

Modelling of Talent Management on Construction Companies' Performance : *A Model of Business Analytics in Bangkok*

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ABSTRACT

This study investigates a business analytics model of talent management to predict the performance of construction companies in Bangkok, Thailand. The online convenience sampling method collected data from 394 managers and employees of construction companies in Bangkok, Thailand, to confirm the business model analytics. The data were analysed using the structural equation model (SEM) and SPSS Version 27. The findings support the talent management model comprises talent attraction, talent development and talent retention and can predict construction companies' performance with high explanation power in this sector. This study may benefit business owners and managers to improve business model analytics to predict organisational performance from the talent management model (talent attraction, talent development and talent retention). Moreover, the results could apply in any sector to improve organisational performance through this business analytics model.

Keywords: *talent management, talent attraction, talent development, talent retention, construction companies' performance*

1. INTRODUCTION

1.1. Background of the Study

Economic uncertainty, intense competition, and construction industry restructuring have put tremendous pressure on construction companies to constantly improve their productivity and performance (Hany Abd Elshakour et al., 2013). Human resource management (HRM) is one of the essential factors in maintaining a company's competitiveness. Talent management has long been considered a component of HRM strategies. If a company wants to build a great team by hiring highly qualified employees, it must have the right strategy. Besides, human resource management is related to talent management strategy (Cheese et al., 2007; Setyawan & Nelson, 2020). Talent management is critical when organisations need to provide individual tasks to top

talent. It is an integrated approach that includes personnel planning forecasting the actual number of employees required shortly. Acquiring skills and professionally developing talents, managing the performance and retaining them in the organisation, and developing strategies for their future promotion and career development, also known as succession planning (Rabbi et al., 2015). By evaluating employee performance, organisations can improve performance. Personnel performance evaluations are an essential aspect of talent management if the results of the evaluations correspond to employee position advancement (Mitosis et al., 2021). Effectively implemented performance management systems help improve the quality of workers' work and the relationship between employees and managers. It also aids in a better understanding of the company's goals and job responsibilities. Using a performance management system increases employee psychological commitment by motivating and facilitating a more dynamic work culture (Almohtaseb et al., 2020). Using data analytics, organisations can understand their information assets and identify relevant information to their operations and future business decisions. It can manage a wide range of cutting-edge data analytics technologies. Nowadays, data analytics are not only for large corporations with large budgets but are also for small businesses to expand their operations. Companies can benefit from data analytics to make wise, data-driven decisions (Limna et al., 2021). Therefore, the business analytics model of talent management and its effect on construction companies' performance in Bangkok, Thailand, is a critical topic to study.

1.2. Problem Statement

For decades, the construction industry has been plagued by poor performance, with many issues stemming from low-bid tendering. As construction firms expand their operations globally, they face fierce foreign competition. They are forced to offer lower costs and greater operational flexibility than competitors to win contracts (Jang et al., 2019). Therefore, in today's highly competitive business world, talent management, which includes employee knowledge, skills, attitude, values, competencies, and work preferences, is critical to a company's survival. (Altinda et al., 2018). Organisations and businesses have grown and prominence during the last four decades. Because of their very nature, they had been subjected to significant changes in their surroundings (Tong-On et al., 2021). Talent management strategies have become critical for all organisations (Adero & Odiyo, 2020; Al Aina & Atan, 2020). Talent management ensures effective organisational performance by providing essential knowledge and strategies for improvement and transformation. It also assists businesses in identifying the most talented individuals as potential future leaders (Al Aina & Atan, 2020). However, few studies support the relationship between talent management and organisation performance. This study explores the impact of talent management on the performance of construction companies in Bangkok, Thailand. It could benefit business owners and managers to predict organisational performance using business model analytics and the talent management model. The outcome focuses on the talent management model (talent attraction, talent development and retention) and organisation performance. Thus, this study could better understand construction companies' performance by improving the talent management model to meet business goals.

1.3. Research Objective

The research investigates the influence of talent management on construction companies' performance in Bangkok, Thailand.

1.4. Research Question

How does the structural equation model explain construction companies' performance from talent management in Bangkok, Thailand?

2. LITERATURE REVIEW

2.1 Construction Companies

Construction firm rivalry is becoming more intense. It is one of the most significant factors in maintaining its competitiveness. (Setyawan & Nelson, 2020). It is critical for talents to prepare themselves through training and participate actively in lifelong learning. Due to rapid technological development, construction participants' attempts to reduce the talent gap must be grounded in future skill requirements. Some of the construction industry's talent challenges include a lack of adequate high skilled talent, as well as a lack of education and training to broaden talent readiness, a lack of job security, a lack of awareness, and a solid resistance to new changes and technologies, among other things (Lau et al., 2021). In terms of competitive strategy, talent management refers to how a corporation defines "talent," particularly when striving to account for its potential utility to the company. Align organisational design and talent management for a long-term competitive advantage. (Gómez et al., 2015). Talent management development programs will improve their skills and knowledge to create organisational agility in the construction industry (Charles & Onouha, 2020). Thus, talent management is critical to construction companies.

2.2. Talent Management

Talent management is a human resource strategy designed to enhance an organisation's ability to attract, develop, and retain people to enable and achieve current and future business goals (Sottile, 2021). Talent management was defined as identifying, developing, and having high-potential employees who help the organisation achieve its goals. It encompasses a wide range of skills, including technological and managerial abilities. It is a set of operations aimed at attracting, selecting, developing, and retaining skilled and informed personnel (Abdel Azem Mostafa et al., 2021). People with talent have distinctive characteristics, attributes, traits, or abilities to help companies achieve their goals (Sheehan et al., 2018). The task of attracting, acquiring, developing, and maintaining competent employees to fulfil a company's desired goals is known as talent management. The requirement for talent in an era of rapid growth and change necessitates a mission of continuous improvement through recruiting, choosing, and investing in talent or competent personnel to achieve the corporation's long-term goals (Shah et al., 2021). Talent management is a control program that can fuse talent with management personnel. Leadership is a technique for influencing and achieving objectives. Leadership effectiveness is also defined as the degree of certainty in the knowledge and skills that lead to organisational success (Youssef Elhanafy & Moh Samir El Hessewi, 2021). Programming, attraction, development, preservation, performance assessment, work climate, culture, succession planning, and leadership were all factors in talent management (Mitosis et al., 2021). The systematic development and deployment of human resource strategies that maximise the profit of an organisation's talent pool are known as talent management. Employees with these skills are always in demand in businesses (Adero & Odiyo, 2020). Effective talent management necessitates a comprehensive strategy that outlines methods and tools for identifying, developing, communicating, and retaining talented employees. Organisations must be global and systematic in managing their human capital to earn and maintain a competitive advantage in the years ahead (Tarique & Schuler, 2010; Adero & Odiyo, 2020; Almohtaseb et al., 2020). It is also the systematic identification of critical jobs through talent assessment and evaluation, the formation of internal talent segmentation and talent nomination, and talent development and retention, which are used to create a talent pool for these positions.

High achievers who contribute to achieving the organisation's strategic aims and long-term competitive talent management are to discover employees inside a company who have the skills and expertise necessary to secure the company's long-term existence and extreme well-being (Nakato et al., 2020). Performance management, succession decision analytics, targeted selection/talent reviews, development planning and support, career development, workforce planning, and recruiting are all activities that are required to optimise employees inside a company (Farley, 2005). Talent management strategies implemented effectively and efficiently lead to the development of talented individuals and can result in positive and long-term organisational performance (Wright et al., 2001). In this study, talent management includes talent attraction, development, and retention.

2.2.1. Talent Attraction

Talent attraction refers to the tactics and approaches used by organisations to attract, invite, and recruit new talent to grow their value proposition (Nicholas, 2021). The term "talent attraction" is interchangeable with "talent acquisition," it refers to all of the sub-processes involved in locating, attracting, and engaging highly skilled individuals into a company. As a result, talent attraction involves tiring people with specialised skills who will serve as future leaders of enterprises. As a result, talent recruiting is a constant activity that should include succession planning in the long run. It must give a method for attracting and acquiring high-potential candidates (Kusi et al., 2020). Recruitment and selection are crucial and early steps in the talent management process. Organisations can draw a talented pool in various ways. Still, recruitment and selection are some of the most specific ways to attract competent candidates who will serve as a source of strength to help the business achieve its objectives and become successful. (Shah et al., 2021). More significantly, those in charge of wrapping up the selection process must have the necessary skills to make sound decisions. Human resource policies and procedures are developed to simplify employee behaviour and attitudes (Soud, 2020). Most consider a company's growth by focusing on the company's figures but overlook the most crucial reason behind those numbers: the company's employees. Employees work hard to achieve those figures, and upcoming recruitment determines how successful the firm will be (Waithiegeni Kibui, 2015). Compensation, benefits, and high variable compensation attractive to knowledge workers should be included and emphasised in an organisation's talent acquisition plan. To keep their offerings attractive and compelling, organisations pay high amounts to attract potential employees (Schlechter et al., 2014). Organisations use recruitment and selection to attract potential employees and encourage them to apply for open positions. Recruitment leads firms to make hiring decisions and choose the best candidates based on the job requirements. Tests, interviews, background, and medical checks are part of the selection process. These are used to assess a candidate's performance, attitude, and behaviour about their employment based on talent attraction (Shaikh, 2021). Therefore, talent attraction is made of recruiting and selection, employer branding, employee value positioning and employer of choice. Human resource departments could also consider flexible working hours to attract essential personnel. (El Dahshan et al., 2018).

2.2.2. Talent Development

Talent development is the investment of knowledge, skills, and human capital capacities that unlock the performance potential of critical tasks necessary to meet company goals or ensure leadership succession (Nicholas, 2021). Talent development aims to improve the abilities and skills of existing organisation personnel for new talents (Mitosis et al., 2021). Encourage the organisation to have new methods to provide new technology with modern skills and knowledge

through continuous learning and development. There are opportunities for personal growth and professional development for work-life balance (Al Aina & Atan, 2020). Human resource policies that train and develop personnel by enhancing their performance, polishing their abilities where they are lacking, and training them to perform better in their respective sectors are referred to as training and development. When new technology is introduced, the organisation's personnel will be taught, and employees will quickly solve those hurdles to obtain a competitive advantage (Shaikh, 2021). Talent development goals for knowledge-based must always be aligned with the enterprise's strategy (Liu, 2021). Reconsider the manager's role in talent development. Employees that can take significant leaps to learn new abilities and then instantly improve those skills with the help of their bosses have a lot of untapped potentials. Managers must go beyond traditional management approaches to the more sophisticated skill of applying everyday psychology to get the most out of this targeted experience learning. (Axelrod, 2015). Career management includes gathering information on a person's interests, norms, skills and weaknesses, and career aims and incorporating them into career strategies to boost the likelihood of achieving those goals. Job rotation, employee seminars, and career development are examples of formal and informal career management activities and give self-improvement opportunities (Al Aina & Atan, 2020). Therefore, talent development programs are inextricably linked to career planning and succession planning. As a result, talent development attempts to achieve strategic goals by aligning developmental activities with organisational talent management processes (Kusi et al., 2020).

2.2.3. Talent Retention

Talent retention is a step to convince employees to stay with the company as long as possible. Talent retention can be influenced by performance-based compensation, training, hard work, motivation, career growth and giving benefits they need (El Dahshan et al., 2018). Organisations use talent retention strategies, policies, and practices to extend the tenure of high-performing employees (Nicholas, 2021). Talent retention is one of the most significant issues that most businesses encounter. Further highlighted that to keep talented individuals, companies must offer appealing remuneration packages to fulfil their objectives because fulfilling objectives guarantees that firms can provide attractive remuneration packages to their personnel. Employee retention becomes the most significant talent management challenge that firms must address due to an ageing workforce and the growing scarcity of highly trained personnel. As a result, it's critical to boost and maintain employee happiness. Increase staff retention, which is essential to a company's overall success (Kusi et al., 2020). Avoiding the loss of talented personnel is what talent retention is all about. Therefore, organisations place a high value on compensation and benefits policies because, without them, no organisation can expect to keep its employee retention rate high. As a result, compensation plays an essential role in keeping the organisation's workforce motivated and increasing productivity, resulting in increased job satisfaction and organisational commitment (Shaikh, 2021).

2.3. Organisational Performance

Organisational performance is a process-oriented result that is measured and referenced throughout a specific period while considering a set of predetermined parameters. Organisational performance is based on the idea that an organisation is a voluntary alliance of productive assets, such as human, physical, and financial resources, to achieve a common goal (Kusi et al., 2020). Performance can be measured by comparing actual outcomes to desired outcomes. As a result, employee performance and leadership are the most significant aspects of organisational performance to attain efficiency and effectiveness (Almatrooshi et al., 2016). The efficacy of an organisation is a

powerful indicator of its success. Employees with the correct traits and training in the proper knowledge, abilities, and skills must achieve maximum effectiveness. These employees must be handled to remain motivated and committed to creatively achieving the organisation's goals. Employee attributes and HRM techniques aid organisational effectiveness. Resource acquisition, objective success and stakeholder satisfaction are components of organisational performance (Adero & Odiyo, 2020). Therefore, organisational performance refers to a set of financial and non-financial metrics that may be used to determine whether a company's goals and objectives were met successfully. Most organisational success is due to planning, a critical activity for achieving service goals and supporting organisational health and growth. For effective strategic planning, organisational performance is a way of determining a company's medium to the long-term trajectory (Kusi et al., 2020). Therefore, construction companies' performance is related to efficiency and effectiveness.

2.4 PLS-SEM in Data Analytics

Because of the development of multivariate analysis techniques, the empirical validation of theoretical concepts in social science and business research has been transformed. A powerful tool for estimating conceptual models linking two or more latent constructs has emerged in structural equation modelling (SEM). The suitability of the partial least square structural equation modelling (PLS-SEM) in estimating a complex model is demonstrated, drawing on the philosophy of authenticity and the methodology of modelling assumptions. The findings support the utility of PLS-SEM as a promising tool for estimating a complex, hierarchical model in the domain of data analytics quality (Akter et al., 2017). Therefore, PLS-SEM allows for the combination of explanation and prediction perspectives to model estimation, the primary concern in most business and social science research in general and in many other fields (Hair et al., 2019).

2.5 Research Hypotheses Development

2.5.1 The Relationship Between Talent Attraction and Talent Development

Garavan et al. (2011) investigated the concept of talent development and identified the issues involved in formulating talent development strategies in organisations. There was a correlation between talent attraction and talent development. However, Chan et al. (2020) showed that talent management includes talent attraction, talent development, and talent retention in the Malaysian hospitality industry. It is not clear the relationship between talent attraction and talent development. Mehdiabadi and Li (2016) investigated talent development and its implications for human resource development. There was a relationship between talent development and attraction. The hypothesis is shown as follows:

H1: Talent attraction significantly affects talent development.

2.5.2 The Relationship Between Talent Development and Talent Retention

Dalayga et al. (2021) investigated talent development practises and a revisit as an imperative for talent retention. There was a positive relationship between talent development and talent retention. Pandita and Ray (2018) confirmed the domains of talent management and employee engagement, specifically as a tool for employee retention. A synchronisation of talent management practices and employee engagement initiatives improved talent retention. Thus, talent development was a critical factor in improving organisational talent retention. The hypothesis is shown as follows:

H2: Talent development significantly affects talent retention.

2.5.3 The Relationship Between Talent Development and Organisational Performance

Al Aina and Atan (2020) investigated the impact of talent management practices on long-term organisational performance in real estate companies in the United Arab Emirates. Talent development positively impacts organisational performance and helps the organisation maintain its competitive edge. Employees who have been trained and have supervisors and mentors dedicated to talking to them about their performance are better for an organisation in the long run. Nafei (2016) investigated the impact of talent management on organisational performance and studied Egyptian industrial businesses. Talent development significantly impacted organisational performance. Egyptian industrial enterprises could improve their organisational performance through talent development. The hypothesis is shown as follows:

H3: Talent development significantly affects organisational performance.

2.5.4 The Relationship Between Talent Retention and Organisational Performance

El Dahshan et al. (2018) investigated the impact of talent management on organisational performance at Shebin El-Kom Teaching hospital and Menoufia University hospital. The talent management process confirmed that hospitals attract, retain, motivate, and develop talented employees. Moreover, there was a highly significant positive correlation between talent retention and organisational performance. Soud (2020) investigated the relationship between talent management strategies and organisational success in Islamic banks in Kenya. There was a relationship between talent retention and organisational performance. The hypothesis is shown as follows:

H4: Talent retention significantly affects organisational performance.

2.5.5 The Mediating Effect of Talent Development between Talent Attraction and Organisational Performance

Almohtaseb et al. (2020) investigated the role of an effective performance management system in moderating the impact of talent management on organisational performance. It indicated a relationship between talent development, talent attraction, and organisational performance. A performance management system can find talented workers and integrate, re-strategize, and reinforce the management-employee connection to improve organisational performance. Muyela and Kamaara (2021) investigate talent management's effects on employee performance in Kenya's civil service. Talent development, talent attraction, and organisational performance were all related. Also, employee performance was positively and significantly influenced by talent development, talent retention, talent attraction, and career development. As a result, the ministry should improve its talent development practices improving employee performance. The hypothesis is shown as follows:

H5: Talent development is a significant mediator between talent attraction and organisational performance.

2.5.6. The Mediating Effect of Talent Retention between Talent Development and Organisational Performance

Muyela and Kamaara (2021) investigated the impact of talent management on employee performance in Kenya. There was a correlation between talent retention, talent development, and organisational performance. Talent development, talent retention, talent attraction, and career development were positively and significantly affected the performance. Shah et al. (2021) invest the necessity for talent management and its impact on higher education institutes' organisational performance. All three aspects of talent management, namely talent acquisition, talent development, and talent retention, had a favourable and significant impact on higher education

institutes' organisational performance. Thus, there was a relationship between talent retention, talent development, and organisational performance. The hypothesis is shown as follows:

H6: Talent retention is a significant mediator between talent development and organisational performance.

2.6. Conceptual Framework

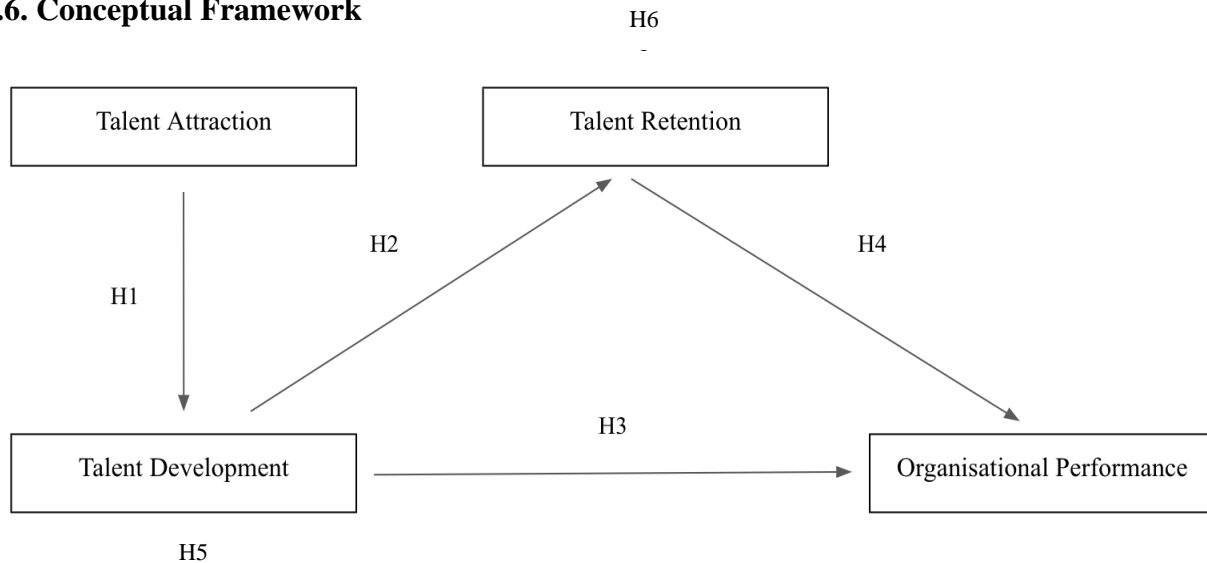


Figure 1: Conceptual Framework

3. RESEARCH METHODOLOGY

3.1. Research Method

Closed-ended questionnaires (Likert's Rating Scale) were used to gather data. Testing was done on measuring instruments to determine their reliability and validity. It is critical to understand that the validity of an instrument refers to how well it measures the researcher's conceptual framework or hypothesis (Limna et al., 2022). The main variables in this study were evaluated using a five-point Likert Scale ranging from 5 (strongly agree) to 1 (strongly disagree). The demographics of those who responded to the survey questions were based on the study of Kanyama et al. (2022). The questionnaire items in talent attraction, development, retention, and organisation performance were based on El Dahshan et al. (2018).

3.2. Population and Sample

The study's population was undetermined in the number of managerial levels and employees of construction companies in Bangkok, Thailand. The respondents were Thai and over 18 years old who lived in Bangkok, Thailand. It is necessary to collect a minimum of 385 cases at $p=0.5$ by convenience sampling for a sample error at a 5 % confidence level of 95 %. The total number of respondents in this study was three hundred and ninety-four (394).

3.3. Data Collection

The researchers gathered the information through online self-administered questionnaires. The study's purpose was explained to the respondents before online questionnaire distribution to participate. Data collection duration was between 30th November to 17th December 2021.

3.4. Data Analysis

The respondents' demographics were analysed using descriptive statistics (frequency and percentage). Mean analysis and standard deviation were used to calculate each variable's results and questionnaire items. The Cronbach's Alpha was used to determine the reliability of the data set at 0.6. The validity test was carried out using the factor analysis and was set at 0.6 following the recommendation of Kanyama et al. (2022). The completed data was analysed using a structural equation model (SEM) to test the hypotheses.

4. RESULTS

Table 1. Demographic Characteristics of the Respondents (n=394).

| Demographics | | Frequency | Percentage |
|----------------------|-------------------------|-----------|------------|
| Gender | Female | 190 | 48.2% |
| | Male | 204 | 51.8% |
| Age | 18-25 years old | 19 | 4.8% |
| | 26-30 years old | 40 | 10.2% |
| | 31-35 years old | 38 | 9.6% |
| | 36-40 years old | 106 | 26.9% |
| | 41-45 years old | 79 | 20.1% |
| | 46-50 years old | 55 | 14.0% |
| | 51 years old or over | 57 | 14.5% |
| Status | Single | 172 | 43.7% |
| | Married | 209 | 53.0% |
| | Divorced | 13 | 3.3% |
| Education | Below bachelor's degree | 28 | 7.1% |
| | Bachelor's degree | 266 | 67.5% |
| | Master's degree | 95 | 24.1% |
| | Doctoral degree | 5 | 1.3% |
| Work Position | Manager | 158 | 40.1% |
| | Employee | 236 | 59.9% |
| Salary | Less than 10,000 THB | 13 | 3.3% |
| | 10,001- 30,000 THB | 97 | 24.6% |
| | 30,001- 45,000 THB | 83 | 21.1% |
| | 45,001- 50,000 THB | 47 | 11.9% |
| | 50,001- 65,000 THB | 35 | 8.9% |
| | More than 65,001 THB | 119 | 30.2% |
| Total | | 394 | 100% |

Three hundred and ninety-four (394) respondents of managerial levels and employees of construction companies in Bangkok, Thailand, completed online questionnaires, which were coded and analysed. The findings revealed that most respondents were male (51.8 %), married (53.0 %), age ranged between 36 and 40 (26.9 %), worked as employees (59.9 %), and earned a

salary of more than 65,001 baht (30.2 %). The demographics represented managerial levels and employees of construction companies in Bangkok, Thailand.

4.1. PLS-SEM Results

Table 2: Item Loadings, Cronbach's Alpha and Average Variance Extracted (n=394)

| Items | Factor Loadings | Cronbach's Alpha | Average Variance Extracted (AVE) |
|--|-----------------|------------------|----------------------------------|
| Talent Attraction | | 0.788 | 0.609 |
| 1. The company can attract and recruit managers and employees with good skills and talents. (Mean=3.88, SD.=0.855) | 0.818 | | |
| 2. The managers have the competencies to attract and recruit talented workers of candidates. (Mean=3.70, SD.=0.882) | 0.847 | | |
| 3. The company's reputation attracts talented workers or candidates. (Mean=4.29, SD.=0.872) | 0.596 | | |
| 4. I feel that opportunities for learning and development in this company are exciting and rewarding. (Mean=3.72, SD.=0.905) | 0.832 | | |
| Talent Development | | 0.930 | 0.782 |
| 5. The company has learning programs and encourages talented employees to develop their careers. (Mean=3.61, SD.=1.035) | 0.885 | | |
| 6. The company selects employees with high potential and plans to develop individual abilities. (Mean=3.61, SD.=0.993) | 0.905 | | |
| 7. The management monitors employees' performance and advises them to improve performance. (Mean=3.73, SD.=0.904) | 0.878 | | |
| 8. The company provides opportunities to change the employees' jobs to develop themselves. (Mean=3.56, SD.=0.974) | 0.862 | | |
| 9. The company seeks to transfer expertise from highly skilled staff to less experienced. (Mean=3.60, SD.=1.066) | 0.891 | | |
| Talent Retention | | 0.885 | 0.685 |
| 10. The salaries and benefits at the company are fair for everyone. (Mean=3.74, SD.=0.978) | 0.824 | | |
| 11. The company allows talents to participate in challenging assignments. (Mean=3.66, SD.=0.989) | 0.838 | | |
| 12. The work at the company matches the abilities and skills of everyone. (Mean=3.78, SD.=0.872) | 0.794 | | |
| 13. The employment conditions at the company satisfy employees' work-life balance. (Mean=3.64, SD.=0.967) | 0.857 | | |
| 14. The company avoids employees who work harder than they can, which may cause stress. (Mean=3.37, SD.=1.058) | 0.823 | | |

| Organisation Performance | 0.935 | 0.793 |
|---|-------|-------|
| 15. The company has a clear direction and adapts quickly to keep up with the changes. (Mean=3.50, SD.=1.073) | 0.897 | |
| 16. The company practises effective planning at all levels and prioritises workforce training and development. (Mean=3.48, SD.=1.054) | 0.903 | |
| 17. The company regularly conducts official performance appraisals. (Mean=3.66, SD.=0.933) | 0.873 | |
| 18. Employees are assessed fairly for their performance. (Mean=3.60, SD.=1.056) | 0.879 | |
| 19. The company has policies that encourage developmental opportunities for everyone. (Mean=3.60, SD.=1.032) | 0.900 | |

Table 3. The Goodness of Model Fit (n=394)

| | |
|-----------------|-------------|
| Saturated Model | SRMR=0.0637 |
| Estimated Model | SRMR=0.0650 |

Table 4: R-Squared (n=394)

| Construct | Coefficient of Determination (R²) | Adjusted R² |
|--------------------------|---|-------------------------------|
| Talent Development | 0.5575 | 0.5563 |
| Talent Retention | 0.6182 | 0.6173 |
| Organisation Performance | 0.8280 | 0.8271 |

Table 5: Effect Overview (n=394)

| Effect | Beta | Indirect Effect | Total Effect | Cohen's f² |
|---|-------------|------------------------|---------------------|------------------------------|
| Talent Attraction → Talent Development | 0.7466 | | 0.7466 | 1.2597 |
| Talent Attraction → Talent Retention | | 0.5871 | 0.5871 | |
| Talent Attraction → Organisation Performance | | 0.6290 | 0.6290 | |
| Talent Development → Talent Retention | 0.7863 | | 0.7863 | 1.6195 |
| Talent Development → Organisation Performance | 0.4045 | 0.4379 | 0.8424 | 0.3632 |
| Talent Retention → Organisation Performance | 0.5569 | | 0.5569 | 0.6885 |

Table 6: Total Effects Inference (n=394)

| Effect | Original Coefficient | Standard Bootstrap Results | | | | Percentile Bootstrap Quantiles | | | |
|---|----------------------|----------------------------|----------------|---------|-------------------|--------------------------------|--------|--------|--------|
| | | Mean Value | Standard Error | T-Value | P-Value (2-Sided) | P-Value (1-Sided) | 0.5% | 2.5% | 97.5% |
| Talent Attraction → Talent Development | 0.7466 | 0.7482 | 0.0272 | 27.4785 | 0.0000 | 0.0000 | 0.6796 | 0.6953 | 0.7985 |
| Talent Attraction → Talent Retention | 0.5871 | 0.5890 | 0.0289 | 20.2837 | 0.0000 | 0.0000 | 0.5187 | 0.5343 | 0.6429 |
| Talent Attraction → Organisation performance | 0.6290 | 0.6303 | 0.0300 | 20.9551 | 0.0000 | 0.0000 | 0.5562 | 0.5726 | 0.6866 |
| Talent Development → Talent Retention | 0.7863 | 0.7871 | 0.0204 | 38.5984 | 0.0000 | 0.0000 | 0.7266 | 0.7459 | 0.8247 |
| Talent Development → Organisation Performance | 0.8424 | 0.8422 | 0.0164 | 51.3290 | 0.0000 | 0.0000 | 0.7895 | 0.8097 | 0.8707 |
| Talent Retention → Organisation Performance | 0.5569 | 0.5575 | 0.0383 | 14.5569 | 0.0000 | 0.0000 | 0.4531 | 0.4815 | 0.6301 |

Talent attraction can predict talent development at $\beta=0.747$, and $p<0.001$ (Two tails at 0.000 and one tail at 0.000). Thus, H1 is supported. Talent development can predict talent retention at $\beta=0.786$, $p<0.001$ (Two tails at 0.000 and one tail at 0.000). Thus, H2 is supported. Talent development can predict organisation performance at $\beta=0.404$, $p<0.001$ (Two sides at 0.000 and one side at 0.000). Thus, H3 is supported. Talent retention can predict organisational performance at $\beta=0.557$, $p<0.001$ (Two tails at 0.000 and one tail at 0.000). Thus, H4 is supported. Talent development is a significant mediator between talent attraction and organisational performance by 55.7% ($R^2=0.557$). Thus, H5 is supported. Finally, talent retention is an effective mediator between talent development and organisational performance by 61.8% ($R^2=0.618$). Thus, H6 is supported. Overall, the study's conceptual framework can explain the sector phenomenon by approximately 82.8% ($R^2=0.828$).

4.2 Assumptions

Table 7: Summary of Hypothesis Testing

| Hypotheses | Results | Actions |
|---|-------------------------------|----------|
| H1: Talent Attraction → Talent Development | $\beta=0.747$ at $p<0.001$ | Accepted |
| H2: Talent Development → Talent Retention | $\beta=0.786$ at $p<0.001$ | Accepted |
| H3: Talent Development → Organisational Performance | $\beta=0.404$ at $p<0.001$ | Accepted |
| H4: Talent Retention → Organisational Performance | $\beta=0.557$ at $p<0.001$ | Accepted |

| | | |
|--|-------------------------------------|---|
| H5: Talent development is a significant mediator between talent attraction and organisational performance. | R ² =0.557 at p<0.001 | Accepted |
| H6: Talent retention is a significant mediator between talent development and organisational performance. | R ² =0.618 at p<0.001 | Accepted R ² =0.828 (overall) |

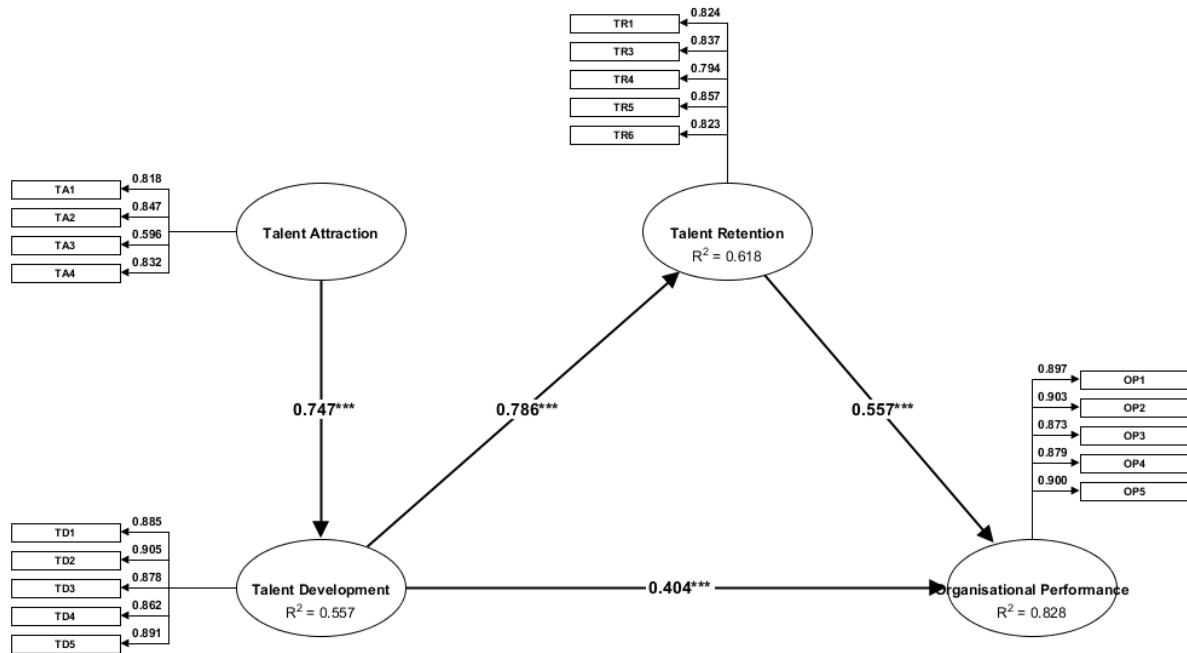


Figure 2: PLS-Structural Equation Model of the Study

5. DISCUSSION AND CONCLUSION

5.1. Discussion

This study’s objective explores the impact of talent management on the performance of construction companies in Bangkok, Thailand. The findings revealed a relationship between talent management (talent attraction, development, and retention) and organisation performance. The results supported previous research of Garavan et al. (2011) and Mehdiabadi and Li (2016) that talent attraction significantly affects talent development. Organisations should consider talent attraction strategies to attract talented employees. Besides, organisations with talented employees can achieve business goals by aligning developmental activities with organisational talent management processes. The results supported previous research of Dalayga et al. (2021) and Pandita and Ray (2018) that talent development significantly affects talent retention. Attracting an employee with the right talent and opportunities for advancement could increase an organisation's chances of retaining a talented employee. Besides, organisations could devise new methods for providing the latest technology with modern skills and knowledge through continuous learning and development. The results supported previous research of Al Aina and Atan (2020), Nafei (2016), and Nicholas (2021) that talent development significantly affects organisational performance. Organisations could implement effective talent development strategies by investing

in knowledge, skills, and human capital capacities that unlock the performance potential of critical tasks required to meet company objectives, ensure leadership succession and improve organisational performance. The results supported previous research of El Dahshan et al. (2018) and Soud (2020) that talent retention significantly affects organisational performance. Organisations could integrate effective talent retention strategies into business analytics models to improve organisational performance. The results supported previous research of Almohtaseb et al. (2020) and Muyela and Kamaara (2021) that talent development is a significant mediator between talent attraction and organisational performance. Organisations could consider strategies to attract talented employees by establishing effective talent development programs to improve organisation performance. In addition, organisations could consider current and future needs, create pathways and programs for talent development and coordinate HR processes and actions to promote and sustain talent development efforts. The results supported previous research of Muyela and Kamaara (2021) and Shah et al. (2021) that talent retention is a significant mediator between talent development and organisational performance. Organisations should consider effective talent retention strategies such as performance-based compensation, necessary benefits, and career development to improve organisational performance.

5.2. Conclusion

The findings link the talent management model (talent attraction, talent development and retention) and construction companies' performance. Talent development serves as an effective bridge between talent attraction and organisational performance. Also, talent retention plays a critical role in mediating the relationship between talent development and organisational performance. The talent management model has high explanatory power in this sector, and the model can be used to predict the performance of construction companies. Therefore, organisations could integrate effective talent management strategies into business analytics models and use data analytics to understand the information assets and identify relevant information for organisation operations and future business decisions. As a result, high business performance will incur.

5.3. Research Implication

According to the study's findings, there is a positive relationship between talent management and organisation performance. This study may benefit business owners and managers to improve business model analytics for predicting organisational performance using the talent management model (talent attraction, talent development and talent retention). Furthermore, the results of this business analytics model could be applied to any industry to improve organisational performance. Moreover, this study contributes to the current literature on the talent management model. The findings of this study could aid academics in expanding the study by incorporating additional potential factors. Also, the questionnaires from this study can be used to direct future research on the talent management model and organisational performance.

5.4. Limitations and Recommendations

This study investigated the impact of talent management on the performance of construction companies in Bangkok, Thailand. It looked specifically at construction manager and employee samples in Bangkok. Significantly more respondents could explain a larger population in this sector in a future study. Also, the nature of this study is a self-administered questionnaire. Qualitative research, such as interviews and focus groups could provide more insight into future research.

REFERENCES

- Abdel Azem Mostafa, H., Hassan EL-Sayed. Mahfouz, H., & Mohammed Araby Ebraheem, S. (2021). Effect of Educational Program about Talent Management for Nursing Managers on Their Job Affiliation and Organizational Excellence. *Egyptian Journal of Health Care*, 12(2), 718–740. <https://doi.org/10.21608/ejhc.2021.170481>.
- Adero, F. A., & Odiyo, W. O. (2020). Employee Characteristics, Contemporary Human Resource Management Practices and Organization Effectiveness. *International Journal of Business Management, Entrepreneurship and Innovation*, 2(2), 1–18.
- Akter, S., Fosso Wamba, S., & Dewan, S. (2017). Why PLS-SEM is suitable for complex modelling? An empirical illustration in big data analytics quality. *Production Planning & Control*, 28(11-12), 1011-1021.
- Al Aina, R., & Atan, T. (2020). The Impact of Implementing Talent Management Practices on Sustainable Organizational Performance. *Sustainability*, 12(20), 8372.
- Almatrooshi, B., Singh, S. K., & Farouk, S. (2016). Determinants of organizational performance: A proposed framework. *International Journal of Productivity and Performance Management*, 65(6), 844–859. <https://doi.org/10.1108/IJPPM-02-2016-0038>.
- Almohtaseb, A., Shaheen, H., Alomari, K., & Almahameed, M. (2020). Impact of Talent Management on Organizational Performance: The Moderating Role of an Effective Performance Management System. *International Journal of Business and Management*, 15, 11-24. <https://doi.org/10.5539/ijbm.v15n4p11>.
- Altındağ, E., Çirak, N. Y., & Acar, A. Z. (2018). Effects of talent management components on the employee satisfaction. *Journal of Human Resources Management Research*, 1-20.
- Axelrod, W. (2015). How exceptional managers use everyday psychology to develop their people. *Industrial and Commercial Training*, 47(3), 121–126.
- Chan, J. Y., Chai, W. X., Koh, C. K., Ngo, S. L., & Teh, L. L. (2020). The impact of talent attraction, talent development and talent retention on job satisfaction in hospitality industry. Universiti Tunku Abdul Rahman.
- Charles, K., & Onouha, B. C. (2020). Entrepreneurial Talent Management and Organizational Agility of Construction Firms in Rivers State, Nigeria, 17.
- Cheese, P., Thomas, R. J., & Craig, E. (2007). *The Talent Powered Organization: Strategies for Globalization, Talent Management and High Performance*. Kogan Page Publishers.
- Dalayga, B., Baskaran, S., and Mahadi, N. (2021). Talent Development Practices: A Revisit as an Imperative for Talent Retention. *International Journal of Academic Research in Business and Social Sciences*, 11(2), 330–348.
- El Dahshan, M. E., Keshk, L. I., & Dorgham, L. S. (2018). Talent Management and Its Effect on Organization Performance Among Nurses at Shebin El-Kom Hospitals. *International Journal of Nursing*, 5(2), 108-123. <https://doi.org/10.15640/jns.v5n2a10>.
- Farley, C. (2005). HR's role in talent management and driving business results. *Employment Relations Today*, 32(1), 55–61. <https://doi.org/10.1002/ert.20053>.
- Garavan, T. N., Carbery, R., & Rock, A. (2012). Mapping Talent Development: Definition, Scope and Architecture. *European Journal of Training and Development*, 5-24.
- Gómez, C., Salvatierra Garrido, J. L., Luis, J., Alarcon, L., & Velásquez. (2015). Guidelines to Address Talent Management in Chilean Construction Companies.
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European business review*.

- Hany Abd Elshakour, M. A., Al-Sulaihi, I. A., & Al-Gahtani, K. S. (2013). Indicators for measuring performance of building construction companies in Kingdom of Saudi Arabia. *Journal of King Saud University-Engineering Sciences*, 25(2), 125-134.
- Hedayati Mehdiabadi, A., & Li, J. (2016). Understanding Talent Development and Implications for Human Resource Development: An Integrative Literature Review. *Human Resource Development Review*, 15(3), 263-294.
- Jang, Y., Ahn, Y., Park, M., Lee, H. S., & Kwon, N. (2019). Business models and performance of international construction companies. *Sustainability*, 11(9), 2575.
- Kanyama, J., Nurittamont, W., & Siripipatthanakul, S. (2022). Hotel Service Quality and Its Effect on Customer Loyalty: The Case of Ubon Ratchathani, Thailand during COVID-19 Pandemic. *Journal of Management in Business, Healthcare, and Education*, 1(2), 1-20.
- Kusi, L., Opoku-Danso, A., & Afum, E. (2020). Improving Performance of Public Universities in Ghana Through Talent Management: Does Leadership Support Matter? *Global Journal of Management and Business Research*, 41-68.
- Lau, S. E. N., Aminudin, E., Zakaria, R., Saar, C. C., Roslan, A. F., Hamid, Z. A., Zain, M. Z. M., Maaz, Z. N., & Ahamad, A. H. (2021). Talent as a Spearhead of Construction 4.0 Transformation: Analysis of Their Challenges. *IOP Conference Series: Materials Science and Engineering*, 1200(1), 012025. <https://doi.org/10.1088/1757-899X/1200/1/012025>.
- Limna, P., Siripipatthanakul, S., & Phayaphrom, B. (2021). The Role of Big Data Analytics in Influencing Artificial Intelligence (AI) Adoption for Coffee Shops in Krabi, Thailand. *International Journal of Behavioral Analytics*, 1(2), 1-18.
- Limna, P., Siripipatthanakul, S., Phayaphrom, B., & Siripipattanakul, S. (2022). The Relationship Between Twenty-First-Century Learning Model (4Cs), Student Satisfaction and Student Performance-Effectiveness. *International Journal of Behavioral Analytics*, 2(1), 1-18. SSRN, 4011953. <https://ssrn.com/abstract=4011953>.
- Liu, M. (2021). An Empirical Study on Talent Management Strategies of Knowledge-Based Organizations Using Entrepreneurial Psychology and Key Competence. *Frontiers in Psychology*, 12, 4615. <https://doi.org/10.3389/fpsyg.2021.721245>.
- Mitosis, K. D., Lamnisos, D., & Talias, M. A. (2021). Talent Management in Healthcare: A Systematic Qualitative Review. *Sustainability*, 13(8), 4469.
- Muyela, D., & Kamaara, M. (2021). Effect Of Talent Management Practices On Employee Performance In The Civil Service In Kenya: A Case Study Of Manufacturing Sector State Departments In The Ministry Of Industry, Trade And Cooperatives. *Journal of Human Resource Management*, 5(2), 107-120.
- Nafei, W. A. (2016). Organizational Agility: The Key to Organizational Success. *International Journal of Business and Management*, 11(5), 296-309.
- Nakato, J., Mazibuko, N. E., & James, S. (2020). Antecedents influencing effective talent management in public health institutions in Uganda. *Journal of Contemporary Management*, 17(2), 601-631. <https://doi.org/10.35683/jcm20084.92>.
- Nicholas, S. (2021). Talent Management and Organizational Performance Correlation of Faculty at Community Colleges in Southern California. ProQuest.
- Pandita, D., & Ray, S. (2018). Talent management and employee engagement—a meta-analysis of their impact on talent retention. *Industrial and Commercial Training*, 50, 185-199.
- Rabbi, F., Ahad, N., Kousar, T., & Ali, T. (2015). Talent management as a source of competitive advantage. *Journal of Asian business strategy*, 5(9), 208-214.

- Schlechter, A., Hung, A., & Bussin, M. (2014). Understanding talent attraction: The influence of financial rewards elements on perceived job attractiveness. *SA Journal of Human Resource Management*, 12(1), 13. <https://doi.org/10.4102/sajhrm.v12i1.647>.
- Setyawan, A., & Nelson, A. (2020). Factors Affecting Talent Management Strategies in Construction Companies. *Almana: Jurnal Manajemen Dan Bisnis*, 4(3), 392–397. <https://doi.org/10.36555/almana.v4i3.1479>.
- Shah, G., Memon, N., & Tunio, G. (2021). Need for Talent Management and Investigating Its Impact on Organizational Performance of Higher Education Institutes. *International Review of Management and Business Research*, 10, 168-182.
- Shaikh, M. (2021). Determining the Relationship between Human Resource Practices, Employee Well-Being and Organizational Performance. *RJ International Journal of Management Studies*, 1(1), Article 1.
- Sheehan, M., Grant, K., & Garavan, T. (2018). Strategic talent management: A macro and micro analysis of current issues in hospitality and tourism. *Worldwide Hospitality and Tourism Themes*, 10(1), 28–41. <https://doi.org/10.1108/WHATT-10-2017-0062>.
- Sottile, S. N. (2021). Talent Management and Organizational Performance Correlation of Faculty at Community Colleges in Southern California. Grand Canyon University.
- Soud, M. A. (2020). Relationship Between Talent Management Practices and Organizational Performance in Islamic Banks in Kenya. Kenya Methodist University.
- Tarique, I., & Schuler, R. S. (2010). Global talent management: Literature review, integrative framework, and suggestions for further research. *Journal of World Business*, 45(2), 122–133. <https://doi.org/10.1016/j.jwb.2009.09.019>.
- Tong-On, P., Siripipatthanakul, S., & Phayaphrom, B. (2021). The Implementation of Business Intelligence Using Data Analytics and Its Effects Towards Performance in Hotel Industry in Thailand. *International Journal of Behavioral Analytics*, 1(2), 1-16.
- Waithiegeni Kibui, A. (2015). Effect of Talent Management on Employee Retention in Kenya's State Corporations. Alice Waithiegeni Kibui.
- Wright, P. M., Dunford, B. B., & Snell, S. A. (2001). Human resources and the resource-based view of the firm. *Journal of Management*, 27(6), 701–721.
- Youssef Elhanafy, E., & Moh Samir El Hessewi, G. (2021). Effect of Talent Management Training Program on Head Nurses Leadership Effectiveness. *Egyptian Journal of Health Care*, 12(4), 351–361. <https://doi.org/10.21608/ejhc.2021.199134>.