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IDENTIFICATION AND TURNOVER
INTENTION: A MULTI-GROUP ANALYSIS**

ÖRGÜTSEL ÖZDEŞLEŞME VE İŞTEN AYRILMA
NİYETİNDE YAŞIN ETKİSİ: ÇOKLU GRUP ANALİZİ

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THE EFFECT OF AGE ON ORGANIZATIONAL IDENTIFICATION AND TURNOVER INTENTION: A MULTI-GROUP ANALYSIS ¹

ÖRGÜTSEL ÖZDEŞLEŞME VE İŞTEN AYRILMA NİYETİNDE YAŞIN ETKİSİ: ÇOKLU GRUP ANALİZİ

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ABSTRACT

Employment in the manufacturing industry is critically important, especially in developing countries where workforce turnover significantly impacts the sustainability of employment. While numerous studies have explored antecedents of turnover, this study focuses on the impact of organizational identification—how strongly employees align with their organization's values and goals—on turnover intentions. We specifically examine the moderating role of age in this relationship. Data were collected from 291 individuals employed in the manufacturing sector and residing in Adana province, Türkiye. Our findings reveal that organizational identification significantly influences turnover intentions, with age moderating this effect. Using multigroup analysis, we provide detailed insights into these differences. These results offer a clearer understanding of age-related variations in organizational identification and turnover intentions. The insights may also assist decision-makers, policymakers, and human resource managers in developing targeted strategies that consider age-related differences to effectively manage and reduce workforce turnover. Also, this research contributes to the literature by highlighting the role of age in turnover intentions.

ÖZ

İmalat sanayinde istihdam, özellikle işgücü devir hızının istihdamın sürdürülebilirliğini önemli ölçüde etkilediği gelişmekte olan ülkelerde kritik önem taşımaktadır. İşten ayrılmanın öncüllerini araştıran çok sayıda çalışma bulunmasına rağmen, bu çalışma örgütsel özdeşleşmenin -çalışanların kurumlarının değerleri ve hedefleriyle ne kadar uyumlu olduğu- işten ayrılma niyetleri üzerindeki etkisine odaklanmaktadır. Bu ilişkide özellikle yaşın düzenleyici rolü incelenmektedir. Veriler Adana ilinde ikamet eden imalat sektöründe çalışan 291 kişiden toplanmıştır. Bulgular, örgütsel özdeşleşmenin işten ayrılma niyetini önemli ölçüde etkilediğini ortaya koymakla birlikte yaşın bu etkiyi düzenlediğini göstermektedir. Çalışmada çoklu grup analizi kullanılmakta, bu farklılıklara ilişkin ayrıntılı bilgiler sağlanmaktadır. Sonuçlar, örgütsel özdeşleşme ve işten ayrılma niyetinde yaşa bağlı farklılıkların daha anlaşılabilir olmasını sağlamaktadır. Bu sonuçlar ayrıca karar vericilere, politika yapıcılara ve insan kaynakları yöneticilerine, işgücü devrini etkili şekilde yönetmek ve azaltmak için yaşa bağlı farklılıkları gözetken stratejiler geliştirme konusunda yardımcı olabilir. Ayrıca, bu araştırma işten ayrılma niyetlerinde yaşın rolünü vurgulayarak literatüre katkıda bulunmaktadır.

INTRODUCTION

In today's complex organizational landscape, the increasing need for scholars to study job turnover is driven by the influence of a multigenerational and diverse workforce. Job turnover has a profound impact on employment sustainability by affecting organizational costs, productivity, and profitability. It manifests in diminished performance, increased recruitment costs, and elevated training costs (Waldman et al., 2004; Hancock et al., 2013). Beyond these operational challenges, Skelton et al. (2020) link high turnover rates to broader societal issues such as social programs, tax collection, and both physical and mental health. Additionally, the prevalence of voluntary turnover is associated with high turnover intention (TI) (Hancock et al., 2013), making TI a critical issue due to its potential complications.

TI has received considerable scholarly attention. Studies have shown that job satisfaction, organizational commitment (Jones et al., 2007), social support, job autonomy (Kim & Stoner, 2008), work attitudes, job strains, and role stressors/inter role conflicts (Park & Min, 2020) are significant antecedents of TI. Organizational identification (OI), which refers to the alignment of an employee's beliefs and values with those of the organization (Ashforth & Mael, 1989), significantly influences turnover and TI (Moura et al., 2009). The concept of belonging is a critical framework for comprehending this, as it has a substantial influence on the decision to depart an organization (Lin, 2019). Employees who feel a sense of belonging are not only more committed but also more likely to proactively enhance productivity (Sugirtha et al., 2020). This sense of belonging mitigates the inefficiencies caused by TI, as OI underpins favorable employee attitudes and behaviors (Lee et al., 2015; Ashforth & Mael, 1989). As employees' sense of belonging grows, so does their dedication to the organization's goals and values, subsequently influencing their intention to stay (Lin, 2019; Ashforth & Mael, 1989). While various perspectives discuss the nature of these relationships, a significant gap exists in addressing the specific impact of age. Research examining how age interacts with OI to influence TI is scarce. Most studies either focus broadly on demographic factors or do not distinguish age-specific

responses to OI (Abrams et al., 1998).

The modern workplace features a rich tapestry of age diversity, encompassing multiple generations with unique perspectives and experiences (Knight, 2014). This diversity has major implications for the manufacturing industry, which significantly contributes to the expansion of emerging economies (Haraguchi et al., 2017). Along with that, the manufacturing industry currently faces the challenge of high turnover rates (Ooi & Teoh, 2021; Munir & Tobi, 2020; Skelton et al., 2020; Armina & Etikariena, 2022). A variety of organizational processes and outcomes are anticipated to be influenced by generational differences (Costanza et al., 2012), yet meta-analyses have found little to no evidence for generation-based differences (Costanza et al., 2023). Building on Social Identity Theory (SIT), this study addresses the largely neglected area of OI among younger and older workers (Klimchak et al., 2019). Specifically, we aim to investigate how OI influences TI and how age moderates this relationship.

The study may contribute to the existing literature in two key ways: firstly, by filling a gap in the literature with scarce evidence on TI among manufacturing employees; and secondly, by delving into the understudied area of the moderator role of age in this relationship. These implications also hold significant promise for practitioners, particularly in the manufacturing industry. The article is organized as follows: first, a literature review is undertaken, focusing on the key variables of the study and serving as the foundation for hypothesis development. Second, the methodology employed in this study is detailed, providing insight into the research design and data collection process, followed by the presentation of findings. Lastly, the discussion section synthesizes the results, leading to the conclusion section where key insights and implications are provided, and the study's recommendations and limitations are presented.

LITERATURE REVIEW

Organizational Identification

OI is a concept that has garnered significant scholarly attention, with various definitions emphasizing different aspects of the concept. Albert et al., (1985, p. 267) define

OI as “*the extent to which an individual defines himself or herself in terms of the organization and what it stands for*”, highlighting the importance of shared values and beliefs in the process. Pratt (1998, p. 551) similarly emphasizes the role of identification in shaping individuals’ sense of self, defining it as “the process by which individuals define themselves in relation to group or organizational membership”. One of the most widely accepted definitions of OI comes from Ashforth & Mael (1989, p. 20), who defined it as “the extent to which an individual feels a sense of belonging and attachment to their organization”. This definition emphasizes the role of perception in OI, suggesting that individuals develop a sense of attachment to an organization based on their subjective experiences and interpretations.

SIT introduced by Tajfel and Turner (1986), provides a foundational framework for understanding OI. According to the SIT, individuals frequently classify themselves and others into social groups. A social group consists of a group of individuals who identify as being in the same social category or who possess a shared social identity (Stets & Burke, 2000, p. 225). This theory helps classify the social environment and other people while clarifying an individual’s place within it (Ashforth & Mael, 1989). Identities, therefore, represent an individual’s understanding of their participation in a social group, as well as the value and emotional significance associated with that affiliation (Tajfel, 1978). The idea of unity or belonging to the organization an individual works for is referred to as organizational identity (Tavares et al., 2016).

In the context of OI, SIT posits that individuals can develop a sense of unity or belonging to their organization by assimilating the organization’s values, goals, and objectives. OI can arise when an individual who belongs to several social groups and has a social identity there assimilates those groups’ aims and objectives and feels a sense of connection to them. This process of identification is described as “*the degree to which a member defines him- herself by the same attributes that he or she believes define the organization*” (Dutton, et al., 1994 p. 239). Mael & Ashforth (1992) elaborate that OI is a specific type of social identification where individuals characterize themselves based on their engagement with the

organization. This engagement fosters a sense of belonging, leading to a stronger alignment between the individual’s characteristics and goals and those of the organization (Fieseler et al., 2015). As identification grows, employees tend to act more consistently with the organization’s norms and values, further reinforcing the alignment between individual and organizational identities (Ashforth & Mael, 1989). Therefore, understanding OI through the lens of SIT provides deeper insights into how employees internalize their organizational membership and the impact it has on their behavior and intentions, including TI.

Turnover Intention

OI is intrinsically linked to the “to be with” and “will become” motivations, providing a robust conceptual framework for understanding why employees may choose to remain with or leave an organization (Lin, 2019). SIT offers a valuable lens through which to explore the motivational foundations of organizational behavior within social group-based settings, particularly concerning employees’ intentions to stay or depart (Liu et al., 2013). When employees develop a profound connection with their organization, their identities become intertwined with the organization’s identity, reducing their likelihood of leaving (Avanzi et al., 2014). TI refers to a deliberate and purposeful decision to leave an organization, encompassing both the contemplation of departure and the active planning to seek alternative employment (Tett & Meyer, 1993, p. 262).

The predictive capacity of OI on TI has been investigated in prior research (Holtom et al., 2005). OI diminishes TI by embedding employees’ sense of self within the organization (Tavares et al., 2016). For instance, research conducted in Turkey’s construction industry revealed that higher OI significantly reduced employees’ TI (Demircioğlu & Giritli, 2015). Extensive research grounded in SIT has examined the relationship between OI and TI, consistently demonstrating a negative correlation (e.g., Avanzi et al., 2014; Kumar Mishra & Bhatnagar, 2010; Oguebe & Edosomwan, 2021; Boon et al., 2021; Nowak, 2021; Shaikh et al., 2022; Suifan et al., 2020). Meta-analytic studies further support that OI is a strong predictor of TI (Riketta, 2005; Zhang & Liu, 2016). Another meta-analysis

was conducted on 32 papers using Pearson correlation coefficients that investigated the association between OI and TI, published nationally from 2010 to 2020. The impact size between OI and TI demonstrated a medium-level negative association ($r=-0.353$). Furthermore, it was ascertained that this effect size was elevated and classified as medium ($r:-.411$) among private sector employees (Çetinceli, 2024). These findings underpin the following hypothesis:

H₁: As the level of organizational identification of the employees increases, turnover intention decreases.

The Moderating Effect of Age

Age holds significant importance in organizational behavior research, as it has the potential to exert impact on the attitudes, behaviors, and performance of employees in the workplace. Research has shown that age can have a significant impact on job satisfaction, organizational commitment, TI, and work-related stress (Kooij et al., 2010; Ng & Feldman, 2010). A study in Türkiye have indicated that senior employees exhibited higher levels of job satisfaction and lower levels of TI compared to their younger counterparts (Yüksel & Yüksel, 2014). Another investigation indicated that younger employees exhibit a greater propensity to resign from their positions compared to older employees (Turgut et al., 2017). Research indicates that employees up to the age of 35 exhibit a greater propensity to resign from their positions compared to their older colleagues. This was attributed to young employees possessing increased desire and believing they have alternative job opportunities. Furthermore, it was shown that employees who identify with the organization exhibit greater inclinations to remain, whereas those who do not identify with the organization consider quitting (Çınar et al., 2016).

Korder et al. (2021) reviewed industrial turnover factors in the literature. They analyzed over 300 publications and found that 45% of the 305 factors examined were employee-related, 31% organization-related, and 18% work environment-related. Age is one of these critical factors influencing OI. Research mostly indicates a positive correlation between age and OI (Riketta, 2005; Ng & Feldman, 2010; Bergmann et al.,

2016). OI tends to strengthen with age, as evidenced by Sugirtha et al. (2020), who found that employees aged 48 to 58 exhibited significantly higher OI than younger cohorts. Conversely, the youngest group, aged 18 to 28, demonstrated the lowest levels of OI. Studies have also extensively examined the relationship between age and TI, revealing that older employees are generally less likely to intend to leave their current positions (Moynihan & Landuyt, 2008; Jin et al., 2018). Weisberg & Kirschenbaum (1991) noted that older individuals exhibit lower TI, while Cho & Lewis (2012) found that younger employees are more inclined to plan for departure.

In the context of this study, it is possible that younger workers in this sector may have weaker OI and higher TI than their older counterparts. Conversely, older workers may have stronger OI and lower TI due to their longer tenure and greater investment in the organization (Ng & Feldman, 2010). Within the SIT perspective, as individuals age, they accumulate more experiences and social ties within the organization, which can lead to stronger identification with the organization. Older employees are more likely to have longer tenure and deeper connections within the organization, thus their OI is typically higher. This stronger identification reduces their TI, as their self-concept is more closely tied to the organization. In contrast, younger employees, who may still be exploring their professional identity and have less tenure, may exhibit weaker OI and higher TI. Consequently, age can moderate the relationship between OI and TI, with older employees showing a stronger negative relationship between OI and TI compared to younger employees. Based on these insights, the following hypothesis was formulated:

H₂: Age moderates the relationship between organizational identification and turnover intention.

The research model is shown in Figure 1.

Figure 1. Research Model

METHOD

Study Design

The study employed a quantitative research method to collect

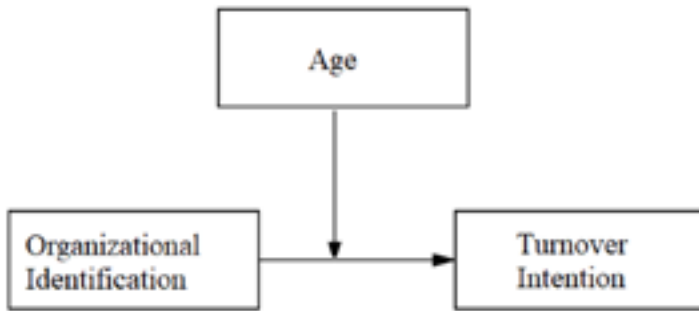


Figure 1. Research Model

data on the independent and dependent variables. Within the scope of this research method, questionnaires were given to employees working in the manufacturing industry in Adana. Ethical approval for the study was obtained from the university review board (59.2023/7). All participants were informed about the purpose of the study, assured of their anonymity, and provided with the op-

tion to withdraw at any time without any consequences. Informed consent was obtained from all participants before they completed the questionnaire.

The convenience sampling method was utilized to select participants, allowing for the efficient gathering of data from a readily available population. While this method may limit the generalizability of the findings, it is appropriate for exploratory research and provides a practical means to collect data in a specific context. A total of 303 questionnaires were collected from employees. The initial dataset was subjected to data cleaning process: First, questionnaires with significant amounts of missing data or obvious inaccuracies were excluded from the analysis to ensure data integrity. Second, outliers were identified and removed to prevent skewed results. After these steps, the final sample comprised 291 employees. The final dataset was deemed sufficient for conducting statistical analyses to test the study's hypotheses.

Table 1 provides a detailed summary of the demographic characteristics of the final sample, including gender composition, educational background, age distribution, and tenure.

Table 1. Demographic characteristics

	Categories	Frequency	Percentage (%)
Gender	Male	243	83.5
	Female	48	16.5
Education	Elementary or secondary school	65	22.3
	High School	110	37.8
	Associate degree	81	27.8
	University	35	12
Age	18-25	27	9.3
	26-30	85	29.2
	31-35	91	31.3
	36-40	59	20.3
	41 and over	29	10
Tenure	1-5	109	37.5
	6-10	85	29.2
	11-15	61	21
	16-20	28	9.6
	21 and over	8	2.7

The sample was predominantly male (83.5%), with females making up 16.5% of the respondents. This reflects the typical gender distribution in the manufacturing sector. The manufacturing industry in Turkey is predominantly male-dominated, with men comprising approximately 69% of the workforce in this sector (TurkStat, 2021). The educational background of respondents varied, with the majority having a high school education (37.8%), followed by associate degrees (27.8%), elementary or secondary school education (22.3%), and university degrees (12%). The age distribution of the sample showed that the majority were between 26-30 years (29.2%) and 31-35 years (31.3%), with fewer respondents in the youngest (18-25 years, 9.3%) and oldest (41 and over, 10%) age groups. Most respondents had been with their organization for 1-5 years (37.5%), followed by those with 6-10 years (29.2%) and 11-15 years (21%) of tenure. A smaller proportion had been employed for 16-20 years (9.6%) or over 21 years (2.7%).

Measures

Organizational identification scale

We utilized the *Organizational Identification Scale* developed by Mael & Ashforth (1992). This scale is designed to measure the extent to which employees identify with their organization. It is a unidimensional scale comprising six items. Respondents rated each item on a five-point Likert scale, with response options ranging from 1 (Strongly Agree) to 5 (Strongly Disagree). The scale had a Cronbach's alpha of .87. The Turkish adaptation of the scale, validated by Tak & Aydemir (2004) was employed to ensure cultural relevance and accuracy in measuring OI.

Turnover intention scale

We measured TI using the *Michigan Organizational Assessment Questionnaire* developed by Cammann et al., (1979). Respondents rated each item on a five-point Likert scale, with response options ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The scale had a Cronbach's alpha of .82. The Turkish adaptation of the scale by Gürbüz & Bekmezci (2012) was used to ensure the appropriateness of the measurement in the Turkish context.

Control variables

Previous research on TI has considered demographic factors such as gender (Almalki et al., 2012), and tenure (Kim & Lee, 2007; Moynihan & Landuyt, 2008; Caillier,

2013) had a relationship with TI. Accordingly, gender, and tenure were determined as the control variables in the study due to their potential to introduce confounding effects.

Common method variance

To assess the potential presence of common method bias, the study employed Harman's one-factor test (Podsakoff et al., 2003). This test examines the measurement model of the single-factor structure by consolidating all scale components into a unified factor. The analysis demonstrated that $\chi^2 = 792.678$, $df = 27$; $(\chi^2)/df = 29.358$; root mean square error of approximation (RMSEA)=0.313; goodness of fit index (GFI)=0.665; comparative fit index (CFI)=0.576; tucker lewis index (TLI)=0.435; standardized root mean square residual (SRMR)=0.207. Hence, the fit indices revealed a significantly inadequate model fit. None of the fit indices reached acceptable thresholds, indicating that common method bias is not a concern in the sample of this study. In addition, variance inflation factors (VIFs) were computed to assess multicollinearity. According to Allison (1999), VIF values exceeding 2.5 indicate significant multicollinearity. The analysis conducted using SPSS showed that the VIF value for the dependent variable TI was 1.000 indicating no evidence of multicollinearity in the study.

FINDINGS

Validity and Reliability

Confirmatory factor analysis (CFA) was applied to evaluate convergent and discriminant validity of the measurement model using AMOS v.22. The initial CFA results indicated that the measurement model reasonably explained the data but required modification to improve fit indices. The initial model fit indices were $\chi^2/df = 3.241$; GFI = 0.942; CFI = 0.968; RMSEA = 0.088; TLI = 0.955, indicating a need for modification due to the RMSEA value exceeding the acceptable threshold. To address this, a covariance link was established between the error terms e5 and e6, addressing the highest modification index. After this modification, the CFA results improved significantly, with all values falling within acceptable ranges: $\chi^2/df = 2.564$; GFI = 0.955; CFI = 0.978; RMSEA = 0.073; TLI = 0.969 (Bagozzi & Yi, 1988). The analysis demonstrated that all items in the scale had very good standardized factor loadings above 0.63 (Comrey & Lee, 1992). Detailed factor loadings are presented in Table 2.

Table 2. Factor loadings of variables

Variables	Factors	Factor Loadings
Organizational Identification (α)= .91	When someone criticizes my organization, it feels like a personal insult.	.66
	I am very interested in what others think about my organization	.70
	When I talk about this organization, I usually say ‘we’ rather than ‘they’.	.84
	This organization’s successes are my successes	.86
	When someone praises this organization, it feels like a personal compliment	.85
	If a story in the media criticized the organization, I would feel embarrassed.	.77
Turnover Intention (α)= .93	I probably look for a new job in the near future	.91
	I will likely search for a new job in the near future	.88
	I often think of leaving the organization	.93

Measurement Invariance

Measurement invariance was assessed using multiple-group analysis in AMOS to ensure that the study constructs were interpreted consistently across different age groups. Measurement invariance was evaluated by analyzing the confidence interval for the statistical significance of the difference in χ^2 between models. The χ^2 test is highly sensitive to even small deviations from an ideal model in large datasets (Putnick & Bornstein, 2016). Given the sensitivity of the χ^2 test to large datasets, CFI difference tests (Δ CFI) were utilized, ensuring that resulting differences were below or equal to 0.01 (Cheung & Rensvold, 2002). The study evaluated measurement invariance by calculating the difference in Δ CFI between the constrained and unconstrained models.

Configural invariance refers to the equivalence of factor structures across different groups. It assesses if there is a consistent item-factor loading pattern across different groups (Chung et al., 2016). Configural invariance requires

that factor loading patterns and the number of factors are consistent across all groups (Byrne, 2016). Metric invariance implies that the unstandardized factor loadings remain consistent across groups. Scalar invariance states that factor covariances are the same across different groups. All factor loadings, factor variances, and factor covariances are restricted (Meredith, 1993; Cheung & Rensvold, 2002). In the study, the weights of the measurements are restricted, followed by the restriction of the intercepts, and finally the restriction of the residuals of the measurements. The study achieved strong invariance, demonstrating equivalence in loadings and intercepts (Wu et al., 2019). While strong invariance provides adequate support for measurement invariance (McArdle, 1998; Vandenberg & Lance, 2000), strict invariance is preferable for unbiased comparisons (Meredith, 1993). Items causing variance, specifically the second and third items of the TI scale, were identified. Ultimately, the study achieved partial strict invariance across age groups based on the Δ CFI criteria (Δ CFI $\leq$ 0.01). Results are presented in Table 3.

Table 3. Measurement invariance results

Variable	Model	χ^2	df	χ^2/df	TLI	RM-SEA	CFI	ΔCFI
Age	Unconstrained	226.532	125	1.812	0.924	0.053	0.948	
	Measurement weights	260.649	153	1.704	0.935	0.050	0.944	0.004
	Measurement intercepts	317.389	189	1.679	0.937	0.049	0.934	0.010
	Measurement residuals	364.225	221	1.648	0.940	0.048	0.926	0.008

Table 4. Structural equation model invariance results

Moderator Variable	Model	χ^2	df	χ^2/df	TLI	RM-SEA	CFI	ΔCFI
Age	Unconstrained	136,352	90	1.515	0.957	0.042	0.972	
	Measurement weights	167,395	114	1.468	0.960	0.040	0.968	0,004
	Measurement intercepts	215,139	146	1.474	0.960	0.041	0.958	0.010
	Structural weights	221,035	142	1.557	0.953	0.044	0.952	0.006
	Structural covariances	247,853	154	1.609	0.949	0.046	0.943	0.009
	Structural residuals	253,609	158	1.605	0.949	0.046	0.942	0.001
	Measurement residuals	289,253	186	1.555	0.953	0.044	0.938	0.004

Table 5. Descriptive statistics and inter-correlations for study variables

	Mean	SD.	Skewness	Kurtosis	AVE	CR	1	2	3	4	5	6
TI	1.83	.940	.911	-.048	.821	.932	1					
OI	3.74	.914	-.672	-.193	.615	.904	-.140*	1				
GR							-.189**	.093	1			
AGE							-.094	.061	.143*	1		
EQ							-.143*	-.151*	.002	-.047	1	
TEN							-.001	.000	.111	.461**	-.099	1

* $p < 0,05$, ** $p < 0,01$ TI=Turnover Intention; OI=Organizational Identification; GR=Gender; EQ=Education Qualification; TEN=Tenure

Following the measurement invariance tests, invariance tests were also applied to the structural equation model. Unconstrained models, measurement weights, measurement intercepts, structure weights, structural covariances, structural residuals, and measurement residuals were assessed. Strong invariance was achieved initially, but items leading to variance were subsequently identified and adjusted to achieve partial strict invariance. Table 4 illustrates partial strict invariance across age groups, as indicated by the ΔCFI criterion ($\Delta\text{CFI} \leq 0.01$).

Data Analysis

Pearson correlation analysis was performed to determine the correlation values between variables. The findings indicated significant and negative correlations between OI and TI ($r = -.140$, $p < .05$), gender ($r = -.189$, $p < .01$), education qualification ($r = -.143$, $p < .05$). Additionally, a significant negative correlation between OI and education qualification was discovered ($r = -.151$, $p < .05$). The descriptive statistics of the study and the correlation coefficients between variables are presented in Table 5.

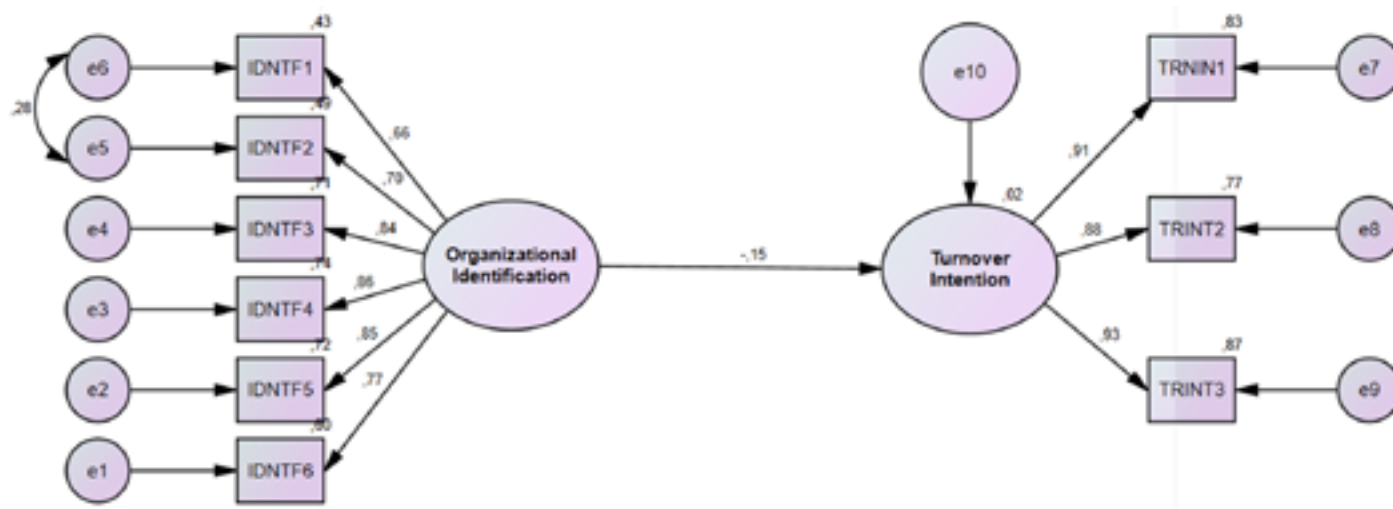


Figure 2. Structural Equation Model

The AMOS V.25 program was utilized to analyze the study variables. Structural equation modeling (SEM) was employed to test the study's hypotheses. The structural model's fit indices ($\chi^2/df = 2.564$; GFI = .955; CFI = .978; RMSEA = .073; TLI = .969) indicated a satisfactory fit with the data. The analysis revealed that all paths were significant, and OI was found to be negatively related to TI ($\beta = -.151$, $p < .05$). Therefore, Hypothesis 1 was supported.

Multigroup Analysis

A multigroup analysis was performed to assess how age moderates the relationship between OI and TI. Two different models were created for each age group. The first model applied equal restrictions on the regression weights, while the second model was constructed without any constraints. Concurrently, restrictions were imposed on

all regression coefficients to investigate interaction effects across the entire model. A statistically significant result was observed ($\chi^2 = 7.558$, $df = 4$, $p < .01$). Additionally, individual tests were carried out on the paths to identify the presence of interaction effects. The restricted and unconstrained models showed variations in the relationship between age, OI, and TI. Hypothesis 2 was supported. The result is displayed in Table 6.

Control Variables

The control variables gender ($\beta = -0.346$, $p < .05$) and tenure ($\beta = -0.168$, $p < .01$) exhibited significant correlations with TI. The assumptions produced consistent outcomes even after accounting for variables such as gender, and tenure. Confounding effects are absent, as there have been only minimal discrepancies in the model outcomes, which did not impact the estimations.

Table 6. Chi-square difference test for multi-group analysis

	Path	β (18-25)	p	β (26-30)	p	β (31-35)	p	Result
	Model 1							
H ₂	OI → TI	-,022	,900	-,026	,876	,045	,572	Supported
		β (36-40)	p	β (41 and over)	p			
		-,849	,000	-,941	,000			

DISCUSSION

The present study aimed to investigate the relationship between OI and TI, and to explore the moderating effect of age on this relationship. The results supported Hypothesis 1, indicating that OI is negatively related to TI, meaning that higher levels of OI are associated with lower TI among employees. This result is in line with SIT, which suggests that individuals derive a sense of self-worth and social identity from their group memberships, including their membership in an organization (Tajfel & Turner, 1979). Furthermore, the multigroup analysis revealed that age significantly moderates this relationship, with older employees exhibiting a stronger negative relationship between OI and TI compared to younger employees. This is consistent with previous research which has suggested that age can moderate the relationship among job attitudes (Rhodes, 1983; Ng & Feldman, 2010).

The results contribute to the theoretical understanding of OI and TI by integrating the moderating role of age. The study provides empirical support for the notion that OI is a critical factor in retaining employees, especially older ones. It also underscores the importance of considering demographic variables such as age when examining organizational behaviors and attitudes (Tett & Meyer, 1993). This research bridges the gap between SIT and organizational behavior literature, providing a nuanced view of how identification processes operate differently across age groups.

Employee turnover negatively impacts organizational performance, with stronger effects in manufacturing industry (Hancock et al., 2013). Organizations can reduce employee turnover by understanding employee needs and adopting strategies to improve productivity. For practitioners in the manufacturing sector, the findings suggest that fostering strong OI can be an effective strategy for reducing TI, particularly among older employees. High turnover rates in the manufacturing industry can significantly impact productivity, operational efficiency, and overall costs. A recent study on a Japanese manufacturing firm found that high worker turnover decreased productivity due to the time required for new workers to reach the proficiency level of those they

replaced (Hibino et al., 2021).

Human resource managers and organizational leaders in manufacturing should consider implementing programs and policies that enhance employees' identification with the organization, such as mentorship programs, recognition and reward systems, and opportunities for professional development (Mishra & Bhatnagar, 2010). Tailoring these initiatives to different age groups can maximize the effectiveness. For instance, younger employees in manufacturing might benefit more from career development opportunities and mentoring, while older employees might value recognition and involvement in decision-making processes.

Limitations and Directions for Future Research

This study has several limitations. First, the use of convenience sampling in a single industry (manufacturing) and location (Adana) may limit the generalizability of the findings. Future research should consider a more diverse sample across different industries and geographic locations to enhance generalizability. Second, the cross-sectional design of the study limits the ability to draw causal inferences. Longitudinal studies could provide more robust evidence of the causal relationships. Third, while the study addressed common method variance and multicollinearity, other potential biases such as social desirability bias were not explicitly controlled for. Future research should employ more robust measures to mitigate these biases.

Future research might explore potential moderating variables, such as organizational tenure or job satisfaction, that could provide a more comprehensive understanding of the dynamics between OI and TI. According to Cole & Bruch (2006), OI has been found to vary based on hierarchical levels. This variation may stem from differences in how identities are socially constructed for employees (Gioia et al., 2000). Age can be evaluated in a similar manner. While the existing organizational research literature presents conflicting findings about generational disparities, employing research designs that consider age in broader contexts can potentially resolve this issue. Furthermore, longitudinal studies that examine the evolution of individuals' views of identity and belonging within an organization can enhance our understanding

of the dynamics of OI. Moreover, the quantity of female participants in the study is limited. Availability to female participants had been limited due to the male-dominated characteristics of the manufacturing industry. The disparity in gender distribution among participants may influence the generalizability of gender-based results. Future research requires sampling procedures that ensure a more balanced gender distribution.

CONCLUSION

The present study provides insights into the relationship between OI and TI, emphasizing the moderating role of age. The findings highlight that fostering a strong sense of identification with the organization can significantly reduce employees' intentions to leave, particularly among older employees. These results have important implications for both theory and practice, suggesting that age-specific strategies to enhance OI can be an effective approach to employee retention. In the context of manufacturing, reducing turnover is crucial for maintaining operational stability and productivity. By understanding the complex interplay between OI, TI, and age, manufacturing organizations can develop targeted interventions that promote employee retention and enhance overall organizational effectiveness.

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Author Contribution Rate

The authors contributed equally to the research.