Psychological Ownership's Role in Linking Volunteer Job Satisfaction and Organizational Commitment

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ABSTRACT

Few studies have examined the effects of psychological ownership in volunteer organizations, although the role of psychological ownership has emerged as a crucial matter of interdisciplinary investigation in exploring organizational behavior. This study examines whether psychological ownership affects the relationship between job satisfaction and organizational commitment. Two regression models are employed in the analysis to confirm the relationship between the pertinent variables. According to the first model, job satisfaction among education volunteers has a favorable impact on organizational commitment. The second model examines the psychological ownership interference effect. First, the two variables of accountability and self-efficacy interfere with the "external help" variables of job satisfaction, as well as retention commitment and value commitment. Second, the two variables of self-identification and sense of belonging have a negative effect on the relationship between job satisfaction and organizational commitment. Volunteer managers must consider how to enhance volunteers' self-identification and extend it to a sense of belonging to the organization to strengthen their organizational commitment. In addition, the volunteers' philanthropic values will be strengthened by the work performed, moving from the psychological to the actual, creating a family focal point.

Keywords: Volunteering, psychological ownership, job satisfaction, organizational commitment, retention commitment.

1. INTRODUCTION

In 2019, the Corporation for National and Community Service (CNCS) reported that approximately 30% of the U.S. population engaged in volunteer service, providing 5.8 billion hours valued at around $147 billion. According to the Australian Bureau of Statistics' 2021 data, 44.2% of Australians volunteered weekly, with a total economic value of AUD 29 billion. In 2021, over 1.04 million volunteers in Taiwan provided about 128 million hours of service, valued at over TWD 23.3 billion. The Volunteer Service Act of the Republic of China was promulgated in 2001, and by 2021, Taiwan had 1,042,957 volunteers, with education volunteers accounting for 29.8%.

Volunteer service is crucial in contemporary society, and understanding how organizations manage volunteers is essential. Psychological ownership is a key concept in organizational

behavior, emphasizing employees' emotional connections and sense of control over their work. Research shows that fostering psychological ownership can enhance engagement, teamwork, innovation, satisfaction, and loyalty, thereby improving organizational performance (Kim & So, 2024). This study focuses on Taichung City in Taiwan, where the general public's volunteer participation rate is the second highest among the six major cities at 27.5%. It investigates elementary school education volunteers to explore whether psychological ownership similarly affects volunteers, particularly its impact on job satisfaction and organizational commitment.

2. LITERATURE REVIEW

2.1 Job Satisfaction
Introduced in 1935, job satisfaction initially focused on workers' subjective reactions to their work environment, including compensation and roles (Vroom, 1964; Porter & Lawler, 1968; Federici & Skaalvik, 2011). Later research examined cognitive dimensions, such as work goals and feedback (Robbins & Coulter, 1996), and tangible aspects like job characteristics and promotion opportunities (Kalleberg, 1977). Recent studies have linked job satisfaction with performance and productivity, underscoring its importance in enhancing employee commitment. For instance, Rufino (2023) examined the relationship between performance appraisal quality, performance indicators, and job satisfaction among bank employees. The findings showed a high average score of 4.40 for performance appraisal quality, demonstrating a significant positive correlation with job satisfaction and performance indicators. This highlights how high-quality performance appraisals can enhance employee satisfaction and organizational performance. Similarly, Jim et al. (2024) studied 265 healthcare workers in an Indonesian hospital, focusing on the impacts of job stress, emotional exhaustion, job satisfaction, and organizational commitment. The study revealed that addressing job stress and improving job satisfaction are crucial for enhancing organizational commitment among healthcare professionals. By fostering a supportive work environment and recognizing employees' contributions, healthcare institutions can promote greater organizational commitment and loyalty, benefiting both employees and the organization.

2.2 Organizational Commitment
Since its introduction in 1956, organizational commitment has become a key concept in organizational management, extending into organizational psychology and behavior. Employee commitment is crucial as it aligns their interests, goals, and needs with those of the organization for effective work (Meyer et al., 2002). Studies have shown that high job achievement and satisfaction lead to stronger organizational commitment (Pi, Chiu, & Lin, 2016), and that employee motivation significantly affects both affective and continuous organizational commitment (Al-Madi et al., 2017; Altindis, 2011). Additionally, public service motivation positively impacts organizational commitment and job performance, which in turn enhances job performance (Pham, Truong, & Nguyen, 2023).

In non-profit organizations (NPOs), volunteers exhibit higher levels of affective commitment, but lower continuous commitment compared to paid workers, with higher normative commitment (Cornforth, 2012; Zollo et al., 2016, 2017a; van Vuuren et al., 2008). Research indicates that organizational commitment involves psychological attachment, participation, and identification with the organization, which are crucial for volunteer engagement (Roland & Roberto, 2013; Gilbert, Turner, & Holdsworth, 2021).

Leadership behaviors that promote growth, learning, and innovation are also vital in enhancing volunteer satisfaction and commitment (Benevene, Buonomo, & West, 2020). A meta-analysis by Forner et al. identified key predictors of volunteer turnover, including communication, organizational support, job satisfaction, affective commitment, leader–member exchange, engagement, and organizational commitment. These factors, along with HRM practices and social connections, significantly influence turnover attitudes and behaviors (Forner et al., 2024).

2.3 Job Satisfaction and Organizational Commitment

Seashore and Taber (1975) identified various antecedents of job satisfaction, including individual attributes like personality traits and abilities, and environmental attributes like work environment and job nature. Job stress and organizational commitment significantly influence job satisfaction. Tett and Meyer (1993) confirmed that job satisfaction is a significant predictor of turnover intention, with many studies showing a negative relationship between job satisfaction and turnover intention (Brough & Frame, 2004; Korunka et al., 2005; Karatepe et al., 2007; Biswas, 2009). Yücel (2012) noted that high job satisfaction leads to higher organizational commitment and lower turnover intention.

The relationship between job satisfaction and organizational commitment has been validated across industries. For example, Manalo, Castro, and Uy (2020) found significant positive relationships between motivation, job satisfaction, organizational commitment, and job involvement among teachers. Nelwan et al. (2024) demonstrated that job satisfaction significantly influences turnover intention through organizational commitment and extra-role behavior. Noermijati, Prasetyo, and Kustantinah (2024) found that higher job satisfaction reduces turnover intention by enhancing organizational commitment. These findings suggest a clear relationship between job satisfaction and organizational commitment among employees. This study hypothesizes that volunteers would exhibit a similar trend:

　H1: Job satisfaction affects organizational commitment.

2.4 Psychological Ownership

The concept of psychological ownership, dating back to 1899, highlights the role of property in mental development. Isaacs (2013) discussed how children transition from seeing external objects as "mine" to integrating them into their identity. Porteous (1976) explored the core concept of "home," analyzing factors like controlling space, personalizing it, and using or defending it. Furby (1991) identified two key themes in possessive behavior: personal capability or control and the link between possessions and self-identity. These themes suggest that ownership induces responsibility towards possessions, central to psychological ownership (PO).

Morgan developed a model explaining how employee ownership affects attitudes towards the company, distinguishing between formal ownership and psychological ownership. Higher formal ownership positively influences psychological ownership, which then impacts employee attitudes positively. Qian (2016) differentiated two pathways for forming psychological ownership: informational (rights and control) and contextual (work design and leadership). Muhammad and Rashid (2022) found that employees' psychological ownership significantly influenced their organizational commitment, recommending strategies to enhance employees' psychological ownership to boost commitment. Boonsiritomachai et al. (2022) found that psychological ownership in a state-owned telecom enterprise significantly influenced organizational commitment,

emphasizing belonging and job responsibility. Renz and Posthuma (2023) provided a comprehensive review, discussing psychological ownership's formation, impacts, and cultural context.

Jami et al. (2021) demonstrated that psychological ownership enhances altruistic behavior by boosting self-esteem. Preston and Gelman (2020) showed that psychological ownership is more effective than legal ownership in promoting environmental protection behaviors. Ainsworth (2020) shifted focus to organizational volunteers, finding that psychological ownership positively impacts volunteer behavior, with time pressure moderating this effect. Nabeel et al. (2023) showed that Green HRM practices positively influenced employees' psychological ownership, encouraging green volunteer behavior.

Despite the recognized importance of psychological ownership, its exploration in the volunteer domain remains limited. This study aims to introduce psychological ownership as a variable in volunteer management and discuss its relationship with organizational commitment. Avey et al. (2009) developed five indicators to measure psychological ownership: accountability, self-efficacy, self-identity, sense of belonging, and territoriality. Self-identity is crucial because it helps volunteers see themselves as integral parts of the organization, influencing their commitment. Accountability is important as it fosters a sense of responsibility and ownership over tasks, which can enhance commitment. Self-efficacy is significant as it boosts confidence in one's abilities, positively affecting commitment levels. Sense of belonging is vital as it makes volunteers feel part of a community, which can increase their dedication to the organization.

By systematically examining these hypotheses, this study emphasizes the critical role of psychological ownership in enhancing job satisfaction and organizational commitment among volunteers. Due to the limited opportunity for territorial behavior among volunteers, this study omits territoriality and uses the remaining four indicators to explore their influence on job satisfaction and organizational commitment among educational volunteers. The hypotheses are as follows:

H2: Self-identity influences the relationship between job satisfaction and organizational commitment.

H3: Accountability influences the relationship between job satisfaction and organizational commitment.

H4: Self-efficacy influences the relationship between job satisfaction and organizational commitment.

H5: Sense of belonging influences the relationship between job satisfaction and organizational commitment.

3. RESEARCH METHODS

3.1 Questionnaire Development

The University of Minnesota's Psychological Testing Center developed the Minnesota Satisfaction Questionnaire (MSQ) in 1967 to assess job satisfaction. The MSQ includes a 100-item long-form and a 20-item short-form. The 2013 MSQ short-form, adapted into Chinese for Taiwan, is used in this study to measure job satisfaction with variables coded as intrinsic autonomy (s1) and extrinsic support (s2).

Organizational commitment, based on the concepts of Buchanan, Mowday, and Meyer & Allen, includes three dimensions: value commitment, retention commitment, and effort commitment. This study uses an 18-item Chinese scale to measure these dimensions.

The psychological ownership scale, developed by Avey et al., includes five indicators: Self-Identity, Accountability, Self-Efficacy, Sense of Place or Belongingness, and Territoriality. This 16-item scale was adapted into Chinese by Chen, Hui, and Xi. Due to limited relevance, the Territoriality indicator is omitted, and the remaining indicators are coded as P1, P2, P3, and P4.

3.2 Sample

Data from the Taiwanese government's volunteer survey shows that Taichung City has the second-highest volunteer participation rate among the six major cities, at 27.5%. Additionally, 41.3% of volunteers in Taichung are recruited through schools, a higher percentage than other channels. Taichung has a highly competitive environment for elementary school graduates pursuing private junior high schools, indicating that parents place a high value on education. Given this study's focus on the organizational commitment of educational volunteers, Taichung was selected for sampling.

After reliability testing, questionnaires were randomly distributed to volunteers in 13 elementary schools across 12 districts in Taichung City. Before filling out the questionnaires, volunteers were informed about the study's purpose and the anonymization process. A total of 220 questionnaires were distributed, with 175 valid responses collected, yielding an 80% response rate. The data was encoded and analyzed using SPSS 22, employing regression analysis to examine the relationships among job satisfaction, organizational commitment, and psychological ownership variables.

3.3 Statistical Analysis

3.3.1 Demographic Variables

The demographic statistics of the 175 elementary school volunteers revealed a significant gender disparity, with 10 males (5.7%) and 164 females (94.3%). The age distribution was as follows: under 30 years old (n = 4, 2.3%), 31-40 years old (n = 25, 14.4%), 41-50 years old (n = 72, 41.2%), 51-60 years old (n = 42, 24%), over 60 years old (n = 17, 9.7%), and 15 unreported. The educational levels were: junior high (n = 7, 4%), high school (n = 33, 18.9%), college (n = 113, 64.6%), and master's degree (n = 20, 11.4%).

Volunteer tenure was categorized as follows: less than 5 years (n = 84, 48%), 5-10 years (n = 36, 20.6%), 10-15 years (n = 27, 15.4%), 15-20 years (n = 17, 9.7%), and over 20 years (n = 11, 6.3%). The roles of educational volunteers were categorized by contact time with students: short-contact roles (lunch, transport, health, activities, environmental protection) accounted for 48 volunteers (27.4%), and long-contact roles (caring, library, tutoring) accounted for 127 volunteers (72.6%).
Organizational commitment is often linked to retention and loyalty, implying that longer service duration correlates with higher commitment. Therefore, this study included contact time and seniority in the models to observe their impact on organizational commitment.

3.3.2 Job Satisfaction and Organizational Commitment

Regression analysis (Model 1) found that intrinsic autonomy and extrinsic support in job satisfaction significantly positively impact retention commitment, effort commitment, and value commitment within organizational commitment. "Contact" and "seniority" showed no significant impact on these three variables of organizational commitment. These results

confirm a significant positive correlation between job satisfaction and organizational commitment among educational volunteers, fully supporting the hypothesis H1 that job satisfaction affects organizational commitment (see Table 1). These findings illustrate the significant role of intrinsic autonomy and extrinsic support in enhancing different dimensions of organizational commitment among educational volunteers.

Table 1. Relationships between Contact, Seniority, Intrinsic Autonomy, Extrinsic Support, and Organizational Commitment (OC)

	Retention commitment			Effort commitment			Value commitment		
	Standardized Coefficients Beta	**t**	**Sig.**	Standardized Coefficients Beta	**t**	**Sig.**	Standardized Coefficients Beta	**t**	**Sig.**
(Constant)		3.138	.002		3.153	.002		2.977	.003
contact	.046	.785	.433	.082	1.315	.190	.048	.829	.408
Seniority	.088	1.485	.139	.098	1.565	.120	.087	1.488	.139
s1	.260	3.018	0.003**	.405	4.424	0.000***	.281	3.281	0.001**
s2	.411	4.782	0.000***	.189	2.074	0.040*	.399	4.679	0.000***

Note: contact=degree of contact with students, Seniority=volunteer seniority; s1=intrinsic autonomy,

s2=extrinsic support. *p＜.05, **p＜.01, ***p＜.001.

3.3.3 The Impact of Psychological Ownership Self-Identity

Regression analysis (Model 2) introduced psychological ownership self-identity as a moderating variable, tested using interaction terms. The results indicate the following:

· Retention Commitment: The interaction term between intrinsic autonomy and self-identity has a significantly negative moderating effect (β = -.513, p < .001), while the interaction term between extrinsic support and self-identity has a significantly positive effect (β = .785, p < .001).

· Effort Commitment: The interaction term between intrinsic autonomy and self-identity shows a significantly negative relationship (β = -.363, p < .05). Conversely, the interaction term between extrinsic support and self-identity shows a significantly positive effect (β = .642, p < .001).

· Value Commitment: The interaction term between intrinsic autonomy and self-identity has a significantly negative relationship (β = -.479, p < .001), whereas the interaction term between extrinsic support and self-identity shows a significantly positive effect (β = .782, p < .001).

These results support the hypothesis H2, indicating that psychological ownership self-identity moderates the relationship between job satisfaction and organizational commitment (see Table 2). Higher levels of intrinsic autonomy paired with self-identity reduce commitment, while higher levels of extrinsic support paired with self-identity enhance it. These findings demonstrate the significant moderating role of self-identity in the relationship between job satisfaction and organizational commitment among educational volunteers.

Table 2. Moderating Effect of Psychological Ownership Self-Identity on Job Satisfaction and Organizational Commitment

	Retention commitment			Effort commitment			Value commitment		
	Standardized Coefficients	t	**Sig.**	Standardized Coefficients	t	**Sig.**	Standardized Coefficients	t	**Sig.**
	Beta			Beta			Beta		
(Constant)		-.640	.523		-.305	.761		-1.026	.307
contact	.051	.928	.355	.083	1.405	.162	.052	.960	.339
Seniority	.081	1.467	.144	.095	1.580	.116	.082	1.502	.135
s1	.261	3.222	0.002**	.398	4.526	0.000***	.277	3.475	0.001**
s2	.652	6.760	0.000***	.421	4.021	0.000***	.658	6.929	0.000***
s1*p1	-.513	-3.596	0.000***	-.363	-2.341	0.020*	-.479	-3.408	0.001**
s2*p1	.785	4.941	0.000***	.642	3.716	0.000***	.782	4.990	0.000***

Note: contact=degree of contact with students, Seniority=volunteer seniority; s1=intrinsic autonomy, s2=extrinsic support; p1=Psychological Ownership Self-Identity. $*p < .05$, $**p < .01$, $***p < .001$.

3.3.4 The Impact of Psychological Ownership Accountability
The regression analysis results of the relationship between intrinsic autonomy and extrinsic support in job satisfaction, and the three variables of organizational commitment, with the psychological ownership accountability variable, are shown in Table 3.

Using psychological ownership accountability as a moderating variable, interaction terms were tested. The interaction term between intrinsic autonomy and psychological ownership accountability did not affect retention commitment. However, the interaction term between extrinsic support and psychological ownership accountability had a significant moderating effect on retention commitment ($\beta = .344$, $p < .01$), indicating that higher levels of extrinsic support and accountability lead to higher retention commitment.

For effort commitment, the interaction terms between both intrinsic autonomy and extrinsic support with psychological ownership accountability did not show any moderating effects.

For value commitment, the interaction term between intrinsic autonomy and psychological ownership accountability did not have an effect. However, the interaction term between extrinsic support and psychological ownership accountability had a significant moderating effect on value commitment ($\beta = .371$, $p < .01$), indicating that higher levels of extrinsic support and accountability lead to higher value commitment.
Therefore, the research hypothesis H3 is partially supported, as psychological ownership accountability moderates the relationships between extrinsic support and retention commitment, and extrinsic support and value commitment (see Table 3).

Table 3. The Moderating Effect of Psychological Ownership Accountability on the Relationship Between Job Satisfaction and Organizational Commitment

	Retention commitment			Effort commitment			Value commitment		
	Standardized Coefficients Beta	t	Sig.	Standardized Coefficients Beta	t	Sig.	Standardized Coefficients Beta	t	Sig.
(Constant)		.602	.548		.669	.504		0.320	.749
contact	.021	.366	.715	.047	0.780	.436	.022	.393	.695
Seniority	.101	1.764	.080	.106	1.768	.079	.101	1.799	.074
s1	.246	2.962	0.004**	.392	4.488	0.000***	.265	3.243	0.001**
s2	.570	6.215	0.000***	.352	3.643	0.000***	.568	6.276	0.000***
s1*p2	-.088	-0.803	.423	.084	0.725	.469	-.103	-0.958	.340
s2*p2	.344	2.867	0.005**	.229	1.818	.071	.371	3.141	0.002**

Note: s1=intrinsic autonomy, s2=extrinsic support; p2=Psychological Ownership Accountability. *p＜.05, **p＜.01, ***p＜.001.

3.3.5 The Impact of Psychological Ownership Self-Efficacy

The regression analysis results of the relationship between intrinsic autonomy and extrinsic support in job satisfaction, and organizational commitment, with the psychological ownership self-efficacy variable, are shown in Table 4.

Regression analysis incorporated psychological ownership self-efficacy as a moderating variable, and interaction terms were tested. The results indicated that the interaction term between intrinsic autonomy and self-efficacy did not affect retention commitment. However, the interaction term between extrinsic support and self-efficacy had a significant relationship with retention commitment ($\beta = .502$, $p < .01$), indicating that higher levels of extrinsic support and self-efficacy lead to higher retention commitment.

For effort commitment, the interaction terms between both intrinsic autonomy and extrinsic support with self-efficacy did not show any effect.

For value commitment, the interaction term between intrinsic autonomy and self-efficacy did not have an effect. However, the interaction term between extrinsic support and self-efficacy had a significant moderating effect on value commitment ($\beta = .425$, $p < .01$), indicating that higher levels of extrinsic support and self-efficacy lead to higher value commitment.

Therefore, the research hypothesis H4 is partially supported, as self-efficacy moderates the relationship between extrinsic support and retention commitment, as well as the relationship between extrinsic support and value commitment (see Table 4).

Table 4. The Moderating Effect of Psychological Ownership Self-Efficacy on the Relationship Between Job Satisfaction and Organizational Commitment

	Retention commitment			Effort commitment			Value commitment		
	Standardized Coefficients	t	Sig.	Standardized Coefficients	t	Sig.	Standardized Coefficients	t	Sig.
	Beta			Beta			Beta		
(Constant)		-.021	.983		.626	.532		-.135	.893
contact	.043	.761	.448	.076	1.237	.218	.044	.773	.440
Seniority	.089	1.554	.122	.094	1.527	.129	.086	1.515	.132
s1	.247	2.967	0.003**	.396	4.386	0.000***	.268	3.237	0.001**
s2	.612	6.188	0.000*	.343	3.210	0.002**	.596	6.064	0.000***
s1*p3	-.252	-1.692	.092	-.022	-.140	.889	-.166	-1.120	.264
s2*p3	.502	3.040	0.003**	.243	1.364	.174	.425	2.589	0.010**

Note. s1=intrinsic autonomy, s2=extrinsic support; p3=Psychological Ownership Self-Efficacy. *p＜.05, **p＜.01, ***p＜.001.

3.3.6 The Impact of Psychological Ownership Sense of Belonging

The regression analysis results of the relationship between intrinsic autonomy and extrinsic support in job satisfaction, and organizational commitment, with the psychological ownership sense of belonging variable, are shown in Table 5.

Regression analysis incorporated the psychological ownership sense of belonging variable as a moderating variable, and interaction terms were tested. The results showed that the interaction term between intrinsic autonomy and sense of belonging had a significantly negative impact on retention commitment (β = -.380, p < .01), meaning that higher levels of intrinsic autonomy and sense of belonging lead to lower retention commitment. Conversely, the interaction term between extrinsic support and sense of belonging had a significantly positive moderating effect on retention commitment (β = .635, p < .001), indicating that higher levels of extrinsic support and sense of belonging lead to higher retention commitment.

For effort commitment, the interaction term between intrinsic autonomy and sense of belonging had a significantly negative impact (β = -.350, p < .05), while the interaction term between extrinsic support and sense of belonging had a significantly positive impact (β = .635, p < .001).

For value commitment, the interaction term between intrinsic autonomy and sense of belonging had a significantly negative impact (β = -.314, p < .05), whereas the interaction term between extrinsic support and sense of belonging had a significantly positive impact (β = .601, p < .001).

Therefore, the research hypothesis H5, that psychological ownership sense of belonging affects the relationship between job satisfaction and organizational commitment, is supported. The psychological ownership sense of belonging variable moderates the

relationship between job satisfaction and organizational commitment for all variables (see Table 5).

Table 5. The Moderating Effect of Psychological Ownership Sense of Belonging on the Relationship Between Job Satisfaction and Organizational Commitment

	Retention commitment			Effort commitment			Value commitment		
	Standardized Coefficients	t	Sig.	Standardized Coefficients	t	Sig.	Standardized Coefficients	t	Sig.
	Beta			Beta			Beta		
(Constant)		-.232	.817		-.240	.811		-.555	.579
contact	.044	.795	.428	.078	1.320	.188	.044	.793	.429
Seniority	.075	1.334	.184	.086	1.437	.153	.076	1.367	.174
s1	.259	3.163	0.002**	.401	4.595	0.000***	.275	3.391	0.001**
s2	.623	6.533	0.000***	.417	4.109	0.000***	.626	6.632	0.000***
s1*p4	-.380	-2.853	0.005**	-.350	-2.464	0.015*	-.314	-2.384	0.018*
s2*p4	.635	4.288	0.000***	.632	4.011	0.000***	.601	4.099	0.000***

Note:.s1=intrinsic autonomy, s2=extrinsic support; p4=Psychological Ownership Sense of Belongingness.

$*p < .05, **p < .01, ***p < .001$.

3.4 Findings

- Demographic Profile: The demographic variables of elementary school volunteers align with government surveys, showing more women than men, and educational levels concentrated at high school to junior college. Most volunteers are aged 41-50, correlating with the typical age of parents of elementary school children in Taiwan. Volunteer service years are around five, matching the six years of elementary schooling, with parents often moving their volunteer efforts to junior high schools as their children graduate.
- Psychological Ownership Self-Identity: Self-identity has a significantly negative relationship with the relationship between intrinsic autonomy in job satisfaction and organizational commitment. This suggests that people generally understand their organizational role before making autonomous decisions, indicating self-identity might be a precursor to intrinsic autonomy.
- Extrinsic Support and Organizational Commitment: The relationship between extrinsic support in job satisfaction and organizational commitment is significantly influenced by psychological ownership variables, likely because extrinsic factors are more explicit. Volunteer activities, regardless of task distribution and execution, often attribute external performance to the organization, enhancing its honor.
- Effort Commitment: Psychological ownership variables show that effort commitment is often unaffected by job satisfaction and organizational commitment. This may be because volunteer activities rarely involve overall responsibility, and as long as tasks are completed, accountability or self-efficacy interference is minimal.
- Sense of Belonging: The sense of belonging significantly affects both job satisfaction and organizational commitment. Questions about the work environment and interpersonal relationships, such as "How do you feel about the work environment in

your current volunteer job?" and "The work gives me the opportunity to assign tasks to others," along with statements like "I feel that I belong to the organization" and "To me, the organization is like a family," highlight this causal direction.

4. DISCUSSION AND FUTURE RESEARCH RECOMMENDATIONS

4.1 Discussion

Past research on psychological ownership highlights the importance of self-identity. Porteous (1976) identified efficacy, self-identity, having a place, and stimulation as motivating factors. Van Dyne and Pierce (2004) noted that psychological ownership, despite lacking legal grounding, is characterized by attitudes, self-concept, and a sense of responsibility, with self-concept leading individuals to view possessions as extensions of themselves. Horowitz (2012) emphasized the focus on self and identity in clinical psychodynamic research. Afshari et al. (2020) found that identity exploration impacts organizational commitment, as individual engagement in the identification process promotes commitment development. Afshari (2021) further noted that employees' desire for meaningful self-definitions enhances their commitment. Zhang (2017) reviewed literature on psychological ownership, noting it often serves as a mediator. This study confirms the moderating effect of the self-identity variable of psychological ownership, containing motivational concepts. The sense of place, similar to SOP, can be explained through belongingness theory. Phungsoonthorn and Charoensukmongkol (2019) found that Burmese migrant workers' motivation to develop SOP aligns with belongingness theory. Brunette, Vo, and Watanabe (2017) showed that university students' participation in clubs and sports enhances SOP, aiding fundraising. This study also found that the sense of belonging among educational volunteers moderates the relationship between job satisfaction and organizational commitment, suggesting it as an independent variable to explore for motivational effects on organizational commitment.

4.2 Managerial Implications

Volunteers are essential for organizational operations, and retaining them is crucial. This study highlights that psychological ownership, particularly self-identity and sense of belonging, significantly impacts retention commitment. Here are four key applications:

- Recognition and Motivation: Managers should attribute successful task completion to volunteers through certificates of honor, service hour certifications, and recognition of training completion. This can significantly enhance volunteer retention.
- Creating a Family Atmosphere: Foster a sense of "family" among volunteers by addressing them with familial terms based on their children's names, and using a nickname for the volunteer organization, such as "XYZ Family." Implementing "parent-child uniforms" can further enhance this feeling.
- Volunteer Workspaces: Provide volunteers with a dedicated space to store personal items and rest, arranged with a family concept, such as a living room setup, to create a homely environment.
- Regular Feedback and Engagement: Organize feedback and engagement sessions to allow volunteers to voice opinions and suggestions. Recognize outstanding volunteers and discuss program improvements to strengthen their sense of belonging and self-identity.

In fact, many elementary schools now have volunteer lounges, regular group trips, and parent-child camps for volunteers. Clearly, these management practices, while not explicitly emphasizing the concept of psychological ownership, have already implemented

its principles in practice.

4.3 Future Research Recommendations

This study preliminarily explored the impact of psychological ownership on educational volunteers, highlighting the influence of self-identity and sense of belonging on organizational commitment. Future research should consider the following:

- Expand Volunteer Domains: Extend research to include volunteers from various fields beyond education. This will provide a broader understanding of psychological ownership's impact on organizational commitment across different sectors.
- Explore Additional Antecedents: Investigate additional antecedents influencing organizational commitment. Future studies should identify more variables related to psychological ownership, enhancing the theoretical framework and management of volunteer organizations.
- Focus on Practical Applications: Examine practical strategies to foster psychological ownership among volunteers. Understanding how to effectively enhance ownership can improve volunteer retention and commitment.

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