HUMAN CAPITAL DEVELOPMENT TO SELF-DIRECTED BEHAVIOR FOR THAILAND'S ATHLETE HEALTH INDUSTRY: ROLE OF PHARMACISTS IN ATHLETE HEALTH

Dr. NUSAREE SIRIPATH

Western University and Skuidee Medical Clinic. Email: Nusaree.cphs@gmail.com

Abstract

Autonomous work environment AWE can enhance the performance of employees and other staff of the firm because it refers to the level of freedom that employees have at the workplace. However, the main objective of this research paper is to analyze the self-directed behavior of pharmacists of Thailand's Athlete health Industry through the use of an autonomous work environment. Another main aim of the study is to evaluate the relationship between pharmacist perception of AWE and self-directed behavior SDB in large pharmaceutical firms. The mediating role of social and psychological capital has also been identified in the following study to analyze and improve the self-directed behavior of pharmacists. The given research used a self-administered questionnaire and the data was collected from about 438 pharmacists of top pharmaceutical firms of Thailand. Descriptive analysis, KMO, Bartlett's test, and rotated component matrix techniques were used by this study to calculate data. The outcomes from SEM calculation revealed that AWE can produce a direct significant effect on the self-directed behavior of pharmacists. Furthermore, the results of this research paper also suggest that social capital positively mediates the relationship between AWE and SDB of pharmacists. The positive results of the study contribute to future studies and researches of AWE.

Keywords: Autonomous work environment, Self-directed behavior, Psychological capital, Social capital, Thailand

INTRODUCTION

Self-directed behavior is considered as an important factor in facilitating organizational performance and achieving goals (Lejeune, Mercuri, Beausaert, & Raemdonck, 2016; Tio, Stegmann, Koerts, van Os, & Cohen-Schotanus, 2016). Self-directed behavior of employees indicates the desirable outcomes through employee's attitude towards work with any control and constraint on employee's decision.It is considered as analogous to self-leadership or leadership qualities. The change in business environment and nature of work have further stressed the importance of self-directed behavior of firm. The deployment on ICT in businesses has increased the online operations, in which profound monitoring of employs are not possible. Therefore, the work autonomy will engender self-direct behavior among workers and employees. The aim of this study is to empirically explore the impact of autonomous work environments is promoting self-directed leadership among pharmacists in Thailand, through the mediating channel of psychological and social capital. Building upon the self-management theory, Choi (2020) have also supported the mediating impact of psychological capital in strengthening the relationship between autonomous work environment and self-directed behavior.

In the wake of global financial crisis, the researchers have emphasized on the importance of trust and social capital in promoting the business performance (Lins, Servaes, & Tamayo, 2017). The pharmaceutical industry growth, due to its integral role in promoting the health performance (Collin, 2016), reinforced through the self-directed behavior of pharmacists through disseminating social capital. The industry is based on 4.6 billion USD, according to the stats of 2016. It is projected to grow further by 8.4 billion by 2026 (see figure 1)

Figure 1: Market size of Thailand Pharmacutical industry
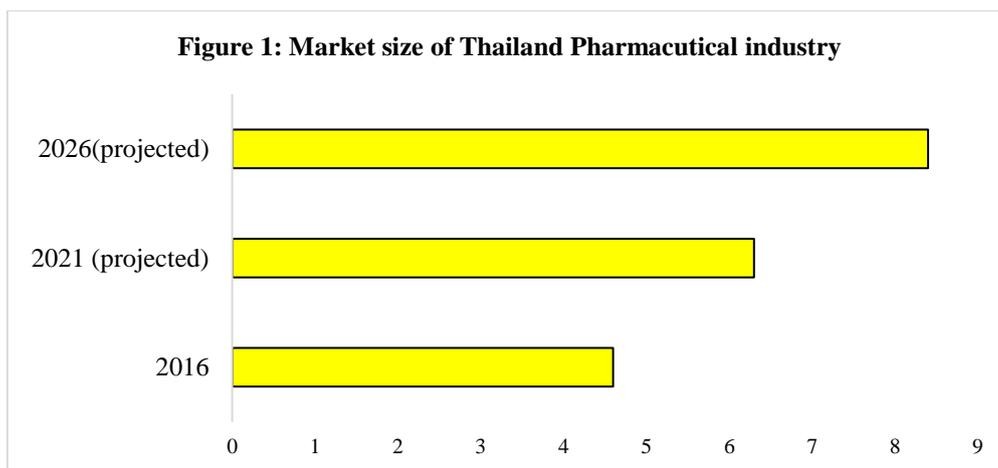
The research has employed the responses of pharmacist in leading pharmaceutical in Thailand's such as Pfizer, Novartis, and GSK which constitute about 18.1 percent, 14.2 percent, and 11.2 percent, share in revenue respectively. The study adds into the literature by empirically explaining self-directed behavior of pharmacist in Thailand through autonomous work environment in pharmaceuticals. Moreover, the study fills gap in literature by investigating the mediating role of psychological and social capital in reinforcing the relationship of autonomous work environment and self-directed behaviors of pharmacist in Thailand.

Table 1: Leading Pharms Share in Revenue in percentage	
Companies in Thailand	Share in revenue
Pfizer	18.1
Novartis	14.2
GSK	11.1
Sanofi-Aventis	9.9
Roche	9.8
Better pharma	8.6
Mega lifescience	6.5
Berlin Pharma	5.9
Merck limited	5.7
Takeda	5.1
Astrazeneca	5

The objectives of the study are :

- To empirically explore the impact of Autonomous Work Environment on Self-directed behavior of pharmacist in Thailand.

- To empirically explore the mediating impact of psychological capital on relationship between Autonomous Work Environment and Self-directed behavior of pharmacist in Thailand.

- To empirically explore the mediating impact of social capital on relationship between Autonomous Work Environment and Self-directed behavior of pharmacist in Thailand.

The importance of self-directed behavior or self-leadership in organizational performance is supported by various studies (Choi, 2020; Lee, 2018) According to existing literature, autonomous work environment promote the job satisfaction and collaboration among employees, which in turn will inculcate self-directedness among employees. The past studies on self-directed behavior holds significant theoretical and practical implications, and also offer insights to future research on same area due to robust conceptual framework.

This study also aims to contribute in in same lines by proposing constructive practical implications for policy making. The manuscript based on five sections including introduction, literature review and conceptual framework, methodology, results, and discussion and conclusion.

LITERATURE REVIEW

Theoretical and conceptual framework

The self-directed behavior of employees are defined how employees manage their performance and operational work in order to achieve high degree of performance in firm (Stewart, Carson, & Cardy, 1996; Zhang, Hirschi, Herrmann, Wei, & Zhang, 2015). This is also considered as bottom-up approach which proposed the role of employee and sub-ordinates in managing the business performance through their work aptitudes and decision. Moreover, various studies have conducted to view its implication at individual and team level (Stewart, Courtright, & Manz, 2011).

Drawing upon the self-directed learning theories the study intent to explore the impact of autonomous work environment on self-directed behavior of employees. Self-directed theories is an offshoots of self-management theory which was proposed in early eighties ((Manz & Sims Jr, 1980). According to self-management theory the self-directed behaviors of firm is a good substitute of leadership. Self-directed behavior of employee, which is analogous to self-leadership has captured the attention of researcher due to its positive outcomes on personal productivity, organizational performance, career success, employees' efficacy and job satisfaction.

Autonomous Work Environment and Self-directed behavior

The autonomous work environment offer employees certain level of freedom in performing their duties and taking independent decision. The autonomy or freedom at work place are viewed at different ways in literature of business environment. For instance it is referred to the employee's freedom over their work schedule, and flexibilities regarding their work activities and performance particularly (Griffiths, 2003; Oh, 2012). Existing literature of autonomous work environment not unambiguously support it implication of business performance. However few studies indicates the emergence of leadership in autonomous work environment (Oh, 2012). Autonomous work environment has been viewed as antecedent of self-directed attitude of employees. The autonomy support in organization enhances the satisfaction of employees (Gagne, 2003). Besides, Bureau et al. (2018) also proposed that autonomous organizational environment have profound impact on the employee attitude towards work. The study based on empirical evidence indicates that autonomy at work enhance the motivation level of employee to contribute in organization, which consequently decreases the incident of employee deviance. Thus in the light of extant literature of Autonomous Work Environment and Self-directed behavior following hypothesis is proposed:

> H1: Autonomous Work Environment has significant impact on Self-directed behavior of pharmacists in Thailand.

Mediating Role of Psychological capital

Positive Psychological capital also plays key role in efficiency of employee at work place. According to literature, the psychological capital is based on four pillars such as resilience, efficacy, hope and optimism. The psychological capital is considered key factors in enhancing the satisfaction and performance of workers. Sharon (2018) in their study on education sector, highlights the importance of psychological capital and learning autonomy in achieving personal effectiveness. Literature on psychological capital in context of business performance and workers' efficiency supported its linkages with self-directedness of employees, which in turn render positive outcomes for organization. Lee (2018) proposed that psychological capital reinforces the lifelong participation, through the mediating channel of self-directedness. Thus lifelong participation of adults leaners highly depend in the extent of self-directedness, which is promoted through high level psychological capital.

Moreover, Choi (2020) emprically investigated the mediating role of psychological capital in reinforcing the impact of autonomous work environment on self-directed behavior of employees in south Korea. For empirical analysis, the study conducted a survey of six automotive manufacturers in south Korea and collected the responses of 331 respondents.

The empirical results of study also support the mediating role of psychological capital on relationship between Autonomous Work Environment and Self-directed behavior of pharmacists. Thus, based on aforementioned study the following hypothesis is drawn:

> H2: Psychological capital has significant mediating impact on Autonomous Work Environment and Self-directed behavior of pharmacists in Thailand.

Mediating role of Social Capital

Various study has emphasized on importance of social capital in achieving high level business performance. Social capital is referred to the effective working of social groups in business through trust, interpersonal relationship, shared norms, cooperation, and shared values (Lins et al., 2017; Phua, Jin, & Kim, 2017; Serageldin & Grootaert, 2017).

Kaufman and Burbaugh (2017) proposed that social capital is an antecedent of leadership development. The study empirically investigated that how social networking, trust, and social capital influence the leadership development. Based on empirical findings the study infer that social networking is antecedent of social capital, which in turn through skill building enhance the leadership development. Walumbwa and Christensen (2016) proposed that how the social capital is workplace reinforce the individual behavior to support its organization. The relationship of trust, cooperation, and knowledge sharing among employees promotes self-direct behavior and self-leadership among employees and workers. Therefore, the following hypothesis is constructed:

> H3: H2: Social capital has significant mediating impact on Autonomous Work Environment and Self-directed behavior of pharmacists in Thailand.

Theoretical framework
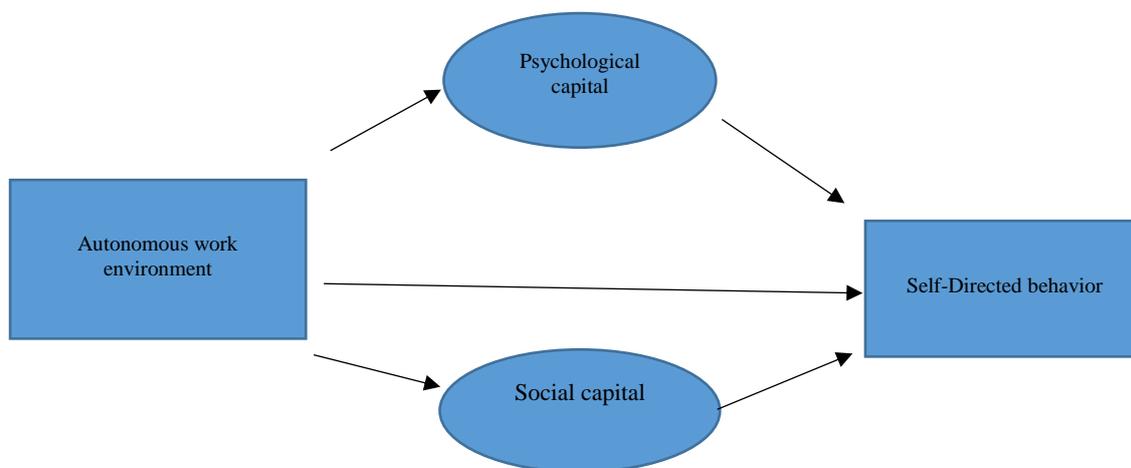
METHODS

Sample Characteristics

A questionnaire based survey design was implemented for this study. The method of convenience sampling was employed to contact the senior managers of the pharmaceutical companies of Thailand. The responses were generated via a self-administered pencil and paper questionnaire. The researcher implied the method of item response theory following the criteria of ten response against each item i.e. 30*10=300, however the total number of distributed questionnaires was 450. 12 of these weren't received back, the rest of the questionnaires were checked for missing values and forwarded for analysis.

Measures

The constructs were developed after significant literature review was conducted. The scales that have been included have been verified by a number of studies. All of the scale items had significant reliability and validity scores in previous studies. The validity and relevance of the scale items were ensured by pretesting the questionnaire on managers and academicians and then were made according to their feedbacks. According to the directions of Campbell, Brislin, Stewart, and Werner (1970) the questionnaire was first formulated in English and then translated into Thai using the forward and back translation method. Three linguists and academicians who are fluent in both Thai and English were consulted for the translation. All of the scale items have been measured at a five point Likert scale, ranging from "1=strongly disagree" to "5=strongly agree".

Autonomous Work Environment

Autonomy at the workplace or autonomous work environment was measured by utilizing the work climate questionnaire developed by Baard, Deci, and Ryan (2004). The scale consists of 15 items that assess the degree of autonomy present at a workplace from the perception of an employee. The scale was adjusted and adapted according to the requirements of the study. A sample item includes "I feel my supervisor provides me with choices and options about my work".

Psychological Capital

Psychological capital was measured by using the shortened version of the original 24-item scale developed by Luthans, Youssef, and Avolio (2007). The shortened version consists of 12 items, three items measure the effect of efficacy and resilience, two measure optimism and four measure hope.

The scale was adjusted and adapted according to the requirements of the study. Sample items include "I felt confident in representing my project area in meetings with management", "If I should find myself in a jam at work, I could think of many ways to get out of it" "I always looked on the bright side of things regarding my job" and "I could get through difficult times at the project because I've experienced difficulties before".

Social Capital

Social capital's scale was adapted from the study of Aguilera (2002). He divided social capital into three dimensions to correctly measure the construct; network structure, network quality and network diversity. The scale was adjusted and adapted according to the requirements of the study

Self-directed Behavior

Self-directed behavior was measured by using a four item scale developed by Stewart et al. (1996). The scale was adjusted and adapted according to the requirements of the study .A sample item includes "going against established policies and procedures if he or she thinks it would result in meeting broader organizational goals".

RESULTS

Demographics

A sample of 438 respondents was finalized to be used for the analysis. A total of 55.3 percent of the respondents were male and 44.7 percent were female. Gender equality in employment initiatives are still being developed in Thailand thus the slight difference is observed. The ages of 74.5 percent respondents were up to 35. And the working experience of 74.7 percent of the respondents was in between 2 and 8 years. The managers, supervisors and assistant managers were the constituents of the sample therefore the age and experience statistics are high.

Descriptive Analysis

The mean values are approaching 4 demonstrating the agreement of respondents with the statements of the variables. The skewness values also fall within the range of -1+1, demonstrating the normality of the data. Outliers were also not observed in the responses, as the minimum and maximum values were similar to those of the utilized scale, a five point Likert scale.

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
AutWorkEn	438	1.00	5.00	3.1884	1.05426	-.163	.117
PsychCap	438	1.00	5.00	3.2631	.98601	-.313	.117
SocialCap	438	1.00	5.00	3.5208	1.15591	-.547	.117
SeDirBeh	438	1.00	5.00	3.1537	1.18406	-.216	.117
Valid N (listwise)	438						

Table 1: Descriptive Statistics

KMO and Bartlett's

The KMO value is greater than 0.6 and appears to be approaching 1, indicating the adequacy of the sample. The Bartlett's sphericity is also significant which points towards the non-relevance of construct items.

Table 2: KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.922
Bartlett's Test of Sphericity	Approx. Chi-Square	8394.641
	df	153
	Sig.	.000

Factor Loading

As table 3 demonstrates, all items are significant, as the loadings are greater than 0.7 (Hassan, Hameed, Basheer, & Ali, 2020; Iqbal & Hameed, 2020) and contribute in the overall variance of the construct. The problem of cross-loading hasn't been observed as well.

Table 3: Rotated Component Matrix[a]				
	Component			
	1	2	3	4
AW1				.813
AW2				.884
AW3				.851
PC1		.772		
PC2		.797		
PC3		.803		
PC4		.847		
SC1	.852			
SC2	.860			
SC3	.828			
SC4	.903			
SC5	.919			
SC6	.907			
SC7	.913			
SC8	.889			
SD1			.880	
SD2			.899	
SD3			.896	

Convergent and Discriminant Validity

The MSV values are less than the AVE values and the self-correlation coefficients are greater than those between the variables, therefore we can empirically justify the presence of discriminant validity of the construct. The CR is greater than 0.7 and AVE is more than 0.5, thus the construct contributes in variance and is also internally consistent. Therefore convergent validity is also present.

Table 4: Convergent and Discriminant Validity

|	CR	AVE	MSV	MaxR(H)	AW	SC	SD	PC
AW	0.897	0.744	0.350	0.899	0.863			
SC	0.925	0.832	0.220	0.984	0.425	0.912		
SD	0.925	0.803	0.216	0.986	0.313	0.465	0.896	
PC	0.879	0.647	0.350	0.988	0.592	0.469	0.323	0.804

Model Fitness

CFA test was performed on the construct items in order to check the fitness of the hypothesized model. The CMIN value is under 3, IFI and CFI are greater than 0.9, GFI is greater than 0.8 and RMSEA is less than 0.08. All factors are in accordance with the threshold ranges, thus the model is proclaimed to be fit.

<div align="center">**Table 5: Confirmatory Factors Analysis**</div>

| Indicators	Threshold range	Current values
CMIN/DF	Less or equal 3	2.888
GFI	Equal or greater .80	.913
CFI	Equal or greater .90	.971
IFI	Equal or greater .90	.971
RMSEA	Less or equal .08	.066

<div align="center">**Figure 1: CFA**</div>
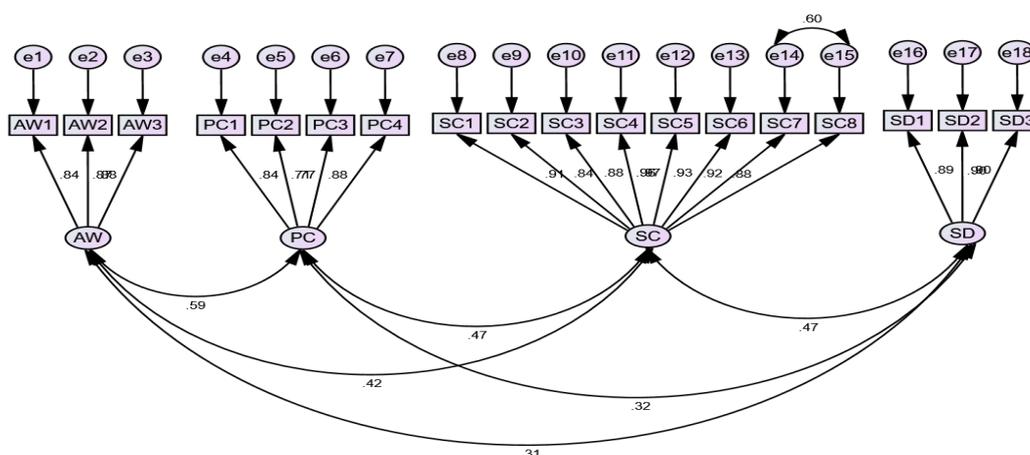
SEM

A unit increase in autonomous work environment produces a direct positive effect of 12.5 percent in self-directed behavior. Meaning that 12.5 percent of the variation in SeDirBeh is due to AutWorkEn. The relationship is sisgnificant and the hypothesis is accepted. The mediation of social capital produces an effect of 32 percent and psychological capital produces an effect of 19.6 percent. The relationships are significant and therefore the hypotheses are accepted.

<div align="center">**Table 6: Structural Equation Modeling**</div>

Total Effect	AutWorkEn	SocialCap	PsychCap
SocialCap	.443***	.000	.000
PsychCap	.529***	.000	.000
SeDirBeh	.371***	.320***	.196**
Direct Effect	**AutWorkEn**	**SocialCap**	**PsychCap**
SocialCap	.443***	.000	.000
PsychCap	.529***	.000	.000
SeDirBeh	.125*	.320***	.196**
Indirect Effect	**AutWorkEn**	**SocialCap**	**PsychCap**
SocialCap	.000	.000	.000
PsychCap	.000	.000	.000
SeDirBeh	.246**	.000	.000

Figure 2: SEM
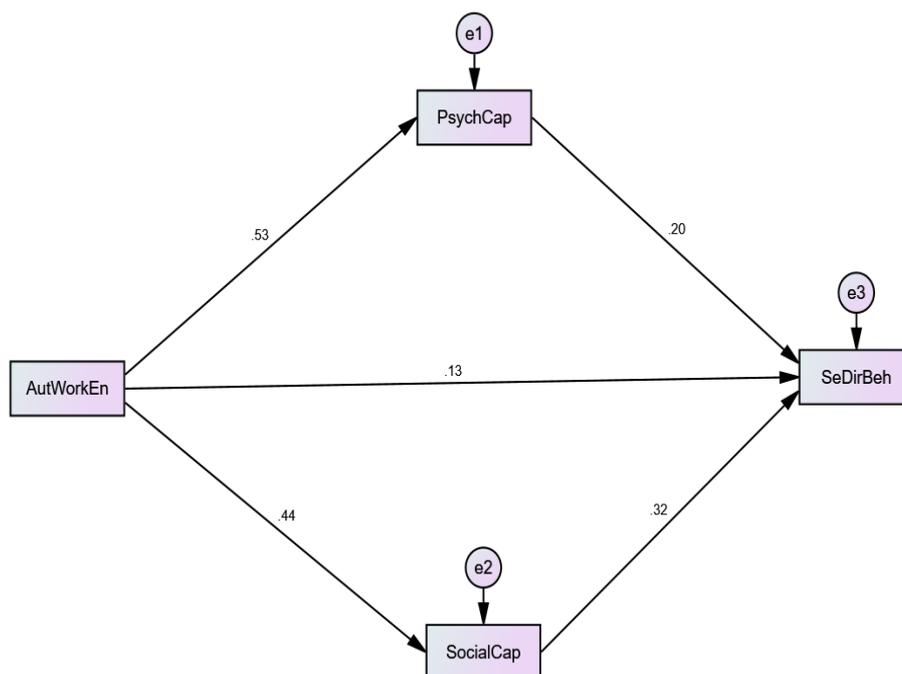
DISCUSSION

Karjalainen (2019) Demonstrate that generating self-directed behavior in employees through the use of the autonomous working environment is often considered as a significant factor for attaining effective and sustainable organizational success in any business. The initial results of the study indicate that positive autonomous working environment AWE produces a positive effect on the self-directed behaviors of pharmacists because ineffective AWE pharmacists feel more valued and motivated which directly influences the self-directed behavior of pharmacists (Rouse, Trewet, & Janke, 2018). So, the first hypothesis of the study has been accepted and supported.

Furthermore, the outcomes of the research paper also indicate that the mediating variables of social as well as psychological capital also has a positive impact on the relationship between AWE and self-directed behavior because a study by Batistic and Tymon (2017) demonstrate that social capital develops effective and stronger individual as well as teams and it also establishes a pharmacist as a leader which positively impacts the self-directed behavior of a person.

CONCLUSION

The major purpose of this research study is to evaluate and identify the impact of an autonomous working environment on the self-directed behavior of pharmacists and employees of the firm. Another main purpose of the study is to analyze the mediating impact of psychological capital as well as social capital on the self-directed behavior of pharmacists in the working environment of Thailand. The given study also investigates the important relationship between pharmacist's perception of autonomous working conditions and self-directed behavior in some large Thailand's Athlete health Industry. For this intention, most of the data of the study were collected from about 438 pharmacists of Thailand, in which 196 were female and 242 were male.

Implications and Limitations

The findings of the given study can help many organizations and institutions to encourage workers' self-directed behavior, through the use of psychological capital as well as social capital. The results of the given research also help pharmacists of Thailand to understand the relationship between autonomous working conditions and self-directed behavior. The given research also has a great scope in the pharmaceutical sector of any country for understanding the importance of social and psychological capital.

The following study may have restrictions and limitations that mainly affect the robustness of the results, such as the cross-sectional nature and design of the study may affect the validity of the research, hence, it is recommended to future studies that they incorporate a study that is longitudinal and can support the validity of the study. It is also proposed to future analysts that they should focus on considering other types of independent variables.

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