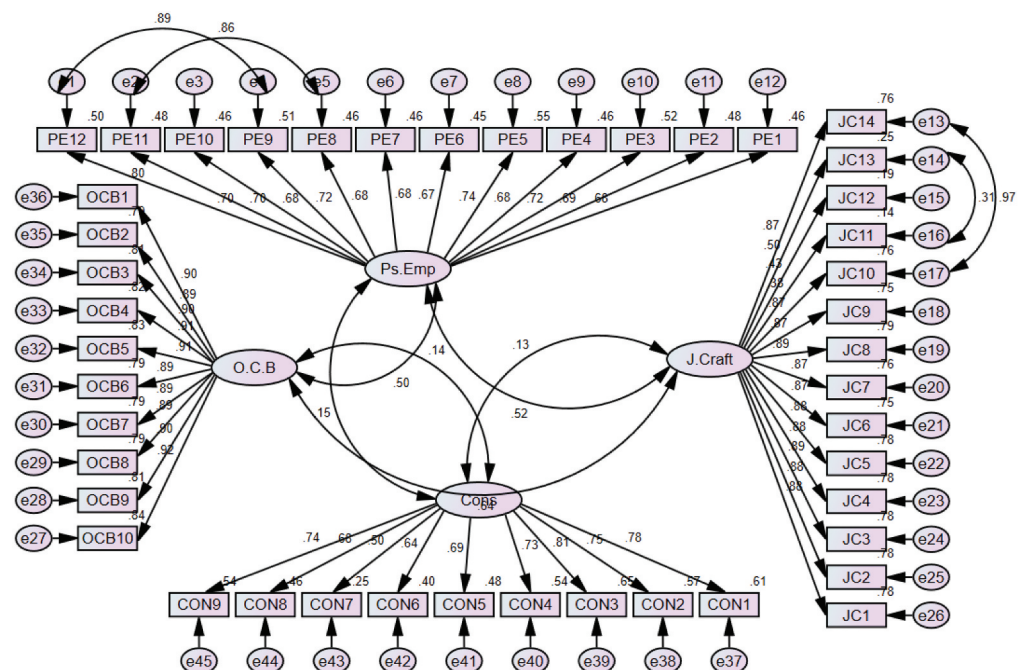
Study population comprises employee of Information Communications and Technology (ICT) companies operating in Jordan. According to Jordanian commercial guide, in 2021, there are 900 active companies in the in the ICT sector and employing about 22,000 people. The study is quantitative and data were collected through a self-administered questionnaire. The team of authors and two research assistants conducted the field survey and contacted 377 ITC firms for permission to collect the data from their employees. Out of 377, 270 firms granted permission to collect data from their employees and 700 questionnaires were distributed, from which 445 valid responses were received. Therefore, a response rate of 63.5% was achieved. Convenient sampling technique was used to collect the data due to time and resource constraints, and it took 3 months in collecting the 445 successful responses.

The findings showed that there were 113 female and 332 male participants. The majority of them were having bachelor's degree (i.e. 210) and experience of more than 5 years (138 employees). Type of ICT services and number of respondents are presented in Table 1. According to researchers' best of knowledge and observations during data collection, the ratio of male and female employees in the ICT sector is 71:29. Furthermore, sample adequacy was tested using "Kaiser-Meyer-Olkin (KMO) and Bartlett's test", and results are presented in Table 2. KMO index value 0.95 indicates excellent sampling adequacy as according to Hair et al. (1998) recommended value of 0.80 or greater for KMO index.

#### 3.2. Measurements

A structured questionnaire was used to collect the research data, and questionnaire items were adopted from past valid studies. The construct of job crafting was measured with a 14-items measurement scale adopted from the study of Shusha (2014). This is the most latest and relevant scale matching the context of this research. Instead of using JD-R model, this scale was used

Figure 1. Measurement model.





**Table 1. Type of ITC Services & Number of Respondents**

Type of ICT Service	Number of Respondents
Hardware	35
Software	130
Telecommunication*	3
Web-Related	21
ICT Maintenance	108
ICT Retails	78
Games Development	23
Others	47
<b>Total</b>	<b>445</b>

Note: \*it is a sub-sector dominated by three large mobile operators

**Table 2. KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.950
Bartlett's Test of Sphericity	Approx. Chi-Square	19792.585
	Df	990
	Sig.	0.000

Note: N=445

because job demands-resources (JD-R) theory is related to analyzing the impact of the organizational environment on the performance or well-being of employees (Tummers & Bakker, 2021). JD-R model consists the job crafting but it is associated with leadership behaviors such as servant leadership (R. Yang et al., 2017). This study has not mainly focused on organizational resources, thus scale of (Shusha, 2014) was most relevant.

Organizational citizenship behavior was measured with a 10-items scale that was adopted from the study of Dong and Phuong (2018). A 12-items measurement scale was used to measure the construct of psychological empowerment, adopted from the study of Shah et al. (2019). The construct of conscientiousness was measured with a 9-items measurement scale adopted from the study of John and Srivastava (1999). All items were measured using 5-point Likert scale (5=strongly agree; 1=strongly disagree). Moreover, questionnaire face validity was also tested through expert opinion from three top level managers of ICT firms.

### 3.3. Data normality

Data normality was tested before proceeding for further analysis, and Kurtosis and Skewness values were tested to assess the data normality by following recommendations of Kline (2015). Results presented in Table 3 show values of Kurtosis (−1.16 ~ −0.66) and Skewness (−0.62 ~ 0.02), which satisfy Byrne's (2010) criteria for data normality (−7~+7 for Kurtosis and −3~+3 for Skewness).

### 3.4. Factor analysis

Significant values of Bartlett's Test of Sphericity validate the suitability of factor analysis as confirmed in Table 2. Factor analysis was conducted using AMOS-24 and results are shown in Table 4. Results indicate excellent items' loading as all loading values are greater than 0.50 as recommended by Hair et al. (2010). Moreover, all Cronbach alpha values are also greater than 0.70, which confirm construct reliability.

**Table 3. Descriptive Statistics**

Variables	Mean	S.D	Skewness	Kurtosis
<i>Psychological Empowerment</i>	3.92	0.65	−0.59	−0.66
<i>Job Crafting</i>	3.40	1.12	−0.45	−1.46
<i>Organizational Citizenship Behavior</i>	3.31	1.05	−0.62	−0.78
<i>Conscientiousness</i>	3.06	1.04	0.02	−1.14

Note: N=445

### 3.5. Data validity and reliability

Confirmatory factor analysis (CFA) using AMOS-24 was conducted to assess data reliability and validity. Results as shown in Table 5 indicate that all CR (composite reliability) values are greater than 0.70 and AVE (average variance extracted) values are higher than 0.50 as recommended by Fornell and Larcker (1981) for reliability and convergent validity. Moreover, results also show that all square root of AVE values are higher than the construct correlation values, which confirms discriminant validity as recommended by Anderson and Gerbing (1988).

### 3.6. Measurement Model Fit

Prior to testing the hypothesized relationships, measurement model fitness was tested using CFA technique, and results are presented in Table 6. Results indicate poor model fit for 4-factor baseline model as all fit indices are well below the recommended fit criteria by Hu and Bentler (1999). By following modification indices excellent model fitness was achieved ( $\chi^2/df = 1.90$ , IFI = 0.96, TLI = 0.95, CFI = 0.96, RMSEA = .05). Figure 1 shows measurement model.

### 3.7. Test of hypotheses

After achieving model fitness, hypothesized relationships were tested using structural equation modeling (SEM) through AMOS-24, and results are shown in Table 7 (direct & indirect effect) and Table 8 (moderating effect). Results shown in Table 7 show that there is significant effect of psychological empowerment on job crafting ( $B = 0.419$ ,  $P < .001$ ). Moreover, there is also positive and significant relationship between job crafting and OCB ( $B = 0.645$ ,  $P < .001$ ). Furthermore, results also confirm significant indirect effect of psychological empowerment on OCB through mediation of job crafting ( $B = 0.480$ ,  $P < .001$ ;  $CI = 0.392 \sim 0.577$ ). As a result, hypotheses H1, H2, and H3 are accepted.

Hayes process macro was used to test the moderation hypothesis. Significant interactions “for high and low mean  $\pm$  SD values of the moderator” are plotted in Figure 2. Results indicate significant  $R^2$  change and F statistics ( $\Delta R^2 = 0.008$ ,  $F = 4.671$ ), which confirm moderation of conscientiousness between the relationship of psychological empowerment and job crafting. Figure 2 indicates the slope of relationships, which reveal that when there is low psychological empowerment and low conscientiousness there will be low job crafting, and in case of high psychological empowerment, the job crafting will be high. In the presence of high conscientiousness the relationship between psychological empowerment and job crafting will get stronger, as we have hypothesized in the study. Therefore, hypothesis H4 is also accepted and well supported by the study data.

## 4. Discussion

Information and communication technology (ICT) being the backbone of the digital economy can help in the productive growth and technological progress of an economy. It comprises different technologies and communication networks that build them. Moreover, ICT includes a wide range of new products and services ranging from highly advanced digital devices such as smart machines

Table 4. Factor Analysis			
Variables	Items	Items Loadings	Cronbach's Alpha
Psychological Empowerment	The work I do is very important to me.	0.677	0.922
	My job activities are personally meaningful to me.	0.690	
	The work I do is meaningful to me.	0.724	
	I am confident about my ability to do my job.	0.676	
	I am self-assured about my capabilities to perform my work activities.	0.744	
	I have mastered the skills necessary for my job.	0.673	
	I have significant autonomy in determining how I do my job.	0.676	
	I can decide on my own how to go about doing my work.	0.679	
	I have considerable opportunity for independence and freedom in how I do my job.	0.715	
	My impact on what happens in my department is large.	0.677	
	I have a great deal of control over what happens in my department.	0.696	
	I have significant influence over what happens in my department.	0.704	

(Continued)

Table 4. (Continued)			
Variables	Items	Items Loadings	Cronbach's Alpha
Job Crafting	I decide on my own how I do job tasks.	0.883	0.961
	I try to perform new tasks.	0.884	
	I try to make my job tasks more autonomy.	0.886	
	I try to change my job tasks.	0.881	
	I try to alter the scope of my job tasks.	0.884	
	I perform extra tasks even though I do not receive extra salary.	0.867	
	I try to get rid of some tasks.	0.874	
	I arrange to work with people from other departments	0.888	
	I discuss colleagues about task conflicts.	0.867	
	I ask my supervisor to coach me.	0.872	
	I ask whether my supervisor is satisfied with my work.	0.877	
	I look to my supervisor for inspiration.	0.883	
	I ask others for feedback on my job performance.	0.504	
	I ask colleagues for advice.	0.874	

(Continued)

Table 4. (Continued)			
Variables	Items	Items Loadings	Cronbach's Alpha
<b>Organizational Citizenship Behavior</b>	Adequately completes assigned duties.	0.895	0.976
	Fulfills responsibilities specified in job description	0.889	
	Performs tasks that are expected of him/her	0.897	
	Meets formal performance requirements of the job	0.905	
	Goes out of way to help new employee	0.908	
	Helps others who have heavy work loads	0.887	
	Helps others who have been absent	0.887	
	Making suggestions to improve the organization.	0.888	
	Volunteering for tasks that are not required	0.901	
	Attending functions that are not required, but that help the organizational image.	0.917	
<b>Conscientious-ness</b>	<b><i>I see myself as someone who...</i></b>		0.898
	Does a thorough job	0.782	
	Can be somewhat careless	0.754	
	Is a reliable worker	0.808	
	Tends to be disorganized	0.733	
	Tends to be lazy	0.693	
	Perseveres until the task is finished	0.635	
	Does things efficiently	0.497	
	Makes plans and follows through with them	0.676	
	Is easily distracted	0.736	

Note: N=445

Table 5. Reliability and validity analysis						
Variables	CR	AVE	1	2	3	4
1- Psychological Empowerment	0.921	0.500	<b>0.707</b>			
2- Job Crafting	0.947	0.593	0.534***	<b>0.770</b>		
3- Organizational Citizenship Behavior	0.976	0.806	0.469***	0.645***	<b>0.898</b>	
4- Conscientiousness	0.899	0.501	0.140***	0.117**	0.134**	<b>0.710</b>

Note: N=445; \*\*\*  $p < .001$ ; \*\*  $p < .01$ ; Diagonal bold are values for square root of AVE; CR=composite reliability; AVE= average variance extracted



**Table 6. Measurement model**

<b>Measurement Models</b>	<b><math>\chi^2</math></b>	<b>Df</b>	<b><math>\chi^2/df</math></b>	<b>RMSEA</b>	<b>IFI</b>	<b>TLI</b>	<b>CFI</b>
4- Factor Baseline Model	4198.359	939	4.471	0.09	0.83	0.82	0.83
4- Factor Revised Model	1780.625	935	1.904	0.05	0.96	0.95	0.96
Recommended Values (Hu & Bentler, 1999)				<0.08	≥0.95	≥0.95	≥0.95

*Note:* N=445

Figure 2. Moderation Graph.

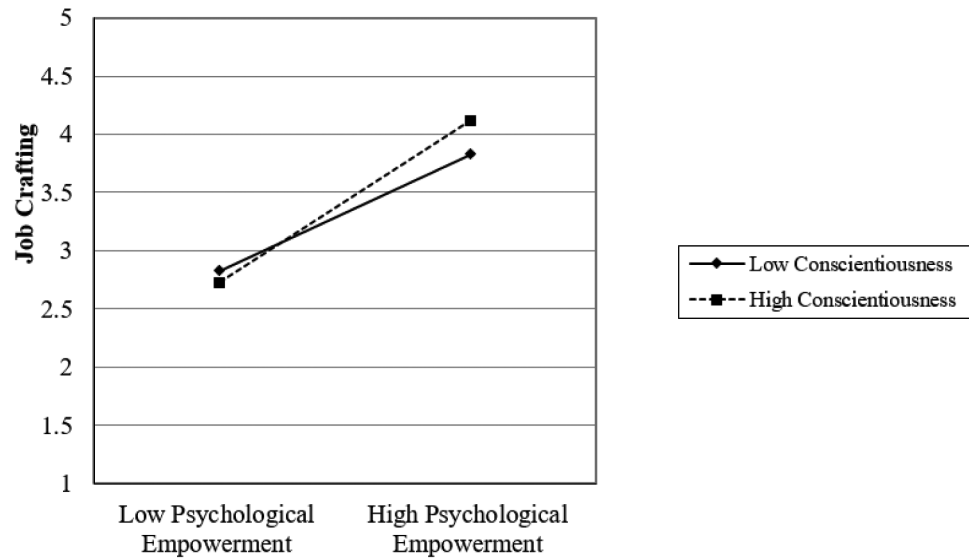


Table 7. Test of Hypotheses (Direct & Mediating Effect)

No	Relationships	Estimate	P-Value	Result
$H_{01}$	Psychological Empowerment → Job Crafting	0.419	***	Accepted
$H_{02}$	Job Crafting → OCB	0.645	***	Accepted
$H_{03}$	Psychological Empowerment → Job Crafting → OCB (ULCI=0.577; ULCI 0.392)	0.480	***	Accepted

Note: \*\*\*  $p < .001$

Table 8. Conditional Effects of the focal predictor (Psychological Empowerment) at values of the moderator (Conscientiousness)

DV: Work Engagement	$\beta$	$p$	95% CI	
One SD below mean	0.464	<.001	0.377	0.659
At the mean	0.645	<.001	0.486	0.784
One SD above mean	0.786	<.001	0.634	0.959
Test(s) of highest order unconditional interaction: ( $X*W$ )				
$R^2$ -change = 0.008*				
F Statistics = 4.671				

Note: \*\*\*  $p < .001$

(i.e. IOT), to new digital technologies (i.e. blockchain) and digital platforms including social networks and e-commerce (OECD, 2020). Anitha and Sundharavadivel (2012) explained ICTs as a diverse set of resources and technological tools that can help in creating, disseminating, storing, bringing value-addition, and managing the information. The ICT sector is very broad and it consists of different diverse segments including radio and television broadcasting, electronic media, software, computer hardware, and telecommunications. Therefore, this sector always requires highly talented and skilled employees (Al Dalahmeh et al., 2021) who should possess organizational citizenship behavior. Thus, it's important to highlight the factors which can develop the organizational citizenship behavior among employees.

The current study has emphasized the power of PE and its influence on different job outcomes of employees working in ICTs of Jordan. It has provided a significant contribution to the theoretical and empirical literature on psychological empowerment, conscientiousness, job crafting, and OCB. Firstly, the study has highlighted the influence of PE on JC. Secondly, it examined the role of JC on OCB. Thirdly, the research has focused on Zimmerman's psychological empowerment theory instead of relying on the self-determination theory for the conceptualization of the PE and job-related factors associated with it. Fourthly, it discussed the mediating role of job crafting between PE and OCB. Fifthly, the moderation of conscientiousness was discussed between PE and JC.

The first and foremost important hypothesis of study H1 was developed to analyze the relationship between PE and JC. This positivity highlights that PE can lead to JC behavior. There is a paucity of literature highlighting the role of employees' psychological empowerment on JC (Kilic et al., 2020) and this research is first in the context of ICT sector to explain the role of PE on JC. The findings of H1, confirmed that among employees ICTs of Jordan, the JC is linked with the autonomous behavior (i.e. psychological empowerment). The psychologically empowered employees will possess the job crafting behavior. Similarly, Harbridge (2018) supported these results by indicating the significant impact of PE on JC. Job crafting can further lead to the OCB of employees. Therefore, the second hypothesis H2 was formulated to highlight the role of JC on OCB. The application of OCB in the working environment can enhance the performance of employees, units, and organizations (Chien, 2003). The results highlighted the significance of studying JC with reference to OCB and revealed the positive relationship between JC and OCB. Nonnis et al. (2020); Irvin (2017) also highlighted the positive effect of JC on the OCB of employees.

The third hypothesis of this study, H3 aimed to highlight the mediating role of JC between PE and OCB. PE is considered as a self-initiated or autonomous change in the behavior of employees and this change can lead to JC which further enhances the OCB of employees. Therefore, the results for H3, revealed that JC significantly mediates the relationship between PE and OCB. Similarly, Irvin (2017) explained that the employees who tailor their work to fit them personally can effectively and efficiently achieve their goals. This behavior allows the employee to perform better for the organization. This research has claimed that besides PE, Hakanen et al. (2017) JC is also self-initiated and beneficial for employees and as well organizations. The presence of JC can better explain the relation of PE with OCB. The last objective of this research is to analyze the moderating role of conscientiousness between PE and JC; to examine these results, H4 was developed. The results revealed that the personality trait of conscientiousness can strengthen the relation of PE with JC. The performance related to a job is linked with personality traits (Wilmot & Ones, 2019) and this study has highlighted that the personality trait of conscientiousness can lead to JC. Shusha (2014) utilized conscientiousness as the dimension of OCB and indicated that employees having more JC will have more conscientiousness. Whereas current research has explained conscientiousness as an important determinant of personality.

## 5. Implications

The field of human resource management is diverse and many researchers in this domain have focused on autonomous behavior. According to Spreitzer (2008), this behavior is linked with PE.

This research has highlighted SE as an essential factor to JC which can lead to OCB. Thus, the study has provided extensive implications for academicians and practitioners. Theoretically, this study has diverted the attention of researchers toward an important issue of OCB and JC which can be generated by PE. In addition, it has contributed a lot to the literature on PE, conscientiousness, JC, and OCB. Prior studies have considered conscientiousness as a dimension of JC but this research has taken it as an important element of personality trait.

This research is very unique in its context and it has provided several practical implications. It has directed the attention of managers of ICTs toward understanding the importance of psychological empowerment and job crafting for developing organizational citizenship behavior. This study is very critical in the development of employees of ICTs, as the results revealed by it can help in improving the manager's understanding related to the factors affecting organizational citizenship behavior. By investigating and understanding these factors, the managers of ICTs can develop effective strategies to enhance the OCB among their employees. The managers should have knowledge about the level of employees' organizational citizenship behavior and the factors that can influence it. Thus, the findings of this study have implications for ICTs managers who want to increase the organizational citizenship behavior of employees within the organization. The results suggest that psychological empowerment, conscientiousness, and job crafting are the factors that can enhance the organizational citizenship behavior of employees working in ICTs. Therefore, the practitioners facing the issue of lack of OCB within their organizations can focus on the findings of this research and work on PE and JC.

## 6. Limitations & Recommendations

This study has focused on the broad areas but still, it has different limitations which can be considered by future researchers. First, the research has only focused on the ICTs of Jordan, and future studies can emphasize the other sectors, particularly tourism. Second, the only one personality trait (i.e. conscientiousness) was taken as moderating and the studies in the future can use the other important personality traits.

## 7. Conclusion

Autonomous behaviors are difficult to understand, particularly in the organizational context but this research has emphasized the most important behavior (i.e. psychological empowerment) and its influence on job crafting. Moreover, the relationship between job crafting and organizational citizenship behavior was examined. The ultimate objective of this research is the development of OCB among ICTs employees. Therefore, first this study has examined the moderating role of conscientiousness in the relationship of PE and JC. Secondly, it analyzed the role of JC as a mediator between PE and OCB. The results highlighted that JC and psychological ownership both are necessary for the development of organizational citizenship behavior among employees.

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