

RESEARCH ARTICLE

Capabilities, knowledge and skills of superior human resources through the competency of Tanjung Balai Karimun Port Employees, Riau Islands, Indonesia

Jon Kenedi, Chablullah Wibisono*, Fitri Astriani, Noviyanti, Ihram Bani Syukur

Faculty of Economics, University of Batam, Batam Island 29464, Indonesia

* Corresponding author: Chablullah Wibisono, chablullahwibisono@gmail.com

ABSTRACT

The community complains about the service at the sea passenger port in Tanjungbalai Karimun because it is considered unfriendly to passengers. This port is the only entrance to The Tanjung Balai Karimun Port and was built decades ago. One complaint is the surly service. The number of respondents in this study was 300. With the Slovin formula, 172 samples were obtained. The analysis tool used the AMOS software version 24. The following results were obtained. The Capabilities' influence on the Competence metric indicates a positive impact. A strong positive correlation exists between the Determination and Knowledge of Competence variables. In this case, the Skills vs. Competence outcome is overwhelmingly favorable. Knowledge has an excellent impact on the Superior Human Resources decision. In a highly encouraging turn of events, the Capabilities variable's determination of the Superior Human Resources variable was found to be true—an optimistic but unimportant result from applying The Skills variable to the Superior Human Resources variable. Competence has a highly favourable effect on the Super Human Resources criterion. Competence on the job has a square correlation of 89.6%, whereas superior human resources correlate with 100.00%. The already significant factors are being kept that way, while the determination of the Skills variable on the Superior Human Resources team requires some work.

Keywords: capabilities, knowledge and skills for superior human resources; competence

1. Introduction

Problem context

Between Singapore and Johor Bahru in Malaysia and Malacca in South East Asia, you will find the Riau Archipelago. One of the most important harbours in Riau Island is Tanjung Balai Karimun Harbor, which can be found on the island of Karimun. Tanjung Balai Karimun Port, the gateway to the Riau Archipelago's regional economy, is a central international and multimodal transportation hub for the entry and exit of people, goods, and ships. However, Tanjung Balai Karimun Harbor's current status must be improved. This is because, despite improvements, large vessels still need help docking at Tanjung Balai Karimun.

Ships of enormous size cannot dock at Karimun Island because of the poor depths around it. Hence, smaller boats are needed to help in loading and unloading cargo. This causes lengthy delays in the loading and

ARTICLE INFO

Received: 24 May 2023 | Accepted: 8 October 2023 | Available online: 31 January 2024

CITATION

Kenedi J, Wibisono C, Astriani F, et al. Capabilities, knowledge and skills of superior human resources through the competency of Tanjung Balai Karimun Port Employees, Riau Islands, Indonesia. *Environment and Social Psychology* 2024; 9(5): 1749. doi: 10.54517/esp.v9i5.1749

COPYRIGHT

Copyright © 2024 by author(s). *Environment and Social Psychology* is published by Asia Pacific Academy of Science Pte. Ltd. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<https://creativecommons.org/licenses/by/4.0/>), permitting distribution and reproduction in any medium, provided the original work is cited.

unloading processes of large ships. Therefore, it was essential to maximize the usage of Tanjung Balai Karimun Port, the primary gateway for commercial trade into the country. Tanjung Balai Karimun's potential will be realized if massive ships can land there without difficulty, and the influx of people can be sped up by constructing a floating pier and dredging. If Tanjung Balai Karimun's potential is fully realized, the port's operations involving ships, goods, and passengers entering and leaving the port will grow in importance. As a result, Tanjung Balai Karimun Port will become one of the busiest in Indonesia. People in Tanjungbalai Karimun have gripes regarding the sea passenger port's service because they find it uncomfortable.

This port, built in the 1970s, is the only way for visitors from outside Karimun, and even those from within the country, to access the land. Problems have been observed with the dock's cab service, with some clients reporting feeling threatened by the drivers. There are no licensed taxi services at Karimun port, so all passengers must rely on private automobiles. Black car flats are installed in sedans, Avanzas, and Inovas. The number exceeds the capacity of the parking lot. It may seem chaotic because taxis rarely wait in lines at airports and seaports. Any laws do not govern this taxi service. Inconveniently, dolphin taxis are only available to guests leaving the port. It is hard to tell if they are brokers, criminals, or cab drivers. They would show up in large groups just before the sale of boat tickets, which were used to carry passengers into and out of ports.

After the representative for the Riau Archipelago's Ombudsman visited the port and took the initiative, the Pelindo Karimun office convened a meeting with the heads of the relevant authorities. Every group shares the public's disappointment in the taxi service at the Karimun port. Cab fares and wait times are entirely flexible. Finally, it all comes down to a discussion between the passenger and the driver. To address these issues, the authors undertake research named "Determination of Capabilities, Knowledge, and Skills for Superior Human Resources through Competence in Employees in the Port Area in Tanjung Balai Karimun, Riau Islands, Indonesia."

2. Literature review

2.1. Ability theory

Someone can keep operating a firm and performing different responsibilities until it is profitable. The qualities and skills listed by Winardi^[1] contribute to an individual's overall ability. The need to foster "initiative" is one of the immediate consequences of the nature of the skills that every organizer must acquire. As'ad^[2] contrasts Lower and Poter's definition of ability as stable personal features like intelligence and physical abilities that are a person's perspective strength to act. Three essential conditions, namely, sensory and cognitive conditions, knowledge of how to respond appropriately, and capability to carry out the response, at least influence these people's capacity. Ability is what one can do rather than what one already does^[2]. High-ability human resources can manage the administration field and master the language to get along and relate to people, helping a firm prepare for global competition. A person's abilities will set him apart from people with average or typical abilities. Suppose you are adequate and have the qualities described above to perform skilled work in the daily grind. Psychologically, employee talents consist of potential and reality, meaning employees with above-average abilities, education, and expertise. In that situation, running a firm will be simpler for you till it achieves the desired results. Employees are, therefore, assigned to positions based on their expertise (putting the appropriate person in the right place at the right time), skills, and resource expertise.

The definition of mature Theory of mind (ToM) skills is still in progress, as the study of ToM development beyond the narrow confines of the preschool years still needs to be completed. Some critics of a restrictive conception of first-order false belief reasoning comprising all the complexity of ToM ability had already moved many years ago. However, only now are times mature to accurately investigate what happens to ToM development beyond preschool years. In a very recent book, Miller^[3] writes that we can insert in the domain

of mature ToM skills all those ToM developments that go beyond the understanding of first-order false belief reasonings and that start to resemble what a typical adult is capable of in terms of mental-state reasoning^[3]. Therefore, mature ToM skills involve the understanding of cognitive, epistemic and affective mental states in more complex forms of reasoning than those required by the first-order level so that inferences about mental states are performed in circumstances where more than one inference is needed and where uncertainty, non-transparency, and interpretation of knowledge can be present^[3]. According to this view, mature ToM skills open the way to mature social exchanges and academic achievements, where the subject is asked to align emotions, decisions and thoughts to keep in mind one person's beliefs about the mental states of others, to be aware of the intentional meaning in communications^[3], to comprehend when people stumble in faux pas and, in general, to reason accurately on the circumstances and conditions that build representations, knowledge and point of views In the following paragraphs we will examine how three critical aspects of mature ToM skills can be enhanced^[4].

2.2. Theory of knowledge

The following is how science serves society:

- a) Can discover varied knowledge that has been methodically arranged following the circumstances and processes by which knowledge is acquired.
- b) It can work properly in a system of connected and interdependent parts.
- c) Can formulate a hypothesis that will be verified.
- d) Can control a variety of things using scientific theories.

RBS Fudyartanto, a psychology lecturer at Gajah Mada University in Yogyakarta, claims that science serves four purposes: 1) Descriptive function: Providing information about an issue or topic that makes it simple for researchers to investigate. 2) Developmental function: extending prior research and generating fresh scientific insights. 3) Prediction function: Foretelling likely future events so people can prepare for and respond to them. 4) Control function: Preventing undesirable events^[5]. Science's Nature of (Truth 1) The correspondence principle Truth or the state of being true occurs when a statement's or argument's intended meaning and the subject to which it is directed correspond. 2) The coherence theory Since a decision is considered correct if it receives witness from another decision that is known/tested, correspondence between a statement and another statement that is already known, accepted, and recognized as legitimate is evidence of the truth or an actual state^[6].

The pragmatism theory Following this Theory, the usefulness of a statement to humans determines its truth or state of affairs; however, if a statement ceases to be helpful to humans due to the advancement of science, which generates new statements, the statement is abandoned^[7]. This is because a decision is deemed correct if it receives support from other decisions that are already known or pass scrutiny^[6]. The pragmatism theory. By this Theory, the usefulness of a statement to humans determines its truth or state of affairs; however, if a statement ceases to be helpful to humans due to the advancement of science, which generates new statements, the statement is abandoned^[7]. This is because a decision is deemed correct if it receives support from other decisions that are already known or pass scrutiny^[6]. The pragmatism theory This idea holds that the usefulness of a statement to humans is the only factor determining its truth or reality; if a statement ceases to be beneficial to people owing to the advancement of science, which generates new assertions, then the statement is abandoned^[7]. A knowledge management system makes it possible to record the expertise of specific people and share that knowledge with the rest of the organization. Furthermore, a knowledge management system (KMS) is an enabler of knowledge management from the point of view of the knowledge-based approach. An efficient KMS will typically consist of the following three components^[8].

2.3. Skill theory

A skill is the ability to improve upon, alter, or develop something in order to add value to one's work. Work experience, defined as the acquisition of knowledge or skills pertinent to the performance of a job as a result of direct participation in that job's performance, can be defined as the process of enhancing these skills and abilities through practice and instruction to the point where they can be considered expert or mastery levels in their field. A person's work history quantifies the time and effort they have put into mastering the duties of their position on the job. Employee productivity is affected by the workplace's social, psychological, and physical conditions. People depend on a wide range of environmental factors to thrive. Humans and their natural surroundings are inextricably linked. People would always want to mould themselves to their surroundings in this condition. While at work, employees are inextricably linked to the larger social and physical contexts in which they operate. There are several facets of the workplace that each worker must navigate. The atmosphere in which workers do their duties significantly impacts their productivity. An individual's skill is measured by their facility, speed, and competence in carrying out their primary responsibilities within their field, as defined by Nawawi^[9].

This capacity is based on their background, knowledge, and understanding of these jobs' what, how, and why. The skill level of workers or employees is one of the supporting variables in enhancing an employee's or employee's performance. According to Tengland^[10], An individual's expertise or work skills refers to their ability to perform a task or hold a job. . Work skills are knowledge or proficiency needed only through practice to perform a job. Irianto^[11] asserts that a person's skill set extends beyond proficiency in performing specific tasks. A person's cerebral, manual, motor, perceptual, and social aptitudes include incompetence in addition to their physical attributes. According to Iverson^[12], skills require fundamental commands and the training necessary to acquire capabilities to complete tasks swiftly and accurately, while talents require fundamental commands to function accurately and efficiently and the training to build abilities.

Skills are the ability to use reason, thoughts, ideas and creativity in doing, changing and making things more meaningful to produce valuable work. Better skills are gained through training to increase one's abilities to become an expert. An entrepreneur is someone who realizes his potential in creative and innovative thinking to create new, value-added products. In addition to the provision of abilities, an entrepreneur also needs to have knowledge and skills. Entrepreneurs must know including 1) knowledge about the business to be started and the existing business environment, 2) knowledge about roles and responsibilities, and 3) knowledge about management and business organization. The provision of skills that entrepreneurs must possess includes 1) the provision of conceptual skills in managing strategies and calculating risks, 2) the provision of creative skills in creating value-added, 3) the provision of skills in leading and managing, 4) the provision of communication and interaction skills, 5) the provision of technical business skills that will be carried out. Entrepreneurs' Skills are the ability to use ideas and creativity through training and learning to create and produce value for the benefit of oneself and others^[13].

2.4. Competency theory

Competence is a crucial trait one must have to fulfil a specific job's duties, as stated by Spencer and Spencer in Palan^[14]. Competence consists of the five types of traits: motives (consistent will and being the cause of action), internal components (character and consistent reactions), self-concept (self-image), knowledge (information in a particular field), and skills (ability to carry out tasks). This agrees with the claim made by Becker and Ulrich in Suparno^[15] that an individual's personality, abilities, and competency edges directly impact how successfully they perform their duties. Competence encompasses not just technical know-how but also character attributes that directly affect one's output. Government Regulation (PP) No. 23 of 2004

Regarding the National Professional Certification Agency defines “work competency certification” as “a process of awarding competency certificates carried out methodically and objectively through competency tests that refer to Indonesian national and international work competency standards” (BNSP). The Civil Service Agency’s Chief’s Decree No. 46A of 2003, the decree above, defines “competence” in this manner. Competence, then, entails having mastered the kind of things—Theory, practice, values, and mindset—that are essential to success in a given field.

According to Wibowo^[16], competence is the ability to perform or accomplish a work or task in light of the requisite information and abilities. Thus, competence defines the knowledge and skills that are most important in a specific field. Competence as a character quality is linked to successful performance in a given role or situation.

As defined above, competence centres on applying knowledge and practical skills for optimal performance. A person’s competence is the total of their knowledge, talents, and other personal qualities that allow them to carry out a given task successfully. Competence, then, is the capability to complete tasks using one’s own set of skills and knowledge. Competence is broken down into three types by Wina Sanjaya^[17] and Charles E. Jhonson: personal, professional, and social. “personal competency” refers to skills associated with maturing one’s identity. To be competent in one’s profession means to have the knowledge and skills necessary to carry out one’s duties successfully. Competence in interpersonal relationships is what we mean when discussing social competence. As outlined by Kunandar^[18], competence has five components: 1. intelligence, or the collection of skills and knowledge that allows someone to function effectively. 2. Physical competence, or the ability to perform specific tasks. Personal competence refers to an individual’s skill in areas such as self-realization, self-improvement, self-definition, and self-awareness. Social competence is a set of habits that establishes an individual’s value to his or her community. 5. Spiritual acuity, knowledge of, respect for, and adherence to religious principles. Competence, according to Koole and Talim^[19], however, may include a combination of an employee’s knowledge, skills, dispositions, and actions depending on the specific category or categorization. In a broader sense, these skills can be paired with things like “hard skills,” “soft skills,” social skills, mental abilities, and organizational strategy (mental skills). Complex or standard skills are a sign of HR acumen and physical capability. When compared to these hard talents, HR basic skills (soft skills) display HR receptivity and intuition, HR social ability (social skills), and HR mental fortitude (mental skills).

As human resource management develops, the topic of competency-based employee attitude and behaviour management is being studied. Fundamental (soft) skills, physical skills, social (social) skills, mental (mental) abilities, and organizational (strategic) competence all fit under this umbrella (mental skills). Hard skills (knowledge and physical prowess) exhibit HR’s standard competence; soft skills (sensitivity and intuition) demonstrate HR’s social relations abilities; and mental skills (mental fortitude) demonstrate HR’s mental fortitude. As human resource management develops, the topic of competency-based management of employee attitudes and actions has emerged. In a broader sense, these skills can be paired with things like “hard skills,” “soft skills,” social skills, mental agility, and organizational savvy (mental skills). Hard skills (knowledge and physical prowess) reflect HR’s standard of competence, while soft skills (sensitivity and intuition) demonstrate HR’s social relations ability and mental fortitude (resilience under pressure). Competency-based human resource management is a relatively new concept in the evolution of HR management. Combining these abilities with others, such as essential, advanced, social, and cognitive, is possible. The organizational approach will be linked to these talents (mental skills). Hard skills (knowledge and physical prowess) exhibit HR’s standard competence; soft skills (sensitivity and intuition) demonstrate HR’s social relations abilities; and mental skills (mental fortitude) demonstrate HR’s mental fortitude. Studies into the development of HR management are currently focusing on how best to manage HR based on

competencies. These abilities can be blended with rudimentary, technical, social, and cognitive capacities. The organizational strategy will be linked to these skill sets (mental skills). Hard skills (knowledge and physical prowess) exhibit HR's standard competence; soft skills (sensitivity and intuition) demonstrate HR's social relations abilities; and mental skills (mental fortitude) demonstrate HR's mental fortitude. The future of human resource management is currently being questioned in light of competency-based hiring.

On the other hand, "competence management is how organizations manage the competencies of the corporation, the groups, and the individuals". The primary purpose is to continuously define and maintain these competencies as per the firm's objectives. A competency is, say, some way to put into practice skills or know-how and attitudes within a particular context. Competence management has been recognized as exceptionally essential for accomplishing a firm's goals, complementary to, for example, core business processes, financial issues, customer relationships, and so on. Competence management can be ordered into four kinds of processes (i.e., may include several sub-processes)^[8].

2.5. Superior human resource theory

Every firm must have superior, high-quality human resources (HR) to accomplish its objectives. The achievement of excellent human resources can be influenced by various factors, including individual, group, and organizational system factors. Individual aptitudes, job satisfaction, and organizational commitment are distinctive factors that can enhance the quality of human resources and influence performance^[20]. Ability, distinguished by intellectual and physical ability, is a particular activity to carry out different tasks in a specific job^[20]. Physical ability is the capacity of an individual to perform tasks requiring stamina, skills, and other similar qualities.

In contrast, academic ability is the capacity of an individual to perform mental activities. Technical and practical skills are mentioned by Hutapea and Thoha^[21]. Individuals' knowledge and abilities will guide their actions.

The performance will result from the behaviour in the interim. Someone's aptitude for doing work—their knowledge and skills—will inspire them to do better work (superior performance). According to Robbins^[20], aptitude plus drive equals performance. Job happiness is a personal factor that can encourage someone to work more relaxed and easily. According to Edwards and Bell^[22], job satisfaction can be understood as a favourable response from people in response to their evaluation of their work and the meeting of their requirements at work. According to this interpretation, job satisfaction is a psychological prerequisite for fulfilling expectations and the actual results. According to Ketut^[23], theories of job satisfaction include those from Herzberg's view of two factors (motivation-hygiene factor), Adam's idea of justice (equity theory), and Vroom's Theory of expectation (expectancy theory). These theories all come to the same conclusion: If a person is happy at work, they will try to work harder in the future to achieve higher performance^[23].

Superior Human Resources and seamless, automated efficiency not only give a manager time to develop firm-level improvement strategies, but its sophisticated reporting capabilities also enable the user to generate advanced workforce reports and queries. The reports include the value of an employee's training, service history, competencies and potential areas, financial value, and so on. Managing complex entities and assessing and managing a variety of competencies is now a core requirement of the organization. Recent technologies make it possible to manage an employee's whole working life cycle, from scheduling/planning the recruitment period through retirement or termination of employment, collecting and keeping all the data that the manager(s) or department head(s) require for almost every HRM function and then automates nearly all ancillary operations. SHR's seamless, automated efficiency gives a manager time to develop firm-level improvement strategies, and its sophisticated reporting facilities enable the user to generate advanced workforce reports and

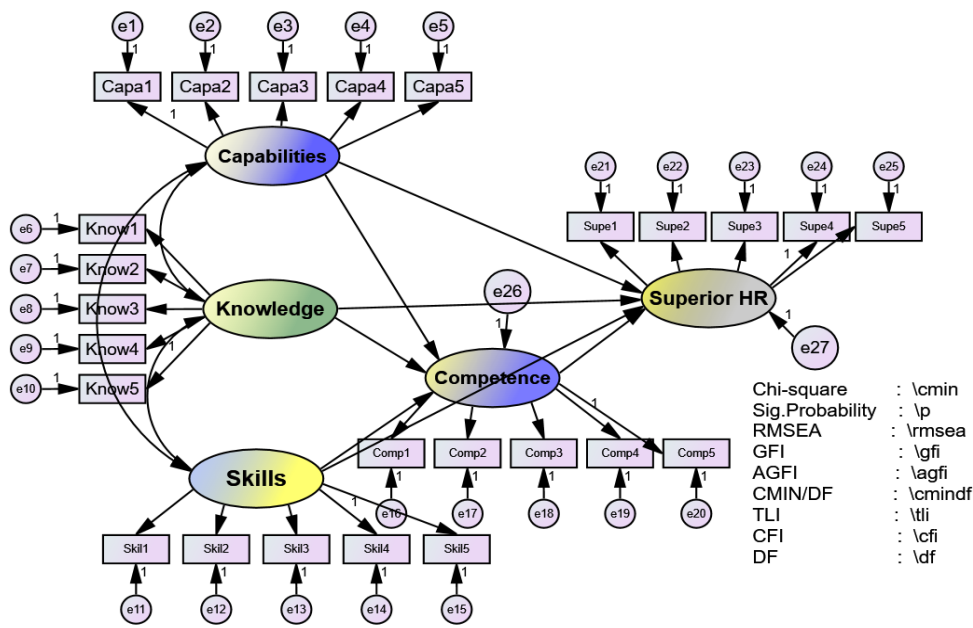
queries. The reports include the value of an employee’s training, service history, competencies and potential areas, financial value, and so on. Managing complex entities and assessing and managing a variety of competencies is now a core requirement of the organization. Recent technologies make it possible to manage an employee’s working life cycle, from scheduling/planning the recruitment period through retirement or termination of employment SHR collects and keeps all the data that the manager(s) or department head(s) require for almost every HRM function and then automates nearly all ancillary operations^[8].

2.6. Problem formulation

- a) How are competencies compared to capabilities?
- b) How is knowledge compared to competence determined?
- c) How are skills compared to competence determined?
- d) How do Superior Human Resources assess qualifications?
- e) How are Capabilities compared to Superior Human Resources determined?
- f) How are Knowledge and Superior Human Resources compared?
- g) How are Superior Human Resources compared to Skills?

2.7. Conceptual framework

The conceptual framework of this study is shown in **Figure 1** as a research model.



Determination of Capabilities, Knowledge, Skills for Superior Human Resources through Competence in Employees in the Port Area at Tanjung Balai Karimun, Riau Islands, Indonesia

Figure 1. Research model.

2.8. Hypothesis

- a) Determination of Capabilities to Competence;
- b) Determination of Knowledge of Competence;
- c) Comparison of Skills to Competence;
- d) Determining Competence for Superior Human Resources;
- e) Determining Capabilities for Superior Human Resources;
- f) Determining Knowledge for Superior Human Resources;

- g) Superior human resources compared to skills.

3. Methodology

3.1. Mix technique

This research paradigm is a synthesis of the sequential explanatory model, the sequential exploratory model, the concurrent triangulation design, and the concurrent embedding model (Mixed Method). The sequential explanatory model integrates quantitative and qualitative studies. When conducting research, quantitative methods come first, followed by qualitative methods. After the data is analyzed, quantitative and qualitative findings are placed into the matrix for visual comparison. The sequential 26 exploratory model effectively combines qualitative and quantitative methods by conducting qualitative research first and quantitative research second. Concurrent triangulation is a method of research that uses both quantitative and qualitative methods in an equal and complementary fashion. In order to answer research issues, all of these methods are used simultaneously. The concurrent embedded model integrates quantitative and qualitative approaches^[24]. The methodology used is based on qualitative, explanatory research^[25]. Some examples of research methods are populations, samples, quantitative and qualitative models of data, tools, data collection plans, and analysis strategies^[26]. In order to analyze qualitative data, you must do the following: Data collection entails reading books and periodicals dedicated to the topic of research methodology; data categorization into quantitative, qualitative, and R&D studies; and data analysis. There should be three parts to a research proposal: 1) A statement of the problem, 2) a description of the research methods available, and 3) examples of the methods used^[27].

3.2. Population

The population gathers the entire item to be measured for the research^[28]. Three hundred fifty workers employed by the Riau Islands Province participated in this study. Non-probability sampling uses the sampling approach^[28,29]. The traits, or the qualities of the full worker, must follow the specific sample. The chosen sampling method is a judgmental, non-probability method (purposive). This illustrates a truth established by individuals who will serve as examples^[29]. Employees from all agencies working at Karimun Harbor make up the population; 300 respondents are possible.

3.3. Sample

A portion of the population chosen to reflect the research population is the sample^[28]. The sample size in this study is adjusted for the Structural Equation Model analysis model employed (SEM). In this regard, the sample size for SEM is used in the model estimating the maximum likelihood estimation (MLE) of 100–200 samples, or up to 5–10 times the number of parameters evaluated^[30–32]. In this study, the population was 300, the Slovin formula was used, so the number was calculated using the Slovin formula, $n = 300 / (1 + (300 \times 0.05^2)) = 171.43$ rounded up to 172 respondents.

3.4. Research instrument

- a) The main instrument in this research is a questionnaire. Variable measurement was carried out using a Likert scale. The measurement procedure is as follows:
- b) Respondents are asked to answer general questions, which will be used to determine whether the respondent meets the criteria.
- c) Respondents were asked to state their level of agreement with the statement proposed by the researcher based on each respondent's perception. The answer consists of five choices, namely: Strongly Disagree (STS), Disagree (TS), Somewhat Agree (CS), Agree (S), and Strongly Agree (SS).

- d) We are giving grades (scoring). The answer Strongly Agree (SS) is given a value of 5, and so on, decreasing until the answer Strongly Disagree (STS) is given a value of 1.

3.5. Method of data analysis

The information used in this analysis comes from a combination of primary and secondary sources. In this case, the study object can be reached by sending out questionnaires to gather primary data. Statistical indicators may be used to further process the score information gathered from the responses of the respondents. AMOS for Windows version 24.0 was used to conduct a complete Structural Equation Modeling (SEM), and the findings were shown in a fashion analogous to the image processing results. According to a recent study^[27].

$$H1: Y = \gamma_{y.x1}X1 + e1, \rightarrow X1 \text{ to } Y,$$

$$H2: Y = \gamma_{y.x2}X2 + e1, \rightarrow X2 \text{ to } Y,$$

$$H3: Y = \gamma_{y.x3}X3 + e1, \rightarrow X3 \text{ to } Y,$$

$$H4: Z = \gamma_{z.x1}X1 + e2, \rightarrow X1 \text{ to } Z,$$

$$H5: Z = \gamma_{z.x2}X2 + e2, \rightarrow X2 \text{ to } Z,$$

$$H6: Z = \gamma_{z.x3}X3 + e2, \rightarrow X3 \text{ to } Z,$$

$$H7: Z = \gamma_{z.y}Y + e2, \rightarrow Y \text{ to } Z$$

Data was analyzed using the Structural Equation Model (SEM) approach. AMOS * version 24^[33] is the program used for structural analysis, and it includes the following features: a) creation of theory-based models; b) creation of flowcharts (path diagrams); c) conversion of flowcharts into a set of structural equations; and d) selection of input matrices and estimation methods for models.

- a) Examine the likelihood of finding issues.
- b) Assess the goodness of fit standards.
- c) Interpretation and modification model.

4. Discussion and results

4.1. Results

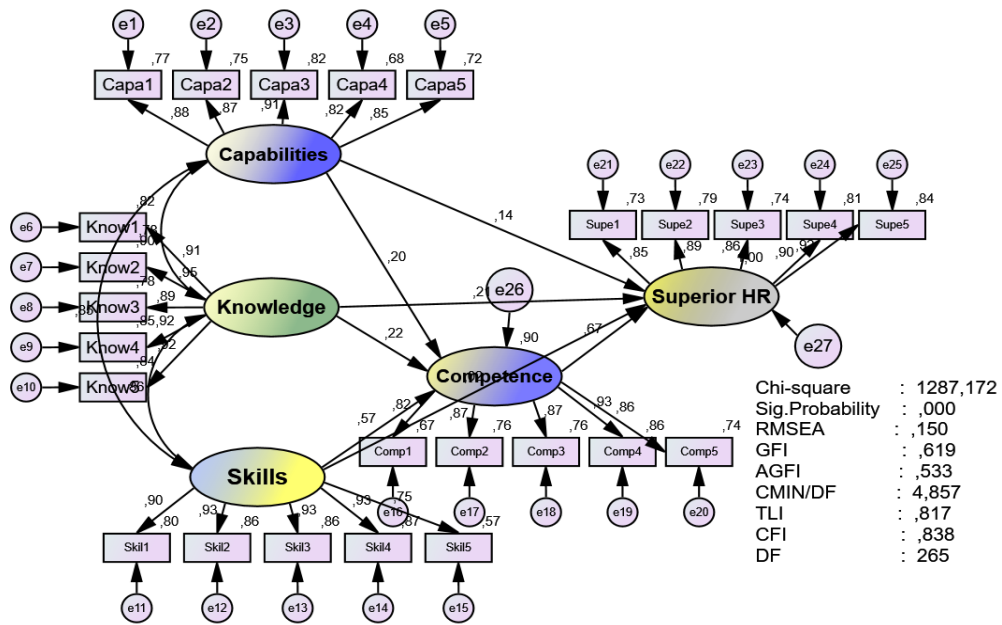
The results of research using the Structural Equation Modeling (SEM) method show a model of the determinant effect of capabilities, knowledge, skills on superior human resources through competence in employees in the Tanjung Balai Karimun port area, Riau Islands which is presented in **Figure 2**.

After obtaining the research model in accordance with the research framework, the regression weight results are shown in **Table 1**.

Standardized regression weights shown in **Table 2** results reveal Structural or path coefficients in SEM. Standardized estimates are used, for instance, when comparing direct effects on a given endogenous variable in a single-group study.

Table 3 shows the Squared Multiple Correlation is the communality estimate for an indicator variable. The communality measures the percent of variance in a given indicator variable explained by its latent variable (factor) and may be interpreted as the reliability of the indicator.

Then the goodness of fit analysis is carried out in **Table 4** that measure of how well the model fits the data.



Determination of Capabilities, Knowledge, Skills for Superior Human Resources through Competence in Employees in the Port Area at Tanjung Balai Karimun, Riau Islands, Indonesia

Figure 2. Full model.

Table 1. Regression weights: (Group number 1—Default model).

Path	Estimates	SE	CR	P	Label
COMPE ← KNOW	0.235	0.076	3.076	0.002	par_24
COMPE ← CAPA	0.236	0.086	2.762	0.006	par_25
COMPE ← SKILL	0.565	0.092	6.176	***	par_26
SUPE ← KNOW	0.203	0.051	3.988	***	par_27
SUPE ← CAPA	0.155	0.056	2.748	0.006	par_28
SUPE ← SKILL	0.022	0.077	0.280	0.779	par_29
SUPE ← COMPE	0.622	0.092	6.773	***	par_30

Table 2. Standardized regression weights: (Group number 1—Default model).

Path	Estimates
COMPE ← KNOW	0.222
COMPE ← CAPA	0.200
COMPE ← SKILL	0.571
SUPE ← KNOW	0.207
SUPE ← CAPA	0.141
SUPE ← SKILL	0.023
SUPE ← COMPE	0.669

Table 3. Squared multiple correlations: (Group number 1—Default model).

	Estimates
COMPE	0.896
SUPE	1.000

Table 4. The goodness of fit analysis.

The goodness of the fit index	Cut-off value	Model results	Information
Chi-square (χ^2)	Expected To Be Small	1287.172	good
Relative Chi-square (χ^2/pdf)	≤ 3.00	2.562	good
probability	> 0.05	0.000	marginal
RMSEA	≤ 0.08	0.150	marginal
GFI	≥ 0.90	0.169	No good
AGFI	≥ 0.90	0.533	marginal
CFI	≥ 0.94	0.838	marginal
TLI	> 0.94	0.817	marginal

4.2. Discussion

Based on the three tables above that connect the theoretical and empirical foundations, the discussion's findings could be stated as follows:

a) Standard estimate (regression weight) of 0.200, Cr (Critical ratio = identical to the *t*-count value) of 2.762 at probability = 0.006 indicates a positive impact of the Determination variable Capabilities on the Competence variable, and Cr value $2.762 > 2.00$ and probability = $0.006 < 0.05$ support this conclusion. This finding lends credence to the argument that a single manager may see a company through its early stages of success while also taking on additional responsibilities. Each employee's entire potential is heavily influenced by Winardi^[1] enumerated characteristics and talents. One direct result of the diversity of abilities required of every organizer is the importance of encouraging "initiative." Findings from research on the Capabilities of the Competence variable show that professional Port Management is essential to increase Competence in Ports.

b) The Knowledge variable's influence on the Competence variable is positively determined, as measured by a standardized estimate (regression weight) of 0.222 and a Cr (Critical ratio = identical to the *t*-count value) of 3.076 at probability = 0.002. The values of Cr and p for this relationship are 3.076 (> 2.00) and $0.002 < (0.05)$, respectively. This finding lends credence to the Theory that specific criteria and procedures can methodically arrange various forms of data to produce a science. Being made up of modular, interconnected parts, it may carry out its intended purpose within the more extensive system. A hypothesis can be developed and tested with the help of this system. Able to use scientific principles to manipulate a wide range of objects. The novelty of this research is that the knowledge variable very much influences competence and proficiency in managerial and integrated port taxis.

c) A normalized estimate (regression weight) of 0.571 and a Cr (Critical ratio = identical to the *t*-count value) of CR 6.176 at probability = *** indicate a significant correlation between the Skills and Competence variables. Because of this, there is a positive correlation between the Skills and Competence variables. Skills, here defined as the "ability to apply reason, logic, and creativity in completing, altering, or making something more meaningful to produce value from labour," are the foundation of this study. They can improve if they are honed and practiced to the point where their powers are increased to the point where they become experts or masters in one of the existing skill categories. The findings of the Skills and Competence variables are significant because errors in applying skills at the port are very technical risks if the skills are not constantly improved.

d) The Knowledge variable's determination of the Superior Human Resources variable has a Cr (Critical ratio = identical to the *t*-count value) of 6.773 at probability = *** CR value $6.773 > 2.00$ and probability = ***0.05, indicating a significant positive finding. The standard estimate (regression weight) for this

determination is 0.669. Competence is a necessary attribute linked to fulfilling the conditions for holding a position, as Spencer and Spencer in Palan^[14] stated. The data points to this explanation. Competence consists of the five types of traits: motives (consistent will and being the cause of action), internal components (character and consistent reactions), self-concept (self-image), knowledge (information in a particular field), and skills (ability to carry out tasks). The novelty of this research is that the more knowledge is improved, the more Superior Human Resources will increase. The development of Port Management is speedy, with global challenges and technological advances; when the Free Trade Zone is implemented, Superior Human Resources must be prepared with Super Knowledge

e) The Capabilities variable's impact on the Superior Human Resources variable is positively significant, with a standard estimate (regression weight) of 0,141 and a Cr (Critical ratio = identical to the *t*-count value) of 2.748 at probability = 0.006. Cr value 2.748 > 2.00, and Probability = 0.006 < 0.05. This finding lends credence to the idea that sensory and cognitive requirements, knowledge of the necessary responses, and the competence to apply these answers all shape an individual's ability. Power is not about what one does but rather what one can do. Superior Human Resources' findings are influenced by the Capabilities that must be possessed by employees who work at Karimun Sea Port as a Special Economic Zone, which is close to Singapore

f) A standardized estimate (regression weight) of 0.023 and a Cr (Critical ratio = identical to the *t*-count value) of 0.280 at probability = 0.779 indicate a positive and statistically insignificant relationship between the Skills variable and the Superior Human Resources variable. Ability, as characterized by sensory and cognitive demands, knowledge of suitable responses, and the ability to execute these responses, is not relevant to this investigation. So, the instruction is what one must do, not what he does. Familiar government employees are needed solely for administrative duties, therefore Karen's skills are superfluous. Research findings show that the Skills and Superior Human Resources variables are insignificant because employees lack skills in the port sector. This is because, during recruitment, they ignore skills specifically in the port sector.

g) A standardized estimate (regression weight) of 0.207 and a Cr (Critical ratio = identical to the *t*-count value) of 3.988 at probability = ***CR value 3.988 > 2.00 and probability = ***0.05 indicate a significantly positive determination of the Knowledge variable on the Superior Human Resources variable. This inquiry is predicated on the pragmatism theory. According to this Theory, the only thing that can truly determine the truth or falsity of a statement is the value it holds for humans. Nonetheless, the claim is only taken into account if it holds water, and this is because scientific progress has led to the development of novel concepts. Novelty, the Knowledge variable on the Superior Human Resources is significant; this finding shows that excellent and fast service is required in managing global Special Economic Zone Ports.

h) Excellent Human Resources = 0.990, Competence = 0.8996 (Square Multiple Correlation). Using the results of the Square Multiple Correlation for the Competence variable, Ferdinand^[32] calculates that the determination is as large as $0.896 \times 100\%$ (or 89.6%). Competence $R^2 = 0.896$ corresponds to $R^2 = 0.896$ in SPSS's squared multiple correlation analysis. This suggests that Capabilities account for 89.6% of the variation in Competence, Knowledge, and Skills, with the remaining 10.4% attributable to factors outside the scope of this investigation. Let us assume that the value of R^2 for Excellent Human Resources is 1. The magnitude of the conclusion is 100% multiplied by 1.00, or 100.00%—competence, expertise, and proficiency account for one hundred per cent of the variation in high-quality human resources.

5. Conclusion

Positive results are found when determining the effect of Knowledge on Competence, Fanatics on Competence, Skills on Competence, Competence on Superior Human Resources, and Capabilities on Superior

Human Resources. This is calculated by multiplying the Square Multiple Correlation value for the Competence variable by 100%, or $0.896 \times 100\% = 89.6\%$. When the HR R^2 for the highest tier of employees is set to 1, the determination has a significance of 1.00 times 100% (100.00%). Therefore, capabilities, knowledge, skills, and competence account for 100.0% of shifts in highly competent human resources. All independent variables significantly affect the dependent variable, so the Port Management will maintain this condition, where the Karimun Special Economic Zone is ready to compete with the Economic Zone in Singapore, which is already advanced in Southeast Asia. In the future, researchers can conduct research with different variables.

Author contributions

Conceptualization, JK and CW; methodology, FA; software, IBS; validation, N, JK and CW; formal analysis, IBS; investigation, N; resources, JK; data curation, CW; writing—original draft preparation, FA; writing—review and editing, JK; visualization, IBS; supervision, CW; administration, N; funding acquisition, JK. All authors have read and agreed to the published version of the manuscript.

Conflict of interest

The authors declare no conflict of interest.

References

1. Winardi. *Motivation and Motivating in Management*. Pt Raja Grafindo Persada; 2001.
2. As'ad, M. *Industrial Psychology*. Liberty; 2000.
3. Miller SA. *Advanced Theory of Mind*. Oxford University Press; 2022.
4. Bianco F, Castelli I. The promotion of mature theory of mind skills in educational settings: A mini-review. *Frontiers in Psychology* 2023; 14. doi: 10.3389/fpsyg.2023.1197328
5. Tamrin A. *The Relations of Science, Philosophy, and Religion in the View of the Philosophy of Science*. 2019
6. Octaviana DR, et al. *Human Nature: Knowledge, Science, Philosophy and Religion*. UIN Sunan Kalidjaga; 2021.
7. Siswati V. The nature of science in modern and Islamic perspectives. *TA'DIBLA* 2017; 7(1).
8. Memon KR, Ghani B, Hyder SI, et al. Management of knowledge and competence through human resource information system—A structured review. *Frontiers in Psychology* 2022; 13. doi: 10.3389/fpsyg.2022.944276
9. Nawawi H. *Performance Evaluation and Management in Corporate and Industrial Environments*. Gadjah Mada University Press; 2006.
10. Tengland PA. The concept of work ability. *Journal of occupational rehabilitation*. 2011; 21. doi: 10.1007/s10926-010-9269-x
11. Irianto A. *Organization Development Guide*. Andy; 2010.
12. Iversons. *Understanding Personal Skills*. CV-Library; 2011.
13. Claudia M, Rusniati. The influence of HR competencies and entrepreneurs' skills on Sasirangan MSMEs' business performance in banjarmasin municipality. In: *Advances in Economics, Business and Management Research, Proceedings of the International Conference on Management, Business, and Technology (ICOMBEST 2021)*. Atlantis Press; 2021. pp. 109–119.
14. Palan R. *Competency management*. PPM; 2007.
15. Suparno P. *Misconceptions and Concept Changes in Physics Education*. PT. Gramedia Widia Sarana; 2005.
16. Wibowo. *Performance Management*. Raja Grafindo Persada; 2007.
17. Sanjaya, W. *Learning in Competency-Based Curriculum Implementation*. Prenada Media Group; 2005.
18. Kunandar. *Professional Teacher Implementation of Education Unit Level Curriculum (KTSP) and Preparation Facing Teacher Certification*. Raja Grafindo: Persada; 2007.
19. Koole P, Talim. Routing heuristics for multi-skill call centers. In *Proceedings of the 2003 Winter Simulation Conference*, 2003. (Vol. 2, pp. 1813-1816). IEEE.
20. Robbins SP. *Organizational Behavior*, 13th ed. Pearson Education Inc, Prentice Hall; 2008.
21. Hutapea P, Thoha MBN. *Kompetensi plus*. Gramedia Pustaka Utama; 2008.
22. Edwards BD, Bell ST, Arthur W, Decuir AD. Relationships between facets of job satisfaction and task and contextual performance. *Applied Psychology* 2008; 57(3): 441–465. doi: 10.1111/j.1464-0597.2008.00328.x
23. Ketut S. *Achieving Superior Human Resources*, *Journal of Management Dynamics*, Faculty Economics Semarang State University, Semarang, Indonesia. 2012.

24. Wijaya H. Research methods in writing the electronic scientific. Journal of the Jaffray School of Philosophy Makassar 2019.
25. Sarumpaet S, Hutahaean MM, Zaluchu F. An Analysis of Factors Affecting Pregnant Woman's Use of Prevention of Mother-to-Child Transmission Services in Urban Setting. *Indian Journal of Public Health Research & Development*. 2018 1;9(10). doi: 10.5958/0976-5506.2018.01233.0
26. Sugiyono. *Educational Research Methods (Quantitative, Qualitative, and R&D Approaches)*. Alfabeta; 2014.
27. Wibisono C. *Research Methods Based on Quantitative and Qualitative*. K-Media Publisher; 2017.
28. Cooper DR, Schindler PS. *Business Research Methods*. McGraw-Hill Companies; 2003.
29. Black JA, Champion DJ. *Methods and Issues in Social Research*, Terj. E. Koswara, dkk., *Metode dan Masalah Penelitian Sosial*, Bandung: PT. Refika Aditama, Cet. III. 2001.
30. Hair JF, Anderson RE, Tatham RL, Black WC. *Multivariate data analysis*. Englewood Cliff : 1998.
31. Ghozali I. *Application of Multivariate Analysis with the SPSS Program*. Diponegoro University Publishing Agency; 2005.
32. Ferdinand RF. Validity of the CBCL/YSR DSM-IV scales anxiety problems and affective problems. *Journal of anxiety disorders*. 2008 1;22(1):126-34. doi : 10.1016/j.janxdis.2007.01.008
33. Adi R. *Free Structural Equation Modeling with AMOS version 24*. Undiknas Press; 2015.