The Impacts of Second Order Construct of Personal Resources on Employees' Job Performance and the Mediating Role of Affective Commitment: SEM Analysis Approach

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Abstract

The aim of the present paper is to examine the role of personal resources on employees' job performance and the mediating role of affective commitment. There are three antecedents of affective commitment including self-efficacy, organizational-based self-esteem, and optimism. The antecedents and affective commitment were proposed to enhance employees' job performance. The data of this study have been collected from a group of employees of Somaliland telecommunication sector through questionnaire survey. The data were analysed using SmartPLS. The findings revealed that both personal resources (self-efficacy, organizational-based self-esteem, and optimism), its second order construct and affective commitment have significant impact on employees' job performance. To close, affective commitment partially mediated the relationship between personal resources and employees' job performance.

Keywords
Personal Resources, Job Performance, SEM Analysis and Telecommunication Sector.

1. Introduction

In the field of work and organizational psychology, the concept of personal resources has emerged as of central importance to job performance in general (e.g., Rich, Lepine, & Crawford, 2010). Personal resources refer to the ability of a person to control the environment successfully because of resiliency and the individual's adaptability (Hobfoll *et al*., 2003; Bakker, Schaufeli, Leiter, & Taris, 2008; Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002). Xanthopoulou *et al*., (2009) highlighted that personal resources act in a similar way as job performance. As do job performance, personal resources secure the employee from hectic situations and its costs; furthermore, such resources support in goal achievement contributing to growth and improvement. These resources also act as a proximal predictor of work engagement (Xanthopoulou et al., 2009), which helps in understanding the relationship among dedication, absorption and vigor (Bakker and Xanthopoulou, 2013). In the context of telecommunication, quality care services can be provided to employees by the good performance of employees in the telecommunication industry. Thus, job performance is basically the effectiveness of employees in completing their assigned tasks on the care of their tasks (Xanthopoulou *et al*., 2009). According to Schaufeli, Bakker, and Salanova (2006), employees with strong personal resources have an energetic and effective connection with work, and feel able to cope with demands at work, in contrast to employees with weak personal resources (Lepine, & Crawford, 2010). Motivating characteristics of the job (job resources), together with aspects of the self-related to resilience (personal resources), have been found to be important for the development of job performance (Bakker & Demerouti, 2008). Interestingly reciprocal relations have also been found, such that the presence of particularly job resources but also personal resources leads to job performance, which in turn leads to more resources (Demerouti, & Schaufeli, 2009). The

purpose of this study is to examine the effects of personal resources (namely self-efficacy, organizational-based self-esteem, and optimism) on job performance mediated by affective commitment in the context of Somaliland's Telecommunication Technology sector. The following sections will explain the literature, starting from job performance, followed by personal resources, affective commitment and their relationships. The third section will explain the methodology. The fourth section will explain the results, including validity, model fit indicators and summary of effect. The fifth section will discuss the findings, and at last, the implications and future research directions.

2. Job Performance

Job performance measures an individual against his or her goal, with an emphasis on whether outcomes match the expected goal (Thorndike, 1913). Hall and Goodale (1986) pointed out that job performance is how an employee performs his or her tasks using time, techniques and interactions with others. Schermerhorn (1989) held that job performance represents the quantity and quality of work achieved by an individual or a group, stressing whether the task has been achieved effectively. However, Organ (1977) indicated that the meaning of performance defined narrowly as quantity of output or quality of task performance might be the reason that no relationship was found between job satisfaction and job performance. Similarly, Fisher (1980) noted that general attitudes (job satisfaction) can influence behavior (job performance) only when behavior is measured in broad manner. He further suggested that attendance, compliance, coordination and devoting personal time to work should be considered in the measurement of individual performance. Katz and Kahnn (1966) have emphasized the influence of extra-role behaviors on organizational functioning. These behaviors that cannot be prescribed or required in advance of a given job, such as helping co-workers, protecting organizational resources and promoting a good work climate, are referred by Bateman and Organ (1983) as "Citizenship" behaviors. These extra-role behaviors, although not officially described in job descriptions, are appreciated by management authorities. Organ (1988a) further addressed "performance" as "organizational citizenship behavior (OCB)" and pointed out that OCB neither has a direct linkage with individual productivity nor is a compulsory requirement for the individual's in-role performance. Meanwhile, Organ (1988b) identified OCB with five dimensions: Altruism, Courtesy, Civic Virtue, Conscientiousness and Sportsmanship. To understand variation in citizenship behavior among different cultures, similar constructs have been developed in a Chinese context, which consist of identification with the company, altruism toward colleagues, conscientiousness, interpersonal harmony and protection of company resources (Farh *et al*., 1997). Following the views of extra-role behaviors mentioned above, Borman and Motowidlo (1993, 1997) categorized job performance into task performance and contextual performance. Task performance is the traditional in-role performance, which is the most basic component of performance appraisal; it directly assesses task outcomes and relates directly to work effectiveness that contributes to the organization's technical core. Contextual performance borrows from OCB or extra-role behavior; it may stem from personality traits and is unrelated to in-role expectations. Contextual activities include volunteering to carry out task activities not formally part of the job and helping and cooperating with others in the organization to get tasks accomplished (Borman and Motowidlo, 1997). We adopted the view of Borman and Motowidlo and measured job performance by both task performance (in-role performance) and contextual performance (extra-role performance or OCB).

3. Personal Resources

Personal resources are the ability of a person to control the environment successfully because of resiliency and the individual's adaptability (Hobfoll et al., 2003). Furthermore, Xanthopoulou *et al*. (2009) highlighted that personal resources act in a similar way as job performance. As do job performance, personal resources secure the employee from hectic situations and its costs; furthermore, such resources support in goal achievement contributing to growth and improvement. These resources also act as a proximal predictor of affective commitment (Xanthopoulou *et al*., 2009), which helps in understanding the relationship among different types of organizational commitment (Bakker and Xanthopoulou, 2013). Employees that have high levels of personal resources usually invest their energy for gaining experience and to meet the expectations of the job (Luthans and Youssef, 2007). In addition, Bhatti *et al*. (2018) argued that personal resources might help employees enhance affective commitment and job performance. Higher personal resources result in more self-concordance and goal achievement because of positive self-regard,

which ultimately gives satisfaction (Judge et al., 2005; Luthans and Youssef, 2007). In this regard, self-efficacy and personality are those resources which can enhance performance. This, in turn, results in high productivity, which then leads to higher employees' satisfaction and ultimately, greater employee retention.

3.1 Relationship between Job Resources and Personal Resources

Personal resources with job performance are essential for employees' psychological well-being (Parker & Hyett, 2011). Personal resources reduce job demands, therefore, when Personal resources are lacking, the job demands will remain high and will foster low job performance through burnout (Schaufeli & Bakker, 2004). Managers can create a supportive climate and prevent employee burnout by showing concern for employees' well-being, valuing their work, helping their career development (Paterson et al., 2014), and not intruding into their personal lives by making inappropriate adjustments to schedules and workloads and unfairly increasing job demands (Dollard & Bakker, 2010). High levels of personal resources help employees cope with demands and avoid emotional exhaustion. Previous studies in various work contexts have shown that personal resources were negatively related to emotional exhaustion and cynicism. Jimenez and Dunkl (2017) examined the relationships among areas of work life, Personal resources and burnout and identified workload and reward as the most important predictors of burnout. Workload was a significant predictor of emotional exhaustion and cynicism and reward was an important predictor of cynicism. These authors explain that a lack of Personal resources "contributes to feelings of inefficacy and meaninglessness which can be precursors for cynicism" (Jimenez & Dunkl, 2017).

3.2 Relationship between Personal resources and Affective commitment

Because Personal resources play an intrinsic and extrinsic motivational role - either through the satisfaction of basic needs or through the achievement of work goals – it is likely that it will lead to higher levels of employees (Schaufeli & Bakker, 2009). Personal resources such as self-efficacy, organizational-based self-esteem, and optimism have been shown to predict affective commitment (Nahrgang et al., 2011; Brunetto et al., 2014; Alzyoud et al., 2015). Xanthopoulou *et al*. (2009) state that employees who have supportive colleagues, who receive good quality coaching, feedback, and opportunities for professional development, and who have more autonomy are more likely to attached to their organization. Mauno *et al*. (2007) investigated the role of job demands and personal resources on affective commitment among health care personnel and found that job resources predicted work engagement better than job demands. Saks (2006) found that personal resources predicts organizational commitment and that employees "who perceive higher resources are more likely to reciprocate with greater levels of commitment in their job". In an international study where employees from China, India, the United Kingdom and the Netherlands were included, it was found that employees who received more performance feedback, development opportunities, task variety and autonomy were more committed in their work. The findings of the study also showed that the perception of power distance between managers and employees influence affective commitment, meaning that how employees conceptualize authority varies their degree of work engagement (Zhang, 2013). A poor relationship between management and employees can mean "job demands swamping employees until they become disengaged" (Brunetto et al., 2014: 2348). Therefore, managers can mitigate high job demands by improving personal resources, keeping employees engaged and boosting well-being. The following hypotheses are proposed.

4. Research Design

Data collection for this study was conducted through the use of a questionnaire. Although the sampling method was random, an attempt was made to include a variety of companies in order to obtain a fairly diverse sample in terms of work sectors. According to Helen & Thomas, (2012), sampling is the process whereby some elements from the population are selected to represent the whole population. Sample size is the number of units that is required to get accurate findings (Fink, 2003). For the purpose of this paper, a sample of a group of 183 employees (126 men, 68.9%; 57 women, 31.1%) from Somaliland Telecommunication sector. The majority of participants (36.1%) were between thirty and thirty-four years of age and held a bachelor degree (57.4%). Their mean organizational tenure was less than one year (39.9%), and the response rate was 87.1%.

Affective commitment: We have chosen to use the five-item Meyer and Allen (1997) scale, which has been commonly used and validated in recent studies on organizational commitment. These items measure the emotional attachment of the employee, his/her identification with and involvement in the organization or his/her desire to remain a member. Response options for all items ranged from 1 (strongly disagree) to 5 (strongly agree).

Job performance: We used the seven-item scale developed by Williams and Anderson (1991), which continues to be a scale of reference for measuring job performance. The items in this scale measure the frequency of behaviors assessed by the formal employee evaluation system and which are outlined in the employee job description. This and all subsequent measures utilized a five-point scale ranging from 1 (strongly disagree) to 5 (strongly agree).
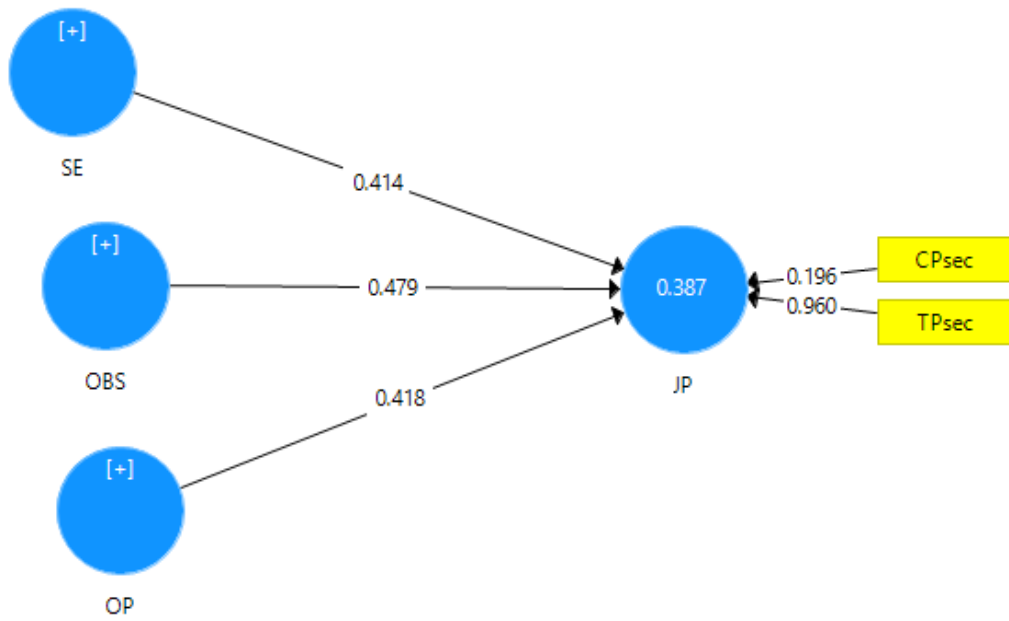
Personal resources: We used the eight-item scale developed by Chen *et al*. (2001), which continues to be a scale of reference for measuring personal resources. The items in this scale measure the frequency of behaviors assessed by the formal employee evaluation system.

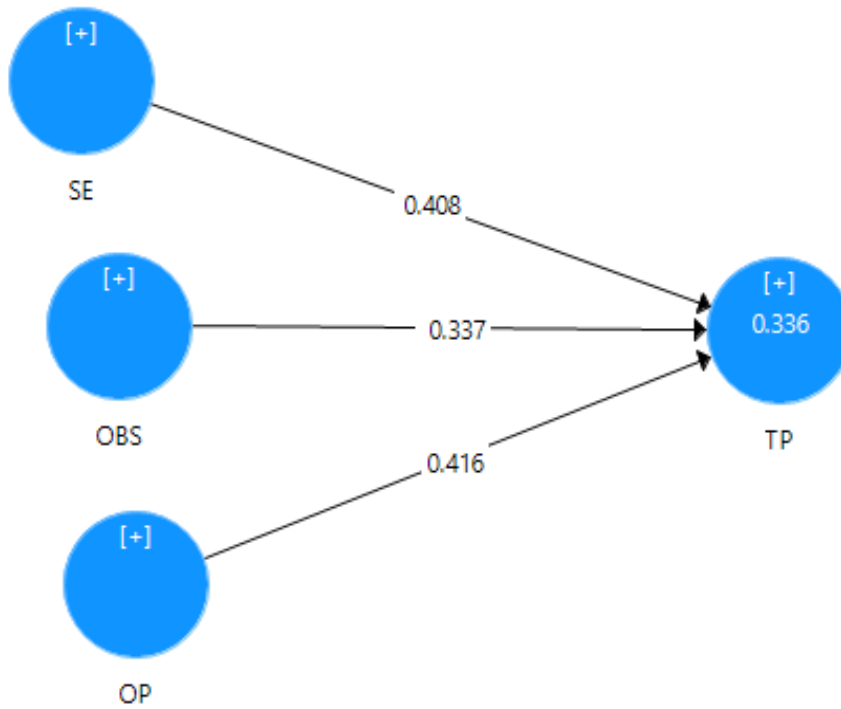## 5. Research Findings and Data Analysis

The measurement model was assessed using confirmatory factor analysis (CFA) and SmartPLS 3. Construct validity was tested by assessing the model for convergent and discriminant validity (Hair et al., 2010). Cconvergent validity was assessed by considering outer loadings, average variance extracted, composite reliability and Cronbach's alpha. To demonstrate convergent validity, the standardised loadings (in SmartPLS, outer loadings) in the model should be 0.70 or higher, and items with a loading of less than 0.4 are excluded (Hair et al., 2011). The average variance extracted (AVE) should be 0.50 or higher. The composite reliability (CR) value and α of each latent variable should be 0.70 or higher (Hair et al., 2010). Discriminant validity was assessed by using the method described in Fornell and Larcker (1981), which entails comparing the square root of the AVE for each pair of constructs in the model with the correlation between the two constructs. For evidence of discriminant validity, the square root of the AVE of two constructs must be higher than the correlation between the two constructs. Cross-loadings can be inspected for evidence of discriminant validity (Hair et al., 2011).

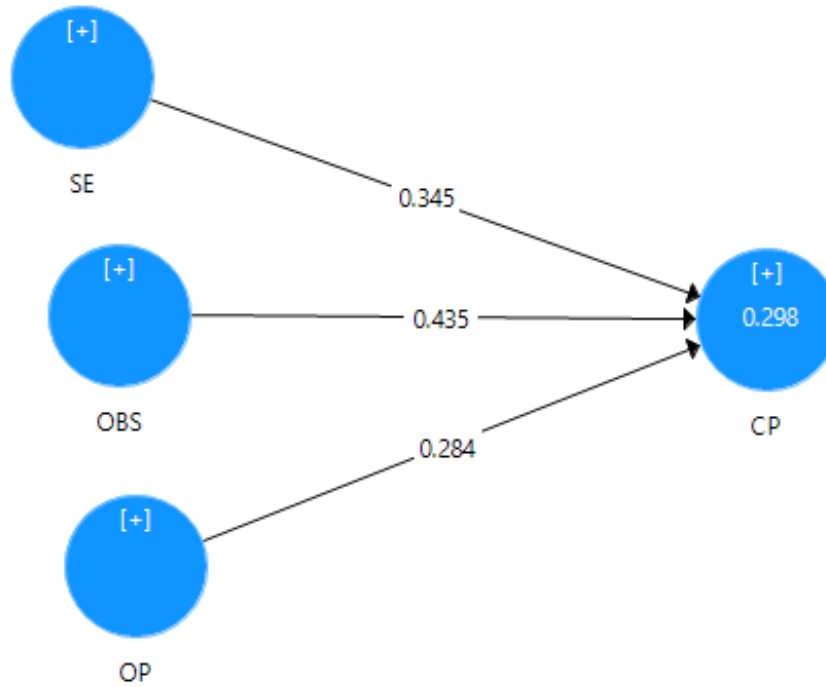### 5.1 The Effects of Personal Resources on Employees' Job Performance

The three first-order dimensions of personal resources including self-efficacy, organizational-based self-esteem and optimism were proposed as independent constructs and linked directly to the dependent constructs job performance (JP as second order formative construct), task performance (TP) and contextual performance (CP) as shown in Figure 1. Figure 1a shows the direct linkage of the three first-order dimensions of personal resources including self-efficacy, organizational-based self-esteem and optimism with the second order formative construct of job performance. The results revealed that job performance reported R^2 of .387 with positive, moderate and weak, and significant relationships from all variables of personal resources. Figure 1b displays the association between the three first-order dimensions of personal resources (self-efficacy, organizational-based self-esteem and optimism) and task performance. The results revealed that task performance reported R^2 of .336 with positive, weak and significant relationships from all dimensions of personal resources. Figure 1c illustrates the relationship between the three first-order dimensions of personal resources (self-efficacy, organizational-based self-esteem and optimism) and contextual performance. The results show that contextual performance reported R^2 of .298 with positive, weak and significant relationships from all dimensions of personal resources without any exception. Table 1 summarizes the effects of first order dimensions of personal resources on employees' job performance. Figure 2 illustrates the effects of second order formative construct of personal resources on employees' job performance (JP: second order construct), task performance (TP) and contextual performance (CP). Figure 2a presents the direct connection between personal resources second order construct and the second order construct of job performance. The result showed strong positive and significant path coefficient of .796 with R^2 value of .633 between the two constructs. In addition, it shows that all outer weights between the three indicators and their formative construct of personal resources are significant. Similarly, the outer weights between the two indicators and their formative construct of job performance are significant. Figure 2b shows the direct association between the second order construct of personal resources and task performance. The results have shown strong, positive and significant path coefficient of .756 between the two constructs. The analysis also reported an R^2 value of .572. In addition, it has shown that all outer weights between the three indicators and their formative construct are significant.
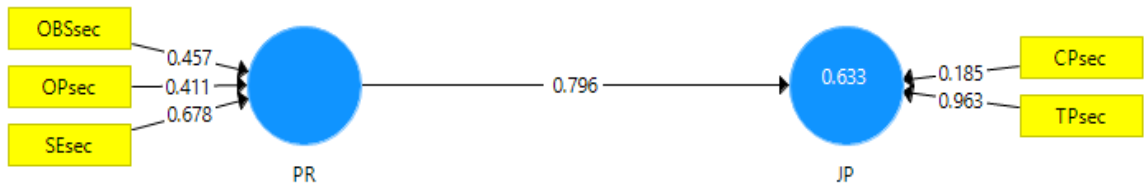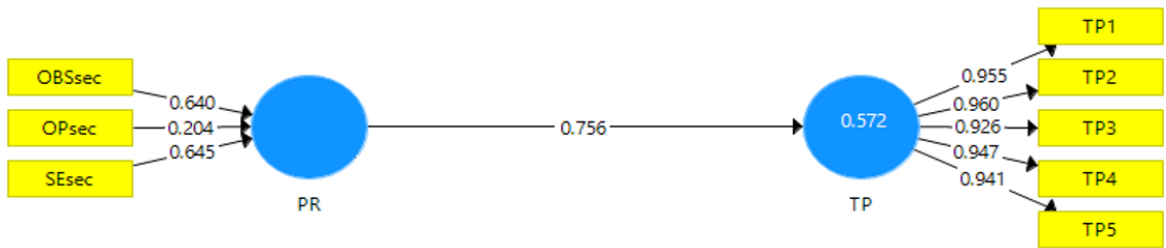
(a)

(b)

(c)

Figure 1: The first order analysis of Personal resources dimensions.

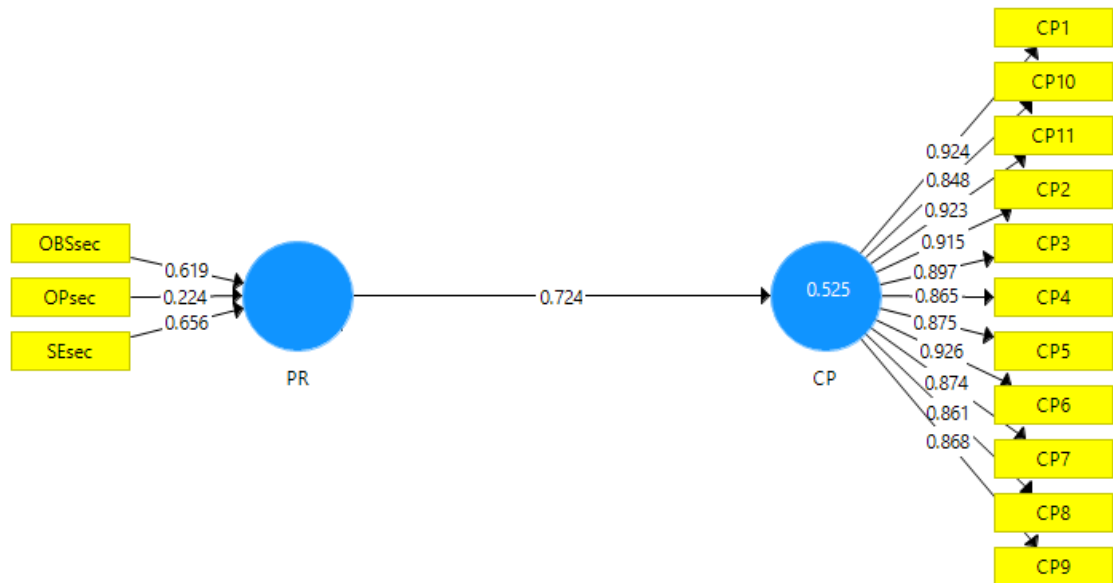Table 1: Effects of first order dimensions of personal resources on job performance

Dependent Construct	Independent constructs	Path Coefficient	T Statistics	R^2
Job Performance				**.387**
	Self-efficacy	.414	4. 678	
	Organizational-based self-esteem	.479	5.655	
	Optimism	.418	4.852	
Task Performance				**.336**
	Self-efficacy	.408	4.413	
	Organizational-based self-esteem	.337	3.899	
	Optimism	.416	4.773	
Contextual Performance				**.298**
	Self-efficacy	.345	3.833	
	Organizational-based self-esteem	.435	5.005	
	Optimism	.284	3.365	

(a)

(b)

(c)

Figure 2: The second order analysis of Personal resources construct: (a) PR and JP, (b) PR and TP, (c) PR and CP.
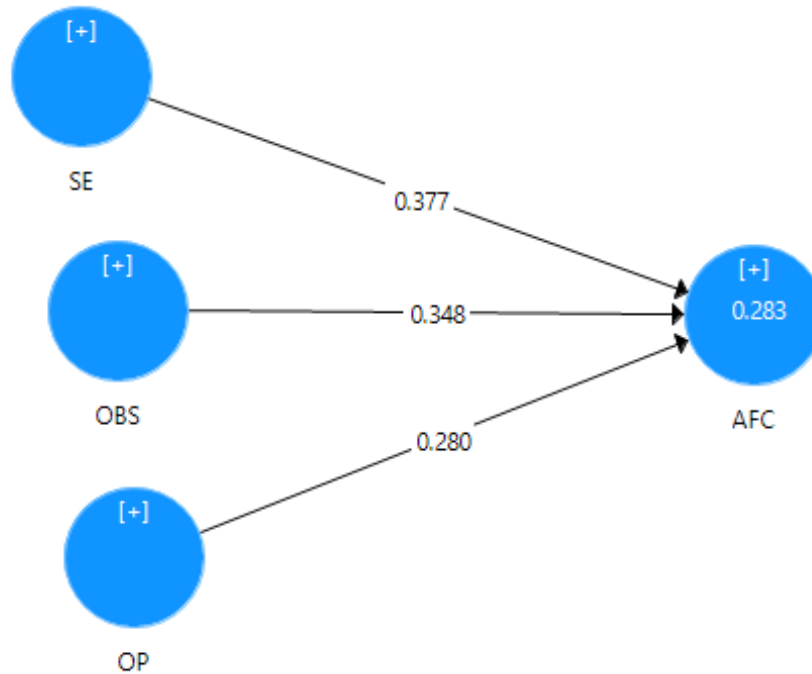
Figure 2c represents the relationship between the second order construct of personal resources and contextual performance. A strong positive and significant path coefficient of .724 between the two constructs was documented. The results shown a value of R2 of .525, also it was shown that all outer weights between the three indicators and their formative construct are significant. Table 2 summarizes the effects of second order construct of personal resources on employees' job performance.

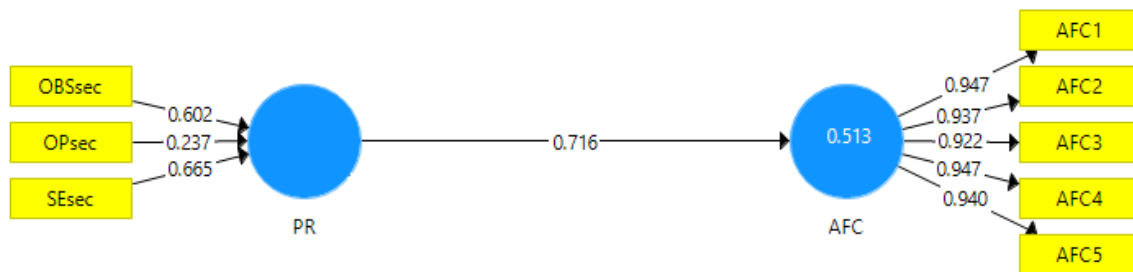Table 2: The effects of second order construct of job resources on job performance

Dependent Construct	Independent constructs	Outer Weight	T Statistics	Path Coefficient*	R²
Job Performance	**Personal Resources**			.859	**.737**
	Self-efficacy	.422	4.982		
	Organizational-based self-esteem	.615	5.428		
	Optimism	.172	2.412		
Task Performance	**Personal Resources**			.769	**.591**
	Self-efficacy	.128	2.174		
	Organizational-based self-esteem	.552	4.827		
	Optimism	.133	2.249		
Contextual Performance	**Personal Resources**			.762	**.581**
	Self-efficacy	.136	2.158		
	Organizational-based self-esteem	.553	5.108		
	Optimism	.153	2.239		

5.2 The Effects of Personal Resources on Affective Commitment

The third research question of the present study mentioned the effects of personal resources (PR) on affective commitment, turnover over intentions and work engagement of the employees in Somaliland Telecommunication Technology sector. This section discussed the role of personal resources on affective commitment and turnover intentions only. The relationship between personal resources' indicators and affective commitment (AFC) and turnover intentions (TOI) was illustrated in Figure 3. Figure 3a demonstrates the direct linkage between the three first-order dimensions of personal resources (self-efficacy, organizational-based self-esteem and optimism) and affective commitment. The results demonstrated that affective commitment reported R2 of .283 with positive, weak and significant relationships from all constructs. Figure 3b illustrates the direct connection between the second order construct of personal resources and affective commitment. The results displayed a positive and significant path coefficient of .716 with an R2 value of .513. Furthermore, it revealed that all outer weights between the three indicators and their formative construct are significant, without any exceptions.

(a)

(b)

Figure 3: The analysis of Personal resources and affective commitment (a) Personal resources dimensions and Affective Commitment and (b) The second order analysis of Personal resources dimensions and Affective Commitment

5.3 The Mediation Role of Affective Commitment

This section tests empirically the proposed mediation research hypotheses, which are concerned with analyzing the mediation roles of work attitudes (affective commitment, work engagement and turnover intentions) between independent constructs (job demands and resources, and personal resources), and employees job performance. According to Baron & Kenny (1986), in order for a mediation to be present four criteria must be met: (1) A significant relationship must be demonstrated between independent variable (IV) and the mediator (M); (2) A significant relationship must be demonstrated between independent variable and dependent variable (DV) in the

absence of the mediator; (3) Mediator must have a significant unique effect on independent variable; and (4) The effect of independent variable on dependent variable must shrink with the addition of the mediator to the model (Christian et al., 2016). A perfect mediation occurs when no relationship is observed between the independent variable and the dependent variable as the mediator variable is introduced into the regression equation (Christian et al., 2016; Baron & Kenny, 1986). Therefore, these criteria can be used to informally judge whether or not mediation is occurring, but Joana & Mary, (2017) have popularized statistically based methods by which mediation may be formally assessed. To test the work attitudes-mediating effect by using PLS-SEM; this study used the three steps presented in Table 3 as recommended by Christian et al., (2016).

Table 3: Steps for Testing Mediation Effects

Steps	Action	Result	Interpretation
1	Test significance of the direct effect without including the mediator	Not significant	No mediating effect
		Significant	Proceed to step two
2	Test significance of the indirect effect with including the mediator	Not significant	No mediating effect
		Significant	Proceed to step three
3	Test the strength of the mediation by calculating variance account for (VAF)	VAF > 80%	Full mediation
		$20\% \leq VAF \leq 80\%$	Partial mediation
		VAF < 20%	No mediation

Step one is concerned with the assessment of the significance of the direct effect between the independent and the dependent construct without including a mediator construct. The investigation is extracted from (PLS-SEM) by conducting bootstrapping procedure as recommended by Christian *et al.*, (2016). Path coefficient and T-values are provided by (PLS-SEM) bootstrapping procedure. If the direct effect without a mediator is not significant, it is indicative of no mediating effect. On the other hand, if the direct is significant, further assessment is conducted by the following step (Step two).

Step two, after proving the significance of the direct relationship between the constructs, the indirect effect relationship by including the mediator is assessed. Again, the investigation is extracted from (PLS-SEM) by conducting bootstrapping procedure as recommended by Christian *et al.*, (2016). An illustration of mediation process is shown in Figure 4. Where a, b, and c are path coefficients. (a) Represents the path coefficient between the independent construct and the mediator, (b) represents the path coefficient between the mediator and the dependent construct, (Sa) represents standard deviation error of path (a), and (Sb) represents standard deviation error of path (b). The significance of the indirect effect is calculated manually by using Sobel's Formula (Sobel, 1982) (1). If the indirect effects are reported as not significant, this indicates that no mediating effect occurred. Nevertheless, if it is significant, further assessment is conducted using the following step (Step three).

$$z = \frac{a*b}{\sqrt{b^2*s_a^2 + a^2*s_b^2}} \tag{1}$$
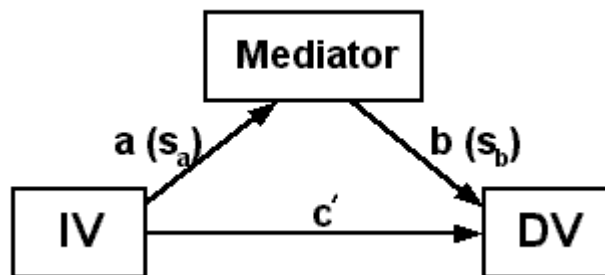

Figure 4: A simple statistical mediation model (Hair et al., 2014)

Step three: after confirming the significance of the direct effect (Step one) and indirect effect (Step two), testing the strength of the mediating construct is the last step. This kind of assessment can be done using variance accounted for (VAF) (Christian et al., 2016; Hair et al., 2014), which can be calculated by using equation (2):

$$VAF = \frac{Indirect\ effect}{Total\ effect} = \frac{a*b}{a*b+c} \tag{2}$$

(a) Represents the path coefficient between the independent construct and the mediator, (b) represents the path coefficient between the mediator and the dependent construct, while (c) represents the path between the independent construct and the dependent construct, as illustrated in Figure 5.24. According to Hair *et al*. (2014), one can interpret (VAF) values in the following way: VAF > 80% indicates full mediation, 20% ≤ VAF ≤ 80% means partial mediation, and VAF < 20% indicates no mediation. Therefore, in order to test the mediation effect of affective commitment as shown in Figure 5, PLS-SEM bootstrapping procedure was conducted. Table 5 summarizes the effect values in addition to T-values and P values (calculated by using excel functions) for the proposed hypotheses paths.
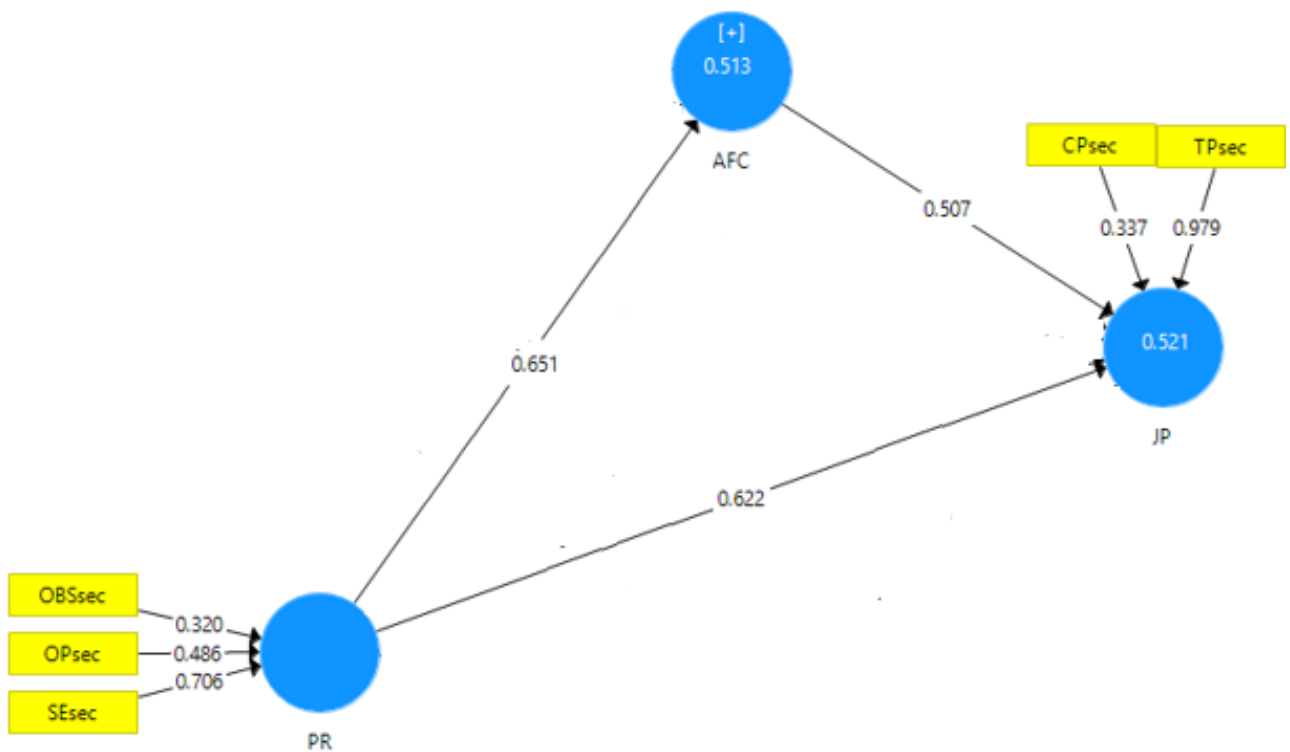

Figure 5: Mediation effect of Affective commitment.

Table 5: Mediation Analysis

Values	Without mediator	With mediator		Variance accounted for (VAF)	Mediation Type
	Direct effect	Direct effect	Indirect effect		
	PR→JP	PR→JP	PR→AF→JP		
Effect value	.622	.507	.651	30.82%	Partial Mediation
t Value	9.227	7.881	7.324		
p Value	.000	.000	.000		

The mediating effect off affective commitment was tested between personal resources (PR), and employees' job performance (JP). The results showed that the direct effect of the relationship between PR, and JP without the presence of affective commitment is positive and significant, for example (β= .622, t-value 9.227). In addition, the indirect effect is the product of the direct effect between PR and affective commitment, as well as between affective commitment and job performance, and the results revealed that the indirect effect of PR, via the affective commitment mediator construct, on job performance is significant for example (β= .651, t-value 7.324). To test the strength of the mediating effect, variance accounted for (VAF) value was calculated and showed a value of 30.82%, which indicated that about 30.82% of the total effect of PR onto JP is explained by the indirect effect. In other words, Affective commitment partially mediated the relationship between PR and JP.

6. Conclusion

Personal resources reflect positive psychological state development of an individual. The results found support for the proposed conceptual claim and confirm that affective commitment mediates the relationship between personal resources and with multidimensional construct of job performance. Hence, the findings of this research contribute by helping the Somaliland Telecommunication industry in the development of employees' psychological state. As personal resources have direct effects on job performance of employees and are indirectly affected through job commitment, the findings of the present study offer information regarding factors affecting job performance and affective commitment of employees. Future researchers should test this framework in other settings in order to further generalize the findings. Furthermore, future researchers should examine the effects of other personal factors, such as, locus of control and work engagement in order to further extend the boundaries of knowledge.

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Biographies

Abdul Talib Bon is Professor of Technology Management in Department of Production and Operations Management, Faculty of Technology Management and Business at the Universiti Tun Hussein Onn Malaysia. He has a PhD in Computer Science, which he obtained from the Universite de La Rochelle, France in the year 2008. His doctoral thesis was on topic Process Quality Improvement on Beltline Moulding Manufacturing. He studied Business Administration major in Quality Management at the master's level in the Universiti Kebangsaan Malaysia for which he was awarded the MBA in the year 1998. He's bachelor degree and diploma in Mechanical Engineering which his obtained from the Universiti Teknologi Malaysia. He received his postgraduate certificate in Mechatronics and Robotics from Carlisle, United Kingdom in 1997. He is Director of Teaching Factory and Manager of Centre for Technology (Furniture Innovation Technology) from 1 September 2016 and Head of Program Bachelor of Technology Management (Furniture Design and Manufacturing) with Honours from 2014 until 2017. Before this he was the Deputy Dean (Research and Development) at the Faculty of Technology Management and Business in the Universiti Tun Hussein Onn Malaysia from 2008 until December 2011. Dr. Abdul Talib Bon has had over 30 year experience of teaching in higher learning education. A major part of his teaching experience involves teaching mechanical engineering students in polytechnics. However, from the year 1999, he was given the opportunity to be jointed in the Institut Teknologi Tun Hussein Onn (ITTHO), Universiti Teknologi Malaysia as a lecturer in Mechanical Engineering Department. In this institute, he teaches engineering management and quality control at the under-graduate level. Dr. Abdul Talib Bon has multidisciplinary research interests that encompass industrial engineering, quality management and production and operation management. His completed 17 research grant projects as project leader include applications of forecasting in industries. His current research project is looking into developing process quality improvement (PQI) in manufacturing industries. He has supervised more than 90 undergraduate and postgraduate research projects. He has served as a reviewer for a number of engineering management and computer science conferences and journals as part of his expertise sharing initiatives. He had published more than 180 International Proceedings and International Journals and 8 books. He is also Fellow and President of Industrial Engineering and Operation Management Society (IEOMS, Malaysia), Professional Technologist of Malaysia Board of Technologists (MBOT), Council member of Management Science and Operation Research Society of Malaysia (MSORSM), member of International Association of Engineers (IAENG), member of Institute of Industrial Engineer (IIE), USA, member of International Institute of Forecasters (IIF), member of Technological Association of Malaysia (TAM) and associate member of Malaysian Institute of Management (AMIM).