A Qualitative Study of Recruitment Processes and Hiring Technology Adoption in Thai Organizations

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Abstract

The objectives of this research were: 1) to investigate the characteristics of Thai commercial organizations' recruitment process, and 2) to explore which advanced technology in Thai commercial organizations' recruitment process is required the most. This qualitative research was conducted via in-depth interviews to collect up-to-date primary data. A total of 25 key informants including professionals with significant experience in Human Resource and recruitment practices from different industries and business sizes were considered in this study. A purposive sampling method was conducted during a period of almost 4 months. The findings revealed that 1) the recruitment process in Thai commercial organizations had several key characteristics for connecting with and recruiting candidates. For example, the use of digital job advertising on their website and social media and aimed to reach a wider pool of candidates. Other key findings demonstrated the use of other technology, professional and personal networks, internships, tailored interview process, customized recruitment strategies, as well as internal recruitment policies, and 2) innovative technology, including the rising importance and role of Artificial Intelligence (AI) and Machine Learning (ML) is slowly becoming predominant in Thai organizations but was not yet adopted at the time of the study. Findings also revealed that innovative technologies, primarily cloud-based HRM software, assist HR professionals in dealing with several burdensome tasks such as application screening,

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shortlisting, candidate selection and appraisal. The study recommended that Human Resource Management (HRM) programme be strengthened using advanced technology to reduce burdensome tasks such as sourcing and shortlisting.

Keywords

Recruitment process, Technology Adoption, Thai Organizations, Artificial Intelligence, Digital Transformation.

Introduction

The global labor market is in a period of major change. The Covid-19 pandemic created unprecedented global challenges and accelerated technological transformation, particularly in Artificial Intelligence (AI), Virtual Reality (VR), and Machine Learning (ML). In Thailand, the crisis had a severe impact on employment, with approximately eight million workers losing their jobs, requiring urgent digitalization within the recruitment sector and, as a result, produced a need for academics to investigate further in the field of HRM technology and recruitment.

In parallel, to encourage Thai organizations to invest further in digitalization, the Thai government is now supporting firms to embrace technological innovation via the Thailand 4.0 economic development policy, also well-known as the "Digital Transformation" model. According to Chinachoti (2018, p. 123), "The government has announced the "Thailand 4.0" strategy to transform large economic structure into innovation-driven economy to lead the country to the true prosperousness, stability, and sustainability." Indeed, Thailand, as the second largest economy in the ASEAN community, considerably invest in innovation and technology. The government believes that innovative technology will lead Thailand to overcome these challenges by modernizing and better understanding the recruitment industry. As a result, Thai organizations must understand the incumbent role of human resource officers and changes in organizational structure. According to Chinachoti (2018, p. 124), "As mentioned in the 4.0 industry change, the industry must focus on human resource management for greater productivity as well as in accordance with the changes of working of the workers in all groups." This transition profoundly affects HRM operations.

Recruitment and human resource practices are no longer restricted to traditional tasks such as resume collection and interviews for instance. HR professionals are now expected to

embrace advanced technologies that boost efficiency, reduce errors, and enable data-driven decision-making. Solutions such as AI, Robotic Process Automation (RPA), and cloud-based HR platforms have become crucial for recruitment, training, and employee commitment. In the meantime, immersive tools like Virtual Reality (VR) and social media are increasingly integrated into hiring, onboarding, and workplace communication.

However, a key research problem remains unanswered. While global trends and the Thai government push for innovation, there is still limited understanding of the unique characteristics of Thai recruitment processes and uncertainty regarding which technologies are most relevant and effective in this context. According to Acikgoz (2018, p. 1), the traditional recruitment process does not have a determined model for how it should be conducted, rather it is described and theorized differently by many researchers. It involves finding the candidate with the best skills, experience, and personality to fit the job. It requires a series of collecting and reviewing resumes, conducting job interviews, and finally selecting and onboarding an employee to start working for the organization (Perucci, 2020). The absence of a standardized recruitment model, combined with varied interpretations among scholars, creates challenges for Thai organizations in adapting global innovations to their local context.

In addition, technology adoption in HR varies widely depending on organizational size, sector, and resources. According to PricewaterhouseCoopers (2021), discussions about changes in HR departments in Thailand over the last decade, reveal a rise in data-driven decision making across all industries, business sectors and organizations, and HR is no different. Thai Organizations of all sizes are concerned with these trends and need to adopt adequate recruitment strategies using available innovative technologies to sustain their competitive advantage. Another example concerning AI technology, and according to Tanantong and Wongras (2024, p. 28), stating that in Thailand, where there is a growing demand for talents, the application of AI in recruitment remains relatively limited. This information demonstrates that the use of AI is still at the early stage. However, the AI revolution has considerably accelerated the last couple of years. Moreover, according to Anunthawichak (2023, 595), discussing HR digital adaptation, "In the current landscape, organizational management increasingly relies on digital technology for transformation, particularly in Human Resource Management (HRM). This adoption includes advanced technologies like artificial intelligence, big data analytics, and automation." Consequently, further investigation is needed to identify the specific steps within the Thai recruitment process where technology can provide the

greatest value, ensure sustainable competitive advantage, and support Thailand 4.0 policies. To adequately investigate, technology adoption models were introduced, including the Technology Acceptance Model (TAM) and Diffusion of Innovation theory. Organizations, professionals, academics, and HRM literature will significantly benefit from this new knowledge regarding the uniqueness of the Thai recruitment process, and at which stages advanced technology is most required.

Research questions

1) What are the characteristics of the recruitment process in Thai commercial organizations?

2) Which stages of the recruitment process require the most use of advanced technology?

Objectives

The objectives of this research are 1) to investigate the characteristics of Thai commercial organizations' recruitment process, and 2) to explore which stages of the recruitment process require the most use of advanced technology.

Literature Review

As this qualitative research study aimed to better understand the characteristics of the recruitment process in Thai commercial organizations, the first step was to describe the recruitment process at a global scale using valuable research in the field of HRM. These findings were used as a blueprint to develop the methodology, and the questions proposed during the in-depth interviews.

1. Recruitment Concepts

The first objective of the research study aimed to gather relevant information about the Thai recruitment process, to identify discrepancies, and to discover unique characteristics. Several research in the literature of Human Resource have noticed a global change in recent years. According to an interview's transcript from a Thai HR Manager, "Before COVID-19, recruitment relied mainly on traditional methods. The pandemic forced rapid adoption of digital platforms, but implementation had to be adapted to Thai organizational culture, employee readiness, and budget constraints, limiting direct transfer of global practices."

Employee recruitment plays a major role in organizations. Recruiting the proper candidate is vital, as this may give a competitive edge over other companies. (Athukorala et al., 2020). Azizi et al., (2021), as cited in Wongsansukcharoen and Thaweepaiboonwong (2023), the coronavirus disease 2019 (COVID-19) pandemic and digital disruption have caused several challenges, uncertain circumstances, and the transformations of economic landscape that call for innovative thinking and adaptability in human resource (HR) operations. The number of steps in the recruitment process has always varied. Generally, the recruitment process includes nine stages, namely, identifying vacancy, preparing job description and job specification, evaluating source of recruitment, advertising, managing responses, short-listing, arranging interviews, conducting interview and decision-making, and giving feedback. According to Acikgoz (2019), the traditional recruitment process does not have a determined model for how it should be conducted, rather it is described and theorized differently by many researchers. In addition, customized recruitment process is necessary in many cases depending on internal and external factors such as distance, unavailability, urgency, or convenience. Moreover, internal recruitment needs to be taken into consideration and usually concerns with large organizations in specific industries.

The following recruitment process is used as a basic framework for the sake of this study.

1) Identifying vacancy. The initial stage of the recruitment process often refers to as "Identify Your Needs". During this phase, the HR manager outlines the specific requirements necessary to address the organization's "hiring need". The decision is then made on whether the role will replace an existing position or if it will create a new one. In addition, it is also crucial at this point to determine whether the need is for a full-time or part-time role and to gather detailed information about the required skills, knowledge, and qualifications. According to Kalyan and Viswanath (2018, p.640), starting recruitment with an accurate job analysis and job description ensures that the recruitment effort starts off on a proper track for success. Considering various networks is also key to successful hiring strategies.

2) Preparing job description and job specification. The manager outlines the key responsibilities within the job description to provide a clearer understanding of the role. According to O'Donnell (2017), The job description is a blueprint to hiring, evaluating, promoting, disciplining, and even terminating staff. Executing this step effectively streamlines the remainder of the hiring process, including resume and application evaluations, candidate selection, interviews, and salary negotiations. Subsequently, the manager defines the specific

skills, traits, educational background, experience, and other qualifications necessary to create an accurate job specification.

3) Evaluating of source of recruitment. This phase can be particularly challenging because the manager must determine the best sources for finding talent. Generally, there are two primary options: looking within the organization (internal) or seeking candidates from outside (external). Teii (n.d.) claimed that this is tough because the organization needs to evaluate very well what impact it will have on existing employees when deciding between internal and external hiring.

4) Advertising. The choice of where to advertise is closely tied to the recruitment source selected in the previous step. The approach will vary significantly depending on whether the recruitment is internal or external. Internal recruitment typically involves promotions, transfers, and internal postings. On the other hand, external recruitment methods include job boards (both paid and free), company websites, employee referrals, networking (both informal and formal), job fairs (online and in-person), on-campus college recruitment, social media, and other similar platforms.

5) Managing the responses. During this phase, HR officers organize the applications, resumes, and cover letters of potential candidates based on their priority and relevance to the job. It is crucial that HR personnel thoroughly evaluate each candidate with the job description and specifications in mind at this stage. E-recruitment and e-selection process work together at this stage and considerably help HR Managers' productivity. According to Koudagani (2022), electronic selection systems are currently used to assess job candidates' knowledge, skills, and competencies; manage application flow, and analyse the success of selection systems. It has the capability of screening resumes by looking at key words, thereby enhancing productivity and reduce burdensome activities for HR employees.

6) Short-listing. According to Morris (2020), shortlisting is a critical stage in the recruitment process where employers identify candidates from the applicant pool who best meet the essential and desirable criteria for the job opening in question and invite them to the next stage of the recruitment process. This stage is crucial especially for large well-known multinational organizations, which must deal with an extensive number of resumes and data to manage. Technological innovation significantly improves the data management, screening, and short-listing process.

7) Arranging interviews. At this stage, the emphasis is on defining the goals and objectives of the interview process. Multiple interview rounds are often necessary to make a final decision. The logistics of scheduling interviews involve selecting appropriate dates, locations, and methods for contacting the chosen candidates, ensuring the use of the most effective tools available. Innovative technology and software solutions assist HR officers in organizing and managing information effectively.

8) Conducting interview and decision-making. At this stage of the process, HR managers should be assured that they have identified the strongest candidates. During interviews, questions should align with the goals and objectives of the interview. It is essential to ensure that the interview process remains equitable and free from discrimination. Several methods are usually considered including telephone, videoconference, and Asynchronous Video Interviews (AVIs). According to Basch and Melchers (2021, p. 495), technology- mediated interviews are increasingly being integrated into the selection process.

9) Giving feedback. Providing interviewees with feedback is essential, especially for those who were not successful. Once candidates have been selected and interviewed, it becomes the organization's duty to offer them honest and constructive feedback.

The recruitment process previously proposed is used as a standard in several research studies. Other recruitment process in the literature included further stages such as "onboarding" or "assessments and verifications". These stages were omitted in the development of the interviews.

2. HR Evolution and Technology Advancements

Thailand, as the second economy in the ASEAN, is ideally located as a hub in south-east Asia and attracts large multinationals from several industries, encouraging employee's mobility and overseas postings. According to Sukiam (2022, p. 36), In the context of Thai recruitment, core competencies emphasize relationship performance, professional competencies, self-management performance and legal knowledge and expertise in required areas. Also, it is important to notice the role and development of human resource technologies in the last decades. Human Resource Information Systems (HRIS) started to be used in the eighties and quickly became a standard in Human resource departments until today. According to Hedrickson, 2003, as cited in Gupta, 2013, HRIS can be briefly defined as integrated systems used to gather, store, and analyze information regarding an organization's human resources. Moreover, e-recruitment process is another important characteristic in modern Human

Resource Management operations. E-recruitment is an umbrella word for all electronic-based recruiting and recruitment management activities (Koudagani et al., 2022). Ruel et al. (2009, p. 507) define e-HRM to be a set of information technology (IT) applications that cover 'all possible integration mechanisms and contents between

HRM and ITs aiming at creating value within and across organizations for targeted employees and management.' According to Michael Page Thailand (2018), Technology now plays an important role in the recruitment industry. Professional networking sites, job boards and online applicant systems have revolutionized recruitment, changing how employers and recruiters find potential candidates. Today, these technologies are still in use in organizations worldwide but significantly enhanced with the arrival of innovative technologies such as Artificial Intelligence (AI), Machine Learning (ML), Robotic-Processed Automation (RPA), Augmented Reality (AR) and Virtual Reality (VR).

3. Technology Adoption Theories

Several models and framework were considered in the field of technology adoption. For example, Diffusion of Innovation (DOI) and Technology Acceptance Model (TAM), extensively utilized by scholars to explore a variety of technological innovations adoption, represent the most powerful theoretical emphasis to innovation adaptation literature (Rogers', 1995, as cited in Al-Rahmi et al., 2019). As a result, both, the Technology Acceptance Model (TAM) and the Diffusion of Innovation (DOI) were identified as significant models and adequately assisted the development of the interview questions for this research paper. The Technology Acceptance Model proposes that perceived ease of use and perceived usefulness predict the acceptance of information technology (Ma & Liu, 2011). It is one of the most fundamental theories in Technology Adoption. In the context of recruitment, TAM helps explain why HR professionals adopt digital hiring platforms when they perceive them as efficient and beneficial for decision-making. The Diffusion of Innovation theory (DOI), according to Rogers (2003), stated that: "Diffusion is the process by which an innovation is communicated through certain channels over time among the members of a social system." It does involve five attributes, which are, Relative Advantage (RA), Complexity (CO), Trialability (TR), Observability (OB), and Perceived Compatibility (PC). In Human Resource Management, particularly recruitment, DOI highlights that adoption depends on how potential users perceive key attributes of the technology: Relative Advantage (the benefits over existing methods), Compatibility (alignment with organizational needs and values), Complexity (ease of use), Trialability (opportunity to

experiment), and Observability (visibility of results) (Rogers, 2003). Therefore, both TAM and DOI provide strong theoretical foundations for understanding the drivers influencing organizations' transition from traditional hiring practices to well-advanced recruitment systems. The literature reveals that technology is overall well accepted by HR departments. For instance, Abdul et al. (2020, p. 15). Suggested that there is a lot of positive feedback from HR teams using technology tools in recruitment process. According to Nikolaou (2021), recruitment and selection have probably benefited the most from the advent of technological solutions during the last few decades. Technology, in the recruitment and selection process, can be seen from resume screening, digital job advertising, sourcing, appraisal, shortlisting, data and application management. The existing literature mainly reflects global recruitment practices but lacks a focused understanding of how technological transformation specifically reshapes recruitment in the Thai commercial sector. This study aims to address this gap by examining the current recruitment practices in Thailand, identifying specific challenges and opportunities, and exploring how advanced technological tools are being adopted and perceived within the Thai organizational setting.

A conceptual diagram has been developed to better visualize the link between recruitment stages, HR Professionals' perceptions, and the role of adoption theories.
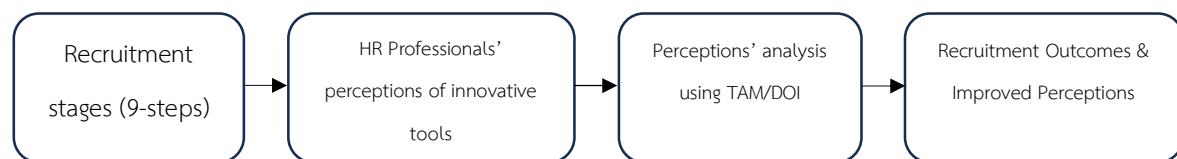

Figure 1: Conceptual diagram

Research Methodology

This study uses a qualitative research methodology. The main target of this research focuses on Thai and international business owners and working professionals in Thai for-profit organizations with direct or indirect experiences using recruitment tools. Key informants, at the time of the study, were all located in Bangkok and its suburban areas, having a minimum of two-year work experience and being, to some extent, related to the recruitment of their respective organization. Key participants included 13 males and 12 females, in an age-range

of 18-30 years old (6 respondents), 31-40 years old (10 respondents), and over 60 years old (5 respondents). Ten key informants had 3-to-5-year work experience, ten participants had 6-10, and 5 had over 10-year of work experience. The number of respondents working at different management levels were, one key informant at lower management, 16 at middle management, and 8 at senior management. Eight respondents had a bachelor's degree, 15 had a master's degree, and 2 had a PhD. degree. Twelve participants worked in an organization with 50 or less employees, 7 worked in organizations having between 51 to 200 employees, and 6 worked in organizations with over 201 employees. The business sectors covered by the 25 key participants included, Food & Beverage (1), Fashion (1), Home & Office Products (1), Personal Products & Pharmaceuticals (1), Banking (1), Finance & Securities (2), Insurance (1), Automative (1), Industrial & Machine (1), Petrochemicals & Chemicals (1), Steel & Metal Products (1), Property Development (2), Health Care Services (1), Professional Services (4), Tourism & Leisure (1), Transportation & Logistics (1), Electronic Components (1), and Information & Communication Technology (3).

The researchers employed a purposive sampling technique, as interviewees were selected from his/her personal and professional network. A sample of 25 semi-structured in-depth interviews was defined according to general recommendations from academics and experts.

Predetermined open-ended questions were developed following the TAM and the DOI attributes and was based on existing literature, as well as being aligned with the research objectives. Questions were designed to offer freedom to respondents, allowing them to feel more in control and comfortable during the interview.

A pilot test with a small subset of 5 respondents helped to redefine a few questions, improve relevance, and enhance the wording and logic of some questions. Content validity was established with experts, academics, and HR professionals appraising whether the questions adequately represented the dimensions of technology adoption in the Thai HR context. This process ensured that the interviews were both contextually appropriate and methodologically adequate, capturing relevant insights from participants. Interviews were conducted via face-to-face (3 respondents) or online video call sessions (22 respondents). Online video calls were recorded using the Microsoft Team's feature.

Data saturation was reached relatively rapidly as recurring themes started to emerge from the transcripts. Data triangulation was achieved by selecting key informants according to

companies' industries and sizes. Ethical considerations were observed regarding the information shared and published in the research study. In addition, this research was approved by the National Institute of Development Administration (NIDA) ethic committee with the issued number ECNIDA 2023/0176. Participants were offered high confidentiality and privacy regarding their personal names, names of their companies, and their exact positions. The duration of each interview was approximately 20 minutes. Data from previous research was also considered for the sake of this study. However, the in-depth interviews were the primary source for data analysis.

The primary data collected was analysed by developing basic themes and sub-themes to better organize and summarize the content. All key informants involved in this research consented to participation, and understood the benefits for themselves, their organizations, and industries. Key informants were invited to participate, and voluntary joined the interview sessions. In addition, participants had the right to withdraw from the study, but none of them decided to do so.

The structure of the interview started by sharing basic information with questions such as, could you introduce yourself in a few words? How would you describe a typical day at work? The second part of the interview was related to the recruitment process in place with questions like, could you describe, in a few words, the recruitment process at your organization? The last part of the interview discussed the link between the recruitment process to technology with questions such as, in your opinion, which steps of the recruitment process require hiring tool technology the most? The data analysis involved a manual coding process assigning labels in the transcripts, to better organize themes and sub-themes in tables. Percentages were also provided to appraise the value for each theme and sub-theme. The methodology used to analyze the qualitative data followed the well-respected key text from Miles et al. (2014).

Research Results

1) The first research objective aimed to explore the characteristics of the recruitment process and selection strategies of commercial organizations in Thailand. A thorough review of the key respondents' information uncovered seven significant themes and sub-themes, which were identified to further organize the findings from the in-depth interviews. The results

were displayed using percentages showing the ratio of participants that mentioned the identified themes and sub-themes.

Digital Job Advertising

Most of key informants (56%) have started to use digital channels such as their websites and social media platforms like Facebook, Twitter, and LinkedIn to promote job opportunities and attract talent. Some organizations (64%) are also adopting tools like "BambooHR", which can integrate and automate the posting of job ads across multiple platforms. However, not all platforms offer the possibility to post job advertisement automatically and, in addition, some firms prefer to advertise manually. Using HR software platforms do not exclusively relate to digital job advertisement, but as an overall adoption of the technology for managing, organizing, and screening candidates for instance. Several key respondents mentioned internal recruitment as well as using their own candidate network, which will be discussed later in this section. There is a growing interest (8%) in reaching both local and international job markets to expand the pool of candidates. Interviewees 1 and 3, for instance, posted job ads on their websites and various job platforms, while Interviewee 7 used BambooHR to automatically distribute job content. Interviewee 9 further emphasized the importance of targeting both local and international job seekers.

Increase in Technology Adoption

The research highlights the growing adoption of technology in human resource management by companies (36%), with many organizations utilizing systems and software solutions such as BambooHR, VanillaHR, Manatal, and Greenhouse to streamline recruitment process. These tools enable HR platforms to automate job postings, manage candidate data, screen applications, and even conduct online assessments. Out of 25 interviewees, a significant number use technological systems, ranging from in-house to web-based and cloud-based solutions. For example, Interviewee 6 valued Manatal for recruitment, while Interviewee 7 used BambooHR for data management and initial screenings. Interviewee 9 benefited from VanillaHR's keyword-based application screening, and Interviewee 10 emphasized the importance of online candidate assessments. Despite these advancements, manual reviews are still required for final candidate selections, as pointed out by Interviewee 12. Additionally, Interviewee 19 found Manatal to simplify the process of finding talents effectively.

Strategic Use of Networks

The third theme in the research highlights the strategic use of networks in recruitment. Several respondents (20%) emphasized the preference for identifying candidates through personal and professional networks or referrals before turning to external job postings. Universities and trade fairs were also seen as important resources for networking and talent acquisition. For instance, Interviewee 1 stressed the value of connecting with universities and students, while Interviewees 5 and 20 favored starting their search within their own networks. Interviewees 13 and 18 used business contacts and social media to find candidates, and Interviewee 19 mentioned a reliance on a database built from trade fairs and events for potential hires.

Internships

The fourth theme in the analysis highlights the importance of internships as a valuable source for recruiting new talent. Some companies (8%) prefer hiring interns who have proven their skills and compatibility with the organizations during their internship. Structured internship programs offer opportunities to train and assess potential full-time employees. For example, Interviewee 17 mentioned that their company often hired students who completed internships with them and viewed the internship as a significant advantage over direct applications. Similarly, Interviewee 23 noted that many of their current employees were once interns who were offered full-time positions after graduation.

Interview process

The fifth theme identified in the interviews focuses on the interview process, which vary in stages and formats depending on the company and role. About 14% of respondents were concerned. These processes generally include online, phone, and face-to-face interviews, sometimes involving tests, with some companies conducting up to four rounds. For example, Interviewee 1 described the recruiting process that was started with online interviews, followed by face-to-face interviews for the top three candidates and that was also used for internship applicants. Interviewee 6 preferred a simpler approach, conducting three interviews before a final decision. Interviewee 7 mentioned an initial Zoom call followed by a face-to-face meeting, while Interviewee 9 described a more rigorous four-round process. Interviewee 13 used a two-stage process, with the first interview conducted by the management and the second by the entire team. Finally, Interviewee 18 emphasized conducting at least three interviews per candidate.

Customized recruitment process

The theme highlights how companies tailor their hiring strategies to meet the specific needs of the role, industry, and required skills. According to respondents, 16% of them were concerned by customized recruitment processes. The customization involves creating unique job profiles, using different recruitment channels, and adjusting the number of interview rounds based on the hiring situations. Interviewee 6 emphasized the need for varied recruitment channels to attract different types of employees. Interviewee 17 pointed out the difficulties in recruiting individuals with specialized skills. Interviewee 22 mentioned their recruitment efforts on middle management positions, while Interviewee 24 described the adaptability of their process, which shifted depending on the specific talents they were looking for hire.

Internal Recruitment

The final theme, internal recruitment, emphasizes the importance of using internal networks and database to fill new positions. 16% of respondents mentioned internal recruitment as an option in their recruitment process strategy. This approach fosters internal mobility by informing current employees about job opening, allowing them to apply, and leveraging the organization's existing talent pool. The interviewees across different industries highlighted the significance of internal networks in recruitment. For instance, Interviewee 12 pointed out that in the banking sector, internal networks and database are essential for effective recruitment. Interviewee 20 stressed the preference for sourcing talent from their existing business network, and Interviewee 25 noted the importance of internal networks in the tourism and hospitality industry, where employees are informed about job opportunities within their group of hotels.

2) The second research objective of this study was to explore how advanced technology and innovation impact the recruitment process in Thai commercial organizations. The content was significantly less, compared to the previous research objective. Basic themes were identified from transcripts, and summaries were developed accordingly.

Screening

The respondents (28%) emphasized the importance of screening in the recruitment process, highlighting it as a complex yet critical area where technology can offer significant

advantages. Many informants noted that technology enhances the initial screening phase by improving accuracy and ensuring no vital details are missed. Screening plays a key role in identifying suitable candidates and aligning them with organizational needs. For example, Interviewee 1 and others stressed the need for technological solutions in screening, while Interviewee 5 underscored its importance in matching candidates with company requirements. Tools like BambooHR were praised by Interviewees 7 and 12 for their efficiency in screening, and Interviewees 13, 21, and 23 highlighted how effective screening helps streamline shortlisting and improve recruitment outcomes.

Application Management

The research emphasizes application management as a critical area where technology can significantly enhance recruitment process. Many respondents (28%) acknowledged the challenges of managing large volumes of applications, highlighting how technology aids in organizing and handling these applications more effectively. The interviewees predominantly focused on the difficulties associated with screening numerous candidates, with many suggesting that technology can save time and improve efficiency in application management. Interviewees 2 and 3 pointed out the value of features that streamline application process, while Interviewees 19, 20, and 25 discussed the complexities of managing applications, especially in industries like hospitality, where a diverse range of educational backgrounds is required.

Data Management

Data management emerged as a critical area in the recruitment process, as highlighted by 20% of interviewees. It involves organizing and structuring candidate information to support informed hiring decisions, with technology playing a vital role in facilitating quick access to data. Interviewees emphasized the significance of effective application and data management, particularly during initial screening. For instance, Interviewees 3 and 23 pointed out the need for streamlined management systems, while Interviewee 17 noted the importance of combining data management with advanced screening technologies. Interviewee 18 highlighted the necessity of managing candidates and applications, and Interviewee 22 stressed that data management is especially crucial for identifying factory workers likely to remain with the organization.

Shortlisting

Shortlisting candidates was identified as the fifth key area where technology is considered most essential suggested by 20% of the interviewees. Key informants described it as a time-consuming process that could significantly benefit from technology. Software and other technology systems can assist in efficiently narrowing down the applicant pool to the most qualified candidates.

The interviewees highlighted the significance of sourcing, screening, and shortlisting in the recruitment process, noting them as time-consuming yet essential tasks. Interviewee 4 identified these three areas as crucial while Interviewees 6 and 21 emphasized the challenges and time consumption required for screening and shortlisting candidates. Interviewee 5 mentioned using both software and manual methods to browse through applications, and Interviewee 13 pointed out that screening and shortlisting involve evaluating candidates' professional profiles comprehensively.

Sourcing

Sourcing emerged as a critical area where technology can significantly enhance the recruitment process, as noted by 16% of interviewees. They highlighted sourcing candidates as essential for effectively advertising job openings and attracting potential applicants. The importance of sourcing and screening was consistently emphasized, with Interviewee 4 identifying them as key aspects of recruitment, alongside shortlisting. Interviewees 10 and 11 echoed the necessity of technology in both sourcing and screening talent, while Interviewee 24 expanded the discussion to include application and data management as integral to this process.

Technology

Many interviewees (16%) emphasized that technology plays a vital role in enhancing the overall efficiency of the recruitment process, from developing job descriptions to final candidate selection. Consequently, improving general recruitment efficiency was identified as the sixth key area where technology is essential. The interviewees emphasized the importance of technology in various aspects of the recruitment process, particularly in searching, screening, and managing data. Interviewee 11 mentioned the necessity of technology for talent searching and screening, especially in smaller companies. Interviewee 12 highlighted the benefits of automatic screening process in saving time and reducing stress. Interviewee 17 focused on the significance of data management and effective screening technology, while Interviewee 21

pointed out the need for enhancing recruitment efficiency and streamline the selection process, particularly in screening and shortlisting candidates.

Artificial Intelligence (AI) and Machine Learning (ML)

AI and ML were the final key areas identified, mentioned by 8% of interviewees. They highlighted both the potential and current applications of these technologies in recruitment, though all interviewees have not implemented them yet. The interviewees acknowledged the presence of AI and machine learning innovations in recruitment, particularly in evaluating candidates during interviews. However, both Interviewee 7 and Interviewee 9 noted that, despite being aware of these advancements, their organizations have not yet adopted these technologies.

Table 1. Summary of main themes and percentages

Research Objective 1: Recruitment Process Characteristics

Main Theme	% of respondents
Digital Job Advertising	56%
Increase in Technology Adoption	36%
Strategic Use of Networks	20%
Internships	8%
Interview Process	14%
Customized Recruitment Process	16%
Internal Recruitment	16%

Research Objective 2: Impact of Advanced Technology and Innovation

Main Theme	% of respondents
Screening	28%
Application Management	28%
Data Management	20%
Shortlisting	20%
Sourcing	16%
Technology (Overall efficiency)	16%
AI & ML	8%

Discussion

Digital Job Advertising

Findings indicate that digital job advertising plays a crucial role in recruitment practices among commercial organizations in Thailand. This aligns with existing literature supporting

digital platforms as a significant recruitment technology. In 2022, over 80% of Thailand's population, approximately 56.85 million users, were active on social media, explaining organizations' strong reliance on digital job advertising. Digital technologies have been integrated into early recruitment stages, including resume screening and reference checks, to identify suitable candidates (Boomalert, 2017, as cited in Juicharoen et al., 2023).

Increase in Technology Adoption

The findings confirm that HR departments have increasingly adopted technologies such as HRIS, e-HRM platforms, and recruitment software over recent decades. Digital technologies are rapidly developing, and the effects of this development were seen not only in the modernization of enterprises' internal processes but also in the new concept of enterprises' competitive advantage in the post-industrial era (Shao, 2025, 115).

Strategic Use of Networks

The results highlight the strategic importance of internal and external networks in recruitment. Social media platforms, particularly LinkedIn, support professional networking and talent sourcing. The literature emphasizes the growing role of online networks in HR recruitment, with evidence suggesting that a large proportion of positions are filled through networking rather than public advertisements (Slavić et al., 2017, 123).

Internships

As mentioned in the literature, the findings reveal that using internship candidates can be a significant strategy to fill some positions. According to Dobratz et al. (2014), as cited in Ismail (2018), internships increase the probability of finding employment after graduation, 58% of those who completed internships, as compared to 30% of those who received university training, only were offered jobs immediately after graduation.

Interview process

The number of rounds and technology used aligned with the literature studied. Interviewing is an important step in the employee selection process. If done effectively, the interview enables the employer to determine if an applicant's skills, experience and personality meet the job's requirements (SHRM, 2024).

Customized recruitment process

These insights show the complexity and flexibility required in recruitment to meet diverse organizational needs. The literature pointed the importance of customizing the recruitment process depending on internal and external factors. According to Maurer (2023),

whether advertising job openings in a local newspaper, posting a help-wanted sign, or using online job boards, experts recommend investing time in tailoring recruitment strategies to align with the target candidate audience.

Internal Recruitment

The literature pointed out the importance of hiring talents internally to promote employees and reduce attrition rates. According to Wirick (2023), internal hiring can be a good way to gain new skills without having to spend time and cost on looking for candidates externally.

Recruitment practices and technological needs' relationships and analysis

Based on the interviews, recruitment practices demonstrate a relatively strong relationship with technological needs. Organizations with more direct or internally managed recruitment processes, such as family-run businesses or firms with a few decision-makers, depended mostly on personal networks, internal advertisements, and straightforward communication tools, requiring minimal technological solutions. In contrast, organizations that used online job boards and social media for advertising demanded a higher level of technology, often enjoying from applicant tracking systems, scheduling/planning technology, and integrated or online digital platforms to manage a larger pool of prospective talents. At the other end, organizations with large-scale recruitment practices including hospitals, specialized industries, and companies hiring internationally relied heavily on HR software solutions like BambooHR, Greenhouse, Manatal, or VanillaHR, as well as online testing platforms, to better manage data, screening candidate information, and support more complex interview processes.

Differences by organizational size, industry type, and technology adoption levels

Recruitment practices differed significantly across organizational size, industry type, and technology adoption levels. Smaller firms with fewer than 50 employees, more especially in traditional industries such as fashion, automotive, and industrial materials, relied on informal and direct methods such as personal networks, direct postings, and centralized decision-making, with minimal technology use except in a few cases where HRM tools supported family-run or finance-related businesses. Organizations with 51–200 employees showed more structured processes, involving multiple interviews rounds and formal screening. In these cases, technology adoption was more significant, with tools such as BambooHR, Greenhouse, and Manatal used for data management, candidate tracking, and international recruitment.

Large organizations with more than 201 employees had the most sophisticated systems, incorporating online tests, multi-stage interviews, outsourced agency involvement, and advanced HR software to manage the volume and complexity of applications. Industry differences also shaped practices: Information Technology and finance sectors displayed the highest technology integration, using HR platforms and automation to manage broad talent pools, while healthcare and property development adopted structured but less tech-focused approaches. In comparison, traditional and family-run businesses in sectors such as fashion, tourism, and automotive tended to avoid advanced systems, relying instead on personal connections and manual screening. Overall, the findings show that recruitment becomes more technology-driven as organizational size increases and industry complexity rises, with Information Technology and finance emerging as the leaders in HR software adoption.

Screening

The findings show that screening resumés is a highly repetitive task for HR officers in Thai organizations. Consistent with the Diffusion of Innovation (DOI) theory, technology adoption in screening is driven by perceived relative advantage and reduced complexity. Automated screening tools improve efficiency and accuracy, enabling recruiters to focus on high-potential candidates (Emptor, n.d.).

Application Management

Application management and screening were identified as key concerns among the interviews. The DOI theory, discussed in the literature review, emphasizes that relative advantage is one of the attributes, which encourages individuals to adopt a new technology. Technology has a major role in simplifying and speeding up recruitment and hiring. Cutting-edge software and platforms help companies manage job postings, applications, and candidate assessments all in one place (LRP Media Group, 2023).

Data Management

Data management emerged as an essential theme in the discussions. Data management facilitates the access of data and offers convenience to HR officers and employees. Technology enhances HR data management by centralizing data, automating tasks, improving security, and making information more accessible. In an increasingly data-driven world, embracing data management and compliance is not just an option but a necessity for recruiters seeking long-term success in the competitive job market (Connor, 2024).

Shortlisting

The responses underscore the importance of efficient screening and shortlisting to maximize recruitment effectiveness. The efficient candidate shortlisting is essential for successful recruitment (The Importance of Efficient Candidate Shortlisting in Recruitment | LinkedIn, 2024).

Sourcing

Sourcing is crucial in today's competitive environment. It aims to build a database or system to facilitate access to active or passive talents. Technology facilitates the sourcing process by searching and identifying candidates across several platforms and/or pools of talents. The literature aligned with the findings.

Technology

Key informants' responses underline the critical role of technology in optimizing recruitment process. Today's technology continues to evolve as companies find ways to enhance their recruitment process further (eLearning Industry Inc., 2024).

Artificial Intelligence (AI) and Machine Learning (ML)

AI and ML are relatively new technologies, in the early stages of their remarkable potential. However, some key informants have already noticed how these technologies could positively benefit HR officers. Artificial intelligence is here to support the talent experience in powerful ways, and we are only at the cusp of its potential (Contributors, 2024).

Diffusion of Innovation and Technology Adoption model in Thailand

According to Diffusion of Innovation (DOI) theory, technology adoption in Thai recruitment is concerned by several attributes which are: relative advantage, compatibility, and complexity. Tools supporting screening, application management, data management, and shortlisting are widely used, as they clearly reduce repetitive tasks, minimize duplication of effort, and improve efficiency. However, Artificial Intelligence (AI) and Machine Learning (ML), mentioned by only 8% of interviewees, remain at an early stage of adoption. The reason is mainly due to higher perceived complexity, particularly in small and medium-sized firms. While HR professionals recognize the potential of AI and ML to improve candidate evaluation and the overall talent experience, most organizations are not yet ready to invest in or implement such advanced tools. HR professionals require hands-on training sessions and convincing successful case studies to start seeing the capabilities of these revolutionary technologies. As DOI suggests, technology adoption will depend on reducing complexity,

offering trial opportunities, and demonstrating visible benefits within the Thai recruitment context. According to key informants' transcripts, digital HR systems are steadily being adopted by medium and large Thai organizations for their clear advantage in overall effectiveness and talent reach. However, small businesses keep a more traditional approach. Digital recruitment tools are considered compatible with companies using online software platforms exclusively. Technology is generally perceived as simple and manageable by all respondents, allow incremental implementation, and deliver visible improvements, especially in larger organizations facing large number of applicants.

To summarize and link the findings with the Technology Acceptance Model, Thai recruitment is predominantly related to high Perceived Usefulness (PU) through automation, data management, and more efficient talent reach. On the other hand, Perceived Ease-of-use is secondary but highlight several areas where simple tasks are still managed manually and integrated into existing systems. For instance, Digital job advertising platforms, Applicant Tracking Systems, HRIS, and e-HRM platforms.

Thailand 4.0 policy

The findings align adequately with Thailand 4.0's vision of driving digital transformation, data-driven decision-making, human capital development, and innovation. Thai organizations are increasingly integrating digital recruitment tools such as BambooHR, Manatal, and social media platforms, reflecting the policy's focus on technology and competitiveness. Practices such as internships, internal hiring, and customized recruitment contribute to building a skilled and adaptable workforce. However, to fully benefit from these technologies, organizations need to build and improve digital infrastructures, HR technology management, and AI/ML literacy, while also investing in more modern structures, organizational cultures, as well as change management to reduce resistance and complexity. This would not only enhance efficiency but also support Thailand's broader strategy of transitioning to a knowledge-based, innovation-driven economy.

Significance of the study

This qualitative research highlights the characteristics of the recruitment and selection strategies of Thai commercial organizations, bringing out the increasing use of digital tools and technology. The research identifies a significant shift towards digital job advertising and recruitment using platforms such as social media. The study also underlines the adoption of recruitment software, which automates job posting, screening, and data management, as well

as enhancing efficiency and expanding access to potential candidates. In addition, the study reveals that organizations have used innovative technology to manage large volume of applications, screen candidates more effectively, and conduct online assessments. Ultimately, the study highlights the role of technological advancement in modern recruitment practices.

Conclusion

This study revealed first that the recruitment process and selection strategies of commercial organizations in Thailand and identified seven key themes. The findings show a strong reliance on digital job advertising and increasing adoption of HR technologies such as HRIS and applicant tracking systems to improve efficiency. Organizations also strategically use personal and professional networks, while internships serve as a supplementary talent pipeline. Recruitment processes vary in structure, with multi-stage interviews and customized approaches tailored to organizational needs. Internal recruitment further supports talent retention and workforce stability by leveraging existing employee networks. Secondly, screening and application management are the most critical areas where technology supports recruitment in Thailand. Closely followed by technology including data management and shortlisting, sourcing and general technology. However, AI and ML remain in early adoption according to key informants. In regards of the Diffusion of Innovation theory, limited AI consumption in Thai organizations reflect perceptions of complexity and uncertainty despite its obvious advantages. For academic and experts, these findings call for further research into reasons that may interfere to advanced HR technology adoption and cross-industry comparisons. For communities, stronger relationships between universities and industries through internships and networks to enhance employability. At the policy level, aligning with Thailand 4.0, further investments are required in digital HR infrastructures, affordable and customized solutions for SMEs, and promotional initiatives toward digital and AI technologies. Together, these measures can strengthen Thailand's recruitment ecosystem and drive more innovative, inclusive, and competitive practices.

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