

How Job Crafting Activates Proactivity in Gen Z Workers within Traditional Manufacturing Environments

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Abstract

This study investigates how job crafting enhances proactivity and work engagement among Generation Z workers in traditional manufacturing environments in China. Using pilot data collected from 114 Gen Z employees, the study applies Partial Least Squares Structural Equation Modeling (PLS-SEM) to examine the direct, mediating, and moderating effects in the proposed model. Results demonstrate that job crafting has a positive and significant effect on work engagement, and that psychological capital (PsyCap) partially mediates this relationship. While servant leadership did not yield a statistically significant moderating effect in the pilot sample, its direction aligns with theoretical expectations, suggesting potential amplification of job crafting's benefits under supportive leadership conditions. The findings highlight the value of fostering job crafting and psychological resources in enhancing Gen Z workers' adaptability and proactivity in rigid manufacturing contexts. This exploratory pilot study lays a foundation for larger-scale empirical validation and offers practical implications for organizational leaders seeking to retain and empower young employees.

Keywords: Job Crafting, Psychological Capital, Servant Leadership, Work Engagement, Generation Z, Manufacturing Industry

Introduction

As Generation Z enters the workforce, organizations face new challenges in managing and motivating employees with distinct expectations and values. Gen Z workers often seek autonomy, meaningful work, and supportive leadership, yet many encounter rigid structures in traditional manufacturing sectors, where hierarchical control and repetitive tasks prevail (Schroth, 2019; Ozkan & Solmaz, 2015). These tensions risk undermining engagement, innovation, and retention, particularly in the Chinese manufacturing context, where Gen Z represents a growing share of the labor force (Wang et al., 2021).

Job crafting, defined as employees' proactive efforts to redesign their tasks and relationships at work, has emerged as a promising mechanism to enhance engagement and proactivity in

such environments (Wrzesniewski & Dutton, 2001; Tims et al., 2013). By shaping their roles, employees can better align personal strengths and values with job demands, thereby improving both motivation and well-being. Recent research suggests that job crafting is particularly salient for younger employees who value agency and developmental opportunities (Demerouti et al., 2015).

Psychological Capital (PsyCap)—comprising self-efficacy, hope, resilience, and optimism—has been identified as a critical mediator in the link between proactive behaviors and positive outcomes (Luthans et al., 2007). When employees engage in job crafting, they may simultaneously develop PsyCap, which, in turn, strengthens their work engagement and capacity to thrive under stress (Avey et al., 2011).

Leadership also plays a pivotal role. Servant leadership, characterized by humility, empowerment, and a focus on employee growth, provides a supportive climate that may amplify the benefits of job crafting (Liden et al., 2014). While prior studies have demonstrated servant leadership's impact on engagement and well-being, its moderating role in shaping the job crafting–engagement relationship, particularly among Gen Z in traditional manufacturing settings, remains underexplored.

This study addresses this gap by analyzing pilot data from 114 Gen Z employees in Chongqing, China. It aims to (1) test the feasibility of the proposed research model, (2) provide preliminary evidence of the relationships among job crafting, PsyCap, servant leadership, and work engagement, and (3) set the stage for a larger-scale empirical investigation.

Literature Review and Hypotheses Development

Job Crafting and Work Engagement

Job crafting, defined as the proactive changes employees make to their job tasks, relationships, and perceptions (Wrzesniewski & Dutton, 2001), has been increasingly studied as a key driver of employee motivation and engagement. Drawing on the Job Demands–Resources (JD-R) model (Bakker & Demerouti, 2017), job crafting enables employees to increase their structural and social resources and seek new challenges, which in turn fosters higher engagement. According to the Self-Determination Theory (SDT) (Deci & Ryan, 2000), job crafting also enhances individuals' autonomy and competence, thereby fulfilling their basic psychological needs and promoting intrinsic motivation. Empirical studies consistently show that employees who engage in job crafting report higher levels of vigor, dedication, and absorption, the three core dimensions of work engagement (Tims, Bakker, & Derks, 2013). Within the context of Generation Z in traditional manufacturing environments, job crafting is especially critical, as it allows young workers to reshape rigid tasks into meaningful and growth-oriented experiences.

H1: Job Crafting positively predicts Work Engagement.

Mediating Role of Psychological Capital

Psychological Capital (PsyCap) is a higher-order construct consisting of hope, efficacy, resilience, and optimism (Luthans et al., 2007). These resources represent a “positive psychological state of development” that helps individuals cope with stress, pursue goals, and maintain motivation in challenging contexts. Previous studies demonstrate that PsyCap is

strongly associated with work engagement (Xanthopoulou et al., 2007; Avey, Reichard, Luthans, & Mhatre, 2011).

In the JD-R framework, PsyCap functions as a personal resource that mediates the link between job resources and engagement. When employees engage in job crafting—such as seeking new challenges or acquiring additional resources—they simultaneously build psychological resources, which subsequently enhance engagement (Lichtenthaler & Fischbach, 2019). For Gen Z workers, PsyCap is particularly relevant because their limited work experience often makes them vulnerable to stress and disengagement in rigid manufacturing environments. Enhancing PsyCap enables them to transform job crafting behaviors into sustained energy, dedication, and resilience at work.

H2: Psychological Capital mediates the relationship between Job Crafting and Work Engagement.

Moderating Role of Servant Leadership

Leadership is a critical contextual factor that shapes how employees' proactive behaviors translate into outcomes. Servant leadership, characterized by humility, empowerment, and prioritizing followers' growth (Liden et al., 2008), provides a supportive environment in which job crafting can flourish. Servant leaders promote trust, encourage autonomy, and provide resources, which amplify the positive effects of job crafting on work engagement (Eva et al., 2019).

From the perspective of SDT, servant leadership fosters an environment that satisfies employees' needs for relatedness and competence, thereby reinforcing their proactive efforts. In the context of manufacturing organizations, where hierarchical and authoritarian leadership styles are common, servant leadership represents a contrasting approach that may buffer against rigidity and enhance the effectiveness of job crafting.

H3: Servant Leadership moderates the effect of Job Crafting on Work Engagement.

Methodology

Participants

The pilot study involved 114 valid responses collected from vocational college and university students in Chongqing, China, representing the Generation Z workforce (born after 1995). These participants were selected because of their demographic alignment with young employees in China's manufacturing industry. The sample was diverse in gender, education level, and work experience, reflecting the heterogeneity of Gen Z. Respondents ranged in age from 18 to 25 years, with 52% female and 48% male. Approximately 60% reported having internship or part-time work experience in manufacturing-related sectors, making them an appropriate proxy for the target research population.

Measures

Validated and well-established scales were employed to measure all study constructs, each rated on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Job crafting was measured using the 15-item scale developed by Tims et al. (2012), which captures three dimensions: increasing structural resources, increasing challenging demands, and decreasing hindering demands. The Cronbach's alpha for this scale in the pilot study was 0.87, indicating good internal consistency. Psychological Capital (PsyCap) was assessed with

the PCQ-24 developed by Luthans et al. (2007), which measures four dimensions—self-efficacy, hope, resilience, and optimism—and demonstrated high reliability ($\alpha = 0.91$). Servant Leadership was evaluated using the seven-item short form by Liden et al. (2015), encompassing the dimensions of empowerment, humility, and stewardship, with an alpha coefficient of 0.88. Finally, Work Engagement was measured using the nine-item Utrecht Work Engagement Scale (UWES-9; Schaufeli et al., 2006), which assesses vigor, dedication, and absorption, showing strong internal consistency ($\alpha = 0.89$). Overall, all measurement scales demonstrated acceptable to high reliability and validity within the pilot dataset, ensuring the robustness of the constructs for subsequent analyses.

Procedure

The survey was administered both online and in classroom settings over a two-week period. Prior to participation, respondents were provided with an informed consent statement explaining the study's purpose, confidentiality measures, and their right to withdraw. Data were anonymized to reduce common method variance (CMV). The questionnaire was first translated into Chinese and then back-translated into English to ensure semantic equivalence (Brislin, 1986). A panel of three bilingual psychology scholars reviewed the items for cultural clarity and content validity.

Data Analysis

Data analysis was conducted in two main stages using IBM SPSS Statistics version 26 and SmartPLS version 4.

In the first stage, preliminary data screening was performed to ensure data accuracy and suitability for further analysis. This process involved examining missing values, detecting outliers, and testing the normality of distributions. Common method variance (CMV) was also evaluated using Harman's single-factor test, and the results indicated that no single factor accounted for the majority of variance, suggesting that CMV was not a major concern.

In the second stage, the measurement model was evaluated to establish the reliability and validity of the constructs. Reliability was examined using Cronbach's alpha, Composite Reliability (CR), and rho_A coefficients, while convergent validity was assessed through the Average Variance Extracted (AVE). Discriminant validity was verified using both the Fornell–Larcker criterion and the Heterotrait–Monotrait (HTMT) ratio, ensuring that the constructs were empirically distinct.

Finally, the structural model was tested using Partial Least Squares Structural Equation Modeling (PLS-SEM). The hypothesized relationships—including direct, mediating, and moderating effects—were analyzed using the bootstrapping method with 5,000 resamples to assess the significance of the path coefficients. The results of the PLS-SEM analysis, including reliability statistics, path coefficients, and model explanatory power, are presented in Section 4 (Results and Discussion).

Results and Discussion

Results

Descriptive Statistics and Correlations

Table 1 presents means, standard deviations, and Pearson correlations for the study variables. The results indicate moderately high levels of job crafting, PsyCap, servant leadership, and

work engagement. All correlations were positive and significant, providing preliminary support for the hypothesized relationships.

Table 1.

Descriptive Statistics and Correlations (n = 114)

Variable	Mean	SD	1	2	3	4
1. Job Crafting	3.72	.56	1			
2. PsyCap	3.81	.61	.58**	1		
3. Work Engagement	3.68	.54	.55**	.62**	1	
4. Servant Leadership	3.59	.63	.49**	.53**	.56**	1

Note. **p < .01.

Measurement Model

The measurement model demonstrated satisfactory reliability and validity. All constructs had Cronbach's alpha values above .85, Composite Reliability (CR) values between .88 and .93, and Average Variance Extracted (AVE) values above .50. Discriminant validity was established using both the Fornell–Larcker criterion and the HTMT ratio (< .85), confirming that the constructs were empirically distinct.

Structural Model

The hypothesized model was tested using PLS-SEM. Path coefficients and significance levels are reported in Table 2.

Table 2

PLS-SEM Path Results (Pilot Study)

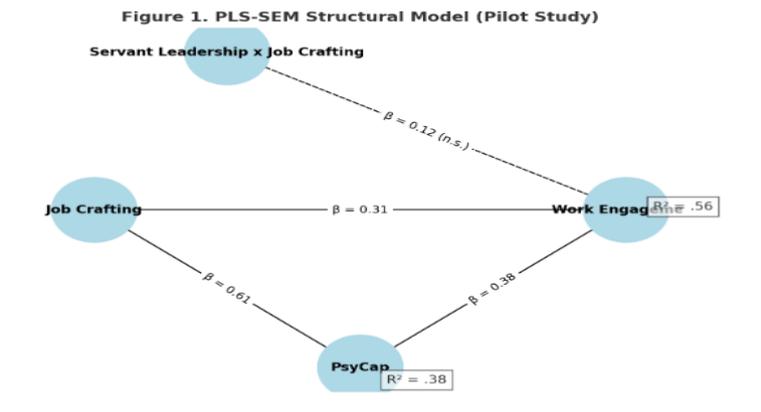
Hypothesized Path	β	t-value	p-value	Supported
H1: Job Crafting → Work Engagement	0.31	3.12	< .01	Yes
H2a: Job Crafting → PsyCap	0.61	7.84	< .001	Yes
H2b: PsyCap → Work Engagement	0.38	6.92	< .001	Yes
H3: Servant Leadership × Job Crafting → Engagement	0.12	1.64	.10	No

Note. R² values: PsyCap = .38; Work Engagement = .56.

f² effect sizes indicated medium explanatory power (Cohen, 1988).

Structural Model Visualization

Figure 1 illustrates the hypothesized structural model and its results. Solid arrows represent significant paths, while the dashed arrow indicates the non-significant moderating effect.



Discussion

Job Crafting and Work Engagement

The results confirm Hypothesis 1, showing that job crafting positively predicts work engagement. This finding aligns with the Job Demands–Resources (JD-R) model (Bakker & Demerouti, 2017), which posits that proactive changes in job resources and demands foster motivation and engagement. For Generation Z employees, who often face repetitive tasks and rigid structures in manufacturing industries, job crafting appears to be a critical strategy for enhancing meaningfulness and energy at work (Wrzesniewski & Dutton, 2001).

Mediating Role of PsyCap

Hypothesis 2 was supported, as PsyCap significantly mediated the relationship between job crafting and work engagement. This indicates that job crafting behaviors enhance psychological resources—such as hope, self-efficacy, resilience, and optimism—which in turn strengthen engagement. This finding is consistent with prior research suggesting that PsyCap functions as a key personal resource in the JD-R framework (Luthans et al., 2007; Xanthopoulou et al., 2007). For Gen Z, PsyCap development may be particularly important in buffering stress and supporting proactive career behaviors.

Moderating Role of Servant Leadership

Hypothesis 3 was not supported; the moderating role of servant leadership was positive but statistically non-significant. While the direction of the effect was consistent with theoretical expectations (Eva et al., 2019), the small sample size of the pilot study may have limited statistical power. Future studies with larger samples may reveal stronger evidence for the supportive role of servant leadership in amplifying the positive outcomes of job crafting.

Theoretical Contributions

This pilot study contributes to the literature in three ways: (1) it extends job crafting research to Generation Z employees in traditional manufacturing contexts; (2) it highlights PsyCap as a central mechanism linking proactive work behaviors to engagement; and (3) it preliminarily explores leadership's contextual influence, suggesting that servant leadership may interact with job crafting to enhance engagement.

Practical Implications

From a managerial perspective, the findings emphasize the importance of encouraging job crafting behaviors through training and participatory job design. Organizations should also

invest in PsyCap development programs—such as resilience training, goal-setting workshops, and optimism-building interventions—to foster engagement among Gen Z employees. Leadership development initiatives that cultivate servant leadership practices could further strengthen organizational climates that support proactivity and resilience, particularly in hierarchical manufacturing settings.

Limitations and Future Research

As an exploratory pilot study, limitations include the modest sample size and reliance on self-reported measures, which constrain generalizability. Future research should employ larger, multi-industry samples and consider longitudinal designs to examine causal pathways. Additionally, investigating alternative leadership styles (e.g., transformational leadership) alongside servant leadership may provide deeper insights into contextual moderators of job crafting.

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