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COMPETENCY-BASED TRAINING AS A MEDIATOR IN PUBLIC SECTOR PERFORMANCE: EVIDENCE FROM THE UAE GOVERNMENT

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Abstract

Purpose: This study examines how employee competencies (EC) and the competency framework (CF) influence employees' performance management (EPM) in UAE federal government entities, with competency-based training (CBT) as a policy-level HRM mediator. **Methodology:** A structured questionnaire (43 items) was distributed to 418 federal government employees, and data were analyzed using confirmatory factor analysis (CFA) and structural equation modeling (SEM) in AMOS. **Findings:** The results show that both EC and CF have significant positive effects on EPM (β=0.35 and β=0.45, respectively). Both EC and CF also strongly predict CBT (β=0.36 and β=0.56), which in turn has a large positive impact on EPM (β=0.70). Bootstrapping analysis confirms that CBT partially mediates the relationships EC→EPM (indirect β=0.255, p=0.03) and CF→EPM (indirect β=0.395, p<0.01). These outcomes suggest that CBT is a crucial mechanism through which competencies and frameworks enhance performance management (PM). **Originality:** The research adds valuable insights in the literature by integrating competency and training theories, and has practical implications: UAE government agencies should maintain robust CF and systematically design CBT programs to align employee development with performance goals.

Keywords: Competency-Based Training; Employee Competencies; Human Resource; Organizational Outcomes; Performance Management; Public Policy Impact.

1. INTRODUCTION

Effective performance management (PM) is a critical HR function in the public sector, ensuring that employee efforts align with organizational goals (Selden and Sowa, 2011). In the UAE federal government, a unified Performance Management System (PMS) has been adopted whereby employees are evaluated against agreed objectives and key performance indicators (KPIs) (Sparrow, 2008).

Central to this system are competencies – the knowledge, skills, abilities, and attitudes (KSAs) required for effective job performance – and a government-wide competency framework (CF) that defines these competencies for every role (Gerrish, 2016). The UAE's Federal Authority for Government Human Resources (FAHR) has formalized this framework, linking functional competencies to each job grade. Such frameworks standardize the behavioral indicators and training requirements at each level, thereby enhancing consistency and transparency in PM (Sarker et al., 2023).

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Despite this institutional emphasis, the relationships among competencies, the CF, and PM in the UAE public sector have not been empirically established. In particular, competency-based training (CBT) – training designed to bridge the gap between current and desired competencies – is thought to be a key mechanism but its mediating role is understudied. CBT has gained popularity globally as a way to create a highly skilled workforce and close skill gaps. By focusing on measurable outcomes and aligning training content with defined competencies, CBT improves productivity and employee engagement (Vaskova Kjulavkovska et al., 2022). In the UAE government context, CBT is mandated by policy (FAHR guidelines) to ensure that training directly supports the competencies stipulated in the framework ((FAHR), 2025). However, the extent to which CBT actually mediates the impact of competencies on PM remains unclear.

This study aims to fill these gaps by examining the level of relationships between employee competencies (EC), CF, and EPM in the UAE government sector, with CBT as a mediating variable. These gas were filled by testing seven hypotheses (H1–H7) that predict significant positive direct effects of EC and CF on EPM, and of EC and CF on CBT, and of CBT on EPM, as well as mediation effects of CBT on the EC→EPM and CF→EPM links. These are grounded in theoretical models such as:

- Iceberg Model (McClelland, 1973): distinguishes visible KSAs from deeper personal attributes. It implies that training can activate hidden competencies, strengthening the competency-performance link (Garcia-Perez et al., 2019).
- Competency-based HR Model: aligns competencies with organizational strategy. According to this view, a well-designed CF clarifies performance expectations and links HR practices to business goals (Adibe, 2015).
- Training and Human Capital Theories: posit that investing in employee skills through targeted training enhances performance. CBT, in particular, emphasizes measurable skill acquisition and directly supports job requirements (Yertas, 2024).

This research not only tests these conceptual links in a novel context (UAE public sector), but also addresses a practical need: ensuring that federal training programs yield measurable improvements in PM. The findings will inform policymakers and HR managers in government agencies about how to refine competency and training systems to maximize workforce effectiveness.

2. LITERATURE REVIEW

The literature review is divided into several sections.

2.1 Competency Frameworks and Employee Performance

A CF is a structured model of the KSAs needed for effective performance in an organization. It typically includes functional competencies and their mapping to specific roles. Such frameworks should be grounded in the organization's vision and goals. Without this alignment, an organization "cannot be developed" sustainably (Campion et al., 2011). In practice, UAE agencies build their frameworks by defining competency

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categories like core, leadership, and specialization for each job and linking them to proficiency as shown in Figure 1. This linkage ensures each employee's role has clear competency requirements ((FAHR), 2019).

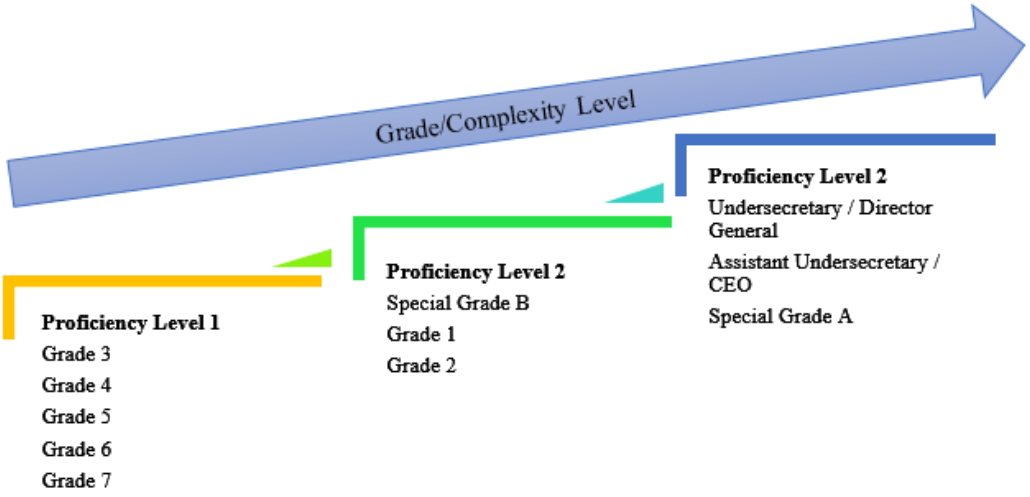

Figure 1: Proficiency Level of Competency Framework in UAE Government ((FAHR), 2019).

By clarifying expectations, a robust CF enables objective performance planning and evaluation. A CF provides behavioral definitions and measurement criteria for all roles (Wong, 2020). When employees and managers share a common competency model, performance standards can be set more transparently, reducing bias and improving feedback consistency. Empirical studies in various contexts suggest that linking HRM practices (including training and appraisals) to CFs leads to higher employee performance and organizational effectiveness (Agbozo et al., 2017). Therefore, Hypothesis 1 (H1) posits that EC positively influence EPM. Higher levels of EC enable individuals to meet job requirements more effectively, and performance appraisals grounded in clearly defined competencies help reinforce and sustain these performance outcomes (Neher and Maley, 2020, Hlavac, 2023). Hypothesis 2 (H2) proposes that the CF has a positive impact on EPM. A well-structured and clearly articulated CF enhances performance by aligning employee expectations with organizational objectives. When competency requirements are transparent and systematically integrated into HR practices, they help standardize performance evaluation criteria across roles and departments. Empirical evidence from a UAE-based study affirms that a well-designed CF supports the development of an effective and consistent system for monitoring and assessing employee performance (Jean et al., 2018).

2.2 Employee Competencies and Competency-Based Training

EC represent individual KSAs needed for tasks. Competency theory argues that these KSAs are determinants of job success. In UAE practice, each employee's competency profile is expected to align with their role's functional and behavioral competency

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standards (Suta, 2022). When competency assessments reveal gaps, organizations deploy CBT to address them. CBT involves mapping current competency levels against desired levels, identifying gaps, and creating training plans to bridge those gaps. Unlike general training, CBT focuses on practical, job-specific outcomes that the trainee will genuinely do after training. By emphasizing post-training performance, CBT ensures learning transfers directly into enhanced capabilities. If employees already possess high competencies (EC), they may require less remediation and more advanced development, affecting the nature of CBT deployed (Boahin and Hofman, 2014). Hypothesis 3 (H3) posits that EC positively influence competency-based training (CBT). Employees with higher levels of KSAs are more likely to engage in targeted and effective CBT initiatives as per Hypothesis 3 (H3). Organizations typically design and tailor CBT programs based on existing competency profiles; therefore, a stronger baseline of EC enhances the precision and relevance of training interventions. As such, this study argues that integrated competency-based training approaches are contingent upon both the assessment of EC and alignment with the formal competency framework. Similarly, the existence of a CF forms training design. A cohesive CF provides the curriculum for CBT: functional competency packages specify exactly what training content is needed (Brown, 1994, Mulcahy, 2000). For example, a UAE CF mandates CBT content aligned with each competency map. Hypothesis 4 (H4) suggests that the CF positively influences the implementation of CBT. A well-established and structured CF provides clarity regarding the specific competencies required for each role, thereby enabling organizations to identify competency gaps and design training programs accordingly (De Vos et al., 2015). The current study emphasized that the CF should serve as the foundational approach for all HR practices, ensuring that training initiatives are explicitly and systematically aligned with the competencies demanded by the organization.

2.3 Competency-Based Training and Performance Management

Training theory suggests that employee development translates into better performance (Brown and Sitzmann, 2011, Elnaga and Imran, 2013). Human Capital Theory posits that investments in employee skills (via training) increase productivity (Bapna et al., 2013). In line with this, CBT is reported to yield concrete benefits like, competency-based training can increase productivity and strengthen engagement. This pilot study of aviation inspectors emphasizes that CBT gains productivity by focusing on industry skill gaps (Vaskova Kjulavkovska et al., 2022). Similarly, other research demonstrates that structured training programs significantly enhance employees' knowledge and capabilities (Santoso et al., 2025). These capabilities then drive better execution of job duties. In the UAE context, CBT is an integral part of the federal training strategy. CBT helps "employees acquire all of the attitudes, knowledge, and precise skills needed to meet all organizational goals and job requirements". By making training directly relevant to job demands, CBT maximizes the impact on performance (Kimura et al., 2015). Therefore, Hypothesis 5 (H5) proposes that CBT has a direct and positive influence on EPM. When training programs are aligned with employees' specific competency gaps, they become more targeted, relevant, and impactful. As a result, employees who undergo such tailored training are better equipped to meet role expectations and demonstrate

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improved performance. CBT ensures that training outcomes are closely linked to clearly defined performance criteria, thereby enhancing the effectiveness of performance evaluations and contributing to overall organizational productivity (Vaskova Kjulavkovska et al., 2022, Ihara et al., 2023).

2.4 Mediating Role of Competency-Based Training

Training can serve as a mediator between inputs and outputs. Those inputs are competencies and frameworks and outputs are performances. Theoretical models of organizational learning and the Iceberg Theory both imply that merely possessing a competency potential (especially underlying traits) is not enough (Chenxi, 2021).

Training triggers the translation of these competencies into performance. CBT aligns skills with organizational objectives, making latent talents actionable. Empirical evidence in similar models supports mediation. For example, research in other sectors shows that employee capability (an outcome of training) mediates the effect of training on performance (Santoso et al., 2025).

In the study's model, CBT is expected to partially carry the influence of EC and CF onto EPM. Specifically, Hypothesis 6 suggests that CBT serves as a mediating mechanism between EC and PM. This means that the positive influence of employees' skills, knowledge, and abilities on their performance outcomes is, in part, facilitated through the provision of targeted training programs designed to address specific competency gaps.

Hypothesis 7 proposes that CBT also mediates the relationship between the CF and PM. In this case, the effectiveness of the formal competency structure in enhancing EP is realized more fully when it informs and guides the design of relevant training interventions.

The study will test the following paths:

2.4.1 Direct Paths:

a. EC→EPM (H1)

b. CF→EPM (H2)

c. EC→CBT (H3)

d. CF→CBT (H4)

e. CBT→EPM (H5)

2.4.2 Indirect Paths

a. EC→CBT→EPM (H6)

b. CF→CBT→EPM (H7)

3. METHODOLOGY

The methodology of the study is divided into several sections for clarity.

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3.1 Data Collection

A quantitative, cross-sectional survey design was used. The target population comprised employees of UAE federal government entities that have implemented the unified CF. The questionnaire was distributes via online survey. A total of 450 responses were received, of which 418 were valid and 32 responses were invalid (92.88% response rate).

3.2 Instruments

The survey instrument comprised 43 items adapted from validated scales in the literature. Items measured four constructs: EC, CF, CBT, and EPM. All items used 5-point Likert scales (1=Strongly Disagree to 5=Strongly Agree). The questionnaire was pre-tested with HR professionals to ensure clarity and relevance.

3.3 Data analysis

The analysis of the items was conducted using SPSS and AMOS. First, demographic analysis was done via descriptive statistics were characterized and checked for normality. Second, reliability analysis was conducted under various tests. Confirmatory factor analysis (CFA) was performed to assess the measurement model. Factor loadings and average variance extracted (AVE) for each construct confirmed convergent validity. Cronbach's alpha and composite reliability (CR) values were used to evaluate internal consistency. Discriminant validity was confirmed by comparing AVE with inter-construct correlations. Third, structural equation modeling (SEM) tested the hypothesized relationships. Model fit indices were acceptable. Path coefficients (β) were examined and their significance (critical ratio (C.R.) and p-value) for H1–H5 were analyzed as well. For mediation (H6, H7), bootstrapping was used (5,000 samples) to estimate the indirect effects of EC and CF on EPM through CBT. A mediation effect is supported if the indirect path is significant ($p<0.05$) and the confidence interval does not include zero.

3.4 Ethical Consideration

The study followed ethical research standards. Participation was voluntary and anonymous. No personal identifiers were collected. Verbal and Informed consent was obtained by participants before and while distributing the questionnaire. Respondents were told that their data will be used solely for academic purposes to add value in the literature.

4. RESULTS

The results of the study are divided into demographic, reliability and inferential analysis.

4.1 Demographic Analysis

The final sample comprised 418 respondents from UAE federal government as shown in Table 1. Descriptive statistics confirmed that the data was normally distributed, and the demographic profile included variables such as gender, age, education level, years of experience, and organizational rank, ensuring a representative cross-section distribution of the respondents.

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Table 1: Demographic Characteristics of the Respondents.

Variable	Category	Frequency	Percentage (%)
Gender	Male	228	54.5
	Female	190	45.5
Age Group	21-32	83	19.9
	33-44	263	62.9
	45 and above	72	17.2
Academic Qualification	High school	14	3.3
	Bachelor	270	64.6
	Master/PHD	134	32.1
Work Experience	0–5 years	52	12.4
	6–15 years	305	73
	More than 16 years	61	14.6
Type of Work	Human Resources	25	6.0
	Core Business	223	53.3
	Supportive activities	170	40.7

4.2 Reliability Analysis

This Table 2 reports internal consistency and construct validity for each of the four latent variables used in the structural model. It includes α, CR, and AVE values, all of which meet acceptable thresholds for measurement reliability and convergent validity.

Table 2: Reliability and Validity Measures of Constructs

Construct	n	α	CR	AVE
EC	8	0.77	0.77	0.55
CF	10	0.74	0.78	0.54
CBT	12	0.75	0.79	0.60
EPM	13	0.84	0.84	0.54

4.3 Inferential Analysis

This Table 3 presents the results of the structural equation modeling (SEM) analysis, displaying the standardized path coefficients (β), C.R., and significance levels (p-values) for the direct relationships hypothesized in H1 to H5. All five paths are statistically significant, confirming the direct effects of EC, CF, and CBT on EPM.

Table 3: Structural Path Analysis Using SEM (Direct Effects)

H	Hypothesized Path	β	C.R.	p-value	Result
H1	EC → EPM	0.35	3.04	< 0.01	Supported
H2	CF → EPM	0.45	2.41	< 0.05	Supported
H3	EC → CBT	0.36	3.30	< 0.01	Supported
H4	CF → CBT	0.56	3.26	< 0.01	Supported
H5	CBT → EPM	0.70	3.20	< 0.01	Supported

This Table 4 displays the bootstrapped indirect effects for Hypotheses H6 and H7, confirming that CBT partially mediates the relationships between EC and EPM, and between CF and EPM. The confidence intervals and significance values support the presence of partial mediation for both pathways.

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Table 4: Indirect Effects and Mediation (Bootstrapping Results)

H	Mediated Path	Indirect Effect (β)	95% Confidence Interval	p-value	Mediation Type
H6	EC → CBT → EPM	0.255	[0.055, 0.557]	0.030	Partial Mediation
H7	CF → CBT → EPM	0.395	[0.225, 1.121]	0.000	Partial Mediation

This Table 5 outlines the seven hypotheses (H1–H7) proposed in the study, detailing the expected relationships between EC, CF, CBT, and EPM. It also includes supporting theoretical foundations and relevant scholarly references justifying each path.

Table 5: Summary of Hypotheses and Theoretical Justifications

H	Paths	Description	Key References
H1	EC → EPM	EC directly influence EPM	(Boyatzis, 1991; Vandenabeele et al., 2013)
H2	CF → EPM	CF positively affects EP	(Campion et al., 2011; De Vos et al., 2015)
H3	EC → CBT	Higher competencies lead to greater uptake/effectiveness of CBT	(Wijayanti & Sari, 2023)
H4	CF → CBT	Stronger CF leads to structured, relevant CBT programs	((FAHR), 2019; Skorková, 2016)
H5	CBT → EPM	CBT enhances EPM outcomes	(Biswakarma & Subedi, 2025; Ibrahim et al., 2017)
H6	EC → CBT → EPM	CBT mediates the relationship between EC and EPM	(Vaskova Kjulavkovska et al., 2022)
H7	CF → CBT → EPM	CBT mediates the relationship between CF and EPM	(Belényesi & Dobos, 2022)

4.4 Conceptual Model

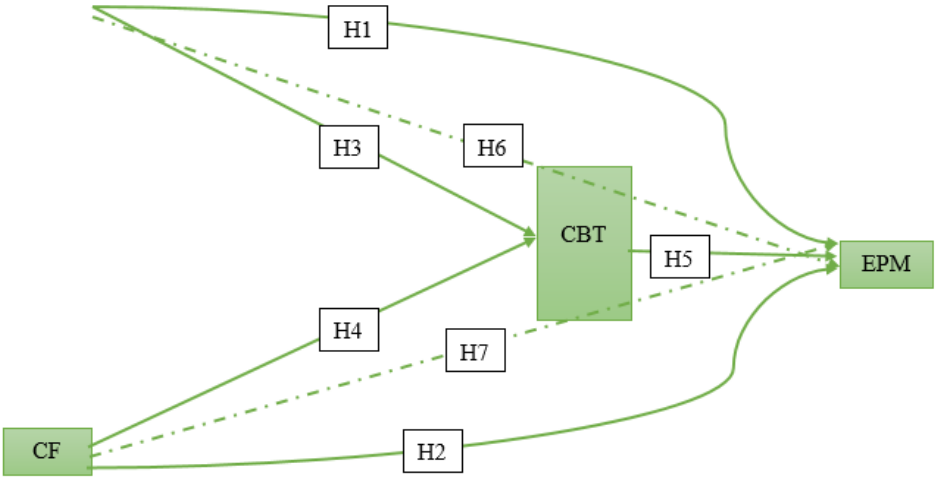

Figure 2: Conceptual Framework: Competency-Based Training as a Mediator between Employees' Competencies, Competency Framework, and Employee Performance Management

This model illustrates the hypothesized direct and indirect relationships tested in the study. EC and the CF are posited to influence EPM both directly (H1 and H2) and

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indirectly through CBT as a mediating variable (H6 and H7). Additionally, EC and CF are expected to directly impact CBT (H3 and H4), which in turn significantly affects EPM (H5).

The outcomes of the research confirms the existing literature by adding valuable insights to it. First, EC positively influence PM confirming H1. This is consistent with competence-based HRM theory: when employees possess the requisite KSAs, they meet performance standards more fully (Salman, 2020, Kumar, 2019, Belényesi and Dobos, 2022, Salman et al., 2023). UAE employees who meet or exceed the KPAs profiles defined by the competency framework can better achieve their targets (Ebrahim, 2011). As the study's results noted that, Competencies – which include knowledge, skills, behaviors, and attitudes – form the basis for how well people can fulfill their responsibilities and contribute to corporate goals. The significant $\beta=0.35$ here shows that improving EC by training is likely to yield better performance ratings. This aligns with the Iceberg Model which explains that visible competencies underlie job success, but only when activated through support and culture (Ho and Frampton, 2010).

Second, the CF itself has a direct impact on performance confirming H2. This underscores the strategic importance of an aligned CF. When a government entity has a comprehensive competency model that is clearly communicated, employees understand the behaviors and skills expected of them (Gregory, 2008). As per the study's results, strengthening the CF leads to a 0.45 increase in EPM ($\beta=0.45$, $p<0.01$). This supports literature emphasizing the linkage between competency models and performance objectives. In the UAE, where a unified competency framework covers all federal jobs, this effect implies that even the existence of the framework raises performance. The framework provides a common language for performance, so that appraisals and development plans are consistent and tied to strategy (El-Baz and El-Sayegh, 2010). Our finding that CF→EPM ($\beta=0.45$) is slightly stronger than EC→EPM ($\beta=0.35$) suggests that policy-level competency structures may be even more influential than individual skill levels – likely because they shape organizational systems by effective trainings, rewards, and career paths leading them to their growth and development (Urban et al., 2012).

Third, both EC and CF significantly predict the extent of CBT confirming both H3 and H4. The path CF→CBT ($\beta=0.56$) is notably large. This suggests that when a strong CF exists, agencies deliver more or better-aligned CBT (Yeung et al., 1996). A clear CF tells HR what to train. The literature supports this as CBT is effectively a curriculum derived from CF (Mansfield, 1996, Midhat Ali et al., 2021, Zingheim et al., 1996). The results of this study states that CBT supports the correct definition of the content of employee training in alignment with the competencies that need to be applied in their jobs. Our results underscore that government entities leveraging their competency frameworks can focus training precisely on competency gaps. Similarly, higher EC lead to more CBT ($\beta=0.36$). This may seem counterintuitive, but it likely reflects that agencies respond to identified competency levels: highly competent staff get advanced CBT, reinforcing their skills. In line with other studies, this indicates training readiness – organizations invest more in training when they detect competency needs (Budiningsih et al., 2017, Haney, 2002, Sung and Choi, 2014). Most importantly, CBT strongly boosts PM confirming H5. The

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path CBT→EPM (β=0.70) is the largest effect in the model. This is in concordance with the literature showing that well-designed training greatly improves performance outcomes (Ibrahim et al., 2017). Here, competency-based training means training content and objectives are measurable and job-specific (Rothwell and Graber, 2010, Fritsch, 2014). The empirical support ($p<0.01$) implies a one-unit increase in CBT readiness is associated with a 0.70 increase in performance. This aligns with a recent study who note that CBT can lead to benefits such as increased productivity and strengthened employee engagement (Vaskova Kjulavkovska et al., 2022). Therefore, CBT as ensuring employees acquire all of the attitudes, the knowledge, and the precise skills needed for their jobs, which evidently translates into higher PM scores.

The mediation results of the study (H6 and H7) have significant implications. Both EC and CF effects on performance are only partly direct; a sizable portion is transmitted through CBT. The indirect effects (EC→CBT→EPM β=0.255; CF→CBT→EPM β=0.395) are statistically significant. This highlights that training acts as a catalyst for competencies and frameworks raise in PM primarily by enabling better training outcomes (Susanto et al., 2023, Kroll and Moynihan, 2015). The Iceberg Model suggests hidden competencies that are motivation and traits become operational through training. The results of the present study concretely show that when employees or frameworks signal certain competencies, training harnesses them to produce performance gains. Therefore, CBT aligns the organization's goals with employee skills, improving performance, and maximizing efficiency. CBT also clarifies expectations for workers, empowering them to make better decisions and perform their jobs more efficiently. Thus, CBT is not just another variable but the mechanism through which the competency approach yields results.

These findings contribute to the public sector HR literature by empirically confirming the interconnected roles of competencies, competency frameworks, and training. Prior work in private or non-UAE contexts suggested such links, but this study provides concrete evidence in UAE federal agencies. It shows the importance of an integrated HR approach: without CBT, even strong competencies and frameworks would have a weaker impact on performance. The strong CBT→EPM effect (β=0.70) indicates that well-structured training is a high-leverage practice. For UAE government leaders and HR practitioners, the results are evident. First, continue to develop and communicate CF that align with strategic goals (supporting CF→EPM). Second, actively assess EC and use those results to design training (supporting EC→CBT). Third, invest in CBT programs whose outcomes are clearly linked to performance criteria. Doing so will magnify the return on HR investments, as our results show that CBT is the key conduit to improved PM. Finally, the positive H1 and H2 affirm that competency development alone matters; agencies should ensure recruitment and promotion emphasize KSAs as per the official framework. Altogether, these steps will create a high-performance culture as employees will be well aware of what is expected (via CF), they have the needed competencies which are development and selected, and they receive training tailored to any gaps, leading to better monitored and rewarded performance.

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5. CONCLUSION

This study examined how employees' competencies and the official CF affect PM in UAE federal government, and whether CBT mediates these effects. Using online survey from 418 employees and SEM analysis, he study highlights clear support for all hypotheses. EC and a well-structured CF both exert significant direct positive effects on PM. Both factors also significantly enhance the provision of CBT, which in turn has a strong positive influence on performance outcomes. CBT was confirmed as a partial mediator as it carries a substantial portion of the impact from competencies/framework to performance. A competency-based approach pays off especially when coupled with targeted training. These outcomes underscore the critical value of aligning HR systems. They suggest that UAE federal organizations should continue to refine their unified CF and leverage it in training design. High competence alone is not enough. CBT must be used to convert those competencies into measurable performance improvements. At the same time, the strong direct effects of EC and CF confirm that competency development remains essential. The research contributes theoretically by validating an integrated competency–training–performance model in the public sector. Empirically, it fills a gap by providing evidence from a Middle Eastern government context, where research on CBT is limited. It offers evidence-based guidance to boost PM, public agencies should maintain and enhance competency standards and embed CBT in HR practice.

6. LIMITATIONS AND FUTURE PERSPECTIVES

Although the research added valuable insights to the literature, it has several limitations to be noted. First, the cross-sectional design may have restricts generalization. While the results are consistent with causal theory longitudinal research would help determine how changes in competencies and training over time affect performance. Second, data were self-reported from a single source (employees) may raise issues of biasness. Future studies could incorporate objective performance indicators or supervisor ratings to avoid possible biasness findings. Further research should refine these instruments and perhaps include moderating factors (like employee motivation or leadership support. While our findings advance theory and practice, they also point to a need for ongoing research on how best to implement competency-based systems for sustained performance excellence.

Statements and Declarations

Acknowledgement statement

All authors equally contributed in the study.

Funding Statement

No funding was provided to the study.

Declaration of competing interest

There is no conflict of interest among the authors.

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Data availability statement

All the research data required to reproduce the work is already reported in the manuscript.

Ethical Consideration

This research involved voluntary participation by adult employees of UAE federal government institutions. No personally identifiable or sensitive information was collected. At the time of the study, formal Institutional Review Board (IRB) or ethics committee approval was not required under the policies of the authors' institutions or applicable UAE guidelines for non-invasive survey research involving consenting adults. Ethical standards are in line with the Declaration of Helsinki were upheld, including, informed verbal consent, anonymity, and zero risk of harm.

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