

สมรรถนะผู้จัดการคลังสินค้าที่พึงประสงค์ในอุตสาหกรรมการผลิตชิ้นส่วนยานยนต์

ในเขตพัฒนาพิเศษภาคตะวันออก

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งานวิจัยนี้มีวัตถุประสงค์เพื่อศึกษาสมรรถนะผู้จัดการคลังสินค้าที่พึงประสงค์ในอุตสาหกรรมการผลิตชิ้นส่วนยานยนต์ในเขตพัฒนาพิเศษภาคตะวันออก (EEC) และเพื่อกำหนดแนวทางในการพัฒนาสมรรถนะดังกล่าวให้เหมาะสมกับบริบทของอุตสาหกรรม โดยใช้การวิเคราะห์สถิติเชิงอนุमานเพื่อทดสอบสมมติฐานรวมถึงใช้การวิเคราะห์ความแปรปรวนทางเดียว และการทดสอบกลุ่มตัวอย่างสองกลุ่มที่เป็นอิสระจากกันในการประเมินผลข้อมูลที่เก็บรวบรวมจากกลุ่มตัวอย่าง

ผลการวิจัยพบว่า คุณสมบัติด้านความรู้ของผู้จัดการคลังสินค้าที่เกี่ยวข้องกับภาวะผู้นำและความรู้ในด้านอื่น ๆ มีความต้องการสูงสุด ในแง่ของสมรรถนะหลัก พบว่า ความสามารถในการใช้คอมพิวเตอร์และการสื่อสารมีความต้องการมากที่สุด นอกจากนี้ การวิเคราะห์สมรรถนะด้านแรงจูงใจของผู้จัดการคลังสินค้า พบว่า ทุกองค์ประกอบมีความต้องการอยู่ในเกณฑ์สูง โดยเฉพาะแรงจูงใจที่เกิดจากพนักงาน นอกจากนี้ การศึกษาเกี่ยวกับคุณภาพการให้บริการกับความพึงพอใจต่อการตัดสินใจเลือกใช้บริการขนส่งสินค้าจาก ของผู้ประกอบการในกรณีศึกษาท่าเรือแหลมฉบังพบว่า มีความสัมพันธ์กันอย่างมีนัยสำคัญทางสถิติที่ระดับ 0.05 ซึ่งไม่เป็นไปตามสมมติฐานที่ตั้งไว้ ข้อค้นพบเหล่านี้ชี้ให้เห็นถึงความสำคัญของการพัฒนาสมรรถนะด้านต่าง ๆ ของผู้จัดการคลังสินค้าในอุตสาหกรรมการผลิตชิ้นส่วนยานยนต์ใน EEC เพื่อให้สามารถตอบสนองต่อความต้องการที่เพิ่มขึ้นและการเปลี่ยนแปลงของอุตสาหกรรมได้อย่างมีประสิทธิภาพ การวิจัยครั้งนี้ มีความสำคัญในการพัฒนาอยุธยาศาสตร์และนโยบายการฝึกอบรมที่เน้นการพัฒนาสมรรถนะเฉพาะด้าน เพื่อยกระดับความสามารถของผู้จัดการคลังสินค้าให้สอดคล้องกับทิศทางการพัฒนาของอุตสาหกรรมและความต้องการของตลาดในอนาคต

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DESIRABLE WAREHOUSE MANAGER COMPETENCIES IN PARTS MANUFACTURING INDUSTRY MOTOR VEHICLES IN THE EASTERN SPECIAL DEVELOPMENT ZONE

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Abstract

This research aims to examine the desired competencies of warehouse managers in the automotive parts manufacturing industry within the Eastern Economic Corridor (EEC) and to establish guidelines for developing these competencies to suit the industry's context. Inferential statistics were employed to test the hypotheses, along with the use of One-Way ANOVA and independent sample t-tests for analyzing the data collected from the sample group.

The research findings indicate that the knowledge attributes of warehouse managers related to leadership and other areas of knowledge are in high demand. In terms of core competencies, the ability to use language and communication skills are most sought after. Additionally, the analysis of motivational competencies of warehouse managers revealed that all components are in high demand, particularly motivation derived from employees. Furthermore, the study on the quality of service and satisfaction with the decision to choose outbound freight services by entrepreneurs in the case study of Laem Chabang Port found a statistically significant correlation at the 0.05 level, which did not align with the initial hypothesis. These findings highlight the importance of developing various competencies of warehouse managers in the automotive parts manufacturing industry in the EEC to effectively respond to increasing demands and changes within the industry. This research is crucial for developing strategies and training policies that focus on enhancing specific competencies to elevate the capabilities of warehouse managers in alignment with the developmental direction of the industry and future market demands.

Keywords: Competencies of Warehouse Managers, Automotive Parts Manufacturing Industry, Eastern Economic Corridor, Leadership, Competency Development

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Introduction

The warehousing industry in Asia is undergoing substantial growth due to globalization, which is expected to have profound effects on national economies, politics, and societies (McKinsey & Company, 2007). To remain competitive, organizations must continually enhance their operations and invest in the development of their personnel's knowledge, skills, and competencies. According to the National Economic and Social Development Plan No. 13 (2023-2027), despite recent budget allocations for personnel development and training, there is a noticeable lack of long-term strategic planning for cultivating warehouse professionals. The development of occupational standards tailored to the needs of the Thai warehousing industry remains in its nascent stages, with minimal direct involvement from industry stakeholders. Various government agencies, such as the Department of Labor Protection and Welfare, the Office of the Higher Education Commission, and the Office of the Vocational Education Commission, are engaged in creating standards and curricula. However, the active participation of the warehouse industry in these initiatives has been limited.

Competency-based standards, a concept introduced by McClelland (1973), are vital for modern executives, as they encompass the skills, knowledge, and abilities necessary for effective job performance and the achievement of organizational goals. Competency includes not only knowledge and skills but also personal traits and attitudes that contribute to observable work behaviors. Thailand's civil service development plan emphasizes the importance of competencies in enhancing the performance of public servants. Competency models are now integral to human resource management, guiding recruitment, training, performance evaluation, and compensation strategies (Areesawat, 2019). In summary, while the warehousing industry in Asia has significant growth potential, there is a critical need for effective long-term planning and the development of relevant occupational standards and competencies. These efforts are essential for meeting industry demands and supporting broader economic development objectives. The logistics sector, particularly warehousing, must prioritize competency development to ensure efficient job performance and achieve organizational goals.

Competency refers to a person's intrinsic traits, encompassing their knowledge, abilities, skills, attitudes, beliefs, and habits, which manifest in observable work behaviors. The effectiveness of an individual plays a critical role in determining the overall quality and efficiency of an organization (Wongpudee, 2023). This principle is central to Thailand's strategic workforce development initiatives, where, by 2007, civil servants were mandated to achieve

a minimum competency level of 80%. Competency models are foundational in human resource management, guiding the processes of selection, development, and performance management. Core competencies, essential for the achievement of organizational goals and missions, embody the critical behaviors and skills required across all levels of an organization (Areesawat, 2019). The identification of these core competencies involves determining the most impactful elements and ensuring their alignment with the organization's strategic objectives. These competencies serve multiple human resource functions, including recruitment, training, promotion, performance evaluation, and compensation.

In the automotive industry—a sector crucial to economic growth and employment—the balance between production for domestic sales and exports has maintained a 50:50 ratio since 2007. The warehousing industry in Asia, driven by globalization and shifting government policies, shows substantial potential for growth (McKinsey & Company, 2007). The National Economic and Social Development Plan No. 13 (2023-2027) underscores the pressing need for effective long-term planning and the development of warehousing personnel. However, the formulation of occupational standards remains in its formative stages, with various agencies actively working to establish relevant benchmarks. The concept of competency, as initially introduced by McClelland (1973), emphasizes the alignment of skills, knowledge, and abilities with job performance and the attainment of organizational goals .

Research objectives

1. To study the competencies of warehouse managers desired in the automotive parts manufacturing industry in the Eastern Special Development Zone.
2. To study guidelines for determining desirable warehouse manager competencies in the automotive parts manufacturing industry in the Eastern Special Development Zone.

Conceptual framework and Hypotheses

Conceptual framework

In the research study on the desired competencies of warehouse managers in the automotive parts manufacturing industry within the Eastern Special Development Zone, the researcher developed a conceptual framework that incorporates both independent and dependent variables. This framework serves as a foundational tool for guiding the research process and provides a structured approach for investigating the research questions. By clearly defining the independent and dependent variables, the researcher ensures a systematic

exploration of the relationships between these variables, facilitating a more precise and accurate identification of the desired competencies for warehouse managers in this specific industrial context.

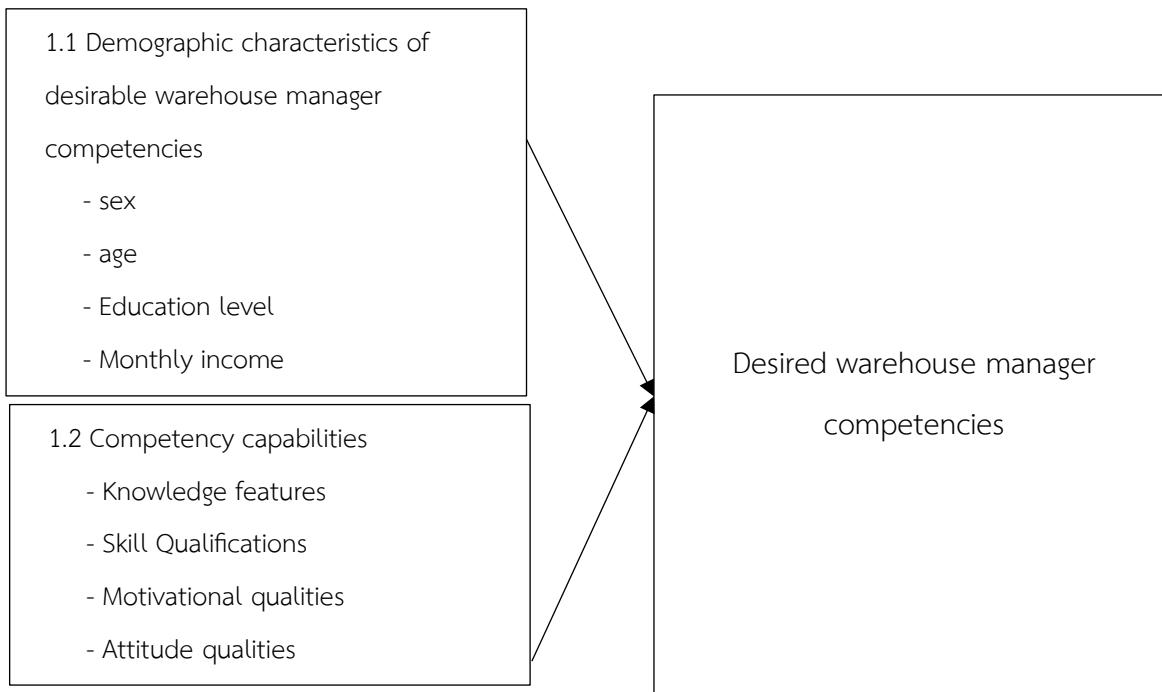


Figure 1 Conceptual framework

Hypotheses 1: Gender differences among warehouse managers are associated with varying opinions on the desired competencies in this industry.

Hypotheses 2: Age differences among warehouse managers correspond to differing views on the required competencies.

Hypotheses 3: Varying educational levels among warehouse managers are linked to distinct opinions on the necessary competencies.

Hypotheses 4: Income differences among warehouse managers are related to diverse.

Hypotheses 5: Competency capabilities among warehouse managers lead to different opinions on the desired competencies.

Literature Review

Veerastien and Suthiwartnarueput (2019) conducted a comprehensive investigation into the competencies of logistics labor across various education levels, including primary, vocational, diploma, and PhD, within the Eastern Economic Corridor (EEC). By employing surveys from businesses within the logistics sector, their research revealed that current competency levels—encompassing knowledge, skills, and personal characteristics—are

inadequate compared to business expectations. The study highlights a significant competency gap, particularly within the secondary school and vocational groups, followed by the diploma and PhD groups. Notably, the research identifies desirable personal characteristics such as honesty, responsibility, discipline, and punctuality as critical, implying that these traits are potentially more valuable than technical knowledge or skills alone for effective job performance and organizational success. Meanwhile, Sriyotee (2020) focused on the competencies of Thai Customs Technical Officers at Maptaput Customs House in the context of the EEC Development Plan. Through in-depth interviews with various stakeholders, the study identified additional competencies necessary for future development. These include knowledge of EEC business integration, proficiency in languages such as Chinese and Russian, and skills in utilizing modern technologies like automation and smart systems. The enhancement of these competencies is positioned as essential for increasing competitiveness in the global market.

Furthermore, Wongpudee (2023) examined the competency components of the logistics workforce using data collected from 400 logistics supervisors. The study found that knowledge attributes were rated as the most critical among the competency components, followed by personal attributes and skills. The research also observed significant differences in the importance of competencies based on variables such as work experience and the age of the business, with knowledge and skills demonstrating notable variation at the 0.05 significance level. In addition, Weerapong (2017) explored various factors influencing the efficiency of the supply chain system among automotive parts manufacturers in Thailand. The study assessed the impact of business continuity, supply chain agility, and recovery strategies on supply chain efficiency. Through structural equation modeling, the research established that business continuity management and supply chain agility have a significant positive impact on organizational performance. The model proposed by the study aligns well with empirical data, indicating a strong influence on the performance of automotive supply chains in Thailand.

Research Methodology

Population and Sample Size

In the study examining the desired competencies of warehouse managers in the automotive parts manufacturing industry within the Eastern Economic Corridor (EEC), the population and sample size were carefully determined to ensure the reliability and validity of

the findings. The population of this study comprises warehouse managers employed in the automotive parts manufacturing sector across the EEC.

Instrument Development and Data Collection

The researcher began by reviewing existing methods for designing questionnaires, studying related research to establish best practices and guidelines, and developing a conceptual framework to guide the questionnaire's design. This framework aimed to ensure the questionnaire would effectively collect necessary data. The researcher then explored relevant concepts and theories, along with various research documents, to align the questionnaire with theoretical frameworks and comprehensive coverage of the research topic. The final questionnaire was structured into three distinct parts: Part 1 focused on personal factors, collecting demographic information such as gender, age, occupation, educational level, and average monthly income through multiple-choice questions. Part 2 addressed the competencies required for warehouse managers in the automotive parts manufacturing industry within the Eastern Special Development Zone, using a five-level rating scale to assess the importance of different competencies. Part 3 included open-ended questions to gather qualitative feedback and suggestions from respondents, ensuring a holistic understanding of the research objectives.

Data Analysis

The study employs both descriptive and inferential statistical methods to analyze the data. Descriptive statistics, including frequency, percentage, mean, and standard deviation, are used to summarize demographic information and assess competencies. For testing the research hypotheses, the study utilizes inferential statistical techniques such as independent sample t-tests and One-way ANOVA.

Research Results

Analysis of Personal Data

The study examining the competencies required for warehouse managers in the automotive parts manufacturing industry within the Eastern Special Development Zone provides a comprehensive demographic, educational, income, and work experience profile of these professionals. The findings indicate that a majority of warehouse managers are female (41.5%), with males constituting 37.0%. Age-wise, the largest group is over 41 years old (44.2%), with those aged 36-40 years following at 27.0%, while only 0.2% are 25 years or younger. In terms of education, the majority hold a bachelor's degree (29.4%), with 26.6% having less than

a bachelor's degree, and 22.5% possessing a master's degree. Income distribution shows that the most common salary range is between 40,001 and 50,000 baht (24.9%), followed by 30,001 to 40,000 baht (21.9%), with the highest income bracket, above 50,001 baht, being the least common at 13.1%. Regarding work experience, most warehouse managers have 20-25 years of experience (25.2%), followed by 16-20 years (23.7%), with the least experienced group having over 26 years (13.9%).

Analysis of Desired Competencies

The analysis of desired competencies for warehouse managers reveals that the overall competency scores are notably high, with an average of 4.30 out of 5, underscoring the significant importance of these competencies. Among the categories, knowledge qualifications are rated the highest (4.35), followed by core competencies (4.25), and other qualifications slightly lower (4.18). In terms of detailed competency analysis, leadership knowledge emerges as crucial, particularly in leadership and relevant areas, while technical knowledge emphasizes the importance of product storage management and warehouse working patterns. Additionally, knowledge of Warehouse Management Systems (WMS) is highly valued, though ERP systems are less emphasized. Strategic leadership knowledge, including strategy determination, is in high demand, whereas conflict management strategies are deemed less critical. Furthermore, knowledge of methods such as creating performance indicators and understanding product storage processes is highly sought after, as is safety knowledge within warehouses, although import/export tax knowledge is less emphasized. Core competencies are recognized as essential for effective warehouse management, required at consistently high levels across various dimensions.

Analysis of Hypothesis Testing

The analysis of hypotheses regarding desirable competencies for warehouse managers in the automotive parts manufacturing industry within the Eastern Special Development Zone yielded the following results:

The testing of Hypothesis H1 confirmed its validity, indicating that gender differences among warehouse managers are associated with varying opinions on the desired competencies in this industry. This finding is statistically significant at the 0.05 level.

The testing of Hypothesis H2 similarly confirmed that age differences among warehouse managers correspond to differing views on the required competencies. This result is also statistically significant at the 0.05 level.

In testing Hypothesis H3, the results supported Hypothesis H1, revealing that varying educational levels among warehouse managers are linked to distinct opinions on the necessary competencies. This outcome is statistically significant at the 0.05 level.

The testing of Hypothesis H4 confirmed Hypothesis H1, showing that income differences among warehouse managers are related to diverse perspectives on the competencies required in this industry. This finding is statistically significant at the 0.05 level.

Lastly, the testing of Hypothesis H5 demonstrates that competency capabilities among warehouse managers lead to different opinions on the desired competencies. This result is statistically significant at the 0.05 level.

Discussion

The competencies required for effective performance in the logistics and supply chain sectors, particularly within the Eastern Economic Corridor (EEC) of Thailand, have been increasingly scrutinized. Recent research focusing on warehouse managers in the automotive parts manufacturing industry within the Eastern Special Development Zone has highlighted the necessity of specific knowledge, particularly in leadership, technical, and system-related areas, as well as core competencies such as integrity, responsibility, and punctuality. This aligns with broader findings within the logistics sector, where studies like those conducted by Veerastien and Suthiwartnarueput (2019) revealed significant competency gaps across various education levels in the EEC. They particularly emphasized the importance of personal characteristics—such as honesty, responsibility, discipline, and punctuality—over mere technical skills for achieving effective job performance and organizational success. In addition to personal attributes, the recent study underscores the importance of leadership and technical knowledge. This is echoed in the research by Sriyotee (2020), which pointed out the need for competencies in areas like EEC business integration, language proficiency (such as Chinese and Russian), and modern technological skills, including automation and smart systems. These competencies are vital for maintaining competitiveness in the global market, suggesting a parallel with the technical and leadership skills required in the automotive parts manufacturing industry.

The emphasis on focused development programs to bridge competency gaps is further supported by Wongpudee (2023), who found that knowledge attributes were rated as the most critical competency components among logistics supervisors, followed by personal

attributes and skills. Wongpudee's research also noted that the importance of these competencies varied significantly with factors such as work experience and the age of the business, highlighting the need for tailored development programs that address specific gaps. Additionally, the need for strong leadership and technical competencies is corroborated by Weerapong et al. (2017) study, which showed that business continuity management and supply chain agility positively impact organizational performance in the automotive sector. Given that warehouse managers play a crucial role in implementing these strategies, their proficiency in both technical systems and leadership is essential for navigating the complexities of modern supply chains.

Suggestions for Future Research

Based on the study of desired competencies for warehouse managers in the automotive parts manufacturing industry in the Eastern Special Development Zone, the following suggestions for future research can be made:

1. Future research should focus on the specific skills and knowledge required in various aspects of warehouse management, such as inventory management, the use of new technologies like automation, and data analysis. This will provide valuable insights for developing competencies that align with the evolving needs of the industry.

2. Future research should compare desired competencies in the automotive parts manufacturing industry with those in similar industries, such as electronics or agriculture. This comparison can help identify differences and potential strategies for development that can be adapted from other sectors.

3 Future research should investigate the skills and abilities required at different educational levels, such as undergraduate, master's, and doctoral degrees. This will help in creating targeted development and training programs suited to each educational level.

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