MEDIATING EFFECT OF AUTONOMY IN THE RELATIONSHIP BETWEEN JOB KNOWLEDGE, JOB MOTIVATION, JOB SATISFACTION AND JOB PERFORMANCE AMONG PUBLIC SECTOR EMPLOYEE

AYMAN A. S. ALMUSADDAR¹, SARA RAVANRAMZAN² & VALLIAPPANRAJU²

¹Research Scholar, Limkokwing University of Creative Technology, Cyberjaya, Malaysia
²Senior Lecturer, Limkokwing University of Creative Technology, Cyberjaya, Malaysia

ABSTRACT

The purpose of this study is to examine the mediating role of autonomy in the relationship between job knowledge, job satisfaction, job motivation and job performance. The sample used in this study includes 252 responses from public sector employees (municipalities) mainly middle management collected through a structured questionnaire. The study used Partial Least Square (PLS) analysis technique using the SmartPLS 3.2.7 software. Findings confirmed that autonomy, knowledge, motivation, and satisfaction were the key constructs for promoting performance among public sector employees in Palestine. Furthermore, the importance-performance matrix analysis (IPMA) has shown that autonomy was the most important factor. Where, the autonomy was the most influential factor in the prediction of employee performance followed by motivation, satisfaction, and knowledge respectively. The municipalities must focus on how to provide autonomy and promote motivation at municipalities. Also, the study results stated that autonomy mediates the relationship between knowledge and performance; motivation and performance; and satisfaction and performance.

KEYWORDS: Knowledge, Motivation, Satisfaction, Performance & Autonomy

INTRODUCTION

It has come to be widely held that strengthening municipalities and other local level agencies are important because many policy choices can best be made at the local level where local needs and preferences are clearly felt and articulated, and implementation is best left to institutions at the local level. Municipalities have much experience in service delivery at the local level which can be developed and built upon for a more effective performance; municipalities can also be the focal points for the coordination of the various governments and agencies involved in local government (UNDP, 2015; Enshassi et al., 2014, Enshassi et al., 2017).

However, sustainability of high performance in work organizations and local authorities has been the mainstay of business consultants, as many aspects of performance are becoming increasingly important nowadays such as job knowledge, job satisfaction and employee motivation, as the modern workplace continues to change in terms of its complexity and unpredictability (Worthington, 2008; De Waal, 2010; Salama et al., 2017).

The municipalities trends and attitudes were concerned with high performance in delivering their services utilizing human resource management and administrative system (UNDP, 2017; WHO, 2017). Thus, the municipalities become more responsive to internal and external needs and requirements of the organizations as well as the employees, so they look for employees who are equipped with high skills, knowledge, motivation, and...
confidence as well as hardworking and talented ones in some specific jobs to survive and meet their needs. However, the success of an organization depends on the effective performance, so the leadership and managers within the organization should strive to select and develop the most talented individuals through evaluation of their knowledge, motivation, and satisfaction utilizing self-evaluation models (Kuvaas, Buch, Gagné, Dysvik, & Forest, 2016).

Cognitive aptitude and abilities were very important in predicting the level of performance, and motivational process, satisfaction, knowledge, and employee’s perception were linked to individual differences in performance outcome (Roeser, Shavelson, Kuermintz, Ayala, Haydel, Schultz, Gallagher & Quihuis, 2002; Kell and Lang, 2017).

Job knowledge is classified as the knowledge that employees have of subtasks to be achieved within a given task and the procedures used to achieve these actions or tasks. However, organizations identify job knowledge as the technical information, facts, and procedures required for the job (Palumbo, 2007; Dover, 2016).

Since all organizations are concerned with what should be done to achieve sustained high levels of performance through people, it means giving close attention to how individuals can be best motivated through means such as incentives, rewards and importantly, the work they do and the organizational context within which they carry out that work cannot be understated (Armstrong, 2010; Osabiya, 2015).

Motivation is defined as the process that accounts for an individual’s intensity, direction, and persistence of effort toward attaining a goal (Page, 2008). Motivation either intrinsic or extrinsic contributes to employee satisfaction and thus enhances performance and productivity (Storey, 2007; Osabiya, 2015) and it is expressed by Lawler (2003) that treating people right is not an option but a necessity.

Furthermore, Motivation is defined as a set of interrelated beliefs and emotions. These beliefs and emotions drive and influence behavior (Martin and Dowson, 2009).

The real understanding of the responsibility on the Palestinian local authorities, aware of the need for a permanent evaluation as a process, because of their results raising the efficiency of workers, and it is known that the person or institution if he feels that there is a case of censorship and a state of continuous follow-up, the performance will go to the best level.

High-level performance is considered the main request for all organizations working in private and public sector that depend on individuals for achieving its immediate and long-term goals Meneghel, Borgogni, Miraglia, and Martínez, (2016). However, high-level performance needs close monitoring for employee’s knowledge, motivation and satisfaction and how they react to achieve the organization goals. Where, Menguc, Yeniaras, and Katsikeas, (2017) found the increasing level of job performance consequently will lead to high results and services outcome.

The current study will examine the impact between job performance, job knowledge, job satisfaction and job motivation among individuals from middle management in five main municipalities with the objective of using autonomy for improving middle management practice.

LITERATURE REVIEW

Self-determination theory (SDT) is an empirically based, organismic theory of human behavior and personality development. SDT’s analysis is focused primarily at the psychological level, and it differentiates types of motivation along with a continuum from controlled to autonomous (Ryan and Deci, 2017).
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Recent studies indicated that there are several factors playing role in raising the level of job performance such as motivation, satisfaction and job knowledge (Kuvvas et al, 2016; Kianto, Vanhala and Heilmann 2016; ÖLÇER, 2015; Olafsen, Halvari, Forest, & Deci, 2015).

Where, Self-determination theory (SDT) suggests that the social environment influences intrinsic motivation through its impact on need satisfaction or perceptions of autonomy, competence, and relatedness (Ryan and Deci, 2017). Furthermore, a recent study by Kuvaas et al (2016) reported a strong relationship between intrinsic motivation and self-reported work performance among typical knowledge-workers.

Autonomy

Autonomy defined as the need to feel a sense of choice (Deci and Ryan, 2000; Rayan and Deci, 2017); and defined by DeCharm as the experience of volition and self-endorsement of one’s actions (deCharms, 2013); where Hackman and Oldham (1976) defined autonomy in terms of ‘substantial freedom, independence and discretion to the individual in scheduling the work and in determining the procedures to be used in carrying it out’.

\[ H^1: \] Autonomy is significantly influences job performance.

Job Knowledge

Job knowledge considered an essential factor in determining the employment eligibility for a specific job in any organization. Thus, job knowledge used for staff selection, recruitment, placement, training and development in different organizations as mentioned by Kuvvas et al (2016). In industry, written job knowledge tests are used for candidate selection, job placement, and organizational advancement (Palumbo et al, 2005; Dover, 2016).

The current organizational structure defines job knowledge as technical information, facts, and procedures required to do the job (Hunter, 1993), where Landy et al (2017) assessed job knowledge through “written measures of facts, principles, and so forth, needed to perform the job .”

\[ H^2: \] Job knowledge is significantly influences job performance.

\[ H^3: \] Job knowledge is significantly influences autonomy.

\[ H^4: \] Autonomy significantly mediates the relationship between job knowledge and job performance.

Job Satisfaction

Job satisfaction defined as “feelings or affective responses to facets of the (workplace) situation” (Smith et al, 1969). In other words, it means your internal responses and acceptance for the work (i. e are you enjoyed the work? Are you satisfied and accepted your chance?). Where Locke (1976) stated that pleasurable state of mind and emotional status that arises due to appraisal from managers or a good job is done. According to Kraut (1998), job satisfaction can be defined as the extent to which people like (satisfaction) or dislike (dissatisfaction) their jobs.

In the recent studies, job satisfaction has been defined as a concept that includes all characteristics of the job and works environment that is rewarding, satisfying and fulfilling for employees (Boles et al., 2009). Job satisfaction refers to the state in which employees take pleasure from their work or the positive and emotional state of the employee after appraisal of his or her job and performance (Shaikh et al., 2012).
Job Motivation

Motivation is considered a human drive to do something or task effectively with joy and pleasure during the act of the required task. Kant et al. (2002) stated that motives drive human activities and the motive must be of a certain kind (Kant, Wood, & Schneewind, 2002).

Whereas, Deci and Ryan (2000) proposed that the motivation that is the focus in expectancy theory is of an extrinsic nature since it refers to performing an activity with the intention of attaining positive consequences (e.g., obtaining a reward) or avoiding negative consequences (e.g., avoiding a punishment).

Motivation theorists often classify motivation into two different classes: extrinsic and intrinsic motivation as the different causes that lead to action (Deci, 1972; Scott, Farh, & Podsakoff, 1988).

- H8: Job Motivation is significantly influences job performance
- H9: Job Motivation is significantly influences autonomy.
- H10: Autonomous significantly mediates the relationship between job motivation and job performance.

Job Performance

Murphy stated that Job performance, or “the set of behaviors that are relevant to the goals of the organization or the organizational unit in which a person works”, remains a primary concern for organizational behavior researchers (Murphy, 1988).

Where Motowidlo and his colleagues (1997) say that rather than solely the behaviors themselves, performance is behaviors with an evaluative aspect. This definition is consistent with the dominant methods used to measure job performance, namely performance ratings from supervisors and peers (Newman, 2004).

Furthermore, due to the significance of job performance in different fields and jobs, where high quality is very important, it is highlighted in various studies that concerned with job performance. Job performance classified as task
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performance and contextual performance as suggested by (Motowidlo et al, 1997) that performance can be divided into two parts, task, and contextual performance.

METHODS

Research Design

This research is a descriptive study that aims to examine the impact of job knowledge, job satisfaction, job motivation, autonomy and job performance among employees of middle management at the five main municipalities in Gaza Strip, Palestine. The research was designed in accordance with the principle of cross-sectional study, whereby the data collection is gathered just once. The independent variables of this research are job knowledge, job satisfaction, and job motivation, and the dependent variable is job performance, in the light of autonomy as a mediator. Thus, this study is carried out based on positivist principles (Becker et al, 2012), the approach used to examine the influence of autonomy in the relationship between knowledge, satisfaction, and motivation to improve the performance in Palestinian Municipalities in Gaza Strip.

Sample Size

The study sample consisted of 252 participants as a convenience sample from the middle managerial staff from the main 5 local authorities in Gaza Strip. Convenience sampling is defined as a process of data collection from a population that is close at hand and easily accessible to the researcher (Rahi, 2017). Hair et al (2015) illustrated that convenience sampling allows a researcher to complete interviews or get responses in a cost-effective way. Comrey and Lee (1992) stated that sample size of 50 is very poor, while 100 is poor, 200 is reasonable, 300 is good, 500 is very good and 1000 is brilliant for structural equation modeling. Thus, for this study, the required sample size were 252. Which is satisfies the required sample size. The data were collected between the months of November 2017 and January 2018.

Measurement of Variables/Instrumentation

The instruments of the study were consisted of two parts. Firstly, the demographic characteristic like age, gender, educational level, experience years and monthly income. Secondly, the study constructs that include; job knowledge, job satisfaction, job motivation and job performance and autonomy.

The constructs items were adapted from previous research work as follow:-

**Job Knowledge Scale:** Adopted from Work Design Questionnaire (Morgeson and Humphery, 2006). All responses were measured on seven-point Likert scale, “1=strongly disagree to 7=strongly agree”. The scale used by various studies such as Ríos et al (2017).

**Job Satisfaction Scale:** Adopted from the generic satisfaction scale Job satisfaction (Macdonald & Maclntyre, 1997). The responses were measured on seven-point Likert scale, “1=strongly disagree to 7=strongly agree”, with higher scores indicating more job satisfaction. The scale used by Chauhan and Solanki, (2014) to study "A Comparative Study of Job Satisfaction in Government and Private Employees"

**Job Motivation:** Adopted from the situational motivational scale by Guay, Vallerand, and Blanchard (2000). The responses were measured on seven-point Likert scale: 1: corresponds not all; 2: corresponds a very little; 3: corresponds a little; 4: corresponds moderately; 5: corresponds enough; 6: corresponds a lot; 7: corresponds exactly. The scale validated by Gamboa et al (2017) and Clancy et al (2017).
Autonomy: Adopted from basic psychological need (at work) scale for Deci & Ryan (2000); Deci et al. (2001); and Ryan & Deci (2017). The responses were measured on seven-point Likert scale, “1=strongly disagree to 7=strongly agree”. The scale consisted of 7 item representing autonomy.

Job Performance: Adopted from Williams and Anderson’s (1991) for task performance and Motowidlo and Van Scotter (1994) for contextual performance. The responses were measured on seven-point Likert scale, “1=strongly disagree to 7=strongly agree”. The measures were used by current studies such as Parrish (2016); Pradhan, & Jena (2016). Poursafar et al (2014).

Data Analysis

The researcher used Partial Least Square (PLS) analysis technique using the SmartPLS3.0 software (Ringle et al., 2015). Following the two-stage analytical procedure, researchers tested the measurement model (validity and reliability of the measures) and structural model (Hypothesis testing) recommended by Hair Jr et al. (2014).

DATA ANALYSIS

Part–One: Assessment of Measurement Model

Instrument Validity and Reliability

In order to test the validity and reliability of the constructs (latent variables), the researcher used assessment of the measurement model according to smart PLS 3, that consisted of two approaches which are convergent validity and discriminant validity.

Convergent Validity

Convergent validity specifies that items that are indicators of a construct should share a high proportion of variance (Hair et al., 2014). The convergent validity of the scale items was assessed using three criteria. First, the factor loadings should be greater than 0.50 as proposed by Hair et al. (2014). Secondly, the composite reliability for each construct should exceed 0.70. Lastly, the Average variance extracted (AVE) for each construct should be above the recommended cut-off 0.50 (Fornell and Larker, 1981).

To check convergent validity, the researcher generated smart PLS using PLS Algorithm and reported outer loading of each construct variables, indicator reliability, composite reliability, and each latent variable’s Average Variance Extracted (AVE) is evaluated table (1).

Table 1: Results Summary of Reflective Outer Model

| Construct          | Item                      | Loading | Indicator Reliability | AVE  | CR   |
|--------------------|---------------------------|---------|-----------------------|------|------|
| Autonomy           | I feel like I can make a lot of inputs to deciding how my job gets done. | 0.780   | 0.608                 |      |      |
|                    | A1                        |         |                       | 0.53 | 0.82 |
|                    | When I am at work, I have to do what I am told. | 0.786   | 0.617                 |      |      |
|                    | A4                        |         |                       | 0.626| 0.92 |
|                    | I feel like I can pretty much be myself at work. | 0.718   | 0.515                 |      |      |
|                    | A6                        |         |                       |      |      |
| Job Knowledge      | The job requires that I engage in a large amount of thinking. | 0.711   | 0.505                 |      |      |
|                    | Jk6                       |         |                       | 0.547|      |
|                    | The job requires me to be creative | 0.740   |                       |      |      |
|                    | Jk10                      |         |                       | 0.512|      |
|                    | The job requires unique ideas or solutions to problems | 0.807   |                       |      |      |
|                    | Jk12                      |         |                       | 0.651|      |
|                    | The job requires a variety of skills | 0.861   |                       |      |      |
|                    | Jk13                      |         |                       | 0.741|      |
From the above-illustrated table, we found:-

- **Individual item Reliability (Loading)**: the results denoted that the items outer loading is above the cut-off 0.708, and the indicator reliability for each item is above 0.50. Hair et al (2014) asserted that an indicator's outer loading should be above 0.708 since that number squared (0.708) equals 0.50, in which in the most instances, 0.70 is considered close enough to 0.708 to be acceptable.

- **Indicator Reliability (Loading²)**: the indicator reliability for the outer loading are above the cut-off 0.50 when the numbers of outer loading items squared.

- **Composite Reliability (CR)**: The composite reliability for the constructs are acceptable for each latent variable and confirmed with the cut-off value >0.70.

Such values are shown to be larger than 0.70, so high levels of internal consistency reliability have been demonstrated among all reflective latent variables.

Composite reliability values of 0.60 to 0.70 are acceptable in exploratory research, while in more advanced stage research, values between 0.70 and 0.90 can be satisfactory (Hair et al, 2014).

Prior research suggests that a threshold level of 0.60 or higher is required to demonstrate a satisfactory composite reliability in exploratory research (Bagozzi and Yi, 1988) but not exceeding the 0.97 level (Hair et al., 2013).

| Table 1: Contd.,                                                                                     | 0.615 | 0.91 |
|------------------------------------------------------------------------------------------------------|-------|------|
| The job requires me to utilize a variety of different skills in order to complete the work          | Jk14  | 0.873| 0.762|
| The job requires the use of a number of skills                                                     | Jk16  | 0.865| 0.748|
| The job is highly specialized in terms of purpose, tasks, or activities                            | Jk17  | 0.713| 0.508|
| The job requires very specialized knowledge and skills.                                            | Jk19  | 0.739| 0.546|
| **Job Motivation**                                                                                  |       |      |
| I think that this activity is interesting                                                           | Jm1   | 0.745| 0.555|
| I think that this activity is pleasant                                                              | Jm5   | 0.821| 0.674|
| I think that this activity is good for me                                                            | Jm6   | 0.833| 0.693|
| It is something that I have to do                                                                  | Jm7   | 0.805| 0.648|
| I feel good when doing this activity                                                                | Jm13  | 0.727| 0.528|
| I believe that this activity is important for me                                                     | Jm14  | 0.788| 0.620|
| I feel that I have to do                                                                            | Jm15  | 0.766| 0.586|
| **Job Performance**                                                                                 | 0.635 | 0.94 |
| Adequately completes assigned duties                                                                | Jp1   | 0.855| 0.749|
| Fulfills responsibilities specified in job description                                              | Jp2   | 0.756| 0.571|
| Performs tasks that are expected of me                                                               | Jp3   | 0.824| 0.678|
| Cooperate with others in the team                                                                   | Jp9   | 0.785| 0.616|
| Persist in overcoming obstacles to complete a task                                                   | Jp10  | 0.861| 0.741|
| Display proper company appearance and manner                                                         | Jp11  | 0.806| 0.649|
| Pay close attention to important details                                                             | Jp16  | 0.724| 0.524|
| Take the initiative to solve a work task                                                            | Jp20  | 0.777| 0.603|
| Exercise personal discipline and self-control                                                        | Jp21  | 0.759| 0.576|
| Tackle a difficult work assignment enthusiastically                                                   | Jp22  | 0.810| 0.656|
| **Job Satisfaction**                                                                                | 0.764 | 0.866|
| All my talents and skills are used at work                                                            | Js8   | 0.873| 0.762|
| I get along with my supervisors                                                                    | Js9   | 0.876| 0.767|
• **Average Variance Extracted (AVE):** it is found that all of the AVE values are greater than the acceptable threshold of 0.5, so convergent validity is confirmed. Figure (2) illustrate model loading.

![Figure 2: Model Loading](image)

**Discriminant Validity**

**Cross Loading**

One method for assessing discriminant validity is by examining the cross-loadings of the indicators. Specifically, an indicator's outer loading on the associated construct should be greater than all of its loadings on other constructs (Hair et al, 2014). The researcher conducted smart PLS through PLS algorithm and select discriminant validity report. The following table illustrate the crossing loading of indicators.

|   | Autonomy | JM | JP | JS | JK |
|---|----------|----|----|----|----|
| jk10 | 0.352    | 0.320 | 0.475 | 0.431 | 0.740 |
| jk12 | 0.356    | 0.377 | 0.481 | 0.421 | 0.807 |
| jk13 | 0.385    | 0.385 | 0.491 | 0.527 | 0.861 |
| jk14 | 0.416    | 0.371 | 0.472 | 0.503 | 0.873 |
| jk16 | 0.447    | 0.434 | 0.493 | 0.476 | 0.865 |
| jk17 | 0.412    | 0.382 | 0.429 | 0.501 | 0.713 |
| jk19 | 0.338    | 0.420 | 0.406 | 0.486 | 0.739 |
| jk6  | 0.346    | 0.323 | 0.422 | 0.397 | 0.711 |
| jm1  | 0.405    | 0.745 | 0.510 | 0.460 | 0.433 |
| jm13 | 0.223    | 0.727 | 0.302 | 0.256 | 0.321 |
| jm14 | 0.282    | 0.788 | 0.355 | 0.382 | 0.406 |
| jm15 | 0.354    | 0.766 | 0.456 | 0.348 | 0.314 |
| jm5  | 0.325    | 0.821 | 0.368 | 0.433 | 0.378 |
| jm6  | 0.287    | 0.833 | 0.358 | 0.491 | 0.370 |
| jm7  | 0.291    | 0.805 | 0.381 | 0.412 | 0.369 |
| jp1  | 0.706    | 0.417 | 0.855 | 0.588 | 0.467 |
| jp10 | 0.646    | 0.386 | 0.861 | 0.474 | 0.478 |
| jp11 | 0.614    | 0.465 | 0.806 | 0.523 | 0.437 |
| jp16 | 0.546    | 0.370 | 0.724 | 0.465 | 0.422 |
| jp2  | 0.632    | 0.456 | 0.756 | 0.536 | 0.437 |
Analyzing the above table, it clearly states that the indicator’s outer loading on the associated construct is greater than all of its loadings on other constructs. In principle, this means the model has discriminant validity based on the Chin criteria (1998).

**Fornell and Larcker Criterion: Variable Correlation**

The Fornell-Larcker criterion (1981) is a second and more conservative approach to assessing discriminant validity. It compares the square root of the AVE values with the latent variable correlations. Specifically, the square root of each construct’s AVE should be greater than its highest correlation with any other construct (Hair et al, 2014). The following table demonstrates the Fornnel and Larcker criterion results:

| Latent Variable Correlations (LVC) | Discriminant Validity met? (Square Root of AVE>LVC?) |
|-----------------------------------|-------------------------------------------------------|
| Autonomy                         | JM         | JS         | JS         | JK         |
| Autonomy                         | 0.733      |            |            |            |
| JM                               | 0.407      | 0.784      |            |            |
| JP                               | 0.630      | 0.512      | 0.797      |            |
| JS                               | 0.533      | 0.515      | 0.650      | 0.874      |
| JK                               | 0.484      | 0.476      | 0.582      | 0.592 0.791|

*Note:* The square root of AVE values is shown on the diagonal and printed in bold; non-diagonal elements are the latent variable correlations (LVC).

From the table, the latent variable Job Motivation (JM) AVE is found to be 0.615 (from Table 1) hence its square root becomes 0.784. This number is larger than the correlation values in the column of JM (0.512, 0.515, and 0.476) and also larger than those in the row of JM (0.407). A similar observation is also made for the latent variables autonomy, JK, JP, and JS. The result indicates that discriminant validity is well established.

**Heterotrait - Monotrait Ratio (HTMT)**

Henseler et al. (2015) suggested another way to assess discriminant validity through the multi-trait and multi-method matrix, namely the Hetero-trait Mono-trait Ratio (HTMT). There are two ways of using the HTMT approach to assess the discriminant validity. At first, when using it as a criterion, if a HTMT value is greater than 0.85, then there is a problem with discriminant validity. Secondly, by using the statistical test for HTMT inference when the confidence interval of HTMT values for the structural paths contains the value if 1, it indicates a lack of discriminant validity. If the
value of 1 falls outside the interval’s range, it suggests that the constructs are empirically distinct. HTMT results can be seen in following the Table (4).

Table 4: Heterotrait Monotrait Ratio (HTMT)

|       | Autonomy | JM  | JP  | JS  | JK  |
|-------|----------|-----|-----|-----|-----|
| Autonomy | -------  |     |     |     |     |
| JM     | 0.492    |     |     |     |     |
| JP     | 0.89     | 0.542 |     |     |     |
| JS     | 0.753    | 0.644 | 0.806 |     |     |
| JK     | 0.597    | 0.522 | 0.630 | 0.747 |     |

Note: Heterotrait-Monotrait Ratio (HTMT) discriminate at (HTMT <0.9/ HTMT <0.85)

Based on the results of Table (4), all HTMT values are lower than the required threshold value of HTMT.85 by Kline (2011) and HTMT of .90 by Gold and Arvind Malhotra (2001), indicating that discriminate validity is valid for this study. To sum up, both convergent and discriminant validity of the measures were developed.

Part -TWO: Assessment of Structural Model

Measurement model was achieved after conducting validity and reliability analysis. Moving further with Smart PLS3.0 software (Ringle et al., 2015) structural equation model (SEM) was performed to assess the strength of the proposed model for this study. In order to assess the structural model lateral collinearity test (VIF), R² values and corresponding t-values were evaluated as suggested by Hair et al. (2016). The proposed hypothesis was tested by running a bootstrapping procedure with a resample of 5000, as suggested by Hair et al. (2014).

Collinearity Assessment

At first stage of structural equation model, lateral collinearity was assessed with collinearity statistics VIF. According to Kock and Lynn (2012), although vertical collinearity is met, lateral collinearity (predictor- criterion collinearity) may sometimes be misleading the findings. This type of collinearity has occurred when two variables that are hypothesized to be causally related measure the same construct. This type of collinearity is assessed with VIF values, where the values of VIF 3.3 or higher, indicate a potential collinearity (Diamantopoulos & Siguaw, 2006). Table (5) shows the results of VIF values.

Table 5: Collinearity Assessment

|               | DV- PERFORMANCE | Collinearity Issues |
|---------------|-----------------|---------------------|
| DV-PERFORMANCE| 1.514           | No collinearity     |
| Autonomy      | 1.475           | No collinearity     |
| JS            | 1.896           | No collinearity     |
| PERFORMANCE   | 1.718           | No collinearity     |

As presented in Table (5) the inner VIF values of the independent variables (JK, JM, and JS) that needs to be examined for multi collinearity are less than 5 and 3.3, indicating lateral multi-collinearity is not a concern in this study according to Hair et al. (2014).
The hypothesis developed for this study was tested by running a bootstrapping procedure with a resample of 5000, as suggested by Hair et al. (2014). The results of Table (6) depict path coefficients of respective constructs with their level of significance.

| Hypo | Relationship                  | Std. Beta | Std. Error | T-value | P-value | Decision |
|------|------------------------------|-----------|------------|---------|---------|----------|
| H1   | Knowledge → Performance      | 0.128     | 0.052      | 2.456   | 0.014   | Accepted * |
| H2   | Knowledge → Autonomy         | 0.226     | 0.090      | 2.509   | 0.012   | Accepted * |
| H3   | Motivation → Performance     | 0.110     | 0.043      | 2.532   | 0.011   | Accepted * |
| H4   | Motivation → Autonomy        | 0.128     | 0.073      | 1.747   | 0.081   | Rejected  |
| H5   | Satisfaction → Performance   | 0.216     | 0.053      | 4.057   | 0.000   | Accepted **|
| H6   | Satisfaction → Autonomy      | 0.334     | 0.083      | 4.003   | 0.000   | Accepted **|
| H7   | Autonomy → Performance       | 0.563     | 0.058      | 9.789   | 0.000   | Accepted **|

Significant at P** <0.01, P* <0.05

Table (6) depicts that the relationship between knowledge to performance is supported by H1: ($\beta = 0.128$, p< 0.05). Next, the relationship between knowledge to autonomy is accepted by H2: ($\beta = 0.226$, p< 0.05). H3 showed that the relationship between JM and performance is accepted by (($\beta = 0.110$, p< 0.05); where the relationship between motivation and autonomy is rejected by H4 (($\beta = 0.128$, p> 0.05).

The results revealed that the relationship between satisfaction and performance is accepted by H5 ($\beta = 0.216$, p< 0.001); and the relationship between satisfaction to autonomy is accepted by H6 ($\beta = 0.334$, p< 0.01); where the relationship between motivation to autonomy (H6) and motivation to relatedness (H8) was rejected.

Furthermore, the results revealed that; the relationship between autonomy to performance is supported by H7 ($\beta = 0.563$, p< 0.001). see figure (3).

**Coefficient of Determination ($R^2$) and Predictive Relevance $Q^2$**

A major part of the structural model evaluation is the assessment of coefficient of determination ($R^2$). A threshold value of 0.25, 0.5 and 0.7 are often used to describe a weak, moderate, and strong coefficient of determination (Hair at el., 2014). Furthermore, An assessment of Stone-Geisser’s predictive relevance ($Q^2$) is important because it checks if the data
points of indicators in the reflective measurement model of the endogenous construct can be predicted accurately. The researcher conducted PLS Algorithm and reported the following results, table (7).

**Table 7: R-Square of the Endogenous Latent Variables**

| Construct | R²       | Predictive Relevance Q² | Results | Q²    | Results |
|-----------|----------|-------------------------|---------|-------|---------|
| Performance | 0.714    | Strong                  | 0.428   | > 0   |
| Autonomy     | 0.340    | Moderate                | 0.164   | > 0   |

It is observed from the above table (7) that the proposed model has good predictive relevance for all of the endogenous variables. In general, R² values of 0.75, 0.50, or 0.25 for the endogenous constructs can be described as respectively substantial, moderate, and weak (Hair et al., 2014).

The table denoted that, the proposed model has good predictive relevance for all of the endogenous variables. Chin (1998) suggests that a model demonstrates good predictive relevance when its Q² value is larger than zero. In other words, the resulting Q² values larger than 0 indicate that the exogenous constructs have predictive relevance for the endogenous construct under consideration (Hair et al, 2014).

**Effect Size f²**

The effect size f² allows assessing an exogenous construct’s contribution to an endogenous latent variable's R² value. According to Cohen (1988) and Hair et al (2014), the f² values of less than 0.02 (no effect), 0.02-0.15 (small effect), 0.15-0.35 (medium) and above 0.35 (large effect) indicate an exogenous construct’s on an endogenous construct.

**Table 8: R-Square of the Endogenous Latent Variables**

| Effect Size f² | Performance |
|---------------|-------------|
| Construct     | f²         | Results   |
| Knowledge     | 0.033      | Small effect size |
| Motivation    | 0.029      | Small effect size |
| Satisfaction  | 0.086      | Small effect size |
| Autonomy      | 0.732      | Large effect size |

From the above table (8), the results denoted that the exogenous variables (knowledge, motivation, and satisfaction) have small effect size, where autonomy has a large effect size.

**Importance-Performance Matrix Analysis (IPMA)**

A post-hoc importance-performance matrix analysis (IPMA) was performed by using JOB PERFORMANCE as target construct. The IPMA builds on the PLS estimates of the structural equation model relationship and includes an additional dimension to the analysis of that latent constructs (Hair et al., 2016). The importance scores were carried from the total effects of outcome variable in the structural equation model. While performance score or index was derived by rescaling the latent variables score ranges from 0 for the lowest to 100 for the highest (Hair et al., 2016). Table (8) presents the total effects (importance) and index values (performance) used for the importance-performance matrix analysis.
Table 9: Importance Performance Matrix Analysis

| Latent Variable | Total Effect of LV Perform | Index Values Performance |
|-----------------|----------------------------|--------------------------|
|                 | Importance                  | LV Index Values | LV Performances |
| 1. Knowledge    | 0.255                      | 5.518    | 75.296         |
| 2. Motivation   | 0.182                      | 5.037    | 67.289         |
| 3. Performance  | Target DV                  | 5.914    | 81.892         |
| 4. Satisfaction | 0.405                      | 5.577    | 76.276         |
| 5. Autonomy     | 0.563                      | 5.446    | 74.092         |

Table (9) shows the index value and total effect scores. It can be seen that autonomy is the most important factor in order to determine the performance due to higher importance values (0.563) compared to other latent variables. Satisfaction is coming at intermediate level with (0.405), knowledge (0.255), motivation (0.182). The level of importance and performance can be seen in Figure 4.

Figure 4: Importance Performance Matrix Analysis IPMA

Importance-performance matrix denoted that, the autonomy has the highest level to influence on performance followed by satisfaction, knowledge, motivation. This means, to achieve high performance we should focus on improving the performance of autonomy and satisfaction.

Autonomy as Mediator

To understand the role of autonomy in the study model, its potential mediating effect on the linkage between (knowledge and performance); (motivation and performance); and (satisfaction and performance). The researcher divided the variables as follow:-

- $H_7^2$: IV (Knowledge) $\rightarrow$ MV (autonomy) $\rightarrow$ DV Performance
- $H_8^3$: IV (Satisfaction) $\rightarrow$ MV (autonomy) $\rightarrow$ DV Performance
- $H_9^3$: IV (Motivation) $\rightarrow$ MV (autonomy) $\rightarrow$ DV performance

The researcher adopted the Preacher and Hayes (2008) procedure, which is used instead of the traditional Sobel (1982) test because it does not have strict distributional assumptions (Hair et al, 2013).

The Preacher and Hayes (2008) procedure involves the use of bootstrapping in a 2-step procedure: (i) The significance of direct effect is first checked (if the significance of direct effect cannot be established, there is no mediating
effect) using bootstrapping without the presence of the mediator autonomy in the model; (ii) bootstrapping Confidence Interval through statistical tool designed for CI calculation for mediation effect. The VAF would be less than 20%, and one can conclude that (almost) no mediation takes place. In contrast, when the VAF has very large outcomes of above 80%, one can assume a full mediation. A situation in which the VAF is larger than 20% and less than 80% can be characterized as partial mediation (Hair et al, 2014). The following figure demonstrating the Excel sheet for calculating mediation through bootstrapping confidence intervals.

**Calculating the Mediation through Bootstrapping CI**

![Figure 5: Formula for Calculating Mediation](image)

**IV: (Knowledge, Satisfaction, and Motivation) → MV → Performance**

To understand the role of mediation variable autonomy in the study model, its potential mediating effect on the linkage between (job knowledge and job performance); (Job motivation and Job performance) (figure, 3). This step accomplished by using Preacher and Hayes (2008) procedure, which is used instead of Sobel test (1982), the results demonstrated in a table (10).

| Table 10: Mediation Analysis using PLS |
|---------------------------------------|
| **H8** JK>autonomy>DV JP | 0.486 | 0.382 | 0.186 | 0.066 | 2.813 | 0.056 | 0.315 |
| **H9** JS >autonomy>DV JP | 0.536 | 0.786 | 0.421 | 0.054 | 7.802 | 0.315 | 0.527 |
| **H10** JM> autonomy >DV JP | 0.411 | 0.785 | 0.323 | 0.059 | 5.468 | 0.207 | 0.438 |

The results denoted that the relationship between (job knowledge to job performance); (job satisfaction to job performance); and (job motivation to job performance) through the mediating variable (autonomy) was supported since the lower limit LL and upper limit UL of the confidence interval not crossed by ZERO, it means both are on the same sides. So, we accept the hypothesis (H8, H9 and H10).

![Figure 6: Mediation between Job Motivation and Job Performance](image)
DISCUSSIONS AND CONCLUSIONS

The study examined the mediation effect of autonomy in the relationship between job knowledge, job motivation, job satisfaction and job performance. The study results suggest that the motivation was the most influential factor after autonomy in the prediction of job performance. However, the study results denoted that autonomy significantly mediate the relationship between (job knowledge and job performance); (job motivation and job performance); and (job satisfaction and job performance). Furthermore, the study denoted that knowledge, satisfaction, and motivation significantly influence employee performance.

The results of the current study seem to be consistent with other studies but with different variables, Kianto, Vanhala and Heilmann (2016) stated that the results found that Existence of Knowledge Management processes in one’s working environment is significantly linked with high job satisfaction. Knowledge characteristics of work design exhibit a significant effect on both distinct dimensions of work behavior, while task and social characteristics showed different effects on task and contextual performance, respectively Hernaus and Mikulić (2013). Where, Palumbo(2007) demonstrated that job knowledge accounted for significantly more variance in task performance than cognitive ability.

Where Ölçer et al (2015) stated that job satisfaction significantly affected job performance. Furthermore, overall job satisfaction fully mediated the relationship between meaning and job performance.

However, Wilkesmann and Schmid (2014), stated that the basic claims of the SDT that intrinsic teaching motivation is facilitated partly by autonomy for German professors. Furthermore, Gillet et al (2013) found that procedural justice and supervisor autonomy support significantly and positively influenced need satisfaction and perceived organizational support, which in turn positively predicted work satisfaction, organizational identification, and job...
performance. But, Kuvaas, (2009) The findings suggest that the relationships between job autonomy and work performance and task interdependence and work performance are partly mediated by intrinsic motivation.

**Research Contribution**

The study significantly contributed to the mediating effect of autonomy in the relationship between knowledge, motivation, satisfaction, and performance.

**Theoretical Contribution**

Theoretically, the study contributed by new direction model by presenting autonomy as a mediator between knowledge, satisfaction, motivation and employee performance. The study results suggest that the autonomy was the most influential factor in the prediction of employee performance followed by motivation, satisfaction, and knowledge respectively. Also, the study results stated that autonomy mediates the relationship between knowledge and performance; motivation and performance; and satisfaction and performance. Furthermore, the proposed model makes the important contribution to the emerging literature on management regarding employee performance.

**Managerial Contribution**

The results of the study revealed that performance will increase if the middle management employees believe that autonomy, motivation, satisfaction, and knowledge managed correctly. The municipalities must focus on how to provide autonomy and promote motivation at municipalities.

**Methodological Contribution**

The study used Partial Least Square (PLS) analysis technique using the Smart-PLS 3.2.7 software. Following the two-stage analytical procedure, researcher tested the measurement model (validity and reliability of the measures) and structural model (Hypothesis testing).

**Future Research**

The researchers can be built on this model and expand their studies using subscales of the current study variables. They may use the same variables on other samples such as the universities, non-governmental organizations or private sectors.

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