

The Association between Critical Thinking Skills and Decision-Making Skills towards Job Satisfaction amongst Healthcare Professionals

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ABSTRACT

Job satisfaction among healthcare professionals is an important factor in determining operational readiness, workforce stability and effective healthcare delivery, especially within structured and high-pressure healthcare environments. This research study will investigate the relationship between critical thinking skills and decision-making skills to job satisfaction among the personnel working in the Malaysian hospitals in Klang Valley. Drawing upon the Job Embeddedness Model, the research will examine the contribution of cognitive competencies to the perception of organisational fit, professional fulfilment and workforce sustainability. A quantitative cross-sectional research design will be used to analyse the proposed relationships. A sample of 200 healthcare professionals will be selected using systematics of random sampling to ensure adequate representation and statistical validity. Data will be gathered using structured questionnaires based on known data instruments on critical thinking disposition, decision-making patterns and job satisfaction. The responses will be measured using a five-point Likert scale. Statistical analyses will be performed using Version 30 of the statistical package Statistical Package and System (SPSS) including descriptive statistics, reliability analysis, Pearson correlation and multiple regression to test the hypothesised relationships. The study will hypothesise that both critical thinking skills and decision-making skills have a positive association with job satisfaction in healthcare settings. It is expected that improved cognitive competencies will reveal greater professional confidence, decreased clinical uncertainty, increased workplace engagement, and consequently, improved work satisfaction. By concentrating on cognitive capabilities needed for clinical judgement, ethical reasoning and operational effectiveness, this study will produce empirical information to support evidence-based human resource strategies, professional development initiatives and long-term resilience of healthcare in Malaysia.

Keywords: Critical Thinking, Decision-Making, Job Satisfaction, Healthcare Professionals.

INTRODUCTION

Razak et al. (2022) emphasised the element of healthcare personnel who must work in a high-pressure environment where they need to make a quick clinical judgment, ethical clarity, and coordinated response. Yin et al. (2024) documented that poor staffing support and poor motivational hygiene factors contribute to a decrease in the morale of healthcare settings. Mohamed et al. (2023) further observed that limited career growth opportunities and operational stressors exacerbate the dissatisfaction of military medical professionals. Rokeman et al. (2023) pointed out that critical thinking accelerates analytical thinking and professional satisfaction within complex clinical settings. Verulava (2024) indicated that a competent decision-making skill cuts down on error, builds confidence and enhances overall workplace satisfaction. Christodoulakis et al. (2022) said that hierarchical rigidity and lack of autonomy in structured organisations can restrict the ability to think reflectively

and make independent decisions. Zhao (2023) proved that prolonged stress and work-life imbalance are direct causes of impairing job performance and psychological health. Othman et al. (2025) found that skill-based competencies significantly affect the retention intentions of employees with creativity skills being the best predictor thus reinforcing the importance of professional competencies in reinforcing workforce stability. Despite extensive research on job satisfaction and professional competencies in healthcare settings, limited empirical studies have examined the direct association between critical thinking skills, decision-making skills, and job satisfaction within an integrated cognitive framework. While previous studies have independently linked stress, organisational factors, and professional competencies to satisfaction outcomes, there remains insufficient theoretical integration explaining how cognitive competencies enhance perceived organisational fit and professional fulfilment. This gap is particularly evident in structured healthcare environments where clinical autonomy, ethical reasoning, and rapid judgment are essential. Therefore, this study addresses this gap by examining how critical thinking and decision-making skills contribute to job satisfaction through the lens of the Job Embeddedness Model, thereby offering a theoretically grounded and contextually relevant explanation for workforce sustainability.

LITERATURE REVIEW

Job Satisfaction

Jawaharlal & Gupta (2024) stated in their work that job satisfaction is the positive emotional evaluation that employees have towards their work depending on factors such as pay, recognition, supervision, and organisational support. Vyas & Dhoolappanavar (2022) went further to state that job satisfaction is the degree to which employees feel motivated, valued and happy in their working context. Yin et al. (2024) emphasised that hygiene and motivational factors, specifically coworker support and work-life integration, play an important role in the degree of satisfaction in healthcare environments. Razak et al. (2022) mentioned that healthcare professionals are exposed to special stressors which include quick paced operational demands and ethical ambiguity which directly affect morale and retention. Mohamed et al. (2023) reported that a lack of career advancement opportunities within health services heightens dissatisfaction and the intention to leave. Zhao (2023) noted that ongoing work-life imbalance and cumulative stress negatively affect psychological well-being, which consequently lowers job performance and professional commitment. Steinmann et al. (2022) showed that effort-reward imbalances undermine the morale and contribute to long-lasting dissatisfaction of medical officers. Wilk et al. (2023) stated that burnout due to chronic workplace pressures leads to an elevated rate of turnover and organisational costs, especially for high-stakes environments. Hansson et al. (2022) further argued that dissatisfaction results into loss of institutional knowledge, making the organisation less stable and ready. Yin et al. (2024) found leadership quality, teamwork and person-organisation fit to be central predictors of job satisfaction within public-sector institutions. Ismail & Khalid (2022) added that the management of job stress and the work-life balance are the critical determinants of satisfaction, especially in demanding service-oriented professions. Collectively, these studies suggest that job satisfaction in the healthcare contexts is influenced by both intrinsic factors, such as professional fulfilment and cognitive engagement, and extrinsic conditions, such as leadership and organisational structure. Within the medical context, job satisfaction therefore is not simply a matter of individual outcome but rather an operational imperative and strategic imperative related to operational efficiency and national defence readiness. Understanding its determinants forms a basis for the analysis of how cognitive competencies, especially critical thinking and decision-making skills, could improve professional fulfilment and workforce sustainability.

Critical Thinking Skills

Vincent-Lancrin (2024) defined critical thinking as the ability to use reasoned judgment, to evaluate assumptions and to weigh evidence to reach independent and informed conclusions. Rokeman et al. (2024) emphasised that analytical thinking and reflective evaluation play a central role in the development of professional competence and job fulfilment in healthcare settings. Huang et al. (2023) found that reflective practices do improve appreciation and motivation and thereby strengthen workplace satisfaction. Lee & Lee (2022) mentioned that that personal competencies and job demand that are matched because of reflective thinking enhances individual effectiveness and the performance of the organization. Shakurnia et al. (2022) stated that a deficiency in critical

thinking in the medical field could result in poor clinical judgment and low operational efficiency. Richards & Schwartzstein (2022) further explained that poor analytical reasoning is linked to delayed emergency responses and poor patient outcomes, especially in complex environments. Antrobus & West (2022) argued that traditional approaches of teacher-centred approaches and rote learning do not allow higher-order thinking skills to be developed in medical education. Christodoulakis et al. (2022) noted that rigid hierarchical structures may discourage questioning and innovative reasoning and therefore constrains application of critical thinking in structured organisations. Rokhim et al. (2023) reported that robust critical thinking frameworks are necessary in healthcare settings where uncertainty and resource limitations require adapting thinking. House et al. (2022) proved that effective problem-solving and collaborative reasoning positively affects performance in a multidisciplinary team, particularly under operational pressure. Yin et al. (2024) showed that environments of support at work promote reflective engagement and minimize burnout, indirectly reinforcing the use of critical thinking competencies. Collectively, these studies suggest that critical thinking is not a cognitive skill, but a professional capability needed to navigate through complex clinical and operational scenarios. In healthcare environments, where decisions need to be made in a timely, ethical and strategically aligned way, critical thinking proficiency promotes both individual confidence and organisational resilience. Despite its acknowledged significance, empirical studies investigating its direct relationship between job satisfaction among healthcare professionals are scarce. Therefore, studying the role of critical thinking skills in the Malaysian healthcare context is imperative to understanding cognitive competence contribution to the stability of the workforce and the sustainability of the health of the nation.

Decision-Making Skills

Nurarfiansyah et al. (2023) defined decision-making as a cognitive process of choosing the best possible option from several alternatives from available information. Qin et al. (2023) stated that decision-making is an organisational behaviour process, where problems are identified, alternatives are evaluated and rational solutions implemented to achieve stated objectives. Balakrishnan & Saifuddin (2022) further emphasised that effective decision-making determines organisational success especially in complex and high-stake environments. Verulava (2024) noted that the better decision leads to greater confidence, less clinical mistakes, and enhanced professional satisfaction in the healthcare setting. Mohamed et al. (2023) reported that high-stress working conditions and insufficient institutional support cause poor decision quality, which contributes to military medical professional dissatisfaction and burnout. Daud et al. (2022) found that faulty judgement is one of the causes of lower quality in patient care and long-term performance problems, especially in demanding service situations. Kumareswaran et al. (2022) added that lack of structured burnout assessments and intervention frameworks further compromise cognitive clarity and increase the error rates. Gkliati & Saiti (2022) described how ineffective decisions affect teamwork, which delays interventions and destroys trust within healthcare units and consequently affects the morale. Rus et al. (2022) argued that the disengagement and low job satisfaction are caused by weak organisational policies and inadequate training systems. Aladul et al. (2023) showed that poor decision support structures have a detrimental effect on the individual performance and organisational effectiveness. Alrawahi et al. (2024) further explained that ongoing stress and discontent associated with poor decision-making environments accelerate turnover intentions and compromise workforce stability. Collectively, these studies indicate the need for research on decision-making skills to go beyond technical competence, to include cognitive resilience, organisational support and collaborative dynamics. In the healthcare settings, where staff must balance clinical duties with operational requirements, effective decision-making is essential for both patient safety and mission readiness. However, despite the strategic importance, there is little empirical evidence that investigates the direct link between decision-making skills and job satisfaction among healthcare professionals. Thereby, the importance of comprehending the contribution of decision-making competence on professional fulfilment in the Malaysian healthcare is essential in enhancing human capital development and healthcare resilience.

Theoretical Framework and Hypotheses Development

Mitchell et al. (2001) provided the Job Embeddedness Model (JEM) to describe the reasons why employees stay anchored with their organisations in three dimensions that is fit, links and sacrifice. Fit is the degree of correspondence between the values, skills and job demands of an individual, links are formal and informal

contacts within the organisation and sacrifice is the perceived cost of leaving the organisation. Unlike the traditional theories of turnover which deal only with a person's dissatisfaction, JEM underscores the wider web of forces that hold employees in the context of their professional working environment. Within healthcare settings, the JEM is a relevant framework for understanding job satisfaction. Healthcare professionals work in highly structured and stressful environments where role congruence and professional competency are essential. When personnel experience high levels of fit between their competencies and their tasks within operations (fit), maintain coherent working relationships within medical units (links), and see the professional and institutional benefits that accrue to continued service (sacrifice), then their overall job satisfaction is enhanced. Thus, JEM recommends that cognitive competencies such as critical thinking and decision making contribute to higher perceived fit and increased organisational attachment which in turn lead to higher satisfaction.

In the present study, critical thinking and decision-making skills are conceptualised as complementary cognitive competencies rather than isolated constructs. Critical thinking facilitates analytical reasoning, evidence evaluation, and reflective judgment, which form the cognitive foundation for effective decision-making. Decision-making skills operationalise these analytical processes into practical and timely actions within clinical environments. Thus, critical thinking enhances the quality of decision-making, while decision-making translates analytical reasoning into behavioural outcomes. Together, these competencies strengthen perceived job fit, professional confidence, and organisational attachment, thereby contributing to higher job satisfaction. This integrated cognitive pathway strengthens the theoretical coherence of the proposed model.

Figure 1: Proposed framework for The Association Between Critical Thinking Skills and Decision-Making Skills Towards Job Satisfaction Amongst Healthcare Professionals

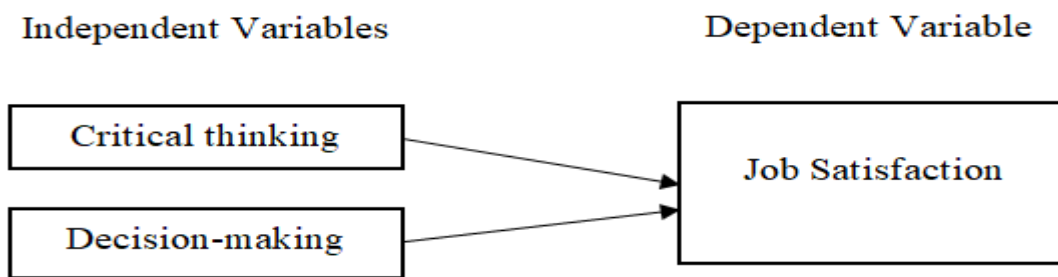


Figure 1 defined the proposed framework for this study.

Based on the Job Embeddedness Model, employees who perceive stronger alignment between their competencies and job demands experience greater organisational fit and professional fulfilment. Critical thinking enhances analytical engagement and cognitive confidence, which strengthens perceived competence and role congruence. Similarly, effective decision-making reduces uncertainty, improves task efficiency, and enhances professional autonomy. These mechanisms collectively increase psychological attachment to the organisation and improve satisfaction outcomes. Accordingly, the following hypotheses are proposed:

H1: Critical thinking skills are positively associated with job satisfaction among healthcare professionals.

H2: Decision-making skills are positively associated with job satisfaction among healthcare professionals.

H3: Critical thinking and decision-making skills collectively predict job satisfaction among healthcare professionals.

METHODOLOGY

Research Design

A quantitative approach will be used to study the relationship of critical thinking skills and decision-making skills on job satisfaction among Malaysian healthcare professionals. In measurement of these variables, structured questionnaire instruments will be used and statistical measures SPSS Version 30, including

descriptive statistics, reliability analysis, Pearson correlation and multiple regression will be used to analyse the primary data.

Population and Sampling

A population will be comprised of healthcare professionals who are serving in the Malaysian hospitals in Klang Valley, irrespective of rank and appointment. To collect data relating to sufficient representation and statistical strength, systematic random sampling will be used in collection of data of about 200 healthcare professionals. The sample size of 200 respondents was determined based on statistical power considerations for multiple regression analysis, ensuring adequate representation and sufficient power to detect medium effect sizes at a 95% confidence level. This sample size is consistent with recommendations for behavioural research involving two predictor variables.

Data Collection Procedures

The survey instruments will be used to gather data from healthcare professionals from Malaysian hospitals in Klang Valley. The questionnaire instrument will consist of statements for respondents measured on a five-point Likert scale from 1 = Strongly Disagree, 2 = Disagree, 3 = Moderately Agree, 4 = Agree and 5 = Strongly Agree.

Framework of Questionnaire

The questions related to Critical Thinking Skills are adapted from the California Critical Thinking Disposition Inventory (CCTDI) developed by Profetto-Mcgrath (2003), which measures individual's disposition to analytical type of reasoning, seeking the truth, and systematic evaluating. The questions for Decision-Making Skills are adapted from The Melbourne Decision Making Questionnaire: An Instrument for Measuring Patterns for Coping with Decisional Conflict developed by Mann et al. (1997) that measures decision styles and responses under pressure.

The questions for Job Satisfaction are adapted from Job Satisfaction Survey (JSS) developed by Spector (1985).

Data Analysis

The main data collected will be analysed by using the statistical method (SPSS Version 30). Tests performed will include frequency analysis, descriptive statistics, reliability analysis, Pearson correlation and multiple regression.

Limitations

This study adopts a cross-sectional research design, which limits the ability to establish causal relationships between cognitive competencies and job satisfaction. The reliance on self-reported questionnaires may also introduce response bias and common method variance. Additionally, the sample is restricted to healthcare professionals in Klang Valley hospitals, which may limit generalisability to other regions or healthcare systems. Future studies employing longitudinal or mixed-method approaches would provide stronger causal inference and deeper contextual understanding.

RECOMMENDATIONS

Recommendations for Organisations

Organisations, especially in the Malaysian medical services, should institutionalise and implement structured training programmes to improve professional confidence and job satisfaction by strengthening critical thinking and decision-making competencies. The leadership should support the team-based operational frameworks that encourage collaboration, open communication, and shared responsibility as teamwork has been found to play a significant mediating role in strengthening satisfaction outcomes. Human resource policies should incorporate ethical reasoning modules and decision-making training which use scenarios into continuous professional

development to bring individual competence with organisational mission readiness. Finally, organisational leaders should create supportive supervisory systems and feedback mechanisms to maintain workforce morale, mitigate the risk of burnout, and enhance the long-term operational resilience.

Recommendations for Future Research

Future research should use a longitudinal research design in which effects of critical thinking, decision-making skills, and job satisfaction will be measured over time to establish greater causal inferences. Subsequent studies may examine moderating variables such as years of service, and operational exposure to see if these factors affect the strength of the relationships found. Researchers are also encouraged to increase the sample outside of government hospitals such as the private hospitals or joint service environments to improve generalisability. Additionally, future study may include qualitative approaches such as interviews or focus groups to gain deeper insights into how cognitive competencies affect professional fulfilment in high-pressure healthcare settings.

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