

The Influence of Psychological Ownership (PO) and Organisational Citizenship Behaviour (OCB) on Employee Engagement: The Mediating Role of Perceived Organisational Support (POS)

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Abstract

Purpose: This study seeks to demonstrate the relationship between the components that form employee engagement using the IT services industry, which faces specific issues due to its constantly changing environment and reliance on skilled talent.

Design/Methodology: A structural equation modelling (SEM) with an importance performance map analysis (IPMA) was used to examine answers to surveys from 221 IT executives.

Findings: The study reveals that there is a strong positive effect of psychological ownership ($\beta = 0.457$) on employee engagement than OCB ($\beta = 0.404$) through POS. The IPMA supports the results that OCB's importance and performance are high in contributing to the engagement of employees in IT companies. It was also found that POS has moderate performance but low importance, which explains that the overall effect of POS on employee engagement is relatively low as compared to OCB.

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Research Implication/Limitations: The study is cross-sectional and does not allow for the conclusion of causality. And the majority of the legitimate responses in our sample came from very young people. This may have an impact on the findings, since younger employees may have great enthusiasm as compared to older people.

Originality/value: The findings imply that the potential of psychological ownership and OCB in inspiring, and the prolongation of employee engagement in the service industry can be triggered and reiterated through POS. This study provides groundbreaking confirmation that developing psychological ownership and OCB are necessary to generate employee engagement in knowledge-based industries.

Keywords: employee engagement, organisation citizenship behaviour, perceived organisation support, psychological ownership, social exchange theory.

JEL: M12, D23.

Wpływ psychologii własności (PO) i organizacyjnych zachowań obywatelskich (OCB) na zaangażowanie pracowników: pośrednicząca rola postrzeganego wsparcia organizacyjnego (POS)

Streszczenie

Cel: badanie ma na celu wykazanie związku między komponentami tworzącymi zaangażowanie pracowników w branży usług IT, stojącej w obliczu specyficznych problemów wynikających ze stale zmieniającego się środowiska i zależności od wykwalifikowanych talentów.

Projekt/metodologia: do zbadania odpowiedzi na ankiety 221 dyrektorów IT wykorzystano modelowanie równań strukturalnych (SEM) z analizą mapy ważności wyników (IPMA).

Wnioski: badanie wykazało, że istnieje silniejszy pozytywny wpływ *psychological ownership* (PO) ($\beta = 0,457$) niż organizacyjnych zachowań obywatelskich (OCB) ($\beta = 0,404$) poprzez postrzegane wsparcie organizacyjne na zaangażowanie pracowników (POS). IPMA potwierdza wyniki, że znaczenie i wydajność OCB w wysokim stopniu przyczyniają się do zaangażowania pracowników w firmach IT. Stwierdzono również, że POS ma umiarkowaną wydajność, ale niskie znaczenie, co wyjaśnia, że ogólny wpływ POS na zaangażowanie pracowników jest stosunkowo niski w porównaniu z OCB.

Implikacje/ograniczenia badawcze: badanie ma charakter przekrojowy i nie pozwala na wyciągnięcie wniosków dotyczących przyczynowości. Większość uzasadnionych odpowiedzi w próbie pochodziła od bardzo młodych ludzi. Może to mieć wpływ na wyniki, ponieważ młodszy pracownicy mogą mieć większy entuzjazm niż osoby starsze.

Oryginalność/wartość: wyniki sugerują, że potencjał psychologii własności i OCB w inspirowaniu i przedłużaniu zaangażowania pracowników w branży usługowej może być wyzwany i powtarzany poprzez POS. Badanie to stanowi przełomowe potwierdzenie, że rozwijanie psychologicznej własności i OCB jest niezbędne do generowania zaangażowania pracowników w branżach opartych na wiedzy.

Słowa kluczowe: zaangażowanie pracowników, zachowania obywatelskie organizacji, postrzegane wsparcie organizacji, własność psychologiczna, teoria wymiany społecznej.

1. Introduction

Human resource practitioners play a vital role in promoting a psychosocially pleasant workplace for producing a competitive labour force in today's corporate world. Such initiatives for corporate success are built on employees' positive

attitudes and behaviours. Creating psychosocially good work settings also boosts the appreciativeness of employees and sense of team cohesion (Gilbreath & Montesino, 2006). The index of workplace happiness is primarily defined as a mix of positive employee job satisfaction, organisational commitment, and employee engagement. Internationalisation coupled with rapid advances in technology have led to significant changes in the IT industry, notably greater competition, prolonged hours of work, job instability, and increasing stress among workers. The incapacity of work to enable self-expression and the poor design of the workplace environment are determinates of employee disengagement in the information technology (IT) sector which affects employees' work attitude and conduct. According to the Gallup report, one out of every five knowledge employees is likely to be alienated. It advises practitioners and organisations to adopt preventive actions against employee alienation to maintain a motivated workforce. Employers seek employees who are engaged, have a strong emotional connection to their employer, and exhibit organisational citizenship behaviour (OCB). Management must prioritise human resource strategies that foster good attitudes and behaviours among employees, as these are crucial for organisational growth (Santhosh & Baral, 2015). As economic developments necessitate increased engagement by employees, interest in positive organisational behaviours consistent with developing psychological ownership (PO) has grown. Furthermore, there has recently been an increase in interest in the roles of PO, OCB and perceived organisational support (POS), most likely due to the fact that POS and OCB are closely related to positive work-related outcomes. For example, Akgunduz and Sanli (2017) discovered that POS is strongly linked to job attachment but unfavourably linked to employee turnover intention in the hospitality sector. Studies (Alfes et al., 2013) of a U.K. manufacturing organisation found that work engagement and turnover intentions are negatively correlated. Further, Rawashdeh et al. (2022) explained the negative relationship between organisation commitment and turnover intentions. Ocampo et al. (2018) discovered that POS is significantly connected to career adaptation. Ekmekcioglu and Öner (2023) found servant leadership and organisation culture to be positively related to innovative work behaviour through POS. Therefore, PO and OCB are positive organisational behaviours that are gaining attention, as these are key predictors of the positive work attitude of employees and achieving targets and performance goals inside firms (Park et al., 2013). PO defines ownership as an intellectual and emotional condition in which people feel they too are owners or are partners in ownership (Pierce et al., 2001). Ownership can be categorised into two categories: formal and psychological. 'Formal' defines the legal right to share in a company's profit, receive insights, or acquire control, while 'psychological' defines employees' perception that their company is their own. Employees that are more satisfied with their employer's ownership have a greater degree of OCB (Organisation Citizenship Behaviours) (Lin & Lin, 2011). OCBs are discretionary behaviours that support the organisation through promoting a social climate favourable to

work, including behaviours that aid others, promote the organisation, and take part in functions that the company deems voluntary (Organ et al., 2006; Grego-Planer, 2022). The employees' extra efforts to improve the organisations and its members' well-being, look for further employment opportunities by fostering the growth of oneself and others and helping to improve the organisation's social and psychological capital are the crux of OCB. There is a dearth of research examining the combined effect of PO and OCB on employee engagement despite the fact that both have been studied separately in the past. There is still much to learn about the factor mediating variable which influence the relationship between PO, OCB and employee engagement. With POS serving as a mediating variable, this study offers a holistic paradigm that unifies PO, OCB, and employee engagement. A more sophisticated understanding of the interactions and influences between various constructs is made possible by this holistic approach. Western countries have produced the vast majority of the research on the variables that determine engagement. The engagement criteria that are prevalent in Western countries may not apply to India due to sociocultural factors. It's because 'one size does not fit all when it comes to motivating people to engage with their company. The Indian economy is growing at an exponential rate, therefore it's important to know what drives worker engagement in the IT sector in India. This study provides two important contributions to the literature on PO, OCB, POS and employee engagement. First, this study contributes to the literature on PO and OCB on employee engagement by theoretically and empirically based on Social Exchange Theory (SET) (Cropanzano & Mitchell, 2005) theoretical ambiguities within SET remain. As a consequence, tests of the model, as well as its applications, tend to rely on an incompletely specified set of ideas. The authors address conceptual difficulties and highlight areas in need of additional research. In so doing, they pay special attention to four issues: (a. This research broadens the application of SET in organizational behaviour studies while advancing our knowledge of how employees' voluntary organizational activities and sense of ownership promote stronger engagement. According to SET, workers who perceive the organisation to be more supportive are more likely to feel appreciated and valued, which motivates them to take on responsibilities outside of their official job description. Between the organisation and its workers, this mutually beneficial arrangement promotes commitment, loyalty, and trust (Alvi et al., 2014)

Employees feel obligated to return the favour by engaging themselves when organisations foster a healthy work environment by acknowledging, bolstering, and treating them fairly.

Second, the study examines the function of coping mechanisms in jointly mediating the link between PO, OCB, and employee engagement through POS, as this relationship has thus far not been studied in the IT industry. Figure 1 depicts the research model for this investigation.

2. Theoretical Underpinnings and Hypothesis Development

2.1. PO and Employee Engagement

PO is a state in which people feel a sense of ownership over their job or on the company as a whole (Pierce et al., 2001). Within the context of an organisation, PO refers to the feeling of “this is mine” that workers have for their position, for their organisation, or its objectives and values. This feeling is more than just a sense of duty; it’s a reflection of a strong emotional and mental bond that shapes people’s actions and interactions at work.

In the hierarchy of an organisation, PO fosters the connectedness that defines success in terms of organisational performance work happiness, and retention of employees (Dawkins et al., 2017; Rousseau & Shperling, 2003). Employee engagement is defined as employees’ passion to work, focus on the job, capacity to execute at work, fully active participation in their roles, and ability to sacrifice by making an extra effort to achieve better outcomes. Engaged employees help the organisation to succeed, primarily by providing optional effort on a long-term basis that is consistent with the organisation’s values and strategy. Employees who work in a mutual investment relationship are more dedicated to their companies. Also, they seek to achieve higher levels of performance, which lead to greater employee engagement. Studies by Buil et al., (2019) and Ghafoor et al. (2011) emphasised that transformational leadership could lead to employee commitment that ultimately increases the engagement level of employees through PO. In transformational leadership, leaders inspire, encourage, and involve staff members to produce remarkable results and promote personal growth. It focuses on changing employees’ attitudes, values and beliefs to coincide with the organisation’s vision and goals. When employees witness their leader exhibit transformational leadership, their PO increased. In other words, when public-sector employees had a high degree of PO, they displayed a high level of positive work behaviour in companies (Park et al., 2013). The degree of PO experienced by employees can significantly influence their behaviour and interactions with co-workers. When employees develop strong, intimate ties with their colleagues, characterized by high levels of solidarity, cooperation, empathy, and social cognition, the sense of ownership within the organisation is likely to deepen. These interpersonal connections foster a shared identity and collective responsibility toward the organisation and its goals which ultimately engage the employees (Lu et al., 2017). Based on the literature, the researcher posits the following hypothesis:

H1: Psychological ownership has a positive influence on employee engagement.

2.2. OCB and Employee Engagement

Organ (1988) proposes OCB taxonomy comprising a) altruism, behaviour that is aimed directly at assisting someone, b) conscientiousness, compliance with people's good working standards, c) sportsmanship, not complaining about trivial matters, d) courtesy, pre-intervention consulting, and e) civic virtue, keeping track of issues that have an impact on the organisation. The five-dimensional OCB taxonomy has been categorised by many experts (Podsakoff et al., 2000) which has served as the foundation for OCB measurement in numerous investigations. The relation between engagement and OCBs has been established by empirical research (Alfes et al., 2013; Babcock-Roberson & Strickland, 2010). But this study examines the effect of OCB on employee engagement by assuming that employee proactive activities and extra-ordinary behaviour, which imply going above and beyond the core task behaviour by devising new solutions, would lead to employee engagement. Therefore, the study posits the following hypothesis:

H2: There is a positive influence of OCB on employee engagement.

2.3. Mediating Role of POS

Hameed et al. (2019) revealed POS as a moderating variable between organisational justice and knowledge-sharing behaviour through PO, and found that having more POS enhances the connection between PO and knowledge-sharing behaviour, and that POS improves employees' psychological well-being by reducing stress and increasing happiness (Eisenberger et al., 2016). Yoon et al. (2020) examined the impact of POS on PO through the indirect role of organisational justice. When workers have greater organisation support, the POS indicator showed the highest importance on organisational performance. Employee engagement can be enhanced by the employers providing continuous organisational support. The literature suggests a positive correlation between organisational support and citizenship behaviour (Han et al., 2019a; Islam et al., 2015; Moorman et al., 1998; Nisar et al., 2014). The organisational support theory (Shore et al., 1995) outlines how POS grows and produces positive outcomes for people and businesses. As per the theory, employees perceive their organisation to have a positive or negative attitude toward them, which is reflected in the treatment which they receive. A high level of organisational support generates a 'psychological responsibility' to their firm and is repaid by employees' good attitude and behaviour.

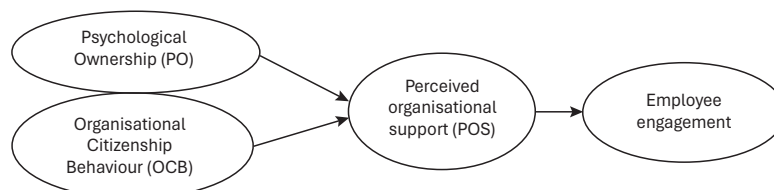
Yildiz & Yildiz (2015) determined that servant leadership has a positive effect on PO via POS. In contrast, Ekmekcioglu and Öner (2023) emphasised the positive relationship between servant leadership and innovative work behaviour through POS. Studies by Biswas and Bhatnagar (2013) and Jin and McDonald (2017) found that people feel more engaged with their work when there is a high level of POS, as higher POS levels allows staff to leverage their skills without

jeopardising their self-confidence, social status or employment. Employees also gain a better sense of work and enjoy healthy interpersonal interactions by perceiving such psychological safety. A meta-analysis done by Ahmed et al. (2015) revealed that there POS has a significant beneficial influence on engagement, work satisfaction, and organisational commitment but has only a moderate influence on OCB and turnover intent. Both POS and employee engagement were found to predict OCB (Wickramasinghe & Perera, 2014). While the scholars Kurtessis et al. (2017) found that POS have a favourable connection with the organisation's efforts which indicated that organisational support has a greater influence in Western societies, as workers are more likely to feel autonomous and understand their reciprocal connection with the firm. Further, the impact on POS are higher in Eastern cultural groups because employees are more prone to regard themselves as interdependent (Rockstuhl et al., 2020). Han et al. (2019b) found that POS has a positive effect on OCB and that knowledge-sharing intention and job characteristics moderate the POS-OCB link. OCB also mediates the link between POS and knowledge-sharing intention. In contrast Jin and McDonald (2017) demonstrated the positive relationship between supervisor support and employee engagement through POS which emphasised that learning opportunities regulate the link by connecting supervisory and organisational support, resulting in good relationships and thus in a feeling of greater engagement. Therefore, based on prior literature, this study framed the following hypotheses:

H3a: The relationship between psychological ownership and employee engagement is mediated by POS.

H3b: The relationship between OCB and employee engagement is mediated by POS.

Figure 1
Conceptual framework



3. Research Methodology

3.1. Sample and Procedure

The data were collected using a cross-sectional approach from employees of software companies in Delhi NCR. Before the data was collected, employees of software companies from various departments and their subordinates were asked if the company provided psychological ownership among employees towards the organisation. Other concerns included employees' attitude toward the company and what friendly behaviour they adopt towards other employees, including supervisors and subordinates. The study's objective was then explained to the respondents. A pilot test was conducted after collecting 30 responses (Alola, et al., 2019). This was done to make sure the statements are understandable and accessible. The workers filled out the pilot surveys and acknowledged that the questions did not pose any problems. Following the pilot test, there was no need to modify the questionnaire. The researchers employed judgmental sampling methods using the non-probability sampling approach. The best way to collect data is through this analysis, as it entails an investigation of a subset of the population (Bornstein et al., 2013). The study collected 221 responses, which was sufficient for inferring results. The minimal sample size needed to evaluate the suggested model was determined to be 74 at 15% effect size, using G * Power analysis.

3.2. Scale Adapted

The *Psychological Ownership* scale originally developed by Van Dyne and Pierce (2004) and measures with 3 items. A sample item was 'this is my company'.

Organisational Citizenship Behaviour described by Lee and Allen (2002) was also measured with the 3-items measurement. The most commonly used scale developed by Schefualli (2002) for measuring employee engagement used a total of 11 items, 4 for measuring vigour (e.g., 'At my work, I feel bursting with energy'), 4 for dedication (e.g., 'My job inspires me'), and 3 for absorption (e.g., 'When I am working, I forget everything else around me'). And for measuring perceived organisation support, the study adopted the most widely used scale, which was developed by Eisenberger (1986) and for which the sample item was 'My organisation cares about my opinions'. All items were answered on a seven-point scale ranging from 1 (strongly disagree) to 7 (strongly agree).

These scales have been frequently utilised in organisational behaviour research and underwent extensive testing for validity and reliability in earlier studies. Comprehensive theoretical foundations supporting the constructs being measured underpin each scale, improving the conceptual coherence and applicability of the results.

4. Data Analysis

4.1. Demographic Profile

Concerning demographic information for the sample, of the 221 respondents 52% were male, 59.3% belonged to the 20–30 age group and 55.7% have less than five years' experience. Around 34.4% have more than five years' but less than ten years' experience, and 47.5% people are post-secondary school graduates.

4.2. Common Method Bias

According to Podsakoff et al. (2003) "Common method bias (CMB) refers to the distortion of results in research studies caused by the measurement method, rather than the actual relationships between the variables being studied. It occurs when data collected from the same source (e.g., self-reported surveys) at the same time introduces systematic errors, leading to inflated or deflated correlations among variables". Statistical techniques, such as Harman's single-factor test, was used to detect the biasness in our study. All of the variables analysed have to be subjected to an unrotated factor analysis as part of the approach. If the majority of the co-variations in the independent and dependent variables emerge with a single factor or a general factor, it should be concluded that a significant CMB (common method bias) is present. Accordingly, in this study, we performed a factor analysis for all indicators for all the latent constructs to assess if a single factor claimed an excessive variance. However, this study showed a 22% variance. Therefore, we infer that there is no shared technique bias in our study.

4.3. Measurement Model

The PLS-SEM (partial least square-structural equation modelling) is an appropriate estimation technique for investigating complex multi-variate relationships between endogenous and exogenous variables (Esposito et al., 2010). It is a regression technique that was created to investigate the relationships between measurement (indicators) and structural model (i.e., constructs). To check the reliability and validity of responses, a consistent PLS-algorithm was run so ensure the reliability and validity. The items PO3, POS3, DED4, and vigour4 were deleted from the model because of poor outer loading (<0.5) Hair et al., 2021). Then, ensures each construct's the composite reliability, and the AVE (average variance extracted) were all within acceptable limits of 0.7 and 0.5, as shown in Table 1. All values of composite reliability (CR) lie within a range between 0.885 and 0.932, indicating that all of the latent constructs have a suitable level of internal consistency (Hair et al., 2012), and the AVE is between 0.609-0.803, which shows good convergent validity. The square root of the AVE of all latent constructs is placed on the correlation

matrix diagonal, as shown in bold in Table 1. According to Fornell and Larcker (1981), to ensure the discriminate validity, the square roots of AVE should be larger than the correlation values among all latent variables Table 1 shown that all correlation values are greater than its bold value. which concluded that all constructs are different from each other.

Table 1
Reliability and Validity results

Construct	Cronbach's Alpha	Rho A	Composite Reliability	Average Variance Extracted (AVE)
EE	0.935	0.941	0.932	0.609
OCB	0.906	0.908	0.906	0.763
PO	0.885	0.886	0.885	0.794
POS	0.924	0.926	0.924	0.803
Fornell Larcker Results				
Constructs	EE	OCB	PO	POS
EE	0.780			
OCB	0.766	0.874		
PO	0.795	0.742	0.891	
POS	0.768	0.790	0.840	0.896

Note: CR = Composite Reliability, and AVE (Average Variance Extracted), EE= employee engagement, OCB = Organisational citizenship behaviour, PO = Psychological ownership, POS = Perceived organisational support (Smart PLS-SEM results)

Source: SMART PLS-SEM results.

The Fornell-Larcker approach does not provide additional theoretical explanation. Therefore, Henseler et al. (2015) suggested a method to test discriminant validity called the Heterotrait-Monotrait (HTMT) Ratio of Correlations. In this procedure, it is assumed to have a specified threshold value, which must be compared to the correlations among the constructs. Table 2 demonstrates that all of the correlation coefficients among the latent constructs are less than suggested cut-off value of .85 (Henseler et al., 2015). As a result, all of the study constructs are unique from one another, and discriminant validity was determined using the HTMT approach. As a result, the validity and reliability of the study's measurement model have been established.

Table 2
HTMT Results

Constructs	EE	OCB	PO	POS
EE	----			
OCB	0.759	-----		
PO	0.783	0.743	----	
POS	0.754	0.792	0.841	----

Structural Model

The PLS-SEM bootstrapping procedure was used with 5000 samples to investigate the connection between independent variables such as PO and OCB, and dependent factors such as employee engagement (Hair et al., 2019). There was a significant relationship between PO and employee engagement ($\beta = 0.457, p = 0.000$), supporting H1 which stated that when people feel ownership towards the organisation, it raises their engagement level. The path coefficients of OCB ($\beta = 0.404, p = 0.000$) on employee engagement was also significant, thus supporting hypothesis H2. With standardised estimates of 0.457, PO showed the strongest association with engagement. Moreover, the OCB ($\beta = 0.404$) signifies a positive association with engagement, thus confirming hypotheses 1 and 2. R square of employee engagement was 0.698 which stated that 69.8% of the variation in engagement is explained by PO and OCB both which is relatively coming to substantial zone as per the R threshold values (Hair et al., 2021). Figure 2 illustrates the direct relationships of PO and OCB on employee engagement.

Figure 2
PLS Bootstrapping for PO, OCB and Employee Engagement



Table 3
Results of Direct Relationships

Path	Hypothesis	Path coefficient	Std. error	T-value	P value	Findings
PO-EE	H1	0.457	0.072	6.384	0.000	Accepted
OCB-EE	H2	0.404	0.081	5.013	0.000	Accepted

Source: Smart PLS-SEM results.

4.4. Mediating Effects

The bootstrapping technique using a 5000 sample mean is best adapted for finding out the mediation effect of POS among the relationship between PO and EE and between OCB and EE (Hair et al., 2014). This study examines the significance of the all the aforementioned relationship using the path coefficients, in which path 'a' is the link between independent and mediating variables, and path 'b' is the link between the mediator and dependent variables. To determine the degree of mediating effect, the Variance Accounted For (VAF) value was assessed. Table 4 shows that the entire path 'a1' relationship between PO and POS, and 'a2' shows the relationship between OCB and employee engagement as well as the path 'b' link between POS and EE. All were statistically significant. It also demonstrated the direct path 'c' relationship between PO and EE, OCB, and EE in the presence of POS, with all hypothesised paths were also being statistically significant.

Table 4
Results of Structural Path Model of Direct and Indirect Effects

Paths	Hypothesised path	Path coefficient	Std. error	T-value	P value
Path a (independent to mediator)	PO->POS	0.500	0.078	6.436	0.000
	OCB->POS	0.392	0.082	4.754	0.000
Path b (mediator to dependent variable)	POS->EE	0.226	0.087	2.584	0.008
Path c' (independent to mediator to dependent)	PO->EE	0.344	0.081	4.234	0.000
	OCB->EE	0.316	0.086	3.664	0.000

To quantify the size of the indirect influence, the VAF (Variance Accounted For) value was calculated. This value indicates how much of the variance in employee engagement can be explained directly by PO and OCB, and indirectly by POS. A VAF value of below 20% shows that no mediation effect exists, above 80% shows full mediation, and more than 20% but less than 80% suggests partial mediation (Hair et al., 2019). The indirect effects of PO on employee

engagement via POS (Figure 3) was statistically significant ($\beta = 0.113$, $p < 0.00$) (see Table 4), indicate the POS played mediator role between PO and employee engagement, with a VAF value of 22.4%, which lies between 20%–80%, exhibits POS as a partial mediator between PO and employee engagement, thus supports H3a. Similarly, the relationship between OCB and EE ($\beta = 0.088$, $p < 0.00$) is also partially mediated by POS which supports hypothesis H3b as the VAF value of 22.44% is higher than 20% (see Table 6). When the mediating variable (POS) was taken then, the relationships between PO and EE lessened from ($\beta = 0.457$, $p < 0$) to ($\beta = 0.344$, $p < 0$), and OCB and EE from ($\beta = 0.404$, $p < 0$) to ($\beta = 0.316$, $p < 0$) which represent that PO and OCB both positively influence employee engagement, part of that influence is now being channelled through employees’ perceptions of organizational support (POS), thereby reducing the direct strength of these relationships

Figure 3
 Depicting PLS-SEM Bootstrapping Indirect Relationship

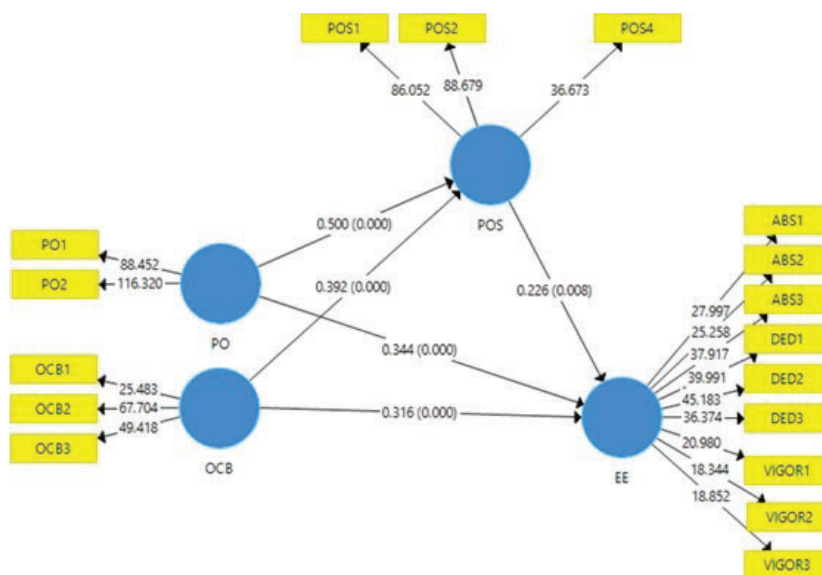


Table 5
 Showing R Value When Adding POS as a Mediator

Before Adding POS as a Mediator Variable	After Adding POS as a Mediator Variable	
R ² 70%, adjusted R ² 69.8%	R Square	R Square Adjusted
	EE 0.706	0.702
	POS 0.768	0.766

Source: SMART PLS-SEM output.

Table 6
Mediation Results

Relationships	a*b	Std error	T-value	P value	VAF	Decision
PO->POS->EE	0.113 (0.500*0.226) (H3a)	0.039	2.286	0.022	0.113/0.504 = 22.4%	Partial mediation
OCB->POS->EE	0.088 (0.392*0.226) (H3b)	0.048	2.374	0.018	0.088/0.392 = 22.44%	Partial mediation

Source: SMART PLS-SEM output.

4.5. IPMA (Importance Performance Map Analysis) Procedure

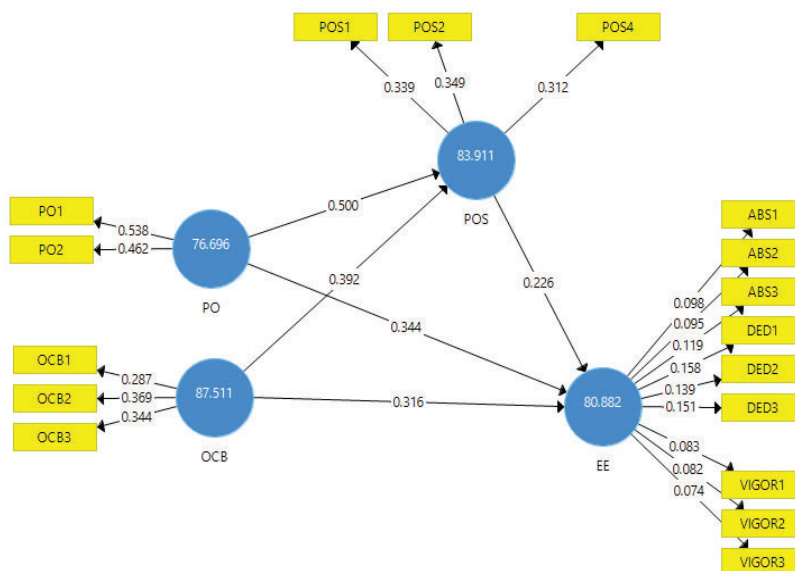
A qualitative study done by 140 American banks indicated that managers who prioritise their financial decisions using the IPMA will gain valuable conceptual insights and are unlikely to be deceived (Tailab, 2020) profitability of 2006, profitability of 2007, risk of 2006, and risk of 2007. The map analysis can assist managers in properly prioritising and allocating limited resources to the benefit of both the organisation and the people who participate in it. IPMA results aim to classify the elements in the construct that are more important, indicating a strong overall effect on the construct but with a low yield, or with a high performance and low importance, high performance and high importance, and low performance and low importance (Ringle & Sarstedt, 2016). When comparing PLS-SEM results from a multi-group study, the IPMA proves especially useful (Hair et al., 2014). In IPMA, taking the performance of each latent variable on a scale from 0 to 100 The least desirable outcome must be represented by the minimum value of a variable, while the most desirable outcome must be represented by the highest value. there should not be negative outer weights. Furthermore, the rescaled indicators' mean values reflect their output values or performance value. Step 3 establishes a construct's significance in forecasting either directly or indirectly the target construct in the model by calculating the total effect of the relationship between two constructs. Alternatively, the total effect is equal to the sum of direct and indirect effects. In Step 4, represented in the chart, the x-axis shows the importance of PO, OCB, and POS in describing the target construct EE, while the y-axis shows the performance of PO, OCB, and POS. Table 10 shows that PO, OCB, and POS have a mean importance of 0.332 and a mean performance of 82.706. In Step 5, SMART PLS software provides two ways to represent the chart, one on the construct level and the other on the variable level.

Table 7
 Depicting Unstandardised Construct Total Effect and Mean Score

Indicators	Total effect (Importance)	Performance value (mean score)
OCB	0.469	87.511
PO	0.312	76.696
POS	0.216	83.911
Mean score	0.332	82.706

Source: SMART PLS v3.0 IPMA results.

Figure 4
 Depicting Performance of All Latent Construct (IPMA Results)



The unstandardised total effect indicates the importance value on target construct (employee engagement). The average value of the rescaled latent variables score becomes the performance value in the IPMA chart, which indicates a one-point increase in OCB performance would lead to an increment in performance of employee engagement by commensurate to the total effect. It means employee engagement would increase by 0.469. The findings revealed that the most important construct is OCB followed by PO and POS, while the highest performance for this case is also OCB, which indicates that if the voluntary contribution of employees is high, then employee engagement would also be high. So, practitioners should create a participative environment in the

organisation so as to develop employees' spirit of willingness and readiness to make voluntary contributions towards the organisation.

The performance and importance of latent exogenous constructs such as PO, OCB, POS, and latent endogenous variables were assessed. The IPMA can also be illustrated using a four-quadrant diagram, as shown in Figure 5. The horizontal axis represents the perceived importance of the attributes, ranging from barely important to extremely important, and the vertical axis represents the perceived performance of the attributes, ranging from fair performance to excellent performance. As seen in the Table 8 and figure 5, OCB has received the highest value of importance and performance, and this falls into the Q1 quadrant as defined by Martilla and James (1977). This in turn signifies that this construct is critical for increasing employee engagement. Good working environments inspire people to take proactive steps that improve the efficacy of the organisation. Effective HRM practices can promote OCB because of the reciprocal nature of the employee-organization relationship, which is supported by theory Social Exchange Theory.

HR practitioners must continue their excellent work because they can create voluntary behaviours among the employees towards the organisation. . POS fall in Q2 quadrant (see Figure 5), which shows that an organisation is doing well in areas that its employees do not place a high priority. This could indicate that funds are being spent on elements that are not necessary for success, which could lead to inefficiencies. Therefore, It is necessary to reallocate resources, regularly assess employees priorities, maintain performance effectively. Further, IT organizations should work more on developing sense of ownership among employees by giving them freedom of choice, meaningful honor, congruence of personal and firm objectives. Developing ownership is essential to sustaining long-term employee engagement and organizational success.

Figure 5
Four Quadrants of IPMA With the Four Questions About POS and OCB

Q2 High performance and low importance (Possible overkill) POS	Q1 High performance and high importance (Keep up the good work) OCB
Q3 Low performance and low importance (Low quality)	Q4 Low performance and high importance (Concentrate here) PO

Source: Martilla and James (1997); Importance-Performance Matrix.

Figure 6
Importance Performance Map Analysis Results (Construct Level)

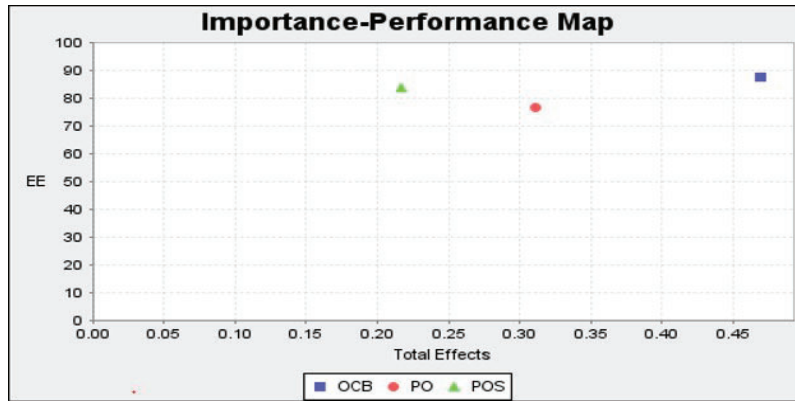
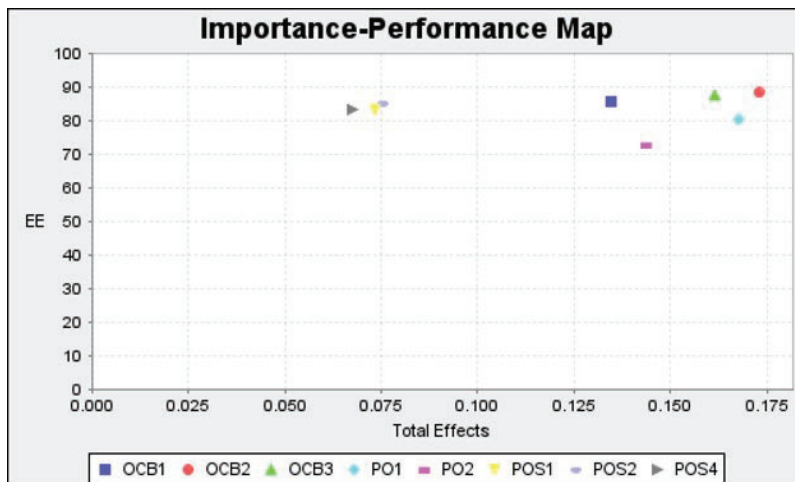


Figure 7 depicts importance and performance of each at the variable level.

Figure 7
Importance Performance Map Analysis Results (Indicator Level)



As the result indicates that OCB2 ('You volunteered your time to assist others with work-related issues') has the highest performance and importance (Table 8) which means that when people do help their co-workers willingly then this voluntary behaviour of employees towards co-workers not only creates cohesion between employees but also achieves the organisation's goals and raises the engagement level of employees.

Table 8
IPMA (Indicators Level)

Indicators	Total effect (importance)	Performance value (mean score)
OCB1	0.135	85.973
OCB2	0.173	88.386
OCB3	0.161	87.858
PO1	0.168	80.317
PO2	0.144	72.474
POS1	0.073	83.183
POS2	0.076	85.068
POS4	0.067	83.409

Source: Unstandardised indicators total effect and mean score (SMART-PLS outputs).

5. Discussion

This study seeks to add to the body of knowledge on PO, OCB and employee engagement by exploring the role of a POS as a mediator in the relationship between PO and employee engagement as well as OCB and employee engagement. The findings offer a deeper understanding of how the PO environment supports employee positive behaviour and can have a substantial impact on employees' POS, which helps to preserve and develop employee engagement in the IT industry. With standardised estimates of ($B= 0.457$), PO demonstrated the greatest link with employee engagement. The significance of cultivating a sense of ownership among employees is highlighted by the positive relationship found between PO and engagement. The results of this study are consistent with earlier studies that show workers who feel that their position and company are 'theirs' are more driven and committed to it (Pierce et al., 2001; Biswas & Bhatnagar, 2013; Azila-Gbettor et al., 2014). Moreover, OCB ($b=0.404$) also showed the positive association with employee engagement, thus confirmed H1 and H2 respectively. Workers that regularly take part in optional, extra-role activities typically show higher levels of engagement. This bolsters the idea that working above and beyond the call of duty can strengthen a worker's bond with and dedication to the company. These kinds of actions support a positive workplace culture, which encourages higher levels of participation. These results are in line with previous studies (Ayu Putu Widani Sugianingrat et al., 2019; Rurkkhum & Bartlett, 2012), which states that OCBs improve the psychological and social climate at work by encouraging greater employee participation.

Further, this study found POS was a partial mediator between PO and employee engagement or OCB and employee engagement, with VAF values 22.4 percentage for both. Partial mediation means that the POS not only has an important link with the employee engagement but that some direct linkage of effect between the PO, OCB and employee engagement exists, thus, hypotheses H3a and H3b are confirmed.

The findings indicate the importance of POS in encouraging pleasant workplace behaviour and in improving performance. As a result, an atmosphere that invites people to talk about their knowledge, skills, insights, or even to share mundane life-related anecdotes would ultimately increase employee engagement. This investigation validates the SET, which states that workers are expected to cooperate if they experience POS. This study shows that PO and OCB have a greater beneficial impact on engagement when workers sense strong organisational support. This suggests that companies can improve employee engagement by actively showing support and gratitude for their staff members in addition to encouraging OCB and a sense of ownership. Eisenberger et al. (1986) suggested that POS increases employee commitment and performance by meeting socioemotional needs and indicating that help is available when needed.

6. Theoretical and practical implications

The findings of this study add to the corpus of knowledge about PO, OCB, POS and employee engagement. It provides four unique, valuable implications for theory and research in the IT industry. First, PO has a positive effect on employee engagement. PO refers to the bond and feeling of ownership that employees have for their jobs and the organisations they work for. When employees have a sense of ownership over their work, they are more likely to be involved and dedicated. Organisations can foster PO by giving workers liberty, pushing them to take control of their work, and including them in decision-making processes. Human resource practitioners need to pay more attention to establishing PO (Fan, et al., 2019). There are several strategies to develop a sense of belonging. To begin, managers should utilise formal and informal communication tactics to help employees see the organisation as 'ours'. Considering the substantial rate of attrition in service sectors, cultivating a culture of ownership to promote engagement is critical and should be prioritised. According to Pierce et al. (2001), the factors underpinning the feeling of being in possession include the need for efficacy, a sense of self and an overwhelming feeling of belonging.

Second, OCB has a positive influence on employee engagement, which suggests that proactive behaviour of employees towards the organisation deepens employee engagement. Based on SET theory, employees engage in OCB in repayment for the organisation's support and pleasant treatment. Employees that feel appreciated and encouraged are more likely to display OCB, contributing to a healthy exchange relationship and enhanced engagement. It is crucial to recognise that the IT industry is a people-intensive industry, where employee engagement is critical to its success. Employee disengagement, on the other hand, is undeniably harmful, given that service workers play an active part in value creation and delivery. This emphasises the necessity of fostering employee engagement in the service sector, which can be influenced by a range of factors.

Third, POS mediated the relationship between PO and engagement, and between OCB and employee engagement. This finding is consistent with the SET theory (Cropanzano & Mitchell, 2005) theoretical ambiguities within SET

remain. As a consequence, tests of the model, as well as its applications, tend to rely on an incompletely specified set of ideas. The authors address conceptual difficulties and highlight areas in need of additional research. In so doing, they pay special attention to four issues: (a, which holds the basic tenet that organisational practices can instil a sense of responsibilities and reciprocity in employees, impacting their attitudes and positive work-related behaviour. This study demonstrates that when employees have a strong sense of psychological ownership (a sense of ownership and involvement in their work), this affects their opinion of how much the organisation supports them. The level of POS, in turn, may have an impact on their engagement. This suggests that instilling a sense of ownership in employees contributed to increased employee engagement by influencing their view of organisational support. On the other hand, POS also mediated the relationship OCB and employee engagement. Employees who exhibit OCB (such as assisting peers, and fostering a healthy workplace) and feel more supported by the organisation, which ultimately increase their overall engagement.

The IT industry is afflicted by exorbitant employee turnover, which results in high hiring and training costs. This study has various practical implications for HR practitioners in the IT industry. Developing ownership (by giving autonomy, self-identity, and meaningful work to employees) is critical for organisations, as it has great importance in sustaining work activities and positive work-related outcomes, resulting in enhanced productivity. This study's findings demonstrate how PO, POS, employees' voluntary behaviour functions as a resource that may enhance employee engagement in the IT industry.

7. Conclusion, limitation and future research direction

The study examined the influence of PO and OCB on employee engagement via the indirect effects of POS. PO and OCB both have a positive effect on employee engagement, and POS partially mediates the relationship. The conclusions of this study are congruent with SET theory. Self-report and cross-sectional data were used in this investigation. This restricts the inferences that may be drawn regarding causation which prevents researchers from establishing a causal connection between the key study variables.

To strengthen the confidence in causation, future studies should examine various research designs (e.g., a field experiment or a longitudinal design). While a variety of organisational settings are included in the study, not all cultural and organisational situations may benefit from the conclusions drawn from it. For the conclusions to be more broadly applicable, more research in many cultural and organisational situations is required.

This study has examined the positive effect of PO on employee engagement. However, strong feelings of PO may also lead to overprotective behaviours or fear of loss, potentially producing negative outcomes. As a result, it might be wise to investigate PO's negative ramifications (Avey et al., 2009). This study

has integrated four variables like PO, OCB, POS, and all impact on employee engagement in Indian software companies but the future study could be done taking different construct like organisation culture, organisation justice, employee wellbeing, person-job fit in a different context as it may not provide an adequate foundation for generalising the findings of this study in other contexts. The majority of the responses in our sample came from very young people. This may have an impact on the findings, since younger employees may have great enthusiasm and passion, which automatically boosts their engagement level, but they nevertheless might have a low level of psychological ownership towards the organisation. Future researchers should collect data from a more age-balanced population and examine the influence of these characteristics and address this concern by controlling for both worker age and tenure in the analyses. Future studies could go for collecting data at different points of time with different levels (subordinates and supervisors). The data is single-source self-reported, which limits our ability to investigate causal relationships between constructs. The sample size (221) might be sufficient for statistical analysis, but a greater and more varied sample might improve the findings' generalisability and sturdiness.

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The authors used the AI tool ChatGPT to help check grammar (only) in the preparation of this article.

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