PREDICTION OF COMPETENCIES DURING SELECTION PROCESS:
CORRELATION AND MEDIATION ANALYSIS

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Abstract
The selection committee of the organization is responsible for the selection techniques and tests to identify the competencies required for the specific job role. It interprets that a firm’s selection techniques should be effective in selecting the right candidate to work for. This study is conducted to find the mediation role of reliability and predictive ability of selection tests between the selection procedure and the identification of requisite competencies. This paper aims to identify the significant contribution of selection tests and methods in identifying employee competencies. The sample was chosen from the research and development institutions with a stratified random sampling method, and the data was collected from 413 samples through a questionnaire survey. The significant finding in this analysis is that the prediction ability of selection tests and interview methods is substantial between the selection procedure and the identification of competencies.

Keywords: Selection procedure, Competencies, Selection Tests, Interview Methods, Correlation, and Mediation analysis.

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1. INTRODUCTION

The firm's success depends on the human resources employed in it. Technological development and other resources also help the organization to establish itself. The human mind can create these resources, which think innovatively and finds the best way to improve the organization. Finding the best talent is challenging for the firm as it develops its recruitment and selection procedures. The selection procedure involves employment tests and interview methods that could be suitable for the organization to pick the best talent to work in it. The selection of a qualified candidate to work in the organization depends on their selection procedure, including employment tests and interview methods. The reliability of selection tests and interview methods plays a vital role in identifying an individual's required knowledge, skills, and capabilities.

Selecting the best candidate is just one aspect of the selection process. When choosing the appropriate knowledge, skills, and abilities (KSAs), etc., packed in a human being, a "fit" between what the applicants wants to perform and what the firm needs is sought after. The process is more difficult because it is only sometimes easy to determine what a candidate can and wants to accomplish. The candidate-firm fit influences the employer's and the applicant's willingness to accept a job offer. Effective human resource management necessitates making the proper selection and placement decisions using the best selection methods, such as assessment tests and interview processes.

Depending on the position, each business has a different selection procedure. Among other things, applications and resumes are reviewed, work samples are tested and analyzed, interviews are undertaken, references are confirmed, and background checks are performed. Companies adopt these procedures to increase the likelihood that new hires have the necessary credentials and aptitudes to succeed in their professions. Additionally, the process by which human resource management selects competent workers from a large pool of candidates employing techniques is called selection Isaac Christopher Otoo et al.,(2018).

The assessment capacity of selection tests and methods must be able to predict the candidates' competencies, which results in the best selection. The selection team of an organization has the ultimate responsibility to develop the selection procedure to hire the best talent for the organization.

The accuracy and simplicity of the hiring and selection process are improved through competency mapping, which identifies performance criteria. It offers a distinct framework for discussions on performance, professional growth, and career-related issues between the manager and employee. The competencies needed for successful performance in a particular position, job family (e.g., a collection of related jobs),
organization, function, or process are listed in a competency mapping model, which serves as an organizational framework. These competencies are structured into competency models to make it easier for employees in a profession or organization to comprehend, discuss, and apply individual competencies to workforce performance. Rama L et. Al., (2022)

Competency and its evaluation have been of essential importance in organizations to maintain people development strategies and processes in line with organizational goals and objectives and the optimal use of human potential.

1.1. STATEMENT OF THE PROBLEM

In the evolving business environment, finding the right person for the correct position everywhere is significantly problematic. The practice of locating critical competencies for a specific role inside a company is essential to enhance the performance of the individual. It is considerably more difficult for hiring professionals to identify and fix the competencies needed to carry out job duties.

1.2 RESEARCH QUESTION

1. Are the competencies interrelated, and do they boost each other?
2. Whether the selection methods, such as selection tests and interview methods, are reliable and have a prediction capacity that influences during candidate’s selection by identifying the competencies.

1.2 OBJECTIVES OF THE STUDY

1. To analyze the association among the employee core, professional, management, operational, and expert competencies.

2. To find the mediating effect of the predictive capacity of selection tests between employee selection methods and identifying competencies during the selection process.

1.3 SCOPE OF THE STUDY

The study is conducted mainly to know about the interdependency effect of employee competencies which critically plays a crucial role in performance. The competencies which are interrelated induce one another to boost employee competency.

There must be more than a selection procedure to bring a talented employee to the organization. It requires practical selection tests and interview methods to evaluate them, which is vital in the selection process. The reliability and validity of such selection tests and interview methods need the predictive ability to measure individual competencies. This research helps to find out the mediation role of such predictive assessment.

1.5 LIMITATION OF THE STUDY

The study was carried out during the pandemic time which caused interruptions during data collection.
2. LITERATURE REVIEW

Ben Wuim-Pam (2014) Argued that the competencies serve as a unifying principle; defining competencies consistently aids in integrating the organization’s talent management operations. Although competencies were first created to concentrate training and development efforts, businesses should start utilizing competencies in almost every human resource-related area. Skills can act as a connecting factor in creating a genuinely integrated human resource system. Various personnel management applications and significant organizational concerns can be connected to competencies. Organizations can utilize scoring checklists and behavioral-event interviewing approaches during the hiring and selection process to find people who possess the skills required for success within the company. In general, the most effort is put into finding people who have skills in fields that are difficult to master or where achievement is needed right away.

Jefta Harlianto (2020) conducted research results that business insight, innovation, operational excellence, personal growth, and service are the relationships between each Core Competency component. Each Core Competency component’s correlation with the Core Competency demonstrates a strong relationship between them.

Rama L et al., (2022), stated in their study that Matching candidates to their job positions and is consequently utilized in selection will help to find the necessary competencies. Determining the skills, knowledge, abilities, and behaviors required to function effectively in a particular position or organization is considered competency. Their study found a moderate correlation among the competencies such as accountability, customer focus, interpersonal and teamwork, adaptability, and stress tolerance.

2.1 SELECTION PROCEDURE

Thomas R Maloney (2002), They suggested that the best applicant is hired due to a systematic selection method that would be consistently used. It is imperative to emphasize the competencies.

Lukáš Smerek (2017) He emphasized in his study that the hiring process results from previous personnel tasks, particularly employment analysis and workforce needs planning. The enterprise’s selection method or techniques will be built once the earlier studies have been conducted. One of these objectives is the identification and accurate evaluation of the level of one’s moral qualities, which might be essential for assimilating into society and successfully shifting to corporate culture. An organization can choose the path to finding qualified individuals and the techniques of selecting them after there are enough candidates and the job requirements are clearly defined. The decision is bilateral since the firm picks one or more individuals as staff; they can determine the firm they want to work choose

Nancy Tippins and Paul Sackett (2018) Explained in their books that Depending on one’s perspective, the selection processes or predictors might be described in terms of what they measure or how they measure what they are designed to assess. The domain of predictors can be defined using theories of psychological constructs (KSAOs
or skills), views of job situations/demands, or a mix of the two. Predictor approaches, on the other hand, refer to the specific procedures or methods utilized to elicit, collect, and then use domain-relevant data to draw inferences. Paper-and-pencil tests, computer-administered tests, performance tests, work samples, inventories, individual assessments, interviews, assessment centers, situational judgment tests, biographical data forms or scored application blanks, background checks, education, experience, and physical requirements are examples of selection methods.

2.2 RELIABILITY AND VALIDITY OF SELECTION TESTS

Lukáš Smerek (2017) elucidates in his research that testing is a selection procedure frequently used to evaluate candidates’ abilities, knowledge, and conduct. Employers often apply several validity standards to demonstrate the reliability of the assessments. The selection exam must be related to and have a predictable impact on the achievements of the prospective employee for it to be helpful. In regular activities, various tests are utilized, including I.Q. and E.Q. tests for intellect, thinking and behavior tests for abilities, personality tests for different types, and professional assessments. Skills connected to the performance of a particular occupation are tested through skills assessments. These tests do not measure general knowledge; instead, they specialize, for instance, in logical and critical thinking skills.

It is common to take verbal or math assessments. Because they allow for the examination of both the applicant’s current and potential traits, it makes sense why companies are using them increasingly frequently. Skills exams examine the candidate’s verbal, motor, manual, and mechanical presumptions.

Standardized exams and other traits that can be measured, like intellect, differ from personality assessments. Instead, they place people in order of their defining characteristics. “Personality tests infer details about a person’s traits by seeing how they behave in a highly controlled small scenario. Their evaluations are not based on their estimations or ratings of the relevant construct (Ortner & Proyer 2015). As a result, a common feature of personality tests is inferring personality traits from observable behavior on performance tasks or other highly standardized tiny settings.

Himanshu Vyas and Rajendrasingh (2015) argue that when results gained over time are consistent, this is called temporal or re-test stability. It is used to evaluate how effective a selection tool is. A person could, for instance, take a personality test or an intelligence test numerous times over several years; however, in the latter case, it would be crucial to determine the precise effect of repeated practice on the outcome.

Specific I.Q. test components have been criticized for over-emphasizing a person’s vocabulary, which may be impacted by their schooling and general background rather than their inherent intelligence.

Predictive validity focuses on the relationships between outcomes or scores on a selection measure and a different result, most commonly future job performance. Deciding when the comparison will be made is crucial—either immediately for the exact position requiring little training or, more frequently, at a middle point, perhaps following an appropriate probationary period.
Bieri C and Schuler P (2011) Found in their studies as the outcomes show that the assessment center's predictive validity can be regarded as satisfactory. The study's main finding is that the chosen model based on assessment center principles predicts study success to some extent reliably. This outcome is consistent with the results of numerous other research demonstrating the solid predictive validity of assessment centers.

2.3 COMPETENCIES

A core competency is an attainable quality that significantly influences an individual's and an organization's performance. Competency improvement is crucial; investing noticeably in it can produce promising business development outcomes. In addition to the technical information and abilities acquired, personal qualities play a significant role in professional success. A core competency is a measurable trait that significantly impacts how well a person and an organization perform. Competency improvement is an important subject, and making a significant investment there can positively affect corporate growth. Personal traits greatly influence the workplace, such as the technical knowledge and skills gained. Aisha Abbas et al., (2011)

Ben Wuim-Pam (2014) He emphasized in his study that understanding the competency profiles of each person, each team, and the organization is what competency management is all about for organizations. It starts with identifying the roles and skills of the personnel, recording their evaluations, and interpreting the findings. The outcomes are then utilized for training and placing personnel according to their competencies.

Competencies are positioned at the center of talent management through competency management. Because competencies serve as a unifying principle, defining competencies consistently aids in integrating the organization's Talent Management operations. Although competencies were first created to concentrate learning and development efforts, businesses should start utilizing competencies in almost every personnel-related area. Skills can connect to create a genuinely integrated and comprehensive resource system.

Shruti Verma (2019) The key to creating competency-based interview questions is carefully examining and relating the responses to the job requirements. Inquisitive and probing questions are typically used to understand a prospect better and assess if they are a good fit.

3. RESEARCH METHODOLOGY

This research is conducted by adopting a descriptive research design describing each variable included in the study. This research design aims to identify the characteristics of each variable and the spreading out of the frequencies.

The samples are collected by grouping the pieces from a finite population of 7888. The population was stratified based on the state, and the institutions were grouped under five categories. From the classification of research and development institutions, a sample of 413 is collected.
As a base paper, secondary sources such as articles, blogs, journals, and web sources are used to gather information about the previous study. The variables are constructed from the secondary data source. The prime data collection is done with a questionnaire survey through mailing forms and direct visits.

The constructs for the questionnaire are the variables such as employee hiring strategy, selection methods, the predictive ability of selection tests, organizational H.R. policy, employee competencies, and performance outcomes. The employee hiring strategy comprises eight items; the selection method has five things; the predictive ability has ten items. H.R. policy has ten items; employee competencies have 120 items under five divisions, and performance outcome has 31 items under four divisions.

The analysis is done by using the primary data collected. To interpret the results, the data analysis is done with SPSS 21 and AMOS SPSS 21 to find the correlation and mediation effect of the variable on independent and dependent variables. The correlation and Mediation analysis method is used to conduct the analysis, and the outcomes are interpreted.

4. DATA ANALYSIS AND INTERPRETATION

4.1 Reliability Analysis

<table>
<thead>
<tr>
<th>Items</th>
<th>Cronbach’s Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Competencies</td>
<td>.981</td>
<td>34</td>
</tr>
<tr>
<td>Professional Competencies</td>
<td>.977</td>
<td>26</td>
</tr>
<tr>
<td>Management Competencies</td>
<td>.978</td>
<td>27</td>
</tr>
<tr>
<td>Operational Competencies</td>
<td>.967</td>
<td>15</td>
</tr>
<tr>
<td>Expert Competencies</td>
<td>.971</td>
<td>18</td>
</tr>
<tr>
<td>Over All</td>
<td>.994</td>
<td>120</td>
</tr>
</tbody>
</table>

Table 1 resulted in the reliability of the scale. From that, the alpha value for all the variables shows above .07, indicating that the scale is adequate to measure the items. The values are .981 for core competencies which have nine sub-variables with 34 articles, .977 for professional competencies, which have six sub-variables with 26 items, .978 for management competencies which have seven sub-variables with pieces items, 967 for operational competencies which have four sub-variables with 15 articles, .971 for expert competencies which have five sub-variables with 18 items. The overall Cronbach’s value is .994, a more excellent value as the scale is adequate to measure the items.
4.2 Correlation Analysis

$H_1$: There is an interrelationship among the employee core competencies such as analytical thinking, interpersonal relationship, self-management, problem-solving, decision-making, commitment to life-long learning, achieving results, adaptability, flexibility, and commitment to the organization.

<table>
<thead>
<tr>
<th>Core Competencies</th>
<th>AT</th>
<th>IP</th>
<th>SM</th>
<th>PS</th>
<th>DM</th>
<th>CLLL</th>
<th>AR</th>
<th>AF</th>
<th>COO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analytical Thinking (AT)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interpersonal Relationship (IP)</td>
<td></td>
<td>.701*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self - Management (SM)</td>
<td></td>
<td>.601**</td>
<td>.688*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem Solving (PS)</td>
<td>.649**</td>
<td>.700**</td>
<td>.774*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decision Making (DM)</td>
<td>.684**</td>
<td>.668**</td>
<td>.817*</td>
<td>.771**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commitment to Life - long Learning (CLLL)</td>
<td>.635**</td>
<td>.690**</td>
<td>.831*</td>
<td>.789*</td>
<td>.827*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Achieving Results (AR)</td>
<td>.662**</td>
<td>.696**</td>
<td>.791**</td>
<td>.768**</td>
<td>.830*</td>
<td>.848**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adaptability &amp; Flexibility (AF)</td>
<td>.567**</td>
<td>.676**</td>
<td>.822**</td>
<td>.724**</td>
<td>.741**</td>
<td>.839**</td>
<td>.79 9**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Commitment to the organization (COO)</td>
<td>.617**</td>
<td>.707**</td>
<td>.820**</td>
<td>.729**</td>
<td>.781**</td>
<td>.819**</td>
<td>.83 2**</td>
<td>.842*</td>
<td>1</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

From the above table 2, the core competencies show a significance of 0.000 with all the competencies enumerated. This implies a strong positive relationship between each core competency, such as analytical thinking, interpersonal relationship, self-management, problem-solving, decision-making, commitment to lifelong learning, achieving results, adaptability and flexibility, and commitment to the organization. Achieving results has a solid correlation with commitment to life-long learning as its value is .848, representing 84.8% interrelationship, and adaptability and flexibility show a moderate correlation with analytical thinking as it exhibits 56.7% of the relationship. Finally, this table indicates that the competencies which positively
enhanced influence the other competency results in the better exhibition of those competencies in the performance.

H_2: There is an interrelationship among the employee professional competencies such as teamwork, innovative thinking, environmental awareness, knowledge sharing, information processing, and ICT skills.

Table. 3

<table>
<thead>
<tr>
<th>Professional Competencies</th>
<th>TW</th>
<th>IT</th>
<th>EA</th>
<th>KS</th>
<th>IPR</th>
<th>ICT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teamwork (TW)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovative Thinking (IT)</td>
<td>.820**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental Awareness (EA)</td>
<td>.758**</td>
<td>.752**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge Sharing (KS)</td>
<td>.789**</td>
<td>.775**</td>
<td>.788**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information Processing (IPR)</td>
<td>.745**</td>
<td>.737**</td>
<td>.643“</td>
<td>.707“</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Use of ICT Skills (ICT)</td>
<td>.702“</td>
<td>.660“</td>
<td>.635“</td>
<td>.665“</td>
<td>.738“</td>
<td>1</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

The above table 3 shows that the competencies mentioned as professional competencies, such as teamwork, innovative thinking, environmental awareness, knowledge sharing, information processing, and use of ICT skills, have a significant relationship with all the competencies as their significant value shows .000, which is less than 0.05. All the competencies are positively related, implying a strong positive correlation. Innovative thinking has a solid relationship with teamwork as its Pearson value is .820, indicating has the percent of relations connected with ICT skills has a moderate association with environmental awareness showing a 63.5% relationship.

H_3: There is an interrelationship among the employee management competencies such as planning and organizing, delegation, coping with stress, client orientation, managerial courage, leadership quality, and commitment to safety.

Table. 4

<table>
<thead>
<tr>
<th>Management Competencies</th>
<th>PO</th>
<th>D</th>
<th>CS</th>
<th>CO</th>
<th>MC</th>
<th>LQ</th>
<th>CSA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning &amp; Organizing (PO)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delegation (D)</td>
<td>.824“</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coping with Stress (CS)</td>
<td>.689“</td>
<td>.716“</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Client Orientation (CO)</td>
<td>.714“</td>
<td>.681“</td>
<td>.730“</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managerial Courage (MC)</td>
<td>.777“</td>
<td>.748“</td>
<td>.659“</td>
<td>.720“</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leadership Quality (LQ)</td>
<td>.783“</td>
<td>.725“</td>
<td>.682“</td>
<td>.736“</td>
<td>.780“</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Commitment to Safety (CSA)</td>
<td>.701“</td>
<td>.691“</td>
<td>.645“</td>
<td>.767“</td>
<td>.712“</td>
<td>.733“</td>
<td>1</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

The above table 4 implies that the competencies mentioned as management competencies show a positive correlation within them with a significant relationship as
their value is less than .05 (.000<0.05). The delegation has a robust positive correlation with planning and organizing as its Pearson value is .824, indicating it has 82.4%. Commitment to safety has a moderate relationship with coping with stress. It exhibits a 64.5% relationship.

H₄: There is an interrelationship among the employee operational competencies such as works with tools and technology, project management, ability to inquire, and technical and scientific credibility.

Table. 5

<table>
<thead>
<tr>
<th>Pearson Correlation</th>
<th>WTT</th>
<th>PM</th>
<th>AI</th>
<th>TSC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Works with Tools &amp; Technology (WTT)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Management (PM)</td>
<td>.706**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to Inquire (AI)</td>
<td>.712**</td>
<td>.730**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Technical/Scientific Credibility (TSC)</td>
<td>.764**</td>
<td>.816**</td>
<td>.796**</td>
<td>1</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

From the above table 5, it implies that the competencies mentioned as operational competencies show a positive correlation with all the variables with the significance relationship as their value is .000, which is less than .05. Among them, technical and scientific credibility has a solid positive relationship with project management as its value is .816 implies 81.6% of the relationship.

H₅: There is an interrelationship among the employee expert competencies such as change management, quality management, risk management, networking, and solving complex cases.

Table. 6

<table>
<thead>
<tr>
<th>Pearson Correlation</th>
<th>CM</th>
<th>QM</th>
<th>R.M.</th>
<th>N</th>
<th>SCC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change Management (CM)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality Management (QM)</td>
<td>.808**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk Management (RM)</td>
<td>.781**</td>
<td>.739**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Networking (N)</td>
<td>.754**</td>
<td>.737**</td>
<td>.696**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Solve Complex Cases (SCC)</td>
<td>.748**</td>
<td>.754**</td>
<td>.686**</td>
<td>.710**</td>
<td>1</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

The above table in results that the competencies mentioned in expert competencies show a correlation with all the variables with the significance relationship as their value is .000, which is less than .05. Among them, quality management shows a robust correlation with change management as its Pearson’s value is .808 implies that 80.8% correlation exists within them and networking has a moderate positive relationship with risk management as its value is .686 implies 68.6% relationship.

H₆: There is an interrelationship between the employee core, professional, management, operational, and expert competencies.
### Table 7

**Pearson Correlation**

<table>
<thead>
<tr>
<th>Employee Competencies</th>
<th>CC</th>
<th>PC</th>
<th>MC</th>
<th>OC</th>
<th>EC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Competencies (CC)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional Competencies (PC)</td>
<td>.906**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management Competencies (MC)</td>
<td>.889**</td>
<td>.920**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operational Competencies (OC)</td>
<td>.741**</td>
<td>.820**</td>
<td>.812**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Expert Competencies (EC)</td>
<td>.724**</td>
<td>.765**</td>
<td>.780**</td>
<td>.886**</td>
<td>1</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).**

The above table 7 shows a significant relationship between the variables whose value is less than .05, that is, .000<0.05. Thus, it indicates that employee competencies are significantly related to core, professional, management, operational, and expert competencies. All the competencies have a positive relationship as their values correlate positively, and a strong relationship exists between the variables. Among them, management competencies have a solid relationship with professional competencies as the value shows as .920, indicating a 92% relationship between them.

### 4.3 MEDIATION ANALYSIS

**Figure 1 Direct Effect of Selection Methods on Identification of Competencies**

![Diagram](image)

Figure 1 explains about the direct influence of employee selection methods on prediction of competencies.

**Table 8 Regression Weights**

<table>
<thead>
<tr>
<th>Competencies</th>
<th>Estimate</th>
<th>S.E.</th>
<th>C.R.</th>
<th>P</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;---</td>
<td>Selection Methods</td>
<td>.183</td>
<td>.090</td>
<td>2.025</td>
<td>.043</td>
</tr>
</tbody>
</table>

Table 8 inferred that the influence of selection methods on the prediction of competencies is significant. The p-value is .043, which is minimal than the confidence interval of 0.05 and has a regression value of .183.

**Table 9 Standardized Regression Weights**

<table>
<thead>
<tr>
<th>Competencies</th>
<th>&lt;---</th>
<th>Selection Methods</th>
<th>Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>.099</td>
</tr>
</tbody>
</table>

Table 9 inferred that the influence of selection methods on the prediction of competencies has a standardized regression value of 0.099.
Figure 2 Mediating Role of Predictive Ability of Selection Tests on Identification of Competencies

The above figure 2 explains about the direct and indirect effect of employee selection methods on prediction of competencies mediated through the predictive ability of selection tests.

Table 10 Regression Weights

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
<th>S.E.</th>
<th>C.R.</th>
<th>P</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predictive Ability</td>
<td>&lt;---</td>
<td>Selection Methods</td>
<td>.577</td>
<td>.045</td>
<td>12.782 .000</td>
</tr>
<tr>
<td>Competencies</td>
<td>&lt;---</td>
<td>Predictive Ability</td>
<td>-.307</td>
<td>.097</td>
<td>-3.160 .002</td>
</tr>
<tr>
<td>Competencies</td>
<td>&lt;---</td>
<td>Selection Methods</td>
<td>.360</td>
<td>.105</td>
<td>3.418 .000</td>
</tr>
</tbody>
</table>

Table 10 interprets that the influence of selection methods through the mediation of the predictive ability of selection tests shows significance as their p values that the impact of selection methods on predictive ability is .000, and the influence of predictive power on competencies is .002. The result of selection methods on competencies is .000, less than the confidence interval level of .05.

Table 11 Standardized Regression Weights

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predictive Ability</td>
<td>&lt;---</td>
</tr>
<tr>
<td>Competencies</td>
<td>&lt;---</td>
</tr>
<tr>
<td>Competencies</td>
<td>&lt;---</td>
</tr>
</tbody>
</table>

Table 11 explains that the standardized regression values on the dependency of predictive ability on selection method are .533, the dependence of competencies on predictive power is .181, and the reliance of competencies on selection method is .196. Thus, it results that the identification of competencies is depended on selection methods and the predictive ability of selection methods.

Table 12 Mediation Effect Table

<table>
<thead>
<tr>
<th></th>
<th>Standard Estimates</th>
<th>P Value</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Effect</td>
<td>.099</td>
<td>.034</td>
<td>Significant Impact</td>
</tr>
<tr>
<td>Direct Effect</td>
<td>.196</td>
<td>.003</td>
<td>Significant Impact</td>
</tr>
<tr>
<td>Indirect Effect</td>
<td>.096</td>
<td>.007</td>
<td>Significant Impact</td>
</tr>
</tbody>
</table>
The above table 12 results that the total effect of the influence of selection methods on identification competencies remains the same as its value of .099 does not change, and the p-value is .034, which significantly impacts the identification of competencies. The direct effect of selection methods on identifying competencies is .196, with a significance of .003 with the mediation of the predictive ability of selection tests on identifying competencies. The indirect effect of identification of competencies mediating through predictive ability with selection methods is .096, with a significance value of .007, implying that it has an impact. Finally, it concludes that the predictive power of selection tests is mediating the selection methods for identifying employee competencies. The values of total effect will be increased in direct impact, also indicating that the predictive ability of the selection test plays a vital role in impacting the identification of competencies.

5. FINDINGS

5.1 RELIABILITY RESULTS

The scale is reliable to measure the items denoting the variables as their values are more significant than the threshold value of .07.

5.2 CORRELATION ANALYSIS RESULTS

In core competencies, the commitment to life-long learning has strong interdependency with self-management, achieving results, and problem-solving, which emphasize that commitment to life-long improves those competencies when improving this competency. Self-management influences decision-making and achieving results, dedication to the organization, interpersonal relationships, adaptability, and flexibility. Interpersonal relationships will influence analytical thinking. Finally, it found that when one core competency is enhanced will affect the other competencies will lead to better employee performance.

In professional competencies, it is found that knowledge sharing has strong interdependency with teamwork, innovative thinking, environmental awareness, and information processing. Thus, it found that sharing knowledge among the team members and with the department will boost the other competencies exhibited in their job resulting in the best performance.

Management competencies delegation has strong interdependency with planning and organizing, coping with stress, and managerial courage. Dealing with stress strongly relates to client orientation, influencing the commitment to safety. As a result, when enhancing the quality of delegation, competency relates that delegating the resources and workforce and maintaining the channels will improve other competencies and helps to develop employee as well as the organization.

Operational competencies such as Technical and scientific credibility has strong interdependency with project management, work with tools and technology, and the ability to inquire. When technical and scientific competency increases, which positively influences the other competencies, it makes the employee sound enough to have operational competencies to present in their work.
In expert competencies, change management is strongly related to quality management, risk management, and networking. When developing the competency change management that is adopting the change in organization, market, command, mergers, and acquisitions will boost the other competencies too. The networking will increase the capability of networking. Developing one competency will positively influence another, helping the employees and the organization.

The correlation analysis of the hypotheses tested resulted in a solid relationship between the core, professional, management, operational, and expert competencies.

5.3 MEDIATION ANALYSIS RESULTS

The analysis of the mediation effect finds that the predictive ability of selection tests partially mediates between the employee selection methods and the identification of competencies. The direct impact of the selection method is increased when it negotiates with the predictive ability of selection tests. Thus, it positively impacts the identification of competencies during the selection process, which mediates with selection methods. It found that the predictive capacity of interview techniques and employment tests will help determine the required competencies for the job, resulting in the organization's best performance outcomes.

6. MANAGERIAL IMPLICATIONS

Tying training and professional development programs to success criteria improves their effectiveness. It offers a shared structure and vocabulary for talking about how to put essential techniques into practice and convey them. It provides a shared knowledge of the parameters and demands of a specific role. It offers uniform career norms used throughout the entire corporation, allowing workers to move between different lines of business.

A competency model can be applied to the following processes: career role mapping, separation, placement, redeployment, performance management, and evaluation. Using competency models goes beyond simply communicating an organization's priorities; they also serve as a solid foundation for creating integrated human resource systems, including staffing, promotion, succession planning, and performance management.

7. SUGGESTIONS AND CONCLUSION

As stated by Satyendra (2020) the competencies are interrelated and interdependent and have a strong relationship among and between them. The result shown in this study concludes the same that the competencies are interdependent.

The advantage of competency identification is that it establishes guidelines for employee education and development that are especially suited to the organization's requirements. It is a quick and effective strategy that concentrates on and analyses how employees operate and often lasts one or two days. An effective way to narrow down the competencies needed for each work item is to create a competency. This strategy has made the competencies a beneficial and valuable tool for enterprises.
Another advantage is that it generates a detailed list of the unique talents needed to accomplish a job. Based on how an employee performs at work, following the established performance requirements is the foundation for a competency evaluation. In addition to the assessed employee's acceptance, a competency mapping offers continuing employee performance coaching. By benchmarking employee performance, firms can more effectively target performance gaps and identify abilities requiring more instruction or specialized training. It also avoids the drawbacks of elaborate procedures and burdensome documentation, frequently leading to generic competency assertions.

Increases employee self-awareness, aids in career management, assists organizations in succession planning, aids in the promotion and can make accurate decisions on internal mobility, aids in performance management of employees, individual departments, and overall organization performance, directs training interventions, aids in job evaluation, and enhances employee competencies to achieve organizational performance.

A broad spectrum might be given depending on the position and the firm. Typically, tests determine an applicant's aptitude, personality, and skills. Other assessments include prenatal testing, physical examination, personality tests, and graphology assessments. The implementation of tests must consider their reliability, validity, objectivity, and consistency. Merlyn Mascarenhas (2012).

The primary goal of selection activities is to identify the most qualified individuals and persuade them to work with the organization. The importance of having efficient and effective recruitment and selection processes cannot be overstated. Selection activities include the reliability and validity of selection tests and interview methods, significantly predicting the best candidate to enter the organization.

Organizations must enlighten their workforce on the value of competency by organizing suitable selection methods and predictive tests in this respect. Organizational-level competency development models should be deployed, and there should be ongoing feedback loops to change and enhance the model to meet the workforce’s and the organization’s needs.

**Competing interests**

The authors have declared that no competing interests exist.

**Ethical considerations**

In compliance with Vels Institute of Science Technology and Advanced Studies VISTAS, Pallavaram, ethical clearance process, participation was voluntary, and no participants were persuaded or paid to participate (VISTAS - SPS/IEC/I/2022/08). This was achieved by providing the prospective participants with an informed consent document, which they had to complete and sign before participating in the interview.

The informed consent document stated the research overview, expectations from the participants, and the handling and use of the data collected. Participants were allowed to withdraw from the study at any given stage during the interview should they wish so. The researcher adhered to the statements in the informed consent document at all stages of the study.
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