

Factors Affecting the Competitive Advantages and Performance of Thai
Construction Industry Organizations
ปัจจัยเชิงสาเหตุที่ส่งผลต่อความได้เปรียบทางการแข่งขันและผลการดำเนินงานขององค์กร
อุตสาหกรรมรับเหมาก่อสร้างในประเทศไทย

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บทคัดย่อ

การวิจัยครั้งนี้มีวัตถุประสงค์เพื่อพัฒนารอบแนวคิด ปัจจัยเชิงสาเหตุที่ส่งผลต่อความได้เปรียบทางการแข่งขันและผลการดำเนินงานขององค์กรอุตสาหกรรมรับเหมาก่อสร้างในประเทศไทย ผู้วิจัยใช้การทบทวนเอกสารงานวิจัย และศึกษาความสัมพันธ์ระหว่างตัวแปรเพื่อยืนยันกรอบแนวความคิด

ผลการวิจัยพบว่า

- 1) การจัดการทรัพยากรมนุษย์ ภาวะผู้นำการเปลี่ยนแปลง และการจัดการนวัตกรรม ส่งผลต่อทางตรงต่อความได้เปรียบทางการแข่งขันในอุตสาหกรรมรับเหมาก่อสร้างในประเทศไทย
- 2) การจัดการทรัพยากรมนุษย์ ภาวะผู้นำการเปลี่ยนแปลง การจัดการนวัตกรรม ส่งผลต่อทางอ้อมต่อผลการดำเนินงานในอุตสาหกรรมรับเหมาก่อสร้าง และ ความได้เปรียบทางการแข่งขัน จะส่งผลทางตรงต่อผลการดำเนินงานในอุตสาหกรรมรับเหมาก่อสร้างในประเทศไทย

คำสำคัญ: ความได้เปรียบทางการแข่งขัน ผลการดำเนินงาน อุตสาหกรรมรับเหมาก่อสร้าง

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ABSTRACT

This research aims to develop a conceptual framework. Factors Affecting the Competitive Advantages and Performance of Thai Construction Industry Organizations Researchers used the review of research papers and the relationship between variables to confirm the conceptual framework.

Research findings.

1) Human resource management, Transformational Leadership and innovation management directly affect the competitive advantage of Thailand's construction industry

2) Human resource management, Transformational Leadership and innovation management indirectly affect the performance of the construction industry. Competitive advantage will directly affect the performance of Thailand's construction industry.

Keywords: Competitive advantage, Performance, Construction industry.

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1. Introduction

Today, organizations in the business sector face environmental uncertainty. Actions, including extreme continuous change and more complex competition All business sectors are affected by this change, especially globalization. Thailand's economic crisis Enterprises in all departments need to adjust their business strategies to survive.

The construction industry is an integral part of national development, and income generation connects the entire manufacturing industry (for example. Construction materials, equipment, machinery, etc.) Transportation, energy, and financial banks including employment. From 2015 to 2022, there were about 400000 jobs, especially the shortage of Thai labor in the construction industry. This has led to the need for foreign workers and the shortage of skilled workers, followed by the problem of attracting and robbing workers, including professionals. For example, engineers, architects, foremen, etc. Construction operators need to carefully manage human resources to have enough potential to wait. Support the highly competitive business (Panitanwong, Boonyasopon Wisuttipaet and Roopsing 2020, 353) However, due to the current turbulent situation, construction contractors are facing fierce competition from domestic contractors. And spread to borderless competition with external contractors. Technological development will change rapidly and will have a significant impact on the social life and economic activities of the country. (Boonyu and Panyaprasit 2019, 82-83) In the era of globalization, architecture is one of the industries that hurt the environment, and society to reduce the impact. Therefore, the contractor must develop sustainable construction for the economic survival of the organization. Today, the organization relies on adaptation to cope with changes in future events to survive. Therefore, contractors need to find competitive advantages (Kaewjunant and Pongpeng, 2020)

The construction industry faces challenges in creating good performance. To support or maintain the business and enable it to adhere to good management, a good organization will bring good projects and efficiency. In today's industry, finding competitiveness to create competitive advantage is a challenge In the 1980s, competitiveness was closely concern by practitioners and researchers from all walks of life. In the construction industry, many competitiveness achievements have been released (Flanagan, Lu, Shen, and Jewell, 2007).

In the study, the impact of competitive advantage on the performance of the construction industry has been confirmed. For example, Boonyu and Panyaprasit (2019) proposed that competitive advantage directly affects the performance of an organization. In the statistical sense of 0.01, Kaewjunant and Pongpeng (2020) suggested that: Therefore, the contractor needs to find advantages to increase the chances of winning the bid. Abidin, Adros, and Hassan (2014) investigated the competitive strategy and efficiency of the construction industry. Found in Malaysia. The competitiveness of the construction industry is affected by the number of newcomers, the strength of competitors, customer expectations, and difficulties. However, the country's economic situation has also affected the stability of the

industry and made it competitive. The research of Kaewnaknaw, Siripphanakul, Phayachrom, and Limna (2022) Construction companies: The case study of the Bangkok business analysis model also gives the same results.

It can be concluded that the construction industry lacks good management and cannot produce valuable returns or achieve the goals set by the company. The modern risk is the loss and failure of the project, which will lead to the focus of this study: Factors Affecting the Competitive Advantages and Performance of Thai Construction Industry Organizations Sustainable Development Organization It is beneficial for interested people and researchers to further study and analyze the data of the industry.

Research objective

To develop the conceptual framework. Factors Affecting the Competitive Advantages and Performance of Thai Construction Industry Organizations.

2. Literature review

Competitive advantages of the construction industry

The concept of competitive advantage in this study is consistent with the theory of resource dependence. And the organization development theory under the change of various factors is the variable caused by various factors. "A place that will inevitably lead to the variation of the results," supported by Roger (2003), put forward the innovative communication theory. Therefore, it applies to national, industrial, and organizational development, as well as Davao, the mayor, and Hera (2011) explained that competitiveness is divided into three levels: organization, industry, and country. The definition of national competitiveness is a macroeconomic variable based on exchange rate indicators. The proportion of the country's exports in the global market and the competitiveness of microeconomics are defined by income and living standard indicators. Cooper's view (2005) the development of organizational competitiveness or competitive advantage reflects the results of the country's industrial groups. And contributed to the success of that country.

Porter's view (2005). focuses on emphasizing competitive advantage at the organizational level. From the marketing perspective of the organization's products or products, it is used to formulate important strategies, including:

1. Cost leadership strategy of three elements: efficiency, efficiency, and productivity.
2. The characteristic of the differentiation strategy is to create value. Products and services of organizations that differentiate or outperform competitors in the same way. Creating a response to consumers exceeds the maximum demand or expectation.
3. The focus strategy is tailored according to the choice. Market position in terms of product quality and the price difference.

Competitive advantage refers to the ability of an organization to surpass other competitors. To produce the right products or services by correctly meeting customer satisfaction. In the construction industry, the following factors have been studied:

Tan and Shen (2011) Evaluation method for the competitiveness of construction contractors in Hong Kong Internal analysis helps customers choose the right contractor

Orozco Serpell and Molenarr (2011) jointly studied competitiveness using factors and indexes of Chilean construction companies. Internal factors include leadership, training, and innovation, and external factors include regulation, the number of competitors, and interest rates. And indexes that help analyze competitiveness to help determine the competitiveness of the company.

Nurira Malahayati and Mahmuddin (2018) said that competitiveness is the ability of a company to compete with its competitor's Competitive strategy and competitive advantage

Samee and Pongpeng (2016) studied the structural equation model of construction equipment selection and contractor competitive advantage. Competitive advantages include four factors: financial stability, technical ability, and bidding opportunities. And image and reputation.

From the literature review that the industry competitive advantage of the construction contractor business lies in conducting external evaluation of competitors, and use the personnel in the organization to find the most appropriate strategy in each case, and developing from the inside. Prepare for the organization by training the personnel in the organization to be ready at any time.

Enterprise performance concept

Performance is very important to the organization because it is an indicator to measure whether the organization's operation is in line with its goals or objectives. Or whether the work is carried out effectively (Funda Ozer and Cihan Tinaztepe, 2014; Ngamkham, 2014), which was measured in the past. The operation will focus on financial measurement, but the current measurement of financial and non-financial performance is as follows: (1) Financial performance, such as profit, return on assets, return on investment, etc. (2) Marketing performance, such as sales, market share, etc.; and (3) organizational performance. e. g. Shareholder return, economic added value, etc. (Muiruri, 2016; Sulong and Laeheem, 2015) the main goal of organizational performance management is to create competitive advantages. The management must plan and implement as planned to achieve the organization's objectives (Tavisaprakit, 2015)

For the concept of the balanced scorecard, the measurement standards used by enterprises (Mio, Costantini, and Panfilo, 2022) Business sector applied to business and financial services (BFS) Similar to commercial organizations that generally aim at a profit, there are four views: (1) financial view. This view focuses on the effective use of resources to support

the strategic objectives of the business sector (2) stakeholder views. The stakeholder perspective is a perspective that focuses on attracting talented customers (3) Internal business perspective. (Internal business perspective) is a view that focuses on supporting the business sector to achieve its objectives; (4) An organizational development perspective focuses on the continuous development and improvement of business units (Kaplan, 2009)

Human resource management

Wickham (2019) said: "How to implement sustainable human resource management practices and find customer responses to generate satisfaction is very important." Through the participation of internal personnel, research shows that innovation and customer satisfaction depend on practice. Sustainable human resources reflect that the organization needs human resources practice to achieve customer satisfaction. In particular, improve the ability of personnel to achieve sustainable capacity building in the organization. Some organizations have less innovation but found that Strong because human resource practices are sustainable and can retain customers. It is also equal to innovation management, which can be said to be innovation and practice. Sustainable human resources can replace each other and enhance the power of customer satisfaction.

The perspective of Ren and Jackson (2019) shows that in the context of organizational change, organizational sustainability is a challenge to human resources management. (Change management) is challenging in solving conflict problems and obstacles the natural clarity of the scope of responsibility leads to changes in human resources. Talent human capital, also known as talent. Human resource management is the agent of change in communication transformation. It is from top to bottom, from inside to outside, from outside, from bottom to top - to influence the work process to promote sustainable competitive advantage.

From the perspective of Cotes and Ugarte (2021), the concept of human resource management process. The new development and training route is to improve the link between training and necessary development. Rank the needs of enterprises to achieve performance objectives. Chams and Garcia Bland ó n (2019) the importance of human resources management has led to a change in sustainable development goals. Policy assessment and the guidelines approved and supported by the industrial sector under this project emphasize improvement and financial results, thus promoting economic development. Environment, performance, profitability, new organizational goals, personalization, gap analysis, and Ability to create sustainable management of future potential; Components of human resources management indicators.

Simsit, Vayvay and Ozturk (2014). The strategy and planning under the vision are crucial to the innovation management process and support the collection of data and technology. (Big data and information) Various abilities of employees to create participation, awareness, and communication through employee processes. And teamwork.

Wickham (2019) said that innovation must be based on sustainable human resource practices. Customer satisfaction is caused by the following factors: Improve employees' abilities in all aspects to improve their potential. It can be said that the organization can organize human capital, which is an asset for creating management. How to achieve innovation and sustainable competitive advantage in the same business? Some scholars believe that sustainable and sustainable human resources management can create competitive advantages for the organization and also create innovation.

Ren and Jackson (2019) found that senior management representatives of organizations with clear direction and cooperation with human resources management departments (Change agents) communicate within the organization in a top-down, internal and external, and, bottom-up way. Make the operation process of the organization effective and help to promote competitive advantage sustainably.

Cotes and Ugarte (2021) found that institutions responsible for human resources management need to focus on improving performance. By looking at the necessary training and development, and sorting the needs to achieve performance objectives. Before enterprises need to achieve human resource management results, they need to start by formulating human resource management policies. Analyze training gaps and solve problems by using personal personnel database as information. Related to the operation within the specified time.

Transformational Leadership

the Transformational Leadership theory a new leadership theory or a new paradigm? Leadership is widely used to describe the process of influence at the micro level. Between leaders and followers, from individual to the macro level (macro level), and between leaders and personnel of the whole organization (Bass, 1985). The theory of leadership change focuses on In this era, leaders must have a vision. Be able to translate the vision into reality and put it into practice, and communicate with followers who are willing to follow. Realize the vision of defining the attributes of leaders, that is, lead by example and inspire. Motivation: encourage initiative and personal consideration.

Bass and Riggio (2006) are based on the development of leadership concepts, and changes in Bass and Avolio, 1994, leadership behavior. "Change" refers to the behavior of leaders to motivate and motivate followers to achieve higher goals. It includes four elements: 1) Is ideological influence (II) that leaders act by example or by respected model? Trust followers. 2) Inspiration (IM) is when leaders act in a way that inspires followers. Through the establishment of internal incentives, leaders can stimulate the team spirit, make it full of vitality, and develop their attachment to long-term goals. 3) Road incentives. Intelligence (IS) refers to the behavior of leaders that stimulates followers to realize problems. Various events in the organization have led followers to find new ways to solve problems. 4) Personalization

considerations; IC). This is a behavioral relationship involving individuals as leaders to take care of their followers and make them speak with value. Consider interpersonal differences;

Yaghoubi, Mahallati, Moghadam, and Fallah (2014) have been researching to find the impact path of transformational leadership on creativity. Organizational knowledge through the development of leadership elements, the transformation from leadership theory, and the transformation of Bass and Avorio (1994) Among managers and managers, senior managers infer that change leaders should be visionary and visionary must have challenges. Guess, make a difference. Leaders should communicate their vision, set goals, and work towards them, including promoting teamwork. It consists of five elements:

1) Ideological influence means that leaders have influence and confidence. Committed to the ideal of achieving goals, considering the interests of others and organizations. Have the ability, will, confidence, and firm ideology to consider the consequences in the moral and ethical aspects of decision-making. Let others feel proud to be involved in it, thus generating respect.

2) Inspiration refers to the work in that leaders inspire and challenge followers. Express enthusiasm by creating positive attitudes and positive ideas. You must show confidence in your work goals. Motivate the team and followers. Communicate. Create positive attitudes and ideas. Set standards and guidelines. It can guide the organization to achieve the goal of maximum benefit.

3) Intellectual stimulation refers to leaders urging followers to be aware of various problems in the organization. Make followers need to find new solutions to solve problems in the organization. Find better conclusions. Create new and Innovate, innovate, and encourage followers to try new solutions. Cultivate the ability and awareness of self-solving problems and interaction among members.

4) Personalized consideration means that leaders understand followers and take care of individual followers. Encourage followers to feel a careful leader, and pay special attention to the needs of followers, to achieve achievements and personal growth. Leaders will develop the potential of followers and colleagues, provide support, take personal differences into account, and teach and guide followers' success.

5) Vision interpretation means that leaders have a clear vision of the future and an understanding of the mission. The final goal, which can explain the desired future and show how to achieve that future, is targeted and determined. Achieving that goal includes making colleagues feel trust and acceptance.

Innovation management

Innovation is the core process of an enterprise. It is the core of its survival and development (Chesbrough, 2003) Innovation is also important for enhancing competitiveness. Innovation is related to the invention. But the invention is a discovery, a new knowledge that

no one has invented or discovered before. This may not be used economically, but innovation will be the practical application of new knowledge or discoveries. It may be in the form of technology or other than technology (Luangpirom, 2014). Innovation does not only mean products or there are only new inventions, but innovation means products, inventions, services, production processes, and organizational structures. Management, financial management, business, marketing, or other this is new or significantly improved and can be used for commercial and public purposes (Ministry of Higher Education) Science, Research and Innovation, 2019)

At present, both the public and private sectors attach importance to innovation. There is new innovative competition in the organization to show the ability to think and invent new things and satisfy customers or users. Therefore, organizations try to innovate in the organization through different methods and processes, which depend on many factors. The innovation process is called "innovation management" (Namburi, 2013)

Longnick-Hall et al. (2009) said that innovation management refers to the management process of putting various innovations into practice, innovation. There are four key management processes: (1) acquisition and (2) execution. (3) Introduction and (4) maintenance.

Tidd & Bessant (2014) defined innovation management as organizational innovation management. Promote the development of innovative ideas in the organization by exchanging members' knowledge within the organization. And impart knowledge of the creativity of creating new products, services, and workflow. This includes mechanisms to support the monitoring of the operation of innovation systems with the appropriate application of innovation management knowledge.

Tidd and Bessant (2018) divided the innovation management process into four stages: (1) Search is an opportunity for innovation; (2) choose the content and reason for innovation; (3) application. (Implementation) how to realize innovation, and (4) how ownership benefits from innovation.

Mokekhaow (2016) summarized the five steps of the innovation management process:

1) The senior management of the organization is the key person responsible for formulating the strategy. Develop a strategic plan and communicate the strategy to subordinates throughout the organization. The innovation management strategy of the organization department must conform to the main strategy of the organization. The development of a clear strategy will help the management and operation staff share a common vision. It can lead the strategy to a specific implementation.

2) Innovation process management Enterprise executives must formulate steps to create innovation to help executives and practitioners have the ability to develop ideas. Efficiency, from putting forward new ideas, exchanging ideas, screening ideas, testing ideas, and innovating ideas. And demonstrate innovation to users. Track and evaluate the success

of innovation. Learn and improve the innovation process. And properly manage innovation resources and promote the efficient use of innovation resources.

3) Manage an innovative organization. Organizational managers must have the qualities they show. Leadership can lead to better changes in the organization. By showing creativity and inventing new methods or working methods, the organizational structure is as follows: It is conducive to innovation, flexibility, and flexibility, and provides opportunities for horizontal and vertical coordination. A structure that enables innovation managers and teams to make decisions quickly.

4) External contact management is the connection between the organization and external organizations, technical environment, marketing, and economy. Social, cultural, and other environments that affect the innovation process you can manage the relationship with external organizations by establishing a good relationship with suppliers. (Supplier), subcontractors, schools, and organization user representatives, including the operation procedures for providing opportunities for customers and suppliers. Other organizations or institutions have the opportunity to innovate together.

5) Knowledge management process management. Systematic knowledge management will help Organizations can effectively manage existing knowledge within the organization and create new knowledge, especially deep knowledge. Tacit knowledge is hidden among people with knowledge, ability, and interpersonal relationship structure in the organization, making it difficult to find. Therefore, we must systematically manage the learning process by finding knowledge, creating knowledge, and managing knowledge. Create a system for acquiring and exchanging knowledge by processing and screening knowledge. There is a system for reviewing objectives at every step of the innovation process. There is an opportunity to exchange experiences with various institutions to create opportunities. Learn and improve the innovation process to achieve sustainable success.

3. Methodology

The researcher did a literature review. both from academic books, articles on reliable websites, and articles from academic journals and research both domestically and internationally to find the correspondence of influences between variables for develop a conceptual framework Causal Factors Affecting Competitive Advantage and Performance of Construction Industry Organizations in Thailand To summarize the results of the research as follows.

4. Results

Research shows that human resource management, Transformational Leadership, and innovation management Directly affects the competitive advantage of Thailand's construction industry, such to Farida Ma (2021) This paper studies the human resource management that

affects the competitive advantage of the hotel business. Human resource management and strategic management process have a positive impact on the competitive advantage of small hotels. Research by Chan, Shaffer, and Snape (2004). Thematic research searching for sustainable competitive advantage: the impact of organizational culture, competitive strategy, and human resources Human resource management practices have no significant impact on performance. However, corporate culture can become a valuable resource for company operations.

Jushaisong and Niruttikul (2021). A structural equilibrium model of factors. Affecting the competitive advantages of auto parts manufacturers in the Eastern Economic Corridor Transformative leadership will indirectly affect competitive advantage, and the research of Chen, Li, and Wang (2020) Comprehensive quality management and sustainable competitive advantage: serial media for transformation leadership and management The conclusion of competence is that leadership, change, and management is a mechanism (process). Promote and coordinate internal and external factors, so that the organization has a sustainable competitive advantage.

Chonwattana and Laohavichen (2022) studied the relationship between total quality management, Innovation, competitive advantage, and organizational sustainability of Thai manufacturing companies. Innovation has a positive and direct impact on the competitive advantage and sustainability of the organization. Udriya, Tham and Azam (2019). Impact of market positioning and innovation on textile competitive advantage and business performance Small and medium-sized enterprises. Research findings: Market direction and innovation also directly or indirectly affect business performance through competitive advantage.

Sankhantiviroj and Ramanust (2021) studied the impact of competitive advantage and entrepreneurial ability. Impact on the performance of construction business operators in Bangkok and its surrounding areas Competitive advantage is an intermediate variable that links the entrepreneur's ability and results. Lestari et al. (2020) reported the performance of contractors in Bangkok and its surrounding areas. The study found that entrepreneurs have both positive and significant impacts on the performance of SMEs through competitive advantage. And innovation management.

5. Discussion

The research results enable researchers to develop the following research framework:

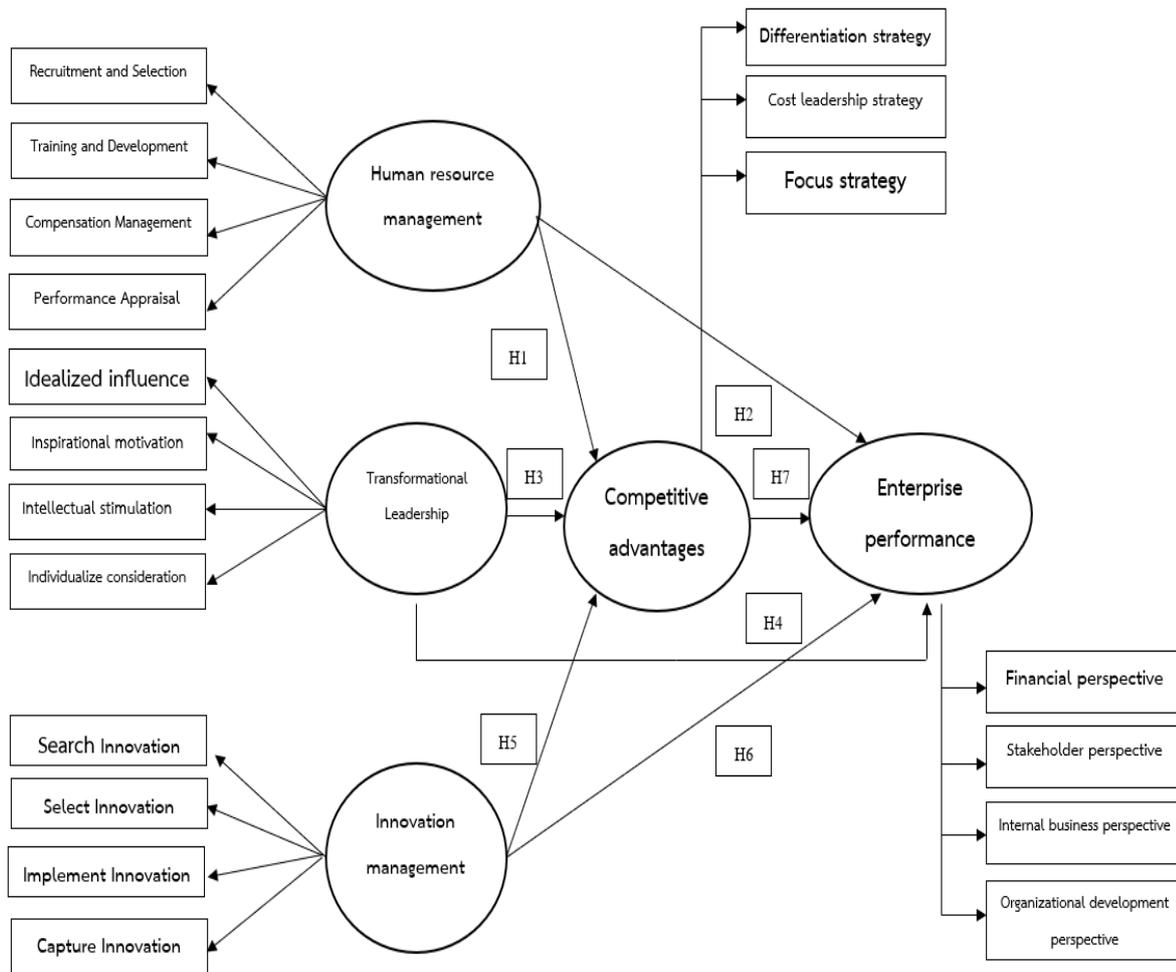


Figure 1: A research framework

5.1 Suggestion

1. The literature review shows that competitive advantage will have a significant impact on organizational performance. The construction industry in Thailand needs to develop its organization so that it has a competitive advantage in social change. Create good performance and organizational sustainability.

2. Human resource management, Transformational Leadership, and innovation management are all important factors that directly affect the competitive advantage of Thailand's construction industry. Improving employee well-being through appropriate leadership and innovative management will have a positive impact on the organization.

5.2 Suggestions for further research

1. Such research is in the early stages of the study. The researcher will further develop it by creating tools to collect data for further quantitative research.

2. It will be more intense if, after the study by doing quantitative research, the results will be verified by conducting qualitative research with operators in the construction industry.

Reference

- Abidin, N. Z., Adros, N. A., and Hassan, H. (2014). Competitive strategy and performance of quantity surveying firms in Malaysia. **Journal of Construction in developing countries**, **19**(2), 15-32.
- Bass, B. M. (1985). **Leadership and performance beyond expectations**: Collier Macmillan.
- Bass, B. M., and Avolio, B. J. (1994). **Improve organizational effectiveness through leadership**. London: Sage.
- Bass, B. M., and Riggio, R. E. (2006). **Transformational Leadership**. Mahwah, NJ: L. I Lawrence Erlbaum.
- Boonyu,T and Panyaprasit, W. (2019). The Effect of Competitive Advantage on Core Competence and Organizational Performance of Thailand's Construction Business. **Journal of Humanities and Social Sciences of Southeast Asian University**. **3** (2). 81-90. [in Thai]
- Chams, N., and García-Blandón, J. (2019). On the importance of sustainable human resource management for the adoption of sustainable development goals. **Resources, Conservation and Recycling**, **141**, 109–122.
- Chan, L. L., Shaffer, M. A., and Snape, E. (2004). In search of sustained competitive advantage: the impact of organizational culture, competitive strategy and human resource management practices on firm performance. **The International Journal of Human Resource Management**, **15**(1), 17-35.
- Chonwattana,C. and Laohavichien,T. (2022). The Relationship among Total Quality Management, Innovation, Competitive Advantage and Organizational Sustainability of Manufacturing Companies in Thailand. **Burapha Journal of Business Management Burapha University**, **11**(2), 18–41. [in Thai]
- Chen, R., Lee, Y. D., and Wang, C. H. (2020). Total quality management and sustainable competitive advantage: serial mediation of transformational leadership and executive ability. **Total Quality Management and Business Excellence**, **31**(5-6), 451-468.
- Chesbrough, H. (2003). **Open Innovation: The New Imperative for Creating and Profiting, from Technology**. Boston: Harvard Business School Press.
- Cotes, J., and Ugarte, S. M. (2021). A systemic and strategic approach for training needs analysis for the International Bank. **Journal of Business Research**, **127**, 464-476.
- Cooper, R. N. (2005). **The political economy of competitiveness**. Retrieved April 20, 2022 from <http://www.nesdb.go.th>

- Davo, N. B., Mayor, M. G., and Hera, L. B. (2011). Empirical analysis of technological innovation capacity and competitiveness in EU-15 countries. **African Journal of Business Management**, 5(14), 5753-5765.
- Farida Ma (2021). The human resource management influence of competitive advantage of hotel operators. **Academic Journal Bangkok thonburi University** 10 (2) 133-146. [in Thai]
- Flanagan, R., Lu, W., Shen, L., and Jewell, C. (2007). Competitiveness in construction: a critical review of research. **Construction management and economics**, 25(9), 989-1000.
- Funda Ozer and Cihan Tinaztepe. (2014). Effect of Strategic Leadership Styles on Firm Performance: A study in a Turkish SME. **Social and Behavioral Sciences**, 150 (2), 778-784.
- Juthaisong ,C. and Niruttikul, N..(2021). The Structural Equation Model of Factors Influencing the Competitive Advantage of Automobile Parts Manufacturers in Eastern Economic Corridor. **Business Review Journal**, 13(2), 237–254 [in Thai]
- Kaewjunant, S and Pongpeng, J. (2020). Factors for Evaluating Building Sustainability of Contractors Affecting Competitive Advantage. **Ladkrabang Engineering Journal**, 37(4). 26–35. [in Thai]
- Kaewnaknaew, C., Siripipatthanakul, S., Phayaphrom, B., and Limna, P. (2022). Modelling of talent management on construction companies' performance: A model of business analytics in Bangkok. **International Journal of Behavioral Analytics**, 2(1).1-17.
- Kaplan, R. S. (2009). Conceptual foundations of the balanced scorecard. **Handbooks of management accounting research**, 3, 1253-1269.
- Lengnick-Hall, M. L., Lengnick-Hall, C. A., Andrade, L., and Drake, B. (2009). Strategic human resource management: **Human Resource Management Review**, 19, 64-85.
- Lestari, S. D., Leon, F. M., Widyastuti, S., Brabo, N. A., and Putra, A. H. P. K. (2020). Antecedents and consequences of innovation and business strategy on performance and competitive advantage of SMEs. **The Journal of Asian Finance, Economics and Business**, 7(6), 365-378.
- Luangpirom, N. (2014). **Innovation Management**. Bangkok: Duangkamol Pub Lease. [in Thai]
- Ministry of Higher Education, Science, Research and Innovation (2019). **Higher Education, Science, Research and Innovation Policy and Strategy 2020-2027 and Science Plan Research and innovation**. Retrieved April 20, 2022 from <https://www.mhesi.go.th/home/index.php/aboutus/stg-policy/930-2563-2570>
- Mio, C., Costantini, A., and Panfilo, S. (2022). Performance measurement tools for sustainable business: A systematic literature review on the sustainability balanced scorecard use. **Corporate social responsibility and environmental management**, 29(2), 367-384.
- Mokekhaow, K. (2016). **Transformational Leadership relationship model Knowledge of innovative management performance in community hospital wards**. Nakhon

- Pathom: Graduate School of Christian University. [in Thai]
- Muiruri, M.S. (2016). **Relationship between Knowledge Management and Organizational Performance: A Case Study of United States International University – Africa.** (Masters of Business Administration). United States International University.
- Namburi, N. (2013). Causal model of factors affecting management ability. Innovations affecting the business performance of the palm oil extraction and refining industry in Thailand. **Minutes of the Third National Graduate Conference of the Art Program of the School of Social Sciences, Kasetsart University.** 1-18. [in Thai]
- Ngamkha, N. (2014). Causality model of management and quality development commitment Operation of private non-profit hospitals in Thailand. **Journal of Public Health and Development, 12** (2), 49-68. [in Thai]
- Nurisra, N. Malahayati and Mahmuddin. (2018). The main factor affecting the competitiveness of Contractor Company. **The 7th AIC-ICMR on Sciences and Engineering**, Article ID 352, pp.012034.
- Orozco, F. Serpell, A. and Molenarr, K. (2011). Competitiveness factors and indexes for construction companies: findings of Chile, **Revista de la Construcción, 10**(1), .91-107.
- Panitanwong, Y. Boonyasopon, T. Wisuttipaet, S. and Roopsing, T. (2020). The Development Model of the Management's Potential in Construction Service Industry for Thailand 4.0. **The Journal of KMUTNB. 30** (2).351-360. [in Thai]
- Porter, M. E. (2005). **The competitive advantage creating and sustaining superior performance.** New York: The Free Press.
- Ren, S., and Jackson, S. E. (2019). HRM institutional entrepreneurship for sustainable business organizations. **Human Resource Management Review, 30**(3), 1-18.
- Rogers, E. M. (2003). **Diffusion of Innovation.** (5th ed.). New York: The Free Press.
- Samee, K. and Pongpe ng, J. (2016). Structural Equation Model for Construction Equipment Selection and Contractor Competitive Advantages, **KSCE Journal of Civil Engineering, 20** (1).77-89.
- Sankhantiviroj, N. and Ramanust, S.. (2021). Influence of Competitive Advantage and Entrepreneur Ability Affecting the Performance of Construction Business Operators in Bangkok and Perimeter. **Journal of Politics, Administration and Law. 13**(2). 253-268.
- Simsit, Z. T., Vayvay, O., and Ozturk, O. (2014). An outline of innovation management process: Building a framework for managers to implement innovation. **Procedia-Social and Behavioral Sciences, 150**, 690-699. doi:10.1016/j.sbspro.2014.09.021
- Sulong, M and Laeheem, K. (2015). Development of a causal relationship model for operations Islamic cooperative in Thailand and test the model invariance between cooperative savings and cooperative service. **AL-HIKMAH. 5**(10). 27-36. [in Thai]
- Tan, Y. and Shen, L.-Y. (2011). A fuzzy approach for assessing contractors' competitiveness, **Engineering, Construction and Architectural Management, 18**, (3).234-247.

- Tavisapakit, P. (2015). **Leadership, knowledge management, innovation management and Technologies that affect the performance of Thai MAI listed companies.** (doctoral dissertation) Ramkhamhaeng University. [in Thai]
- Tidd, J. and Bessant, J. (2014). **Management innovation** (5th ed.). West Sussex: Wiley.
- Tidd, J. and Bessant, J. (2018). **Management innovation: Integrating Technological, Market and Organizational Change** (6th ed). West Sussex: Wiley.
- Udriyah, U., Tham, J., and Azam, S. (2019). The effects of market orientation and innovation on competitive advantage and business performance of textile SMEs. **Management Science Letters**, *9*(9), 1419-1428.
- Wikhamn, W. (2019). Innovation, sustainable HRM and customer satisfaction. **International Journal of Hospitality Management**, *76*(6), 102-110. doi:10.1016/j.ijhm.2018.04.009
- Yaghoubi, H., Mahallati, T. Moghadam, A. S., and Fallah, M. A. (2014). Transformational Leadership: Enabling Factor of Knowledge Management Practices. **Journal of Management and Sustainability**, *4*(3), 165-74.