

Examining the Temporal Effects of Employer Branding on Employee Engagement and Employee Retention: A Longitudinal Study in the Indian IT Sector

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ABSTRACT

Anchored within the framework of the 'consumption-system' approach and guided by the principles of social exchange theory, this research delves into the interconnectedness of employer branding, employee engagement, and employee retention. The aim of this study is to construct and validate a dynamic model that explores how the desire of IT employees to stay with their current organization may either strengthen or weaken over time due to their previous perceptions of employer branding. The data for this investigation was gathered from a sample of young IT employees through two rounds of questionnaire surveys denoted as T1 and T2. Ultimately, the final dataset comprised of 380 participants. The findings unveil a direct impact of employer branding on employee engagement, as well as a direct influence of employee engagement on employee retention. Notably, both of these associations display significant temporal effects, indicating a propensity for them to become more potent as time progresses. Moreover, the carryover effects from one time point to another hold significance for all three constructs, underscoring the idea that the perceptions at T1 exert a substantial influence on the corresponding constructs at T2. In summation, it can be inferred that the impressions formed by employer branding have an enduring effect on employee engagement during subsequent time periods. Furthermore, the level of employee engagement also wields an influence on employee retention in the periods that follow. As a whole, this study provides valuable insights for human resource managers operating within the IT sector, furnishing them with guidance on how to strategically deploy employer branding practices to foster employee engagement and, in turn, bolster their commitment to remain with the organization.

KEYWORDS

Employer branding; Employee engagement; Employee retention; IT sector; India

1. Introduction

The employment landscape in India has undergone notable changes due to the impact of the COVID-19 pandemic. Several industries have faced substantial challenges, while others have experienced a notable uptick in demand. As a result of the pandemic, numerous enterprises were compelled to implement remote work structures specially in the information technology (IT) sector in India. This exposure to remote work adaptability has provided workers with firsthand experience, leading to a growing preference for its continuation. In earlier times, individuals tended to emphasize salary above flexibility. Nevertheless, the pandemic has triggered a realization among individuals that achieving a

healthy equilibrium between work and personal life holds crucial significance for their overall well-being, both mentally and physically (Sengar, 2023). In the current scenario, where companies are actively pursuing candidates possessing a wide array of innovative skills, the task of attracting and retaining exceptional talent has grown increasingly complex given this new realization among employees, specifically in the Indian IT sector.

In the year 2023, the significance of employer branding remains remarkably high, influenced by various factors that job seekers take into account when selecting their future employer. Beyond just a harmonious work-life equilibrium, considerations such as salary perks and the perception a company conveys as an employer hold substantial importance for individuals intending to transition to their next professional opportunity. Amidst this landscape, as artificial intelligence technologies, notably tools like Generative AI such as ChatGPT, gain greater prominence in the realm of human resources and talent management, companies face a dual challenge. They must infuse authentic human elements into their organizational employer branding strategy while simultaneously ensuring sustained employee engagement. Efficiently harnessed, technology has the potential to play a pivotal role in aiding businesses to construct more compelling employer brands and fostering enriched workplace environments.

Employer branding encompasses a wide spectrum of elements, including a company's values, cultural dynamics, working atmosphere, employee perks, and the holistic employee journey. A robust employer brand serves to distinguish a company from its competitors, drawing in top-tier candidates who seek qualities beyond monetary perks – namely, transparency, adaptability, and genuineness. These attributes hold great significance in the eyes of prospective as well as current employees. A recent Randstad's Global Talent Trends report in 2023 noted that a significant 92% of Indian companies are currently placing greater emphasis on work experience compared to previous times (Verma, 2023). In light of changing expectations and preferences, companies must allocate emphasis towards their core values, organizational culture, and comprehensive employee experience. These factors play a pivotal role in constructing a strong reputation.

Employee engagement and retention have also been significantly impacted by the pandemic. Remote work, although offering flexibility, has also led to feelings of isolation among employees. A strong employer brand can help foster a sense of belonging and connection with the company, even in a remote work setup. Research by Gartner indicates that organizations with a strong employer brand have experienced 28% higher employee retention rates compared to their counterparts with weaker brands (Sharma, 2021). Employees who are actively engaged tend to exhibit a higher propensity to remain dedicated to their tasks and make meaningful contributions to the achievements of the organization. Prominent IT enterprises in India have acknowledged the significance of employer branding and are proactively dedicating resources to enhance their brand visibility. A case in point is Infosys, which initiated a campaign amid the pandemic to underscore its unwavering dedication to ensuring employee safety and welfare. The campaign showcased the company's efforts in providing mental health support and remote work infrastructure to its employees (Seth, 2021). This employer branding initiative helped reinforce Infosys' image as a caring and supportive employer, positively impacting employee morale and brand perception. In conclusion, the post-COVID-19 era has underscored the critical importance of employer branding in the Indian IT sector. As the job market becomes increasingly competitive and remote work becomes more prevalent, a strong employer brand is vital for attracting, engaging, and retaining top talent. Companies that invest in developing an authentic and appealing employer brand are better positioned to attract the best candidates, foster employee loyalty, and drive long-term organizational success.

To bridge the identified research gaps, the current study presents a research model derived from an extensive review of literature on key constructs. The study aims to achieve dual primary objectives: (a) investigating the dynamics between employer branding and its outcomes, namely employee

engagement and employee retention; and (b) analyzing the longitudinal relationship between employer brand attributes and their dependent constructs. Consequently, the study contributes to the existing literature in significant ways: (a) showcasing how internal employer brand positively influences employee engagement, which, in turn, fosters employee retention; and (b) highlighting the progressive development of relationships between employer branding, employee engagement, and employee retention over time, emphasizing the importance of the temporal dimension. Through the adoption of the “consumption-system” approach that underscores the evolution of consumer evaluations, this study provides valuable theoretical and managerial insights by investigating alterations in the direct, temporal, and carryover effects of employer branding. Data was gathered from a sample of 380 employees employed in Indian Information Technology (IT) firms to confirm the validity of the research model and the hypothesized relationships as outlined in the research objectives. Overall, this study enhances our understanding of employer branding and sheds light on the evolution of employee perceptions of employer brand between two timepoints, T1 and T2, by presenting empirical evidence.

2. Literature review

2.1 Conceptual research model

Ambler and Barrow (1996) provided the inaugural definition of an employer brand in their study titled “The Employer Brand”. They characterized the employer brand as encompassing the amalgamation of “functional, economic, and psychological” advantages stemming from employment and discernible within an employing organization. Their model presented a three-fold perspective on the employer brand, delineating functional advantages, economic rewards, and psychological well-being. These aspects align with the offerings of established consumer brands. The “functional” facet denotes the constructive and skill-enhancing opportunities furnished by the organization. In contrast, the “economic” facet embodies the tangible, financial remuneration and incentives extended by the organization. Lastly, the “psychological” facet pertains to emotions of inclusion, purpose, and guidance. This innovative framework collectively encapsulates the pivotal merits an organization provides to potential and current employees, with the overarching aim of attracting and retaining them. In the study by Kucherov and Zavylova (2012), the concept of an employer brand is characterized as a fusion of the emotional perceptions emanating from the employing organization, designed to captivate the intended audience.

In the realm of human resources (HR), over the past two decades, there has been a significant surge in interest surrounding employee engagement and employer branding. This surge is a response to the ever-evolving business landscape and the heightened global competition, prompting employers to shift their focus towards nurturing their human capital. Numerous scholars have established a strong correlation between employer branding and financial performance, substantiating this link both theoretically and through empirical evidence (Agarwal et al., 2021). In contemporary times, an organization's business strategy harmoniously intertwines with its people strategy, as the aspiration to be the preferred “employer of choice” or the ultimate “best place to work” becomes ubiquitous. Employer branding has evolved into a paramount tool utilized by companies to distinguish themselves from their competitors (Tanwar & Prasad, 2017). This differentiation is achieved by presenting a comprehensive assortment of “psychological, economic, and functional benefits” to their workforce. While the focus of external employer branding revolves around attracting top-tier talent, internal branding directs its efforts towards retaining high-performing employees. Internal employer branding is an all-encompassing endeavor targeting the organization's existing workforce. By means of internal employer branding, organizations implement strategies to ensure that employees assimilate and champion the values of the brand, harmonizing their individual goals with the accomplishment of the brand's overarching commitment (Backhaus & Tikoo, 2004). This alignment between personal aspirations and brand commitment is pivotal to fostering a cohesive and motivated workforce. In the

current study, the focus is directed towards retaining current employees, thus making ‘internal employer branding’ the focal point, which is denoted as ‘employer branding’ in this context.

Employee engagement (EE) stands as a pivotal outcome influencing organizational performance and has been subject to diverse interpretations by researchers. According to Kahn’s (1990) delineation, engagement embodies the simultaneous utilization and manifestation of an individual’s ‘preferred self’ through task-related behaviors that cultivate connections to both work and colleagues. This encompasses personal presence on physical, cognitive, and emotional levels, as well as active and complete task performance. Consequently, employee engagement, as conceptualized by Kahn, represents a positive state of employee motivation. Within the literature, several terms have been employed to explore the concept of employee engagement, including variations such as “work engagement”, “personal engagement”, “organizational engagement”, and “job engagement” (Saks & Gruman, 2014). Kahn, for instance, characterizes an employee’s complete immersion in a work role as “personal engagement”, highlighting the integration of cognitive, emotional, and physical aspects into job performance. An alternative perspective, as put forth by Schaufeli et al. (2002), defines “work engagement” as a favorable work-related mental state characterized by vigor, dedication, and absorption. Engaged employees exhibit a heightened sense of focus, energy, and active involvement in their tasks. This state of engagement reflects a sustained cognitive disposition that evolves in response to the resources provided by the employer.

Both in academic literature and practical literature, the attraction and sustained retention of top-tier talent have been universally recognized as critical factors contributing to organizational prosperity and competitive advantage. Notably, the younger workforce cohort displays a tendency to switch jobs more frequently compared to their older counterparts (Verma, 2023). Consequently, employers are presented with an intensified imperative to enhance their endeavors aimed at retaining these youthful employees. When an employee departs from a company, it entails not only the cost of recruiting and training a replacement but also necessitates a significant period of employment to generate a positive return on the invested resources. Moreover, the retention of proficient and knowledgeable staff members carries strategic significance for organizations, given that their departure could result in the leakage of proprietary expertise to competitors (Houssein et al., 2020). While much research has examined elements such as employer branding efforts and employee engagement in relation to intentions to leave a company, this study specifically delves into the domain of ‘employee retention’. Here, ‘employee retention’ signifies an organization’s capability to sustain its workforce over extended periods, and correspondingly, it pertains to an employee’s inclination to remain loyal to and continue their tenure with the employing organization.

To sum up, employer branding plays a crucial role in achieving a sustainable competitive advantage, even though its impact on employee outcomes is often overlooked and not well understood. To address this, a research model (Figure 1) has been put forth to explore the connections between employer branding construct and its effect on employee engagement and employee retention. The model also assumes that these constructs change from timepoint T1 to timepoint T2 for each employee. Alongside investigating the relationships among these variables, the present research aims to observe the temporal and carry-over effects, specifically how employer branding, employee engagement, and employee retention evolve over time. According to Punjaisri et al. (2009), the concept of “employees as internal customers” emphasizes that employees within a company should be treated as valuable customers. This perspective suggests that just like external customers, who are crucial to the success of a business, employees also play a pivotal role in achieving organizational goals and success. Building upon Punjaisri et al. (2009) argument and the “consumption-system” (or experience) approach (Mittal et al., 1999), this study expands the understanding of employee behavior dynamics by revealing that employees not only adapt their assessments of employer branding over time but also modify their engagement and retention intention based on these employer branding efforts and their repeated

consumption patterns.

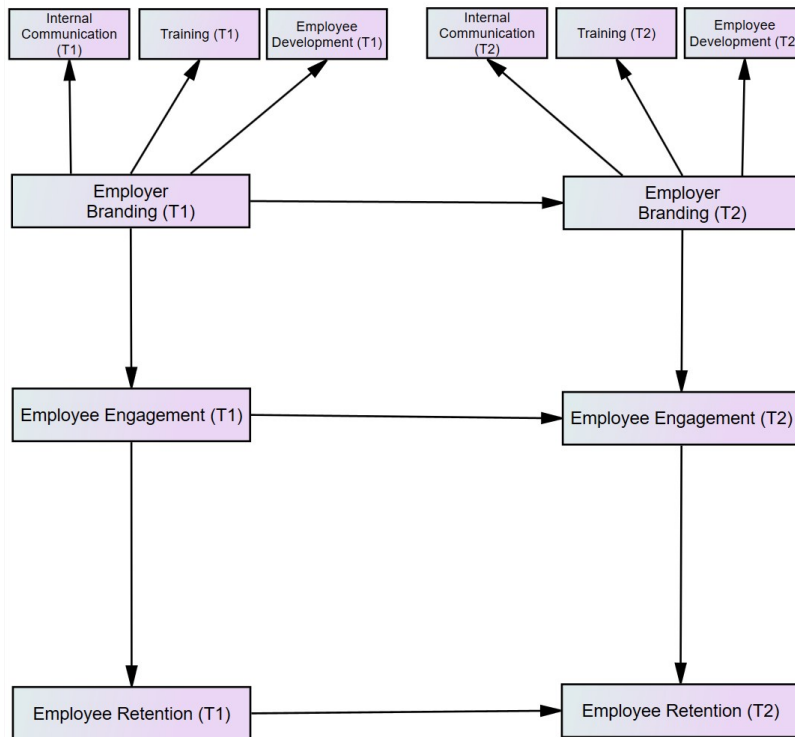


Figure 1 Proposed research model

2.2 Research hypotheses

Employer branding refers to the process of shaping an organization's image and reputation as an employer in the labor market. Employer branding involves creating a distinct and recognizable employer image that sets the company apart from its rivals (Backhaus & Tikoo, 2004). The employer, functioning as a brand, becomes a valuable intangible asset for the company. This pertains to the company's senior executives rather than a specific employee category (Martin et al., 2005). Furthermore, employer branding is a strategic approach where all departments contribute (Edwards, 2010). As the attraction and retention of talent have gained paramount importance, it has become essential to brand the employment experience for both existing and potential employees. A strong employer brand not only attracts top talent but also influences employee perceptions and behaviors, fostering a sense of pride and commitment among current employees. Research by Berthon et al. (2005) highlighted that a well-defined employer brand positively affects employee attitudes, job satisfaction, and overall organizational commitment.

Employee engagement refers to the emotional and psychological investment employees have in their work and the organization they work for. As per Robinson et al. (2004), engagement denotes a reciprocal connection between the employer and the employee. Drawing from the social exchange theory, Saks (2006) interpreted Kahn's (1990) influential work in this field, which proposed that employee engagement refers to a situation where employees feel compelled to immerse themselves more deeply in their role responsibilities as a way to reciprocate the resources provided by the organization. This involvement leads employees to engage and manifest themselves physically, mentally, and emotionally while performing their roles (Kahn, 1990). In line with this multifaceted concept, Schaufeli et al. (2002) presented one of the most widely referenced definitions of engagement:

“a positive and gratifying work-related mental state characterized by vigor, commitment, and immersion”. As articulated by Robertson and Cooper (2010), engaged employees possess favorable attitudes and actively employ their emotions and thoughts, centering on their formal job execution (Saks, 2006).

Schaufeli et al. (2002) emphasized that engagement is not a transient state influenced by specific events, individuals, or behaviors. Instead, it is a continuous and all-encompassing cognitive state that develops over an extended period. Drawing on Schaufeli et al.'s (2002) rationale and the “consumption-system” approach (Mittal et al., 1999), the present research aims to elucidate how the interplay between employer branding and employee engagement evolves over time. The proposal suggests that as employees experience and “consume” the organization's efforts regarding employer branding at T1, the EB-EE relationship will strengthen at T2, building upon their previous engagement. Consequently, the following hypotheses are formulated:

H1: *Positive employer branding has a direct, positive effect on employee engagement.*

H2: *The same relationship in H1 increases from T1 to T2.*

Maintaining a stable and skilled workforce is of utmost importance to organizations, given that their unique and irreplaceable contributions offer a distinct edge over competitors. Employee retention emerges as a pivotal concern in this pursuit. The ability to attract and keep talented staff not only bolsters an organization's competitiveness on both regional and global scales but also safeguards against turnover-related challenges. The financial and temporal investments dedicated to recruiting, training, and retaining employees make high employee turnover financially burdensome for organizations (Houssein et al., 2020). Additionally, the departure of an employee not only results in the loss of valuable expertise but also poses a risk of sensitive information falling into the hands of competitors. Regarding the organization's viewpoint, the majority of definitions in literature center on creating strategies and procedures that inspire or sway employees to stay committed to the organization. When considering employee loyalty, Huang et al. (2006) proposed that retention corresponds to an employee's intent to maintain their allegiance to their present organization.

Researchers and academics have recognized numerous factors that play a role in maintaining a workforce's continuity. From the employee's viewpoint, Hytter (2007) emphasized that concepts like loyalty, trust, and commitment serve as indicators of employee retention. Additional influencers of employee retention encompass aspects within the organization, including recognition, workload pressure, employees' receptiveness to learning, years of service, and self-perceived leadership capabilities (Kyndt et al., 2009). Research has consistently demonstrated a positive connection between employee engagement and the likelihood of employee retention (Karatepe et al., 2014; Malik & Khalid, 2016). Mendes and Stander (2011) also discovered that work engagement could predict employees' intentions to leave. Another investigation by Pandita and Ray (2018) drew the conclusion that when organizations align talent management practices with initiatives to enhance employee engagement, it leads to the preservation of talent within the organization.

Drawing from the aforementioned observations, we propose that employee engagement will exert a considerable influence on employee retention, and this relationship will intensify over time. Social exchange theory (SET) (1964) and Saks (2006) posit that positive experiences and emotions in the workplace lead to favorable work outcomes as long as employers adhere to certain principles of exchange. Leveraging the concept that relationships evolve over time as postulated by SET, we anticipate a strengthening of the employee engagement-employee retention (EE-ER) relationship during both time periods. Thus, we put forth the following hypotheses:

H3: *Positive employee engagement has a direct, positive effect on employee retention.*

H4: *The relationship in H3 increases from T1 to T2.*

While the previous section focused on the temporal effects of the evolving relationships between

constructs over time, it is equally important to consider significant carryover effects regarding these variables. Mittal et al. (1999) defined “carryover” effects as applicable when the same respondent is evaluated under two conditions at different timepoints. Numerous robust empirical studies have demonstrated the presence of carryover effects for constructs such as perceived value, self-efficacy, loyalty, affective commitment, and satisfaction (Ha & Pan, 2018; Johnson et al., 2006; Mittal et al., 1999).

Building upon these findings, our study posits that the constructs of employer branding, employee engagement, and employee retention at timepoint T1 will influence their corresponding constructs at the subsequent timepoint, T2. We anticipate that carryover effects will occur as employees update their perceptions of employer branding, employee engagement, and employee retention from timepoint T1 to T2. Therefore, we formulate the fifth hypothesis as follows:

H5: *Each construct (employer branding, employee engagement, and employee retention) at timepoint T1 has a positive effect on the corresponding same construct at timepoint T2.*

3. Research methodology

3.1 Data collection

Data collection for this longitudinal study was conducted in IT companies from Delhi, Bengaluru, Pune, and Chennai, focusing on young IT employees with less than 2 years of work experience. These participants were considered suitable and representative of the target population. Through the questionnaire, perceptions of IT employees were measured regarding “employer branding”, “employee engagement”, and “employee retention”. The study involved two data collection timepoints, T1 and T2, separated by one year time interval. To achieve the main objective of examining temporal changes between the key variables, the selection of participants was contingent upon meeting two precise conditions: (i) respondents needed to be individuals who had recently become a part of their respective companies and had not yet reached two months of employment at T1, and (ii) at T2, they were required to remain with the same employing organization without any organizational changes. The primary aim was to include only those employees who remained with their organizations throughout the duration of the study, belonging to the younger generation and having relatively less work experience.

In February 2022 (T1), data was initially collected from respondents, primarily consisting of newly joined employees after campus placements. The list included 1253 participants who had given their consent to participate in the current study. The questionnaire instrument was distributed to the participants through Facebook, email, and WhatsApp, allowing them sufficient time to complete and return the questionnaires. Ultimately, 981 subjects responded, resulting in a response rate of 78.3%. Following the removal of incomplete data and incorrect entries, there were 963 valid responses that remained for analysis. Moreover, 77 participants were not considered due to their failure to meet the initial sample selection criterion, resulting in a final count of 886 usable responses. In February 2023 (T2) for the second wave of data gathering, the same questionnaire was once more administered to the entire initial pool of 886 participants from T1. The number of respondents at T2 reduced, with only 429 participants providing completed surveys, decreasing the response rate to 48.4%. It is common for longitudinal studies to encounter lower response rates, especially when approaching the same respondents multiple times (Roemer, 2016). Having eliminated incomplete and inaccurate entries at T2, a sum of 380 pairs of responses (both T1 and T2) were identified as appropriate for subsequent data modeling and testing of the research model. According to Hinkin (1995), a sample is considered adequate if it contains at least ten times the number of measuring items. In our study, a maximum of 28 measuring items were used at any given timepoint during data collection. Therefore, a sample size of 380 is considered appropriate for data analysis and generalization.

The final sample was distributed as follows based on gender: 68.6% of the participants were male, while the remaining 31.4% were female. In terms of age, more than 76% of the participants fell within

the 21-25 years range, and the remaining 24% belonged to the 26-30 age group. At timepoint T2, approximately 62% of the participants had work experience lasting less than two years at T2, whereas only 5% of the survey respondents possessed work experience exceeding 4 years.

3.2 Questionnaire

The questionnaire used in this study consisted of measuring items adapted from existing literature. Respondents were asked to rate their responses on a 5-point Likert scale, where ‘1’ represented ‘completely disagree’ and ‘5’ indicated ‘completely agree’. Following the initial development of the questionnaire, a pilot study involving a cohort of 24 doctoral students was undertaken. Subsequent to the pilot test, the questionnaire underwent slight rewording and adjustments based on the feedback and comments received. This was done to enhance the clarity and comprehensibility of all questions for the respondents.

To measure employee engagement, nine items were adapted from the Utrecht Work Engagement Scale (UWES-9) developed by Schaufeli et al. (2006), based on the recommendation of Gupta and Shukla (2018). The original version of the UWES-9 was comprised of 17 items (W. Schaufeli et al., 2002); however, the preference leaned towards the shorter variant due to its widespread acceptance in the literature and its ability to reduce the overall questionnaire length, making it more convenient for participants to respond (Saks & Gruman, 2014). One of the measuring items was “At my job, I feel strong and vigorous”. The questions used to measure ‘employee retention’ were obtained from Kyndyt et al. (2009). An example of questionnaire item was “I see a future for myself within this company”. Regarding the ‘employer branding’ construct, three components were used to measure it: “internal communication”, “training”, and “employee development”. The measurement items used to assess these components were drawn from earlier research conducted by Punjaisri et al. (2009), Matanda and Ndubisi (2013), and Tiwari and Lenka (2019). An example of question was “I am made aware regarding the brand values of my organisation”.

4. Data analysis and results

As shown in Figure 1, the constructs of “employer branding”, “employee engagement” and “employee retention” were measured at two timepoints. The ‘employer branding’ construct was measured as a second-order construct consisting of three dimensions, i.e., “internal communication”, “training”, and “employee development”. The data analysis process was divided into two main steps: confirmatory factor analysis (CFA) and hypothesis testing. Before performing CFA, measurement model was defined by specifying the connections between the six latent constructs and their observed indicators. This involves deciding which observed variables (items) load on which latent factors. For assessing the fit of model to the gathered data, model-fit indices were computed for the measurement model. Table 1 presents the overall model-fit, and the results indicate that the model indices meet the acceptable levels. The CMIN/DF value is below the preferred score of 5, and the CFI, SRMR and RMSEA scores are within their thresholds, suggesting a good model fit (Hu & Bentler, 1999). Additionally, all items have high loadings (>0.5) on their respective latent constructs (Figure 2). Based on the model-fit indices, it can be inferred that the suggested model demonstrated a satisfactory alignment with the data.

Table1 Model-fit indices – Measurement model

Measure	Estimate	Threshold	Interpretation
CMIN	1549.493	--	--
DF	1463	--	--
CMIN/DF	1.059	Between 1 and 3	Excellent
CFI	0.993	>0.95	Excellent
SRMR	0.038	<0.08	Excellent
RMSEA	0.012	<0.06	Excellent

To assess the construct reliability and validity, confirmatory factor analysis (CFA) was conducted. Composite reliability (CR) was computed to assess the reliability of the six latent constructs (three at T1 and three at T2). The findings indicate that they satisfy the established threshold of 0.7 as reported in Table 2. Subsequently, the validity of the constructs was assessed using three criteria: convergent validity, discriminant validity, and factor loadings for individual items.

The evaluation of convergent validity involved analyzing the average variance extracted (AVE), a metric that gauges the shared variance between the latent variable and its corresponding indicators. To establish convergent validity, it is generally recommended that AVE scores for the latent variables surpass 0.5. The outcomes displayed in Table 2 disclosed AVE scores spanning from 0.54 to 0.635, thereby endorsing the constructs' validity. Additionally, the study assessed validity by scrutinizing the factor loadings of the measurement items. The findings demonstrated that the factor loadings for each item surpassed 0.5 (depicted in Figure 2), providing further affirmation of the convergent validity of the constructs. Discriminant validity was assessed by comparing the AVE scores for each latent variable with the multiple correlations with other latent variables (Hair et al., 2010). The results demonstrated that the AVE for each variable was greater than its multiple correlations with the rest of the variables (Table 2). Consequently, the diagonal elements had higher values than the off-diagonal elements, providing support for the discriminant validity of the variables as well (Fornell & Larcker, 1981).

Table 2 Convergent and discriminant validity

	CR	AVE	EE	TEE	ER	TER	IEB	TIEB
EE	0.917	0.552	0.743					
TEE	0.94	0.635	0.244***	0.797				
ER	0.824	0.54	0.532***	0.091	0.735			
TER	0.86	0.605	0.198***	0.673***	0.179**	0.778		
IEB	0.816	0.599	0.245***	-0.015	0.094	-0.059	0.774	
TIEB	0.832	0.623	0.119*	0.504***	0.019	0.347***	0.272***	0.789

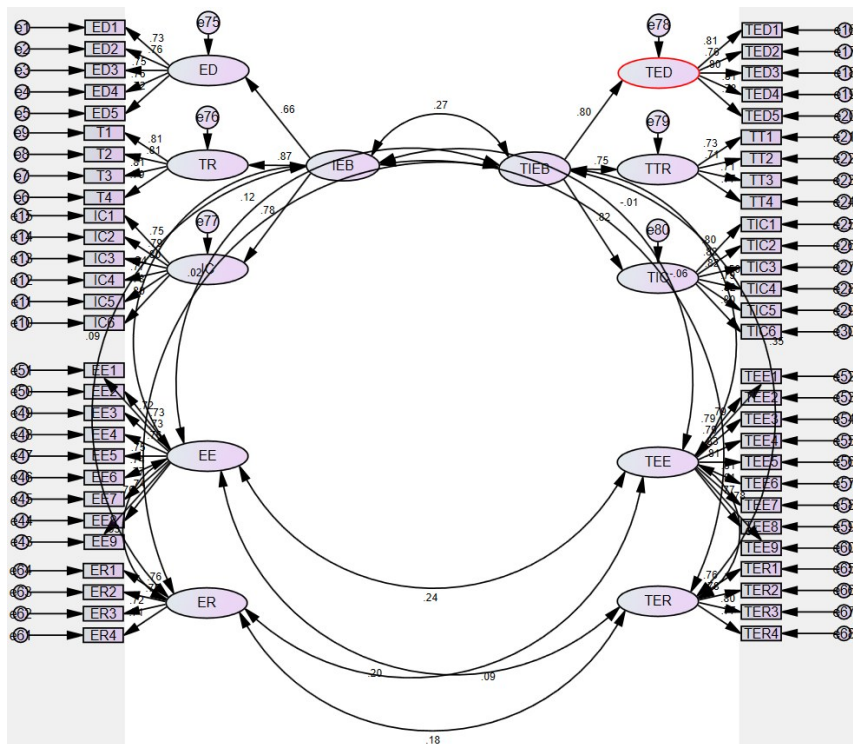


Figure 2 Measurement model

Table 3 Model-fit indices – Structural model

Measure	Estimate	Threshold	Interpretation
CMIN	1569.712	--	--
DF	1471	--	--
CMIN/DF	1.067	Between 1 and 3	Excellent
CFI	0.992	>0.95	Excellent
SRMR	0.049	<0.08	Excellent
RMSEA	0.013	<0.06	Excellent
PClose	1	>0.05	Excellent

In the second step, to test the hypotheses a structural model was developed as shown in Figure 2, based on the proposed model. The structural model's findings indicated a χ^2 of 1569.712 (df = 1471; $p < .001$), with acceptable fit indices: CFI = 0.992, SRMR = 0.049, and RMSEA = 0.013. The overall model demonstrated satisfactory compatibility with the data. As depicted in Figure 3, employer branding exerted a positive and statistically significant impact on employee engagement at both T1 ($\beta = .24, p < .001$) and T2 ($\beta = .47, p < .001$), thus confirming H1. Further, the temporal effect of this relationship ($\beta = 0.23$) also increased significantly over time. Therefore, hypothesis H2 was empirically supported.

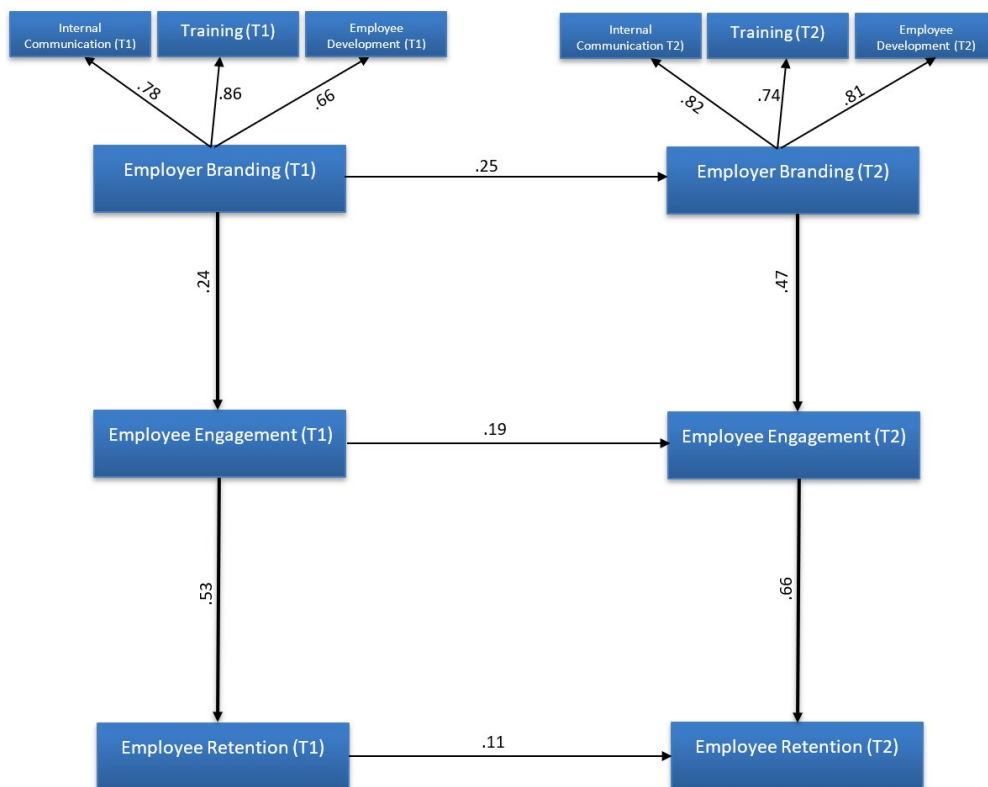


Figure 3 Structural model results

At T1 ($\beta = 0.53, p < .001$), employee engagement had a noteworthy and positive impact on employee retention. Additionally, at T2 ($\beta = 0.66, p < .001$), this association gained on its significance, thus confirming H3. The connection between employee engagement and employee retention ($\beta = 0.13$) considerably strengthened over time. As a result, H4, which highlighted this temporal effect, gained support.

Regarding H5, Figure 3 illustrates that all the constructs, employer branding, employee engagement and employee retention received significant support ($\beta = .25$, $\beta = .19$, $\beta = .11$) and exhibited carryover effects over time. The notable carryover effects also suggest the enduring stability of all the elements over an extended duration. To put it differently, the degree of employee engagement (T1) with a particular employer has a direct sway on their subsequent engagement level (T2) with the same employer within the Indian IT sector. These findings lead to the deduction that augmenting employer branding initiatives subsequently affects engagement and the intention to remain associated with a specific company.

5. Discussion and conclusion

Employing longitudinal data, this research scrutinized the suggested framework by clarifying the connections among employer branding, employee engagement, and employee retention. Specifically, it delved into both temporal and carryover impacts within the realm of Indian IT employers. In this section, we initially delve into the theoretical and practical significance of our discoveries. We wrap up by recognizing the constraints of our study and proposing directions for subsequent research endeavors.

5.1 Theoretical implications

The results demonstrated interesting differences that address the temporal effects between the employer brand-employee engagement and employee engagement-employee retention linkages. The path coefficients increased for both the relationships over time. Though, no formal hypotheses were formed for the dimensions of employer brand, some interesting observations are evident for these three dimensions during T1 and T2. As displayed in Figure 3, temporal effects increased for two dimensions (internal communication, T1: $\beta = 0.78$ vs. T2: $\beta = 0.82$; employee development, T1: $\beta = 0.66$ vs. T2: $\beta = 0.81$) and decreased for one dimension (training, T1: $\beta = 0.86$ vs. T2: $\beta = 0.74$). The transitions in attributes from T1 to T2 illustrate the evolving expectations of employees regarding employer branding initiatives over different periods of engagement. In the early phases of their careers, employee training takes precedence and shapes their perceptions of employer branding, whereas as employees gain more work experience, internal communication emerges as the primary catalyst in fostering the connection between the employer and employee. These insights concerning the dimensions also provide an explanation for the enhanced relationship between employer branding and employee engagement over time. Aligned with these insights, the crucial inference drawn is that employer branding plays a highly significant role in connecting the link between employer engagement and employee retention, either through direct influence or indirectly as the potency of internal communication and employee development intensifies over time.

This research presents a viewpoint to elucidate the evolution of employer branding alongside employee assessments across subsequent periods. This is attributed to the fact that the passage of time, whether directly or indirectly, impacts the shift in employee attitudes or behaviors (Agarwal et al., 2021). Hence, our study yields two significant theoretical contributions to the fields of human resource management (HRM) and organizational behaviour. To begin with, this research's hypotheses unveil two temporal effects that distinctly impact the dynamics of employer brand evolution. The connection between employer branding and employee engagement improves over time, prompting a reassessment of the three facets of employer branding, especially when shifts in employee perceptions contribute to brand evaluations. This affirmation is supported by the observation that temporal alterations in the three dimensions of employer branding mostly increase from timepoint T1 to timepoint T2. Conversely, the linkage between employee engagement and employee retention strengthens as time progresses, highlighting the significance of effectively managing employee engagement. From the standpoint of HRM, these findings bolster the argument that employee engagement is a pertinent element, deeming it a "crucial mediating factor" (Agarwal et al., 2023). While existing studies illustrate that employee engagement is more likely to influence the level of employee retention (Easa & Bazzi, 2020; Houssein

et al., 2020; Kundu & Lata, 2017), regrettably, the literature has not previously delved into the temporal effects. Our results offer a distinct contribution by furnishing a more comprehensive theoretical understanding of the interplay between employer branding and employee engagement, alongside their impacts on employee retention.

Secondly, the study's most noteworthy aspect was the empirical evidence supporting the presence of carryover effects. The outcomes wholeheartedly validate the "consumption-system" framework proposed by Mittal et al. (1999), which underscores substantial carryover effects from timepoint T1 to timepoint T2. All three carryover effects concerning "employer branding", "employee engagement", and "employee retention" were found to be statistically significant. Consequently, it can be inferred that the carryover effect of employer branding during T1 holds a pivotal role in shaping the evolutionary journey of employee engagement and subsequently, employee retention during T2. With employee engagement established as an important mediating factor, this research brings to light essential boundary conditions governing the impacts of employee engagement on the connection between employer branding and employee retention.

5.2 Managerial implications

Within the realm of brand literature, particular attention is placed on the concept of brand evolution. While employer branding combines elements from both HRM and marketing literature (Backhaus & Tikoo, 2004), the notion of brand evolution also extends to employer brands. As a result, employers place significance on this facet to establish a cohesive corporate brand identity. The outcomes of this study present an appropriate foundation by examining the temporal and carryover effects manifested by the variables and their interconnections, influencing the progression of brand evolution.

As shown in the results, the first temporal effect signifies that as time elapses, employee engagement undergoes enhancement owing to the influence of employer brand policies and programs. Over time, factors such as 'internal communication', 'employee development', and 'training' assume a pivotal role in fortifying the link between employer branding and employee engagement. The present research also offers empirical substantiation for this assertion. Hence, to enhance the enduring efficacy of employer branding, employers should continuously explore innovative avenues to reinforce their employer branding initiatives. For instance, a recent survey unveiled that over sixty six percent of participants perceived that companies' integration of social media contributed to the enhancement of their internal communication (Agarwal et al., 2021).

The other noteworthy temporal effect underscores the significance of employee engagement in heightening the intention of employees to remain with an organization as their tenure increases. The role of social media in fostering employee engagement has been emphasized in recent times (Kaur, 2023), aligning with our study's finding that underscores the importance of 'internal communication' as part of employer branding. As employees become more accustomed to an organization, their comfort with utilizing social media for professional purposes grows over time. Through the portrayal of narratives on social media accounts, such as LinkedIn, Instagram, and Twitter, depicting resilience, bravery, and individual development, organizations can establish a stronger bond with their employees. Furthermore, companies should invest in training and educating their employees on effectively integrating their personal identity with the organization's brand values to generate shareable content on social media and serve as advocates for the corporate brand. The credibility of an employer plays a pivotal role in cultivating authentic and transparent relationships between employers and employees, necessitating organizations to maintain genuineness, authenticity, and consistency in their social media interactions (Pitt et al., 2018). Over time, skillful utilization of employer branding strategies enables employees to recognize organizational transparency and fosters a feeling of affiliation and alignment with the organization. As a consequence, this engagement enhances employees' commitment and ultimately enhances their intention to stay with the company.

6. Limitations and future research directions

This research adds to the understanding and validation of the temporal and residual impacts within employee-related factors: employer branding, employee engagement, and employee retention. For this purpose, a longitudinal study was undertaken, encompassing two time intervals (T1 and T2), and employing the subsequent “consumption-system” approach yielded significant insights. However, expanding the research design to include three time intervals (T1, T2, and T3) could broaden the range of findings and potentially offer additional insights and implications.

Another constraint pertains to the sample size employed in the survey. Although the sample size is sufficient for conducting SEM procedure, future studies would benefit from a larger sample to enhance the applicability of the findings. The focus of this study has been to scrutinize the prolonged evolution of employee behavior among IT professionals. Similarly, a comparative investigation could be undertaken, encompassing employees from diverse sectors. Incorporating moderation analysis in this comparative approach could yield intriguing insights by contrasting employees across various sectors.

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Disclosure statement

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