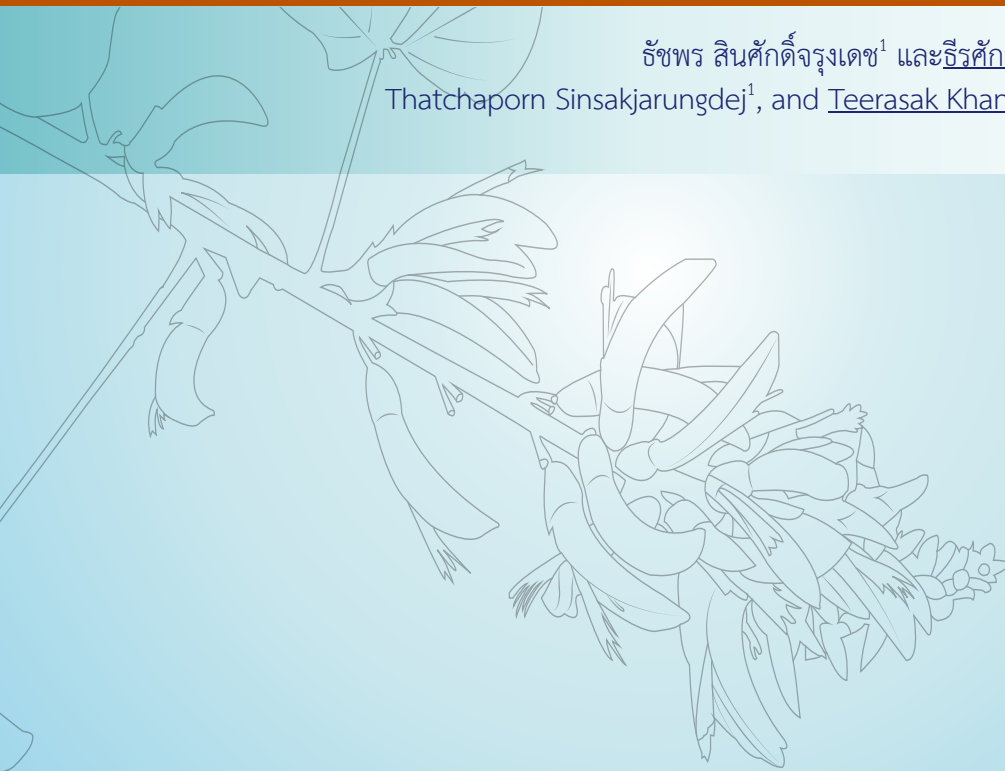


ความสัมพันธ์ระหว่างแรงจูงใจภายนอกและภายในและความตั้งใจ
ในการลาออกของพนักงานบริษัทยาในกรุงเทพมหานคร
ประเทศไทย: ข้อมูลเชิงลึกจากบริบทอัตราการลาออกที่สูง
The Relationship between Extrinsic and
Intrinsic Motivation and Turnover Intentions in
Pharmaceutical Companies in Bangkok, Thailand:
Insights from a High Turnover Rate Context

ธัชพร สิ้นศักดิ์จรุงเดช¹ และธีรศักดิ์ กัญจนพงศ์^{1*}

Thatchaporn Sinsakjarungdej¹, and Teerasak Khanchanapong^{1*}



¹ คณะพาณิชยศาสตร์และการบัญชี มหาวิทยาลัยธรรมศาสตร์ กรุงเทพฯ 10200

¹ Thammasat Business School, Thammasat University, Bangkok, 10200, Thailand

*Corresponding author: E-mail address: teerasak@tbs.tu.ac.th

(Received: December 20, 2023; Revised: May 11, 2024; Accepted: May 21, 2024)

บทคัดย่อ

ในช่วงการแพร่ระบาดของไวรัสโควิด-19 อัตราการลาออกโดยเฉลี่ยในบริษัทยาในประเทศไทยสูงกว่าในอุตสาหกรรมอื่นๆ ดังนั้นงานวิจัยนี้มีวัตถุประสงค์เพื่อศึกษาความสัมพันธ์ระหว่างปัจจัยจูงใจและความตั้งใจในการลาออกของพนักงานของบริษัทยาในกรุงเทพมหานคร จากผลการวิเคราะห์ข้อมูลที่รวบรวมจากตัวอย่างจำนวน 231 ตัวอย่าง โดยการวิเคราะห์การถดถอยพหุคูณ พบว่าปัจจัยจูงใจทั้ง 7 ประการ ได้แก่ ค่าตอบแทนทางการเงิน การรับรู้ถึงการสนับสนุนจากองค์กร ความมุ่งมั่นของพนักงาน การเติบโตของค่าตอบแทน ความก้าวหน้าในอาชีพการงาน ความเร็วในการเลื่อนตำแหน่งงาน และการพัฒนาความสามารถทางวิชาชีพ มีผลกระทบเชิงลบอย่างมีนัยสำคัญต่อความตั้งใจลาออกของผู้แทนยาในกรุงเทพมหานคร โดยการเติบโตของค่าตอบแทนเมื่อเทียบกับความตั้งใจในการลาออกของผู้แทนยามากที่สุด ตามมาด้วยค่าตอบแทนทางการเงิน ความมุ่งมั่นขององค์กร การรับรู้ถึงการสนับสนุนจากองค์กร การพัฒนาความสามารถทางวิชาชีพ ความเร็วในการเลื่อนตำแหน่ง และความก้าวหน้าในอาชีพ ตามลำดับ งานวิจัยนี้จึงมีส่วนสนับสนุนทฤษฎีการกำหนดตนเอง โดยการยืนยันว่าแรงจูงใจทั้งภายนอกและภายในมีผลต่อความตั้งใจในการลาออกของพนักงาน ผลการวิจัยมีประโยชน์สำหรับบริษัทยาในกรุงเทพฯ ในการลดอัตราการลาออกของผู้แทนยา และลดต้นทุนการจัดการทรัพยากรมนุษย์ การวิจัยครั้งต่อไปควรพิจารณาการศึกษาปัจจัยอื่น ๆ เพิ่มเติม เช่น วัฒนธรรมองค์กรและความสัมพันธ์ทางสังคมระหว่างพนักงาน

คำสำคัญ: แรงจูงใจจากภายนอก แรงจูงใจจากภายใน ความตั้งใจในการลาออก บริษัทยา ทฤษฎีการกำหนดตนเอง

Abstract

During the COVID-19 pandemic, the average turnover rate in pharmaceutical companies in Thailand has been consistently higher than that in other industries. Therefore, this research aimed to study the relationship between motivational factors and turnover intentions in pharmaceutical companies in Bangkok. Data collected from 231 samples were analyzed by using multiple regression analysis. The results showed that all seven motivational factors, namely financial compensation, perception of organizational support, organizational commitment, remuneration growth, career goal progress, promotion speed, and professional ability development, had a significantly negative effect on the turnover intention of medical representatives in Bangkok. Particularly, remuneration growth was the most influential predictor of medical representatives' turnover intention, followed by financial compensation, organizational commitment, perception of organizational support, professional ability development, promotion speed, and career goal progress. This research, hence, contributes to self-determination theory (SDT) by confirming that both extrinsic and intrinsic motivations lead to employee turnover intention. The research findings can be useful for pharmaceutical companies in Bangkok in reducing medical representatives' turnover rate, and in turn human resource management costs. Further study on additional factors, such as organizational culture and social relationships among employees, should be considered.

Keywords: Extrinsic Motivation, Intrinsic Motivation, Turnover Intention, Pharmaceutical Companies, Self-Determination Theory

Introduction

According to the Thai pharmaceutical industry outlook for 2020-2022, Krungsri Bank reported that the domestic demand for pharmaceuticals grew at an average rate of 4.5 - 5.0% even during the COVID-19 period [1]. The reasons for this growth include the increasing number of non-communicable diseases, which typically affect the elderly, and the benefits of universal health coverage. In order to maintain and increase market share, many pharmaceutical companies in Thailand have developed unique marketing strategies, especially those targeting doctors that are responsible for medical prescriptions. Directly advertising medicine to patients is not legally allowed according to pre- and post-marketing regulations for medicine in Thailand. In order to conduct marketing and pharmaceutical promotions with doctors, pharmaceutical companies primarily use medical representatives (MRs), which account for 35.5% of total marketing spending. This underscores the critical role that MRs play in driving the pharmaceutical market. MRs act as a bridge between pharmaceutical companies and healthcare professionals, and are responsible for promoting and selling products to meet set targets.

Despite the relatively high compensation offered to MRs, the turnover rate remains high. According to the average turnover rate of pharmaceutical companies in the Pharmaceutical Research and Manufacturers Association (PReMA), the turnover rate has been consistently higher than in other industries since 2010. Even during the COVID-19 period in 2020, the projected turnover rate was approximately 16.1%, closely resembling the 17.5% rate in 2019 [1]. Consequently, companies bear the burden of costs related to employment and re-employment, including recruitment expenses, training costs, and orientation. Additionally, organizations lose valuable resources, along with individual employee-customer relationships, to their competitors [2]. Furthermore, the resignation of an employee may cost a company approximately six to nine months' salary. For example, the resignation of a digital marketer costs a company approximately 300,000 to 450,000 baht. A similar case study in the US suggests that the turnover cost in American companies in 2018 approached \$600 billion, and was projected to increase to \$680 billion by 2020 [3].

In order to mitigate the impact of a company's turnover rate, it is crucial to understand the factors influencing turnover intentions of MRs. Previous studies have examined various factors related to turnover intention. For instance, Satardien et al. [4] explored the relationships among perceived organizational support, organizational commitment, and turnover intention among employees in the aviation industry; and Ohunakin et al. [5] investigated the perception of frontline employees regarding career growth opportunities and their impact on turnover intention in the hospitality industry. Ohunakin et al. identified an inverse relationship between

career growth opportunities and employees' turnover intention. In order to retain talented employees and to reduce the costs associated with hiring new ones, companies should focus on clear career progression, promotion speed, professional skill development, and compensation growth.

Several studies, such as those of Vizano et al. [6] and Hom and Griffeth [7], have found that compensation is a significant motivator for employees across all levels. Competitive compensation significantly contributes to employee satisfaction [8]. Employees often compare their compensation and benefits with those offered by other organizations. If they find better compensation and benefits elsewhere, they may leave their current position. Adequate compensation not only motivates employees but also leads to improved performance, positive job satisfaction, and ultimately reduces turnover intention.

However, the studies mentioned above cover only a few factors and lack a comprehensive, holistic view. This paper, hence, aims to address this gap by employing the concepts of extrinsic and intrinsic motivation and self-determination theory (SDT) in order to comprehensively study all of the motivating factors related to turnover intention within a single research study.

The paper is structured as follows: it begins with a discussion of the concepts of extrinsic and intrinsic motivation and SDT. Next, it presents the research framework and hypotheses. The paper proceeds to describe the research methods and findings, followed by a discussion of the research implications, limitations, and directions for future research.

Literature Review

Extrinsic and Intrinsic Motivation

Extrinsic and intrinsic motivation are recognized as critical drivers of behavior, as per self-determination theory (SDT) [9]. Intrinsic motivation involves engaging in an activity for its inherent satisfaction rather than for some external reward or outcome [10]. Intrinsically motivated individuals are moved to act because they find an activity fun or challenging, rather than because of external pressures or rewards. Researchers have explored task characteristics that make an activity interesting, creating an internal pull to perform the task. The original authors of SDT [11] focused on psychological needs, namely, the innate needs for autonomy, competence, and relatedness.

SDT posits that intrinsic motivation arises when individuals perceive control over their activities (autonomy), feel competent in performing them (self-efficacy), and experience a sense of belonging or relatedness while engaged in them (connection) [10; 11]. This study focuses on intrinsic motivational factors as follows. First, organizational commitment (OC) is

defined as the level of employee commitment to one's current organization. It comprises three components: affective commitment, continuance commitment, and normative commitment [12; 13]. Affective commitment is the feeling of attachment to the organization, or in other words, employees continue working in the organization because of their emotional connection to it. Continuance commitment is the awareness of the consequences of leaving the company, which keeps employees with the company out of necessity [12]. Normative commitment is the sense of duty to continue working in the organization, as employees believe that it is the right thing to do. Second, career goal progress (CGP) is defined as an individual's intention to improve their current employment situation [14]. Third, professional ability development (PAD) refers to the potential of the current position to offer opportunities for training and the development of new skills [14].

On the other hand, extrinsic motivation involves engaging in an activity because it leads to a separate outcome [15]. SDT suggests that when individuals are externally regulated, they perceive their behavior as being directly controlled by others, often through contingent rewards [16]. Extrinsic motivation is sometimes referred to as "controlled motivation" because individuals are expected to act in line with what is rewarded by a controlling party [10; 11; 17]. This study, therefore, focuses on the following factors.

First, financial compensation (FI) is defined as the money paid for the work that employees do for the company. According to equity theory, people usually compare their compensation and other rewards with those of others [18]. If they receive fair compensation, they are satisfied and continue working for the company. If not, they might seek employment elsewhere.

Second, remuneration growth (RG) typically refers to the potential increase in the overall compensation or payment given to employees, workers, or individuals in exchange for their services or work. Remuneration growth can be measured and tracked over time to analyze the trends in how salaries, wages, benefits, and other forms of compensation change within an organization or across a specific industry or economy [19].

Third, the perception of organizational support (POS) cover the relationship between an organization and its employees' perception regarding the extent to which the organization cares about their well-being, such as whether complaints from employees are taken seriously [20]. Eisenberger et al. [20] found that employees tend to perform at high levels and feel loyal to the organization if they perceive support from the company.

Lastly, promotion speed (PS) refers to the rate at which an employee progresses through the hierarchical levels of an organization, typically in terms of job titles, responsibilities, and compensation [14]. It measures how quickly an employee advances to higher positions

or ranks within the company's organizational structure. In the context of career development, promotion speed reflects the pace at which an individual is promoted from one job role to another, often indicating their performance, skills, and potential recognized by the organization. A faster promotion speed suggests that an employee is achieving career milestones and gaining increased responsibilities and opportunities for advancement within a relatively short period. Employees typically gauge an organization's promotion policies based on their achievement of expected working positions.

The Relationship Between Extrinsic and Intrinsic Motivation and Turnover Intention

Several studies have found that competitive compensation significantly contributes to employee satisfaction [8]. As indicated earlier, employees often compare their compensation and additional benefits with those offered by other organizations. If they find better compensation and benefits in a new company, they are likely to leave their current position. Vizano et al. [6] suggested that financial compensation has an inverse effect on turnover intention. Similarly, Hom and Griffeth [7] found that financial compensation is a crucial factor affecting an employee's intention to leave. Consequently, we propose the following hypothesis:

H1: Satisfactory financial compensation has a negative relationship with employees' turnover intention.

Eisenberger et al. [21] discovered a strong relationship between the perception of organizational support and turnover intention; that is, the more support employees perceive from the organization, the less likely they are to consider leaving the company. Similarly, several research studies have reported a negative relationship between organizational support and turnover intention [22]; if employees feel well taken care of and supported, they are less likely to contemplate leaving the company. Consequently, we propose the following hypothesis:

H2: Satisfactory organizational support has a negative relationship with employees' turnover intention.

According to Brashear et al. [23], who studied salespeople, there is an inverse relationship between organizational commitment and turnover intentions. In a similar vein, Guzeller and Celiker [24] conducted a meta-analysis of 13 scientific papers and found a moderate negative relationship between organizational commitment and employees' turnover intention in the tourism and hospitality industry. Employees are more likely to remain committed to the organization if they perceive support from their company. This commitment, in turn, helps to reduce employees' turnover intentions [25]. Consequently, we propose the following hypothesis:

H3: Organizational commitment has a negative relationship with employees' turnover intention.

Karavardar [26] stated that career growth opportunities are vital for retaining employees within a company—when employees see a clear path for career development, they are more motivated to pursue their desired career goals and are less likely to have turnover intentions. Similarly, Nouri and Parker [27] found a negative relationship between turnover intention and career growth opportunities. Remuneration growth can enhance employees' performance and reduce their turnover intentions [28]. Additionally, an article by Omonijo et al. [29] found a relationship between remuneration and employee turnover rate among administrative personnel in a private institution. Consequently, we propose the following hypothesis:

H4: Satisfactory remuneration growth has a negative relationship with employees' turnover intention.

According to Mapelu and Jumah [30], who studied the hospitality industry, career progress can make employees feel more committed to their organization, reducing their desire to leave. Furthermore, a speedy promotion process makes employees feel valued by their organization, which leads to a reduction in turnover intention [31]. Consequently, we propose the following hypotheses:

H5: Satisfactory career goal progress has a negative relationship with employees' turnover intention.

H6: Satisfactory promotion speed has a negative relationship with employees' turnover intention.

Professional ability development is crucial for high-performance employees [32], and the presence of a professional ability development plan can lead to employee satisfaction and reduced turnover intention [33]. Consequently, we propose the following hypothesis:

H7: Professional ability development has a negative relationship with employees' turnover intention.

The research framework and hypotheses are presented below.

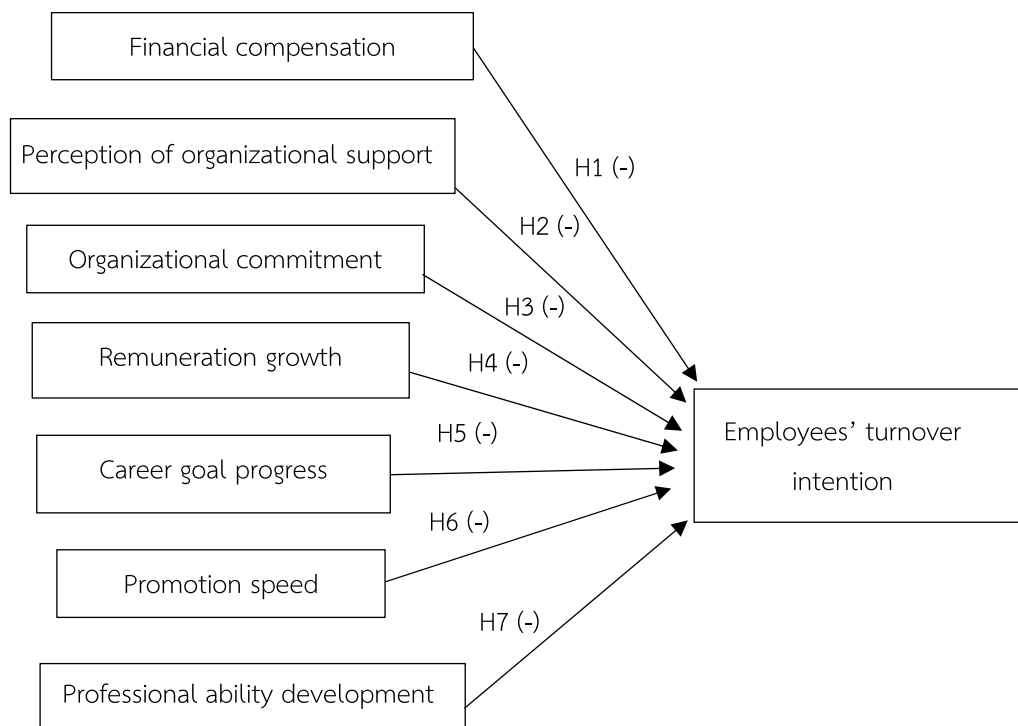


Figure 1 Research Framework

Research Methods

The population in this study consists of medical representatives in multinational pharmaceutical companies in Bangkok, who are members of PReMA. The sample size for this study, calculated using the G*Power method, is 153. A multi-stage sampling technique was employed as follows: (1) stratified random sampling of the 36 PReMA -member pharmaceutical companies based on their nationality (American pharmaceutical companies, European pharmaceutical companies, and Asian pharmaceutical companies); (2) four samples were selected from each pharmaceutical company's nationality using simple random sampling; (3) a simple random sampling of medical representatives was conducted until the sample size reached 153.

Collecting a total of 231 samples, demographic information, including resignation experiences, gender, age, marital status, number of children in the family, work experience, education level, and average monthly salary, is presented in the following table. Among the medical representatives surveyed, the majority that reported resignation experiences from pharmaceutical companies (72.3%) were between the ages of 25 and 30 (51.5%), were predominantly female (82.7%), single with no children (75.8%), had 3-5 years of work

experience (44.2%), held a bachelor's degree (77.5%), and earned a monthly salary between 60,001 and 80,000 baht (41.1%).

The research tool utilized in this study was a questionnaire developed based on the literature review and relevant studies. It consists of three parts: (Part 1) demographic questions about Bangkok medical representatives (gender, age, marital status, work experience, education level, and average monthly salary, including incentives); (Part 2) questions related to financial compensation, collected using a five-point Likert scale; the scores ranged from 5 (very satisfied) to 1 (very dissatisfied); (Part 3) questions regarding the perception of organizational support, organizational commitment, remuneration growth, career goal progress, professional ability development, promotion speed, and turnover intentions, also collected using a five-point Likert scale; the scores ranged from 5 (Strongly Agree) to 1 (Strongly Disagree). The questionnaire survey was conducted from October to November 2021.

The index of item-objective congruence (IoC), developed by Rovinelli and Hambleton [34], was used to assess content validity. The questionnaire draft was reviewed by two experts from the academic research field and one expert from the pharmaceutical industry. These experts provided scores ranging from -1 to +1 based on the clarity of the questions. Questions scoring lower than 0.6 were revised based on the experts' feedback, while those scoring 0.6 or higher were retained.

The Kaiser-Meyer-Olkin (KMO) value was 0.944, indicating significant overlap and strong partial correlation among the variables. Bartlett's test of sphericity also yielded a significant result, indicating that the correlation matrix is not an identity matrix. Thus, the factor analysis was deemed reliable. Principal component analysis was used, and the results are presented. Cronbach's alpha, which should be 0.70 or higher for questionnaire reliability [35, 36], exceeded 0.70 for all of the items in this research, confirming the questionnaire's reliability.

Research Findings and Discussion

Assumptions related to multiple regression analysis were examined. First, the normality distribution of variables was assessed by examining skewness and kurtosis. The results indicate that the variables met the normality criteria, as skewness was lower than 2, and kurtosis did not exceed 5 [37]. Second, linearity was verified by analyzing the residuals for each independent variable, showing no nonlinear patterns, ensuring the overall equation's linearity. There was no evidence of significant outliers according to the Cook's distance test, which yielded values between 0 and 0.145, all less than 1. The correlation matrix of the exogenous latent constructs was assessed (see Appendix 1). Statistically, a correlation

supported. This is in line with a study of Jitchanok [39], who found that satisfaction with organizational support impacts the turnover intention of Generation Y. When employees feel supported and are well taken care of, the turnover rate tends to decrease.

Moreover, the results demonstrate that satisfaction with organizational commitment negatively affects the turnover intention of medical representatives ($p\text{-value} < 0.05$, $\beta = -0.239$). Thus, H3 is supported. Wannarak [40] also found that lower commitment is associated with a higher turnover rate.

The results reveal that satisfaction with remuneration growth negatively affects the turnover intention of medical representatives ($p\text{-value} < 0.05$, $\beta = -0.392$). Thus, H4 is supported. Heathfield [28] also found that satisfaction with remuneration growth can reduce employees' turnover intention.

The results demonstrate that satisfaction with career goal progress negatively affects the turnover intention of medical representatives ($p\text{-value} < 0.05$, $\beta = -0.081$). Thus, H5 is supported. This is in line with a study of Karavardar [26], who found that satisfying career growth reduces employees' intention to leave.

The results show that satisfaction with promotion speed negatively affects the turnover intention of medical representatives ($p\text{-value} < 0.05$, $\beta = -0.088$). Thus, H6 is supported. Laddawan [41] also indicated that promoting career advancement for employees could retain employees in companies and reduce the turnover rate.

The results reveal that professional ability development negatively affects the turnover intention of medical representatives ($p\text{-value} < 0.05$, $\beta = -0.133$). Thus, H7 is supported. This is in line with a study by Weng and McElroy [42], who found that employees are satisfied if their current position allows them to continuously improve their skills and knowledge. When they are satisfied, their intention to leave the companies decreases.

Conclusion, Implications, Limitations, and Recommendations for Future Research

The research findings show the relatively high R-squared value (0.872) in the MRA model confirming the significant effects of all seven factors, namely, remunerational growth, organizational commitment, financial compensation, perceived organizational support, professional ability development, promotion speed, and career goal progress, on the turnover intention of MRs in multinational pharmaceutical companies in Bangkok. This research, hence, contributes to SDT by confirming that both extrinsic and intrinsic motivations lead to employee turnover intention. Intrinsic motivation involves engaging in tasks for one's inherent satisfaction and drives employees to work because they find tasks fun or challenging [10], perceive control over their tasks, feel competent in performing them, and experience a sense of belonging or relatedness while engaged in them [10; 11]. By perceiving commitment, employees

have the feeling of attachment to the organization and work in the organization because of their emotional connection to it and believe that it is the right thing to do [12; 13], as suggested earlier. They are also aware of the consequences of leaving the company, career goal progress, and professional ability development [14].

Moreover, SDT suggests that employees perceive their behavior as being directly controlled by others, through contingent rewards [16], financial compensation [18], remuneration growth [19], perception of organizational support [20], and promotion speed [14]. According to equity theory, in order to feel satisfied, workers typically compare their pay and other benefits to those of their peers [18]. If they receive fair compensation, they are satisfied and continue working for the company. They also expect a potential increase in salaries, wages, benefits, and other forms of compensation [19], as well as organizational support representing how much company management cares about their well-being and seriously deals with their complaints [20]. Furthermore, employees aim to be promoted to higher positions or ranks within a relatively short period of time and expect a company's promotion policies to be based on their achievements [14]. Consequently, employees tend to feel loyal to a company if they perceive these motivational factors.

According to the MRA model, the most influential factors are remunerational growth, followed by organizational commitment, financial compensation, perceived organizational support, professional ability development, promotion speed, and career goal progress. These findings can allow companies to prioritize and develop strategies based on the importance of these factors to retain their employees and to reduce the impact of a company's turnover rate as follows.

First, a company should prioritize satisfying career growth opportunities for medical representatives, including remuneration growth, career goal progress, promotion speed, and professional ability development. These factors are strong predictors of medical representatives' turnover intention. Furthermore, they should pay attention to career growth policies in order to attract and retain talented medical representatives that aim for career advancement.

Second, company management should ensure that medical representatives are satisfied with their compensation. They often compare their compensation with peers and other workers. Therefore, companies should ensure that their pay rates are competitive or superior to those of other companies.

Third, a company should emphasize the importance of satisfying organizational support for medical representatives; they value support from their companies, hence company management should actively seek feedback from them. When employees receive recognition and support, their turnover intentions tend to decrease.

Finally, a company should focus on enhancing medical representatives' commitment to the company. Making the company attractive to new hires and instilling a sense of pride in being part of the organization would be respectively noted. Satisfied medical representatives are more likely to recommend a company to others as a great place to work.

Although this research contributes to SDT, it focused only on medical representatives in Bangkok, so the results may not apply to those outside the city. Future studies could expand the scope to include medical representatives from other regions in order to better understand turnover intentions and motivational factors affecting them. In-depth interviews in future research may help to gain deeper insights not captured by online surveys. As the independent variables are correlated, future research may also investigate causal relationships among them. Furthermore, future research should explore other factors, such as organizational culture and social relationships among employees, that may affect turnover intention, beyond the seven factors examined in this study. Lastly, a researcher may consider conducting experimental research to obtain metric data, as this study relied on perceptual measures for turnover intention and other independent factors.

References

- [1] Krungsri Bank. (2020). *Industry outlook 2021-2023: Pharmaceuticals*. <https://www.krungsri.com/en/research/industry/industry-outlook/Chemicals/pharmaceuticals/IO/io-pharmaceuticals-21>.
- [2] Aliyu, O. A., & Nyadzayo, M. W. (2018). Reducing employee turnover intention: A customer relationship management perspective. *Journal of Strategic Marketing*, 26(3), 241-257. <https://doi.org/10.1080/0965254X.2016.1195864>
- [3] Tarallo, M. (2018). *How to reduce employee turnover through robust retention strategies*. <https://www.shrm.org/resourcesandtools/hr-topics/talent-acquisition/pages/how-to-reduce-employee-turnover-through-robust-retention-strategies.aspx>
- [4] Satardien, M., Jano, R., & Mahembe, B. (2019). The relationship between perceived organisational support, organisational commitment and turnover intention among employees in a selected organisation in the aviation industry. *SA Journal of Human Resource Management*, 17. <https://doi.org/10.4102/sajhrm.v17i0.1123>
- [5] Ohunakin, F., Adeniji, A., & Oludayo, O. (2018). Perception of frontline employees towards career growth opportunities: Implications on turnover intention. *Business: Theory and Practice*, 19(0), 278-287. <https://doi.org/10.3846/btp.2018.28>
- [6] Vizano, N. A., Sutawidjaya, A. H., & Endri, E. (2021). The effect of compensation and career on turnover intention: Evidence from Indonesia. *Journal of Asian Finance, Economics and Business*, 8, 471-478.
- [7] Hom, P. W., & Griffeth, R. W. (1991). Structural equations modeling test of a turnover theory: Cross-sectional and longitudinal analyses. *Journal of Applied Psychology*, 76(3), 350-366. <https://doi.org/10.1037/0021-9010.76.3.350>

- [8] Jansen, B. J., & Spink, A. (2007). Sponsoredsearch: Ismoney a motivator for providing relevant results?*Computer*,40(8), 52-57.<https://doi.org/10.1109/MC.2007.290>
- [9] Good, V., Hughes, D. E., Kirca, A. H., & McGrath, S. (2022). A self-determination theory-based meta-analysis on the differential effects of intrinsic and extrinsic motivation on salesperson performance.*Journal of the Academy of Marketing Science*,50(3), 586-614. <https://doi.org/10.1007/s11747-021-00827-6>
- [10] Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being.*American Psychologist*,55(1), 68-78. <https://doi.org/10.1037/0003-066X.55.1.68>
- [11] Deci, E. L., & Ryan, R. M. (1985). The general causality orientations scale: Self-determination inpersonality.*Journal of Research in Personality*,19(2), 109-134.[https://doi.org/10.1016/0092-6566\(85\)90023-6](https://doi.org/10.1016/0092-6566(85)90023-6)
- [12] Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organizational commitment.*Human Resource Management Review*,1(1), 61-89. [https://doi.org/10.1016/1053-4822\(91\)90011-Z](https://doi.org/10.1016/1053-4822(91)90011-Z)
- [13] Weng, Q., & Xi, Y. (2011). Career growth study:Scale development and validity test. *Management Review*,23(10), 132-143. <https://doi.org/10.14120/j.cnki.cn11-5057/f.2011.10.017>
- [14] Weng, Q., McElroy, J. C., Morrow, P. C., & Liu, R. (2010). The relationship between career growth and organizational commitment.*Journal of Vocational Behavior*,77(3), 391-400. <https://doi.org/10.1016/j.jvb.2010.05.003>
- [15] Good, Z., Spiegel, J. Y., Sahaf, B., Malipatlolla, M. B., Ehlinger, Z. J., Kurra, S., Desai, M. H., Reynolds, W. D., Wong Lin, A., Vandris, P., Wu, F., Prabhu, S., Hamilton, M. P., Tamaresis, J. S., Hanson, P. J., Patel, S., Feldman, S. A., Frank, M. J., Baird, J. H., . . . Mackall, C. L. (2022). Post-infusion CAR TReg cells identify patients resistant to CD19-CAR therapy. *Nature Medicine*,28(9), 1860-1871.<https://doi.org/10.1038/s41591-022-01960-7>
- [16] Deci, E., Olafsen, A., & Ryan, R. (2017). Self-determination theory in work organizations: Thestate of ascience.*Annual Review of Organizational Psychology and Organizational Behavior*,4.<https://doi.org/10.1146/annurev-orgpsych-032516-113108>
- [17] Ryan, R. M., & Deci, E. L. (2008). Self-determination theory and the role of basic psychological needs in personality and the organization of behavior. In*Handbook of personality: Theory and research, 3rd ed.*(pp. 654-678). The Guilford Press.
- [18] Griffeth, R. W., Hom, P. W., & Gaertner, S. (2000). A meta-analysis of antecedents and correlates of employee turnover: Update,moderator tests, andresearch implications for the next millennium.*Journal of Management*,26(3), 463-488. <https://doi.org/10.1177/014920630002600305>
- [19] Weng, Q. D., & Hu, B. (2009). The structure of career growth and its impact on employees' turnover intention.*Industrial Engineering and Management*,14, 14-21.
- [20] Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support.*Journal of Applied Psychology*,71(3), 500-507.<https://doi.org/10.1037/0021-9010.71.3.500>

- [21] Eisenberger, R., Armeli, S., Rexwinkel, B., Lynch, P. D., & Rhoades, L. (2001). Reciprocation of perceived organizational support. *Journal of Applied Psychology*, 86(1), 42-51. <https://doi.org/10.1037/0021-9010.86.1.42>
- [22] Paillé, P., Bourdeau, L., & Galois, I. (2010). Support, trust, satisfaction, intent to leave and citizenship at organizational level. *International Journal of Organizational Analysis*, 18(1), 41-58. <https://doi.org/10.1108/19348831011033203>
- [23] Brashear, T. G., Boles, J. S., Bellenger, D. N., & Brooks, C. M. (2003). An empirical test of trust-building processes and outcomes in sales manager-salesperson relationships. *Journal of the Academy of Marketing Science*, 31(2), 189-200. <https://doi.org/10.1177/0092070302250902>
- [24] Guzeller, C. O., & Celiker, N. (2020). Examining the relationship between organizational commitment and turnover intention via a meta-analysis. *International Journal of Culture, Tourism and Hospitality Research*, 14(1), 102-120. <https://doi.org/10.1108/IJCTHR-05-2019-0094>
- [25] Al-khrabsheh, A. A., Abo-Murad, M., & Bourini, I. (2018). Effect of organisational factors on employee turnover intention: An empirical study of academic professionals at Jordanian government universities. *International Journal of Human Resource Studies* 8(2), 164-177.
- [26] Karavardar, G. (2014). Organizational career growth and turnover intention: An application in audit firms in Turkey. *International Business Research*, 7(9). <https://doi.org/10.5539/ibr.v7n9p67>
- [27] Nouri, H., & Parker, R. (2013). Career growth opportunities and employee turnover intentions in public accounting firms. *The British Accounting Review*, 45, 138-148. <https://doi.org/10.1016/j.bar.2013.03.002>
- [28] Heathfield, S. M. (2017). *Top 10 reasons why employees quit their jobs*. <https://www.liveabout.com/top-reasons-why-employees-quit-their-job-1918985>
- [29] Omonijo, D. O., Anyaegbunam, M., Oludayo, O., & Nnedum, O. (2015). A study of the socio-economic status of work-study students, Covenant University, Ota. *European Journal of Scientific Research*, 130, 376-388.
- [30] Mapelu, I., & Jumah, L. (2013). Effect of training and development on employee turnover in selected medium sized hotels in Kisumu City, Kenya. *Journal of Tourism, Hospitality and Sports*, 1, 43-48.
- [31] Nawaz, M., & Pangil, F. (2016). The relationship between human resource development factors, career growth and turnover intention: The mediating role of organizational commitment. *Management Science Letters*, 6, 157-176. <https://doi.org/10.5267/j.msl.2015.12.006>
- [32] Biswakarma, G. (2016). Organizational career growth and employees' turnover intentions: An empirical evidence from Nepalese private commercial banks. *International Academic Journal of Organizational Behavior and Human Resource Management*, 3(2), 10-26.

- [33] Chen, J.-Q., Hou, Z.-J., Li, X., Lovelace, K. J., Liu, Y.-L., & Wang, Z.-L. (2016). The role of career growth in Chinese new employee's turnover process. *Journal of Career Development*, 43(1), 11-25. <https://doi.org/10.1177/0894845315571412>
- [34] Rovinelli, R. J., & Hambleton, R. K. (1976). On the use of content specialists in the assessment of criterion-referenced test item validity. *Tijdschrift voor Onderwijsresearch*, 2(2), 49-60.
- [35] Hair, J., Black, W., Babin, B., Anderson, R., & Tatham, R. L. (2006). *Multivariate data analysis*. Pearson Prentice Hall.
- [36] Nunnally, J. (1978). *Psychometric theory* (2d ed.). McGraw-Hill.
- [37] Kendall, M., & Stuart, A. (1969). *The Advanced theory of statistics*. McGraw-Hill Press.
- [38] Pallant, J. (2007). *SPSS survival manual: A step by step guide to data analysis using SPSS for Windows* (3 ed.). Open University Press.
- [39] Jitchanok, A. (2018). *A study of factors affecting organization engagement of employee in generation Y* [Independent study of the College Management, Mahidol University]. (In Thai)
- [40] Wannarak, P. (2019). Factors affecting the organizational commitment among pharmaceutical representatives. *Journal of Thai Pharmacist*, 1(2), 118-133. (In Thai)
- [41] Laddawan, S. (2018). Promoting career advancement and career stability for the caregiver. *Journal of Humanities and Social Sciences, Thonburi University*, 12(29), 119-134. (In Thai)
- [42] Weng, Q., & McElroy, J. C. (2012). Organizational career growth, affective occupational commitment and turnover intentions. *Journal of Vocational Behavior*, 80(2), 256-265. <https://doi.org/https://doi.org/10.1016/j.jvb.2012.01.014>

Appendix 1 The correlation matrix of the exogenous latent constructs

	FI	POS	OC	RG	CGP	PS	PAD
Financial compensation (FI)	1	-.736**	.814**	.829**	.693**	.561**	.641**
Perception of organizational support (POS)	-.736**	1	-.648**	-.814**	-.570**	-.533**	-.532**
Organizational commitment (OC)	.814**	-.648**	1	.820**	.721**	.530**	.695**
Remuneration growth (RG)	.829**	-.814**	.820**	1	.688**	.566**	.669**
Career goal progress (CGP)	.693**	-.570**	.721**	.688**	1	.353**	.538**
Promotion speed (PS)	.561**	-.533**	.530**	.566**	.353**	1	.338**
Professional ability development (PAD)	.641**	-.532**	.695**	.669**	.538**	.338**	1

** . Correlation is significant at the 0.01 level (2-tailed).