

Defining the Core Competencies of Personnel in Property Valuation at the Treasury Department to Move Towards Working in Public Administration 4.0, Thailand

Jutharat Polsen¹ and Grid Rangsungnoen²

1,2, Department of Business Administration, Faculty of Interdisciplinary Studies, KhonKaen University, Thailand

DOI: <https://doi.org/10.56293/IJMSSSR.2024.5206>

IJMSSSR 2024

VOLUME 6

ISSUE 5 SEPTEMBER - OCTOBER

ISSN: 2582 - 0265

Abstract: This research aims to analyze the key performance factors of current personnel involved in property valuation and how they influence the expected core competencies according to the characteristics of Bureaucracy 4.0. Data was collected through questionnaires from 234 personnel and analyzed using Exploratory Factor Analysis (EFA). The research findings conclude that there are three main components of key competencies for property valuation personnel: 1) Performance competencies, which encompass ethical adherence, quality service, work expertise, and teamwork; 2) Process competencies, which include work processes, service recipients, personnel, and digital integration; and 3) Leadership competencies, which focus on collaboration, achievement orientation, leadership, and innovation. The component that personnel prioritize the most is leadership competencies, followed by process competencies, and lastly, performance competencies. This indicates that the personnel at the Treasury Department place the highest importance on leading the organization towards success in the Bureaucracy 4.0 system.

Keywords: Key Performance, Public Administration 4.0, Core Competencies

1. Introduction

Personnel competencies are a key factor that plays a crucial role in organizational development and directly impact the organization's success. Enhancing various aspects such as technical skills, teamwork, problem-solving, and continuous learning leads to higher quality in both product manufacturing and service delivery. This improvement helps create a positive work environment, stimulates creativity, and fosters enthusiasm, ultimately contributing to the organization's sustainable growth. (Choocherd et al, 2022).

In public sector organizations, competencies are a crucial component as defined by the Office of the Civil Service Commission (OCSC). They define competencies as behavioral characteristics derived from knowledge, skills, and other attributes that enable personnel to achieve outstanding performance within the organization. The key components of these competencies include achievement orientation, quality service, expertise in the profession, adherence to integrity and ethics, and teamwork. All of these are essential for effective operation within the Bureaucracy 4.0 system (OCSC,2014).

Bureaucracy 4.0 represents a significant advancement in enhancing the efficiency and accuracy of government administration. By incorporating new technologies and innovations, government operations can be carried out more swiftly, effectively, and with greater responsiveness to the needs of the public. The use of technology in management helps reduce operational costs, enables efficient information sharing between agencies, and makes it easier for citizens to access government services. Therefore, public sector organizations must adapt to these technological changes to maintain public trust and confidence (Suwannathat et al., 2015).

The Ministry of Finance, which holds the primary responsibility for managing the government's finances and assets, plays a crucial role in supporting the government's operations in the Bureaucracy 4.0 era. The Treasury Department, under the Ministry of Finance, has a key mission of appraising property values according to international standards to enhance economic value and contribute to economic and social stability (Ministry of Finance, 2018).

The development of competencies for property valuation officers is therefore crucial, especially in an era where new technologies and innovations are being integrated into the work processes. Officers must be proficient in utilizing new technologies to ensure that property valuations adhere to international standards. These valuations will serve as a reference for the assessment of taxes and fees in accordance with the law (Natenooch, 2022).

Building on the information mentioned above, this study focuses on analyzing the key performance factors of current personnel involved in property valuation and how they influence the expected core competencies in line with the characteristics of Bureaucracy 4.0. The findings of this study will lead to recommendations for developing the competencies of personnel to effectively meet the missions and goals of the Treasury Department in the digital era.

2. Review of Literature

There are four main theories and concepts used in this study: 1. Theoretical Concepts of Core Competencies 2. Demographic Characteristics Theory; 2. Attitude Theory; 3. Consumer Behavior Theory; and 4. Measurement Concepts. Additionally, information related to automotive innovations has also been gathered.

2.1 Theoretical Concepts of Core Competencies

Core Competencies refer to the characteristics, knowledge, skills, and behaviors necessary for personnel to perform their work efficiently. Theories related to core competencies focus on identifying the key competencies that significantly contribute to outstanding performance within an organization. Developing these core competencies can help employees achieve the organization's goals and adapt quickly to changes in technology and work processes. Understanding and applying core competencies also promote teamwork and continuous skill development, which enhance the organization's competitive advantage (Kabue, & Kilika, 2016; Kawshala, 2017).

2.2 Concepts of High-Performance Organizations

A High-Performance Organization is one that can operate with high efficiency, achieving superior results in terms of quality, service, and responsiveness to customer needs. Such organizations typically have systematic management, visionary leadership, and a corporate culture that fosters teamwork, effective communication, and continuous personnel development. These elements collectively contribute to the long-term success and sustainability of the organization (Akdemir, 2010; Do & Mai, 2020).

2.3 Concepts of Developing Core Competencies towards Bureaucracy 4.0

Developing an organization's core competencies towards Bureaucracy 4.0 involves integrating digital technology and innovation into work processes to enhance efficiency and transparency in management. Bureaucracy 4.0 emphasizes agile operations, data-driven decision-making, and rapid, citizen-centric service delivery. In this context, developing competencies requires personnel to be adaptable and continuously learn new skills to meet the challenges and goals of the organization in the digital age (Cahyarini & Samsara, 2021; Paewai et al., 2023).

2.4 Background Information on Property Valuation by the Treasury Department

Property valuation by the Treasury Department plays a crucial role in determining the economic value of various assets, which serves as the basis for tax and fee assessments under the law. Property valuation requires expertise in analyzing both physical and financial data of the assets to ensure accurate valuation according to international standards. The Treasury Department continuously develops its valuation systems and processes to keep pace with market and economic changes, ensuring effective management in an era where technology significantly drives public administration (Sayce et al., 2009; Almy, 2014).

2.5 Theories of demographic characteristics

According to Satawatin (2003), people with various demographic features have distinct psychological qualities. The analysis was based on the following variables: gender, age, education, occupation, and income.

2.6 The theory of attitudes

According to Phanthumnawin (1981), attitude is a psychological variable that influences behavior more than other psychological traits like personality, motivation, and perception, resulting in a person acting adversely or favorably. As a result, a person is more inclined to respond in a specific manner to that person or scenario.

2.7 The measurement concept

The concept of the Likert Scale (Likert, 1932) was used to analyze and measure attitudes and marketing mix. The following are the scoring criteria:

Table 1: Scores of Attitude Measurement Questions

Attitude level	Scores
Very Important / Strongly Agree	5
Important / Agree	4
Moderately Important / Undecided	3
Slightly Important / Disagree	2
Unimportant / Strongly Disagree	1

Source: Adapted from Butchanon (2015)

And there is an interpretive criterion derived from the mean when analyzing data related to opinions or attitudes, as shown in Table 2.

Table 2: Interpretation criteria

Mean	Interpretation
4.51-5.00	Very Important / Strongly Agree
3.51-4.50	Important / Agree
2.51-3.50	Moderately Important / Undecided
1.51-2.50	Slightly Important / Disagree
1.00-1.50	Unimportant / Strongly Disagree

Source: Lindner & Lindner (2024)

3. Research Methodology

This study employs a quantitative research approach using survey methods and data collection through questionnaires. The researcher has outlined the research process as follows:

3.1 Population and sample

This research focuses on analyzing the core competencies of personnel in property valuation across Treasury Offices nationwide. The sample consists of 240 individuals, selected through simple random sampling from a total population of 543 individuals. The sample size was determined using Taro Yamane's formula with a 95% confidence level and a 5% margin of error (Yamane, 1967).

3.2 Research Instruments

The data collection was conducted using a questionnaire, which the researcher developed based on theoretical concepts and literature reviews to define the content scope. The questionnaire was divided into two parts:

Part 1: General Information about Respondents - This section consists of a checklist format where respondents select the appropriate answer in the provided options.

Part 2: Likert Scale Questions - This section includes closed-ended questions assessing the opinions of Treasury

Department property valuation personnel on core competencies, using a rating scale based on Likert's method (Likert, 1961).

3.3 Instrument Development and Quality Assurance

- (1) Study and Review: The researcher studied relevant theories, concepts, and research related to the variables under investigation to guide the creation of the questionnaire.
- (2) Drafting the Questionnaire: The draft was aligned with the research objectives, ensuring the accuracy of the content and language used.
- (3) Content Validity: The questionnaire draft was reviewed by three experts to evaluate the content validity, focusing on the Index of Item Objective Congruence (IOC). Only questions with an IOC value greater than 0.5 were included (Sireci, 1998).
- (4) Reliability Testing: The refined questionnaire was tested on a non-research sample of 30 individuals to determine its reliability. The Cronbach's alpha coefficient was used, with a reliability threshold set at 95%. The questionnaire achieved a reliability score greater than 0.7, which meets the established standards (Cronbach, 1951).

3.4 Data analysis

For this research, the data analysis is divided into two main steps:

- (1) Descriptive Statistics Analysis:
 - This step involves analyzing general data, including the respondents' opinions gathered from the questionnaires.
 - The statistical tools used in this phase include descriptive statistics such as frequency, percentage, mean, and standard deviation.
- (2) Factor Analysis of Core Competencies:
 - This step focuses on analyzing the factors that determine the core competencies of Treasury Department personnel involved in property valuation, aiming to align with the Bureaucracy 4.0 framework.
 - The analysis is conducted using Factor Analysis (FA), specifically Exploratory Factor Analysis (EFA), to extract the key components.
 - The Principal Components Analysis (PCA) method is employed to identify the primary variables, and the Orthogonal Rotation technique, specifically the Varimax method, is used to achieve a clearer structure of the factors.

4. Results

4.1 General Information of Respondents:

From the study of 234 personnel, it was found that the majority were female (56.8%), aged between 31-40 years (41.0%), and held a bachelor's degree (67.1%). Most of the respondents held operational-level positions (45.3%) and had 1-5 years of work experience (42.3%) (Table 3).

Table 3: Demographic characteristics of respondents.

Demographic characteristics	Number	Percentage
1. Gender		
Male	101	43.20
Female	133	56.80
Total	234	100.00
2. Age (years)		
21-30	79	33.80
31-40	96	41.00
41-50	38	16.20
>50	21	9.00

Total	234	100.00
3. Education		
Upper Secondary School or High Vocational Certificate.	15	6.40
Bachelor's degree	157	67.10
Higher than bachelor's degree	62	26.50
Total	234	100.00
4. Job Category		
Temporary Employees	50	21.40
Senior Level 5	5	2.10
Operational Level	106	45.30
Skilled Level 56	56	23.90
Specialized Skilled Level	17	7.30
Total	234	100.00
5. Work Duration (years)		
<1	15	6.40
1-5	99	42.30
6-10	73	31.20
11-20	21	9.00
21-30	18	7.70
>30	8	3.40
Total	234	100.00

4.2 Comparison of Current Core Competencies with Bureaucracy 4.0 Competencies:

The analysis revealed that opinions regarding current core competencies were at a very high level, with an average score of 4.56. In comparison, the expected competencies according to the characteristics of Bureaucracy 4.0 had an average score of 4.60. This indicates that both sets of competencies are regarded as similarly important, with personnel placing the highest importance on digital and innovation competencies.

4.3 Factor Analysis Results:

The suitability of the data for factor analysis was evaluated using the Kaiser-Meyer-Olkin (KMO) measure, which was found to be 0.812. This indicates that the collected data is adequately suitable for factor analysis at a good level (Hill., 2011). Additionally, Bartlett's test was conducted, revealing a calculated chi-square value of 3451.138 and a p-value of 0.000 at a 0.05 significance level. This suggests that the correlation matrix of the variables is appropriate for further analysis (Dziuban & Shirkey, 1974), as shown in Table 4.

Table 4: Results of the Data Suitability Test for Factor Analysis

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.896
Bartlett's Test of Sphericity	Approx. Chi-Square	1286.317
	df	78
	Sig.	<.001

5.4 Identifying the Desired Core Competencies in Accordance with Bureaucracy 4.0:

The analysis identified three main desired competency components:

Organizational Leadership Competency: The most important aspect is achievement orientation (0.74), followed by leadership (0.66), and innovation (0.60).

Process Competency: The most important aspect is digital competency (0.79), followed by customer orientation (0.58), and process orientation (0.54).

Operational Competency: The most important aspect is professional expertise (0.91), followed by integrity and

ethics (0.72), and teamwork (0.72). (Table 5)

Table 5: Factors of Current Core Competencies and Desired Core Competencies Expected for Becoming Bureaucracy 4.0

Components of Current Core Competencies and Desired Core Competencies Expected for Becoming Bureaucracy 4.0	Factor Loading
Integrity and Ethics	0.72
Quality Service	0.71
Professional Expertise	0.91
Teamwork	0.72
Process Orientation	0.54
Customer Orientation	0.58
Personnel	0.51
Digital Competency	0.79
Collaboration	0.44
Achievement Orientation	0.74
Milestone Orientation	0.69
Innovation	0.60
Integrity and Ethics	0.72

chi-square = 165.966, df=62, chi-square/df=2.677, p-value=.000,

Suggestions for Future Studies:

Future research should focus on developing the competencies of personnel to accommodate the 4.0 government system in conjunction with other public agencies or government systems within the country. The study should adopt a qualitative approach exclusively, selecting a diverse target group for data collection to gain in-depth information from both executive and operational levels. This could involve monitoring the impact of implementing the 4.0 government system on organizational changes within agencies. Additionally, comparative studies between government agencies, both domestically and internationally, regarding government reform in the 4.0 era and future developments should be conducted.

References

1. Akdemir, B., Erdem, O., & Polat, S. (2010). CHARACTERISTICS OF HIGH PERFORMANCE ORGANIZATIONS. Suleyman Demirel University Journal of Faculty of Economics & Administrative Sciences, 15(1).
2. Almy, R. (2014). Valuation and assessment of immovable property.
3. Butchanon, W. (2015). Factors Affecting Farmers' Adoption and Willingness to Pay Towards GMOs Corn Seeds. [Master's thesis]. Chiang Mai University.
4. Cahyarini, B. R., & Samsara, L. (2021). The challenges of digital competency implementation towards world-class bureaucracy. Jurnal Borneo Administrator, 17(2), 259-274.
5. Ceratopogonidae in Prachuap Khiri Khan Province, Thailand. Journal of economic entomology, 115(5), 1719-1723.
6. Choocherd, S., Pattanatanang, K., Chimnoi, W., Kamyngkird, K., Tongyoo, P., & Phasuk, J. (2022). Preliminary study on comparative efficacy of four light sources for trapping Culicoides spp.(Diptera: Ceratopogonidae) in Prachuap Khiri Khan Province, Thailand. Journal of economic entomology, 115(5), 1719-1723.
7. Cronbach, L.J. (1951). Coefficient alpha and the internal structure of tests. Psychometrika, 16(C), 297-334.
8. Do, T. T., & Mai, N. K. (2020). High-performance organization: a literature review. Journal of Strategy and Management, 13(2), 297-309.
9. Dziuban, C. D., & Shirkey, E. C.(1974). When is a correlation matrix appropriate for factor analysis? Some decision rules. Psychological bulletin, 81(6), 358.
10. Hill, B. D. (2011). The sequential Kaiser-Meyer-Olkin procedure as an alternative for determining the

- number of factors in common-factor analysis: A Monte Carlo simulation. Oklahoma State University.
11. Kabue, L. W., & Kilika, J. M. (2016). Firm resources, core competencies and sustainable competitive advantage: An integrative theoretical framework. *Journal of management and strategy*, 7(1), 98-108.
 12. Kawshala, H. (2017). Theorizing the concept of core competencies: An integrative model beyond identification. *International Journal of Scientific and Research Publications*, 7(2), 253-256.
 13. Likert, R. (1932). A technique for measurement of attitudes. *Archives of Psychology*, 3(1): 42-48.
 14. Lindner, J. R., & Lindner, N. (2024). Interpreting Likert type, summated, unidimensional, and attitudinal scales: I neither agree nor disagree, Likert or not. *Advancements in Agricultural Development*, 5(2), 152-163.
 15. Natenooch, J. (2022). The Impact of the Technological Changes toward the Accountants' Development in the Digital Age. *Journal of Humanities and Social Sciences*, Rajapruk University, 8(1), 1-18.
 16. Office of the Civil Service Commission (OCSC) (2014) *The Strategic Workforce Planning Manual*, Nonthaburi, OCSC.
 17. Paewai, A. A., Budiayanto, B., & Riharjo, I. B. (2023). Towards a world-class bureaucracy: Corporate University's contribution to state civil apparatus talent development. *International Journal of Research in Business and Social Science* (2147-4478), 12(7), 179-189.
 18. Phanthumnawin, D. (1981). *Ethical psychology and Psychology of language*. Bangkok: Watana Panich Publishing Company Limited. 130 p.
 19. Satawat, P. (2003). *General psychology*. Bangkok: Thaicharoenpress.
 20. Sayce, S., Smith, J., Cooper, R., & Venmore-Rowland, P. (2009). *Real Estate Appraisal: from value to worth*. John Wiley & Sons.
 21. Sireci, S. G. (1998). The construct of content validity. *Social indicators research*, 45, 83-117.
 22. Suwannathat, P., Decharin, P., & Somboonsawatdee, A. (2015). Fostering innovation in public organizations in Thailand. *International Journal of Organizational Analysis*, 23(4), 528-544.
 23. Yamane, T. (1973). *Statistics: An Introductory Analysis*. (3rd ed.). New York: Harper and Row.