

Psychological Need Satisfaction and Employee Outcomes: A Self-Determination Theory Perspective

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Abstract

Purpose: The purpose of this paper is to examine the impact of psychological need satisfaction on the employee outcomes (in-role performance and organizational citizenship behaviour) according to SDT Theory.

Design/methodology/approach: This study employed a convenience sample. Personally administered questionnaires received through multi-source ratings from 295 academicians and their supervisors, which represents 53% response rate. Exploratory factor analysis was conducted, followed by confirmatory factor analysis. Structural equation model was the implemented to test the relationships among all variables.

Findings: The results showed positive relationship between PNS and in-role performance and positive relationship between P-O fit and OCB.

Research limitations/implications: This study employed the cross-sectional design instead of longitudinal design. The cross-sectional data limits the extent to which causality can be inferred from the results, which further restricts the acquisition of on the accurate directions of the relationships between the variables of the study.

Practical implications: The findings of this research may provide motivation in the interest of the management, including some useful suggestions for organizations or managers that wish to increase positive workplace effects. The current study reveals that employee attitudes and performance will improve when their psychological need satisfaction are addressed.

Originality/value: The study addresses the relationships between PNS and employee outcomes (in-role performance and OCB).

Keywords: Self-Determination Theory, Psychological Need Satisfaction, In-role Performance, OCB

Introduction

Education is a sector that prioritizes the needs of individuals. The appeal of the concept of needs has been so appealing is that it has heuristic utility for identifying environmental dimensions that are anticipated to result in positive or negative work-related outcomes. Positive outcomes, whereas those likely to thwart need satisfaction are predicted to yield negative outcomes (Slemp et al., 2024). The level of education significantly influences an individual's worldview, especially their expectations for business and future aspirations. Consequently, it is noted that when employees' educational levels increase, their perspectives on corporate life, along with the importance and expectations associated with their position, also elevate.

In recent years, Malaysian universities have encountered escalating pressures to enhance academic productivity, research output, and global rankings, frequently resulting in increased job demands among academics and administrative personnel.

Universities rely on their academics as their primary asset. Academics, the principal beneficiaries of education, enhance their institutions by utilizing their expertise, skills, and dispositions. The nature of work is changing, and with it the relationships between employers and employees. Ermiş et al., (2021) highlight that the performance criteria of university academics, such as the quantity and calibre of their academic publications, have a direct impact on the global educational standing of their respective universities.

Empirical studies grounded in Self-Determination Theory (SDT) have demonstrated robust links between psychological need satisfaction and a range of employee outcomes, including job satisfaction, organizational commitment, work engagement, prosocial behaviours, and performance (Van den Broeck, A. et al., 2016). However, despite the growing body of literature, there remains a need to further clarify the nuanced relationships between need satisfaction and employee outcomes across diverse organizational contexts and cultures. Moreover, understanding how organizational practices can either facilitate or thwart these basic needs offers valuable insight for designing more supportive and empowering work environments.

Accordingly, this paper explores the relationship between psychological need satisfaction and employee outcomes within the context of higher education institutions in Malaysia, drawing on Self-Determination Theory (SDT) as its primary theoretical lens. The paper argues that when the work environment supports this psychological need, employees in higher education are more likely to demonstrate greater work engagement, job satisfaction, and organizational commitment, while also reducing burnout and turnover intentions. By examining empirical evidence and contextualising it within the Malaysian higher education landscape, this study highlights the need for more autonomy-supportive leadership, meaningful performance feedback, and collegial work culture within universities. The findings aim to inform policy and human resource strategies to foster healthier, more motivated, and productive academic communities in Malaysia.

Psychological Need Satisfaction and Employee Outcomes (In-role Performance and OCB)

According to SDT, individuals who satisfy their needs for competence will be intrinsically motivated, thus leading to optimal performance (Deci & Ryan, 2012). Gagne and Deci (2005) further argued that the outcome from the satisfaction of the three basic psychological needs will enhance employees' intrinsic motivation which will further predict the outcomes of effective performance and organizational citizenship behaviours. Meanwhile, Kusik, D. et al., (2024) asserted that when subordinates learn to perceive their manager as more autonomy-supportive, greater job satisfaction and better psychological well-being can be achieved. This study is convinced that the positive outcomes from employee's feelings seem to project greater satisfaction of their intrinsic needs. In addition, Deci et al. (2001) assessed the three PNS (autonomy, competence, and relatedness) and managed to find direct positive relations between the degree of need satisfaction and work engagement as well as the well-being of the job.

In a study conducted on full-time employees in Singapore, Greguras and Diefendorff (2009) found that competence need satisfaction is positively related to job performance. Similarly,

Baard et al. (2004) also observed the relations between these needs and employees' performance evaluations. Individuals with greater need satisfaction on the job tend to be rated by their managers as performing better. Moreover, relatedness need satisfaction is highly related to performance evaluation ratings. In summary, PNS has been observed to be positively related to job performance, either partially or fully. The aforementioned rationale leads to the hypotheses listed below:

Hypothesis 1: PNS is positively related to In-role Performance.

Hypothesis 2: PNS is positively related to OCB.

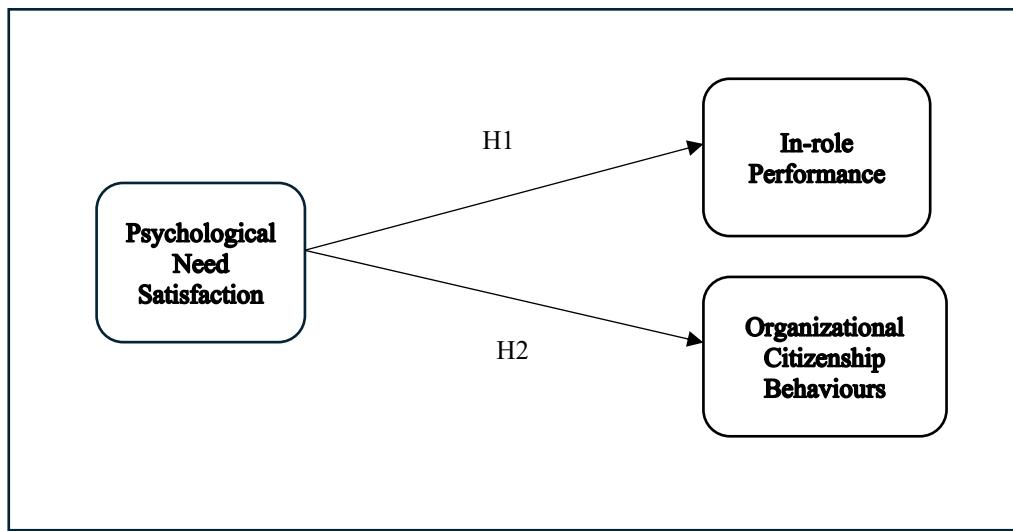


Figure 1: The Research Model

Method

This study employed a convenience sample and the Structural Equation Modelling with Partial Least Squares (PLS-SEM) version 3.0 was utilized to analyse a complete survey dataset in the study. The data was collected by personally administered questionnaires, received through multi-source ratings from 295 academicians and their supervisors, which represents 53% response rate. Meanwhile, a total of 295 completed questionnaires were paired after each questionnaire was matched up with their immediate supervisor's. The respondents include academics from two types of institution within Kuala Lumpur and Selangor: public universities ($N = 229$) and private universities ($N = 66$). The paper employed carefully selected measurement tools, sourced from reputable academic sources, to guarantee the dependability and applicability within the study's specific framework.

In this study, The PNS scale was measured by the Basic Need Satisfaction (Deci et al., 2001) measurement which consists of 21 items was applied in order to assess the extent to which employees experience satisfaction of their three intrinsic needs, namely autonomy, competence, and relatedness. There are 7 items for self-determination, 6 items for competency, and 8 items for relatedness. A descriptive analysis for PNS is presented in Table 1 below. According to the results, the respondents slightly agree with the need for autonomy (PNS_{autonomy}: mean = 4.69, SD 0.67) as well as the need for competency (PNS_{competency}: mean = 5.13, SD = 0.78). They also agree to the need for relatedness, (PNS_{relatedness}: mean = 5.28, SD = 0.90.)

Table 1: Descriptive analysis for PNS (PNS)

	N	Minimum	Maximum	Mean	Std. Deviation
PNS_autonomy	295	2.71	6.71	4.69	0.67
PNS_competency	295	1.83	7.00	5.13	0.78
PNS_relatedness	295	1.75	7.00	5.28	0.90
Valid N (listwise)	295				

On average, the needs of autonomy, competency, and relatedness were indicated to be important for the respondents. The mean for autonomy need satisfaction above 4 which show that most of the respondents agreed on its importance. The results for need for competency and relatedness indicate that the respondents have an interest in their well-being. All the items measuring PNS have standard deviations of less than 1. This indicates that there is a small amount of variation in the respondents' answers to these questions.

In-role Performance refers to 'behaviours that are recognized by the formal reward systems and are part of the requirements as described in job descriptions'. The measures revised by Williams and Anderson (1991) are adopted in the current study. Their study on full time employees in various organizations in the United States showed that the scales were useful and applicable to various related occupations as well. The Cronbach's alpha was .91 for the study.

The present study adapted the 7-items of in-role performance scales of Williams and Anderson (1991). The supervisors were asked to provide their evaluation on their subordinates' in-role performance. The subject of each questions from 'I' were changed to 'He or She' to represent the employees who have been rated in the survey. This measure is intended to reflect how well a person performs the activities required based on his or her job description. The reliability coefficient on this measures was .82.

Employees in various industries and organizations have been sampled using the measures of OCB-I and OCB-O. The study reported Cronbach's alphas of .87 and .81 for self-rated and .79 and .68 for supervisor's rating (Brummel & Parker, 2015).

Organizational Citizenship Behaviour refers to 'an employee behaviour that is voluntarily based, not directly rewarded or not rewarded by the formal reward system'. The 14 items of the OCB-O (directed towards the whole organization) and OCB-I (directed at other individuals) scale developed by Williams and Anderson (1991) were used. The researcher used supervisory ratings to test the scales. The Cronbach's alphas were .73 and .68 for OCB-I and OCB-O respectively. As examined by Ng and Feldman (2011) in their meta-analysis study, 88% of the studies used supervisory ratings of OCB, 11% used peer ratings and 1% represented the objective measures. The average scale reliability was .87 across all the studies mentioned.

The 14 items adapted from Williams and Anderson (1991) were measured on a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree).

Table 2: Measuring Instruments

No.	Variable	No. of Items	Adapted
1	Psychological Need Satisfaction	21	Deci et al., (2001)
2	In-role Performance	7	Williams and Anderson (1991)
3	Organizational Citizenship Behaviours	14	Williams and Anderson (1991)

Findings

Profile of Demographics

The research analysis concerns the demographic characteristics of the respondents, which include gender, age, race, marital status, educational level, type of organization, current position, job status, monthly income and length of service in higher learning institutions in Malaysia. A total of 295 valid responses were considered in the analysis. The results of the demographics revealed the majority of study responses were female (70.8%), but male represented about 30%. The results of the sample age groups showed the majority of them aged between 31 and 40 years old represented about 58%, followed by those aged between 20 and 30 years old (27.5%). Meanwhile, the results of the educational level of the participants revealed that the majority of them were Masters holders, 47.8% (141). On the other hand, the results of years of service in these universities showed that most of the participants had service years below 10 years (258 responses) (87.4%), which indicated diversity in the demographic characteristics of the sample involved in this study and would reflect on their perceptions about the study variables (see table 2).

Table 3: Overall Demographic

Demographic Variable	Category	Sample: (n = 295)		
		Frequency	Percentage (%)	Total
Gender	Male	86	29.2%	86
	Female	209	70.8%	295
Age	20 - 30	81	27.5%	81
	31 - 40	171	58%	252
	41 - 50	37	12.5%	289
	51 - 60	4	1.4%	293
	More than 60	2	0.7%	295
Race	Malay	258	87.5%	258
	Indian	12	4.1%	270
	Chinese	14	4.7%	284
	Other	11	3.7%	295
Marital Status	Single	57	19.3%	57
	Married	232	78.6%	289
	Divorced/ Separated	6	2.0%	295
	Widowed	0	0%	295
Highest Level of Education	Bachelor	49	16.6%	49
	Masters	141	47.8%	190
	PhD	89	30.2%	279
	Other	16	5.4%	295
Type of Organization	Public University	229	77.6%	229
	Private University	66	22.4%	295
Current Position	Tutor	26	8.8%	26
	Lecturer	168	56.9%	194
	Senior Lecturer	85	28.8%	279
	Associate Professor	7	2.4%	286
	Other	9	3.1%	295

Extra Position	Yes	70	23.73%	70
	No	225	76.27%	295
Job Status	Permanent	249	84.4%	249
	Contract	22	7.5%	271
	Temporary	23	7.8%	294
	Other	1	0.3%	295
Monthly Income	Under RM3000	23	7.8%	23
	RM3001-RM5000	137	46.4%	160
	RM5001-RM8000	117	39.7%	277
	Above RM8001	18	6.1%	295
Length of service in current institution	Under 5 years	129	43.7%	129
	5 to 10 years	129	43.7%	258
	11 to 15 years	32	10.8%	290
	More than 15 years	5	1.7%	295

Measurement Model of Analysis

The observable indicators of a construct were expected to exhibit strong relationship during the analysis of convergent validity. In this analysis, the evaluation of loading factors and the Average Variance Extracted (AVE) metric was performed. The AVE value of each variable exceeded the threshold of 0.5 as convinced by Hair et al. (2010) an AVE of 0.5 or more indicates adequate convergent validity. This indicated that the implemented variables or constructs were considered valid and appropriate. Further, the analysis of indicator reliability was conducted using the values of composite reliability and strengthened with the values of Cronbach Alpha. The acceptable, favourable, and recommended results for the composite reliability should be at least 0.70, but Hair et al., (2010) indicated that values of composite reliability between 0.60 and 0.70 can be acceptable.

Table 4: Measurement Model Results

First Order Constructs	Loadings	CR	AVE	Convergent Validity (AVE > 0.5)
Psychological Need Satisfaction	0.658	0.890	0.505	Yes
	0.664			
	0.688			
	0.775			
	0.768			
	0.731			
	0.677			
In-role Performance	0.714	0.959	0.887	Yes
	0.953			
	0.961			
OCB (OCB)	0.911	0.856	0.666	Yes
	0.840			
	0.849			
	0.755			

The study investigated the possibility of positive relationships between P-O Fit and in-role performance, as well as OCB. According to the results, the relationship is demonstrated to be positive, but with no significant paths from P-O Fit to in role performance ($\beta = 0.005$, $p < 0.928$). The relationship negatively insignificant to OCB ($\beta = -0.069$, $p < 0.270$). Hence, hypotheses 1a and 1b are not supported.

Table 5: Hypotheses Testing

No	Hypotheses	Path Coefficients	T Statistics	P Values	95% Confidence Intervals	Result
1	H1a PNS -> In-role Performance	0.153	2.453**	0.014	[0.030, 0.274]	Significant
2	H1b PNS -> OCB	0.126	1.969**	0.049	[0.000, 0.252]	Significant

**p<0.01, *p<0.05

Discussion and Conclusion

The results of the current study succeed to prove the hypotheses. Consistent with the rationale of the SDT theory and evidence from previous research (Baard et al., 2004; Das & Hangsing, 2025; Greguras & Diefendorff, 2009; Lan Ye et al., 2025) the findings of the current study revealed that PNS has a positive and significant relationship with in-role performance and OCB. Employees who perceived that their psychological needs have been fulfilled by the organization will reciprocate and feel obliged to perform well for their organization. Employees who experienced greater PNS have better work performance.

It is essential to emphasize certain limitations of the current study that may inform future research endeavors. Due to the cross-sectional nature of this study, causal correlations between the variables cannot be determined. Longitudinal studies ought to be utilized to evaluate the theories.

Second, the use of self-report measures may have inherent limitations (e.g. inability to recall, social desirability). A combination of self-report questionnaires and objective assessments would be ideal. Despite these limitations, the results of this study indicate that the concept of intrinsic psychological needs, defined as the nutriments necessary for human survival and growth, is useful for studying motivation and performance in the workplace.

Future studies also can examine other employee outcomes such as intention to quit for the purpose of considering the potential negative effects of PNS. More research could be done and consider the moderating or mediating effects of other variables in the relationship.

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