



**How Job Crafting facilitate Work engagement: Exploring the mediating role of work meaningfulness in the service sector**

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6 **How Job Crafting facilitate Work engagement: Exploring the mediating role of work**  
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8 **meaningfulness in the service sector**  
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14 **Abstract:**  
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17 In this study, we examine the association between job crafting behavior and work engagement  
18 amongst service sector employees and mediation of work meaningfulness. Using JDR theory and  
19 Burning and Campion's theoretical lens, we propose that job crafting behavior positively impacts  
20 with work meaningfulness and work engagement for service sector employees. In addition, work  
21 meaningfulness mediates the relationship between job crafting behavior and work engagement.  
22 The present study is one of few attempts to empirically test Burning and Campion's comprehensive  
23 and integrated framework. Our results showed that job crafting positively impacts behavioral  
24 outcomes like work meaningfulness and work engagement. Findings argue that employees who  
25 engage in approach role-resource crafting are likely to find work meaningful and be more engaged.  
26 It was seen that work meaningfulness mediates the relationship between metacognition (job  
27 crafting) and work engagement, not social expansion (job crafting) and work engagement.  
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43 *Keywords: Job Crafting, Service sector, JDR theory, Metacognition, Social Expansion*  
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46 **Data Availability Request:** Data shall be made available on the request of the editorial Team  
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## Introduction

India's service sector is one of the fastest growing globally, significantly contributing to its gross domestic product (GDP) (Deloitte,2020). The service sector factors in 54% of India's gross value added (GVA) (Economic Survey, 2018-19). Knowledge-based services give India a competitive advantage in the emerging market economy (Siddiqi, 2015), and the government's regular interventions have enabled India to tap into a trillion-dollar opportunity (Deloitte,2020). Patterson (2000) asserted that knowledge-laden services like consulting, hospitality, and engineering are highly valued and in demand as they are customized services. This puts pressure on the services sector to build and sustain its human capital for solid organizational performance (Nikolova, 2007).

On the other hand, research indicates that the voluntary employee turnover rate is the highest in these service sector organizations (Batt, 2002), negatively impacting the quality of services tendered and consequently increasing the costs considerably (Luo and Homburg 2007; Frey et al., 2013). Furthermore, extant research (Bakker et al., 2020) argues that job crafting is one of the measures to develop human capital and retain it in the service sector. Though there is scant and fragmented research focusing on the job crafting of service employees in India, Siddque (2015) in this research found that service employees engaging in job crafting exhibited a greater degree of work engagement. Therefore, one of the service sector managers' significant concerns is ascertaining the antecedent of employees' job attitudes and performance (Bakker et al., 2020).

When organizations are vigorously embracing business transformation to be agile, digital adopters, and proactive to competition, the key is for employees to find meaning in their work (Cable and Vermeulen, 2018). Seminal works on job design theory (Bakker et al., 2020; Hackman & Oldham,

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3 1980) have primarily argued that top-down perspective, wherein the manager takes charge of  
4 designing jobs for their reportees (Hackman & Oldham, 1980). However, recent literature argues  
5 that employees' critical role in designing their jobs highlights employee proactivity (Grant &  
6 Ashford, 2008; Berg et al., 2010). Moreover, the dynamic change in work due to the alternation in  
7 organizational structure, more organic and flatter, further puts the impetus on the employee  
8 proactivity of productivity improvement and stress management (Bruning & Campion, 2018).  
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18 Various studies have reinforced the positive connection between job crafting and work  
19 engagement (Bruning & Campion, 2019), highlighting the necessity to extend the knowledge base  
20 to understand the processes involved in this connection, like attitude toward work ( Zhang &  
21 Parker, 2019). In this context, job crafting is viewed as a mechanism that can positively influence  
22 work meaningfulness (Zhang & Parker, 2019). When employees make changes to their tasks, work  
23 interactions, and connection, they attempt to generate meaningful experiences and therefore make  
24 changes to their work experiences and how they relate to them (Bakker et al., 2020). In addition,  
25 employee involvement in meaningful work positively impacts to work engagement (Tims et al.,  
26 2016). Therefore, services sector employees who are optimistic about their work and draw  
27 meaning from it are likely to be deeply engaged in their functional area (Tims et al., 2016). Hence,  
28 work meaningfulness can be deduced as one of the apparent connections between job crafting and  
29 engagement. In the backdrop of extant research emphasizing the role of work meaningfulness in  
30 building engaged employees, the main objective of this study is to augment the understanding of  
31 the relationship between job crafting and engagement in the service sector in order to test the  
32 possible influence of the meaning that people ascribe to their job and work role on this relationship.  
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53 Thus, the present study integrates the two theoretical frameworks (Bruning and Campion, 2018)  
54 within the current job crafting literature to argue that Approach Relational Role Crafting – Social  
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3 Expansion and Approach Resource Cognitive Crafting- Metacognition would enhance work  
4 engagement through work meaningfulness of service employees. The current study contributes to  
5 multiple folds; the first predominant research on job crafting in the services industry was  
6 investigated from the lens of the hospitality or IT sector. This work takes a shift and attempts to  
7 undertake a holistic conceptualization of the services industry. Second, the present study is one of  
8 few attempts to empirically test the comprehensive and integrated framework of Burning and  
9 Campion (2018), as this understanding of job crafting offered nuanced and comprehensive  
10 dimensional structuring of the construct and better explains how specific forms of job crafting  
11 behavior to unique outcome (Bipp & Demerouti, 2015). Third, though the relationship between  
12 job crafting and work engagement is established from the outcome perspective, the process part of  
13 the relationship is less investigated. The present study attempts to fill this gap by understanding  
14 the mediation of work meaningfulness.

## 31 **Literature Review**

### 34 **Job Crafting at workplace**

37 Wrzesniewski and Dutton (2001) defined job crafting as measures that employees undertake to  
38 alter their jobs. It is the physical and cognitive alterations that employees make in their task and  
39 relational context of their job. Understanding on job crafting was further extended with  
40 development of job-demand resource model (Bakker & Demerouti, 2017). Job-demands resources  
41 model argue that employees alter their job while aligning it to their values, needs, and their skills  
42 (Tims et al., 2012). JDR model suggests four ways adopted by employees to craft their jobs (a)  
43 increasing job resources (b) increasing social job resources (c) increasing challenge job demands  
44 (d) decreasing negative job demands (Bakker and Demerouti, 2017)

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3 There are several dimensions on which job crafting is categorized (Bakker and Demerouti, 2017),  
4 in the present study authors draw from Bruning and Campion's (2018) taxonomy, which largely  
5 demarcates job crafting into role and resource crafting. Their taxonomy is considered to be  
6 integrative framework as it contains both strands of literature and emphasis on individual role.  
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8 Burning and Campion (2019) argued that role and resource crafting can be proactively enlarged  
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10 (approach crafting) and reduced (avoidance crafting).  
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17 Approach crafting measures are classified as active, motivated, aimed at problem-focused and  
18 improvement-laden objectives, on the other hand avoidance crafting includes evasion, lessening  
19 or reducing parts of one's job. As mentioned earlier, role and resource crafting can co-exist and  
20 therefore this framework can be suited to understand non-standard employment practices. Finally,  
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22 Bruning and Campion (2019) proposed seven type of job crafting, in this study we focus Approach  
23 role crafting—Social expansion and Approach resource crafting—Metacognition.  
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32 Social expansion is defined as changes that takes place with the social ambit of work and  
33 employees proactively utilize their social resources or involvement of resources to another  
34 employee or group (Bruning & Campion, 2018). This type of job crafting is rooted in expansion  
35 and alteration in the relational facets of the job. For instance, employee may increase social  
36 connections and exchange. Furthermore, it includes forging personal connections, enhanced  
37 communication, and contributing to group tasks and climates. Social expansion results into  
38 heightened work meaningfulness, enhanced job satisfaction, reduced work stress (Bruning &  
39 Campion, 2018). This kind of job crafting is deemed to be positive as it improves employee's  
40 motivation and well-being, and decreasing turnover intentions. Empirical studies have not  
41 validated the relationship between job crafting and work performance or detrimental work  
42 implications.  
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3 Metacognition is defined as the autonomous task- related cognitive activity involving organization,  
4 sensemaking, and the manipulation of one's own psychological states" (Bruning & Campion,  
5 2018, p. 508). It primarily involves employees making objective- driven changes in job at their  
6 cognitive level. For instance, self-regulation and proactive focus, including cognitive self-  
7 management measures (task-alignment, problem-solving, reprioritization). Metacognition  
8 facilitates physical engagement () and is predominantly unseen as one is involved in minds of the  
9 employees, therefore it considered an independent act and does not require opportunity (). Extant  
10 research works indicate that negative implication and is associated with increased physical work  
11 effort, personal resources, and greater productivity (). In this regard, it is a type of job crafting that  
12 people working different types of jobs can engage as it does not involve changing what could  
13 otherwise be seen as inflexible work routines and processes ().

### 29 **Job crafting in services sector**

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32 Several studies have argued that employee's work engagement positively impacts service delivery.  
33 (Wushe and Shenje, 2019). Bakar's (2013) found that employees of a Malaysian service sector  
34 company concurred that work engagement is a key predictor of organizational performance and  
35 service delivery. Therefore, in the service delivery context, it is important to understand the  
36 antecedents and mechanisms that leads to heightened work engagement. Research works have  
37 proposed that in the service sector one of the key antecedents to work engagement is job crafting  
38 behaviour. The standard of services employees indicates the organizational performance and  
39 therefore reflects service experience of the customers (). Hence, all the facets of jobs having an  
40 impact on service employees job attitudes and their holistic performance are required to be  
41 addressed by the managers in order to meet customer expectations and their loyalty (Siddiqui,  
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2015). Therefore, it is important to understand how employees can craft their job to enhance work meaningfulness and experience heightened level of work engagement.

### **Theoretical framework & Hypothesis**

Job crafting is defined as the alterations an employee makes in work proactively with an orientation to enhance the job for themselves. Therefore, job crafting depicts employee-led job design (Bakker et al., 2013; Bakker et al., 2020; Tims et al., 2016). Research on the service sector argues that factors like job roles, relationships, and employee performance are critical antecedents to an organization's performance (Siddiqi, 2015). In the service sector, salespersons actively craft their jobs by making changes in their tasks, the meaning of work, and relationships at the fundamental level (Bakker et al., 2020). So, employee-focused and employee-driven perspective on job design (job crafting) has matured into two distinct yet overlapping theoretical standpoint: (a) role-based perspective and (b) resource-based perspective. The role-based perspective emanating from the motivational lens of job design discusses the measures that employees adopt to augment their intrinsic need-supply fit with their tasks/work, whereas the resource-based emanating from the resource management lens proposes the measures adopted by an employee to balance the demands and resources (Burning and Campion, 2019). Studies propose that resource and role-based crafting results in performance, engagement, and work enrichment. The third perspective, which is contemporary, role-resource approach-avoidance, argues that role- and resource-based perspectives are distinctive and that both have approach and avoidant components. Adoption of the third perspective in the present study is rooted in Burning and Campion's (2018) argument that the present understanding of job crafting requires nuanced and comprehensive dimensional structuring of the construct, which this integration offers. This would further better explain how



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3 specific forms of job crafting behavior to unique outcomes (Bipp & Demerouti, 2015). The present  
4 study is located in the third perspective, wherein we investigate approach-role crafting (social  
5 expansion) and approach-resource crafting (metacognition) on work engagement. We further  
6 evaluate the consequences of job crafting (work meaningfulness and work engagement) for service  
7 employees.  
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15 Work engagement is '... a positive, fulfilling, work-related state of mind characterized by vigor,  
16 dedication, and absorption' (Schaufeli et al., 2002, p. 74). As discussed above, both role and  
17 resource crafting are related to a positive outcome such as engagement (Burning and Campion,  
18 2019). Furthermore, research has argued that job resources are positively linked to work  
19 engagement and fulfill employees' needs for self-sufficiency, affinity, and competency (Van den  
20 Broeck et al., 2008). Job resources (feedback, social support, and skill variety) play extrinsic and  
21 intrinsic motivational roles. Job resources intrinsically build employee growth, whereas  
22 extrinsically, it acts as a catalyst in attaining work goals.  
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34 Metacognition (approach resource crafting) involves employee, organization, and sensemaking to  
35 engage in autonomous task-related cognitive activity to manipulate its psychological state  
36 (Burning and Campion, 2019). Employees actively making cognitive changes to their jobs results  
37 in psychological and experiential outcomes (Burning and Campion, 2018; Berg et al., 2013).  
38 Approach-resource crafting is positively related to work engagement. Empirical works have  
39 argued that crafting aimed at job expansion is beneficial (Burning and Campion, 2019)). Social  
40 expansion is one such kind of job crafting, in which an employee tries to alter the scope of number  
41 and type of relationships within one's social work domain. Social expansion often enriches the  
42 meaning of work, greater cognitive engagement, and better job satisfaction (Burning and Campion,  
43 2018).  
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Insert Figure 1

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Work meaningfulness is defined as employees believing that their work is of significant importance and purpose (Berg et al., 2013). As work plays an integral role in people's lives, how employees experience their work has gained much traction from academicians. People, in general, differ in the way they view their work some, due to their personalities, would work to be more meaningful (spirituality) in comparison to others (Tims et al., 2016)

Wrzesniewski et al. (2010) argued that job crafting is key to work meaningfulness in contemporary organizations as the notion of an employee working under a structured job description is becoming less prevalent. Despite the established theoretical relationship between job crafting and work meaningfulness (Moghimi et al., 2015), there is little empirical work to confirm this relationship (Nagy et al., 2019). In their longitudinal study, Tims et al. (2016) examined job crafting as an enabler to work meaningfulness. In another work, Nagy et al. (2019) argued that Job crafting is positively associated with perceived work meaningfulness in older employees. However, our study attempts to test the approach role-resource job crafting of service sector employees, which needs to be explored. Berg et al. (2013), in their review paper on job crafting, argued that it is a potent way to create meaningful work.

H 1: Job crafting behavior has a positive relationship with work engagement for service sector employees

(a) The social expansion has a positive relationship with work engagement for service employees.

(b) Metacognition has a positive relationship with work engagement for service employees.

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3 H2: Job crafting behavior has positive impacts on work meaningfulness for service sector  
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8 (a) Social expansion positively impacts work meaningfulness for service sector  
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13 (b) Metacognition positively impacts work meaningfulness for service sector employees.  
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16 Research works (See Kahn, 1990) proposed that employees express themselves behaviorally,  
17 emotionally, and cognitively in line with their tasks and role during the work-role performance.  
18 Hackman and Oldham (1980) asserted that job characteristics can motivate employees to build  
19 positive psychological states resulting in desirable work attitudes and behavior. Meaningful work  
20 is therefore defined as work that employees feel is of greater significance and helps to relate to the  
21 organization's mission (Kossek et al., 2016). Several studies have empirically demonstrated a  
22 positive relationship between work meaningfulness and work motivation (Kossek et al., 2016);  
23 employee creativity (Nagy et al., 2019), job satisfaction, and individual performance (Meged,  
24 2017); lower absenteeism (Kossek et al., 2016); organizational commitment and work engagement  
25 (Bakker et al., 2003). Work engagement is a positive and determined emotional-cognitive state of  
26 well-being (Bakker et al., 2003). Work engagement is often bracketed as a resource, acting in a  
27 motivational role in lessening negative work morale (Bailey et al., 2017). Maslach and Leiter  
28 (1997) argued that work engagement neutralizes the negative effect of burnout. Several research  
29 studies (Bakker et al., 2003) have asserted job resources such as work meaningfulness to be the  
30 determinants of work engagement (Conboy et al., 2021)  
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51 H3: Work meaningfulness positively impacts work engagement for services employees  
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3 Our theoretical stand indicates that work meaningfulness positively impacts work engagement  
4 through job crafting (see Figure 1, which outlines our conceptual model). Work meaningfulness  
5 refers to organizational resources that facilitate employee conviction to engage in job crafting  
6 actively. This acts as a catalyst to enhance employees' motivation to preserve these resources  
7 through reinvesting them by being immersed in work (Bakker et al., 2003). On the other hand,  
8 work engagement is said to be a state of mind in which an employee extensively uses personal  
9 energy in work performance (Christian et al., 2011). Schaufeli and Taris (2014) argued that  
10 employees, by nature, do not experience an active state of mind and utilize their personal resources  
11 to sense the presence of meaningful work as it is an organizational rather than a personal resource.  
12 Therefore, employees must be proactive in investing their personal resources to feel high levels of  
13 work engagement. Meijerink et al., 2018 state that work meaningfulness will positively impact  
14 work engagement when employees' actions demonstrate job crafting wherein they actively invest  
15 their effort and energy to alter job demands and job resources. So, employee views of work  
16 meaningfulness transform into work engagement when managers motivate employees to craft their  
17 work. Accordingly, we expect that

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38 H4: Work meaningfulness mediates the relationship between job crafting behavior and work  
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## 43 **Methodology**

### 44 *Sample and data collection*

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47 The respondents were employees from different occupational backgrounds in Indian  
48 manufacturing and service sector firms. India has a large population, and an enormous number of  
49 competent participants are distributed across various Indian states. Therefore, collecting responses  
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3 across the country from all acceptable respondents is an enormous challenge. To overcome this  
4 limitation, this study used convenient and non-probability sampling techniques (Rowley, 2014). A  
5 self-administered questionnaire and a cover letter (with assurance about the respondent's data  
6 confidentiality and anonymity) were emailed to the respondents between 3<sup>rd</sup> June and 5<sup>th</sup> July 2021.  
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8 The initial queries of the survey questionnaire checked whether the respondents engaged in job  
9 crafting. Only the ones who responded in the affirmative were retained for data analysis to study  
10 their behavioral patterns. Seven hundred eighty usable questionnaires were obtained; Table 1  
11 summarizes the demographic profile of the respondents. In terms of gender, 59.5% of respondents  
12 were female. The majority of respondents were between 25 and 34 years old (43.7%), well-  
13 educated with a minimum of a graduate degree (84.6%), and have at least six years working in the  
14 current organization (42%)  
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### 29 *Measurement and scales*

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32 In our study, the scales were adapted from previously validated studies. Our study was assessed  
33 based on the following constructs (Table 1 for the detailed item measurements). First, social  
34 expansion and metacognition were measured by the three items for each construct adapted from  
35 Bruning and Campion (2018). Next, work meaningfulness was measured using three items from  
36 Bunderson and Thompson (2009). Finally, work engagement was measured by adopting three  
37 items from Schaufeli et al., (2006). All items' responses were scored on a 5-point Likert scale: "1-  
38 strongly agree to" to "5- strongly disagree". To ensure the scale item validity, a pre-test was  
39 conducted by three academic experts and five professionals. Based on their feedback, minor  
40 alteration was made to the scale. In addition, we took several steps to mitigate the common method  
41 bias (CMB) effect. First, we ensured the anonymity of respondents, reduced item ambiguity and  
42 improved item wording. Finally, we conducted Harman's single-factor test and the finding  
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3 revealed that the largest factor accounts only for 34.2% (<50%) of the total covariance. Thus, the  
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5 result supports the absence of CMB.  
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17 *Measurement model*  
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20 In our study, we assessed the convergent and discriminant validity of each construct in our  
21 structural model by following threshold conditions: all the loading values and Cronbach's alpha  
22 must be at least 0.6, the composite reliability (CR) should be above 0.8 and the average variance  
23 extracted (AVE) must be at least 0.5 (Hair et al., 2011). Also, for multi-collinearity assessment,  
24 the construct's variance inflation factors (VIFs) should be below 5 (Fornell and Larcker, 1981).  
25 Table depicts that all the constructs loading values were above the threshold value of 0.6. Next, all  
26 constructs used in our study meet the recommended threshold value for Cronbach's alpha (at least  
27 0.6), CR (above 0.8) and AVE (at least 0.5). Thus, the convergent validity is established. and VIFs.  
28 Further, the VIF values were below 5, thus, in our study, multi-collinearity was not a concern.  
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41 We assessed the discriminant validity by comparing the AVE's square root with the constructs'  
42 correlations (Fornell and Larcker, 1981). Table 3 results shows that the square root of the AVE  
43 exceeded the inter-construct correlation. In addition, we evaluated the discriminant validity  
44 through the heterotrait–monotrait (HTMT) ratio. Henseler et al. (2015) suggested that the HTMT  
45 ration for each construct should be less than 0.85. Table 4 shows that the HTMT ration was less  
46 than 0.85. Thus, the discriminant validity is established.  
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### *Structural model and hypotheses testing*

We use partial least square structural equation modelling (PLS-SEM) bootstrap method with 1000 subsamples to test the significance and direction of the hypotheses. Firstly, the direct association of job crafting behavior with work engagement and work meaningfulness were examined. Then, the direct association of work meaningfulness with work engagement was tested. Finally, the mediating effect of work meaningfulness with job crafting behavior (i.e. social expansion and metacognition) and work engagement were examined. The results in Table shows that there was a direct association of social expansion ( $\beta = 0.224$ ,  $p < 0.001$ ) and metacognition ( $\beta = 0.296$ ,  $p < 0.001$ ) at work engagement were significant, thus, H1a and H1b hypotheses were accepted. Next, the direct association of social expansion ( $\beta = 0.120$ ,  $p < 0.1$ ) and metacognition ( $\beta = 0.388$ ,  $p < 0.001$ ) at work meaningfulness were also significant. These findings support H2a and H2b. Further, the direct association of work meaningfulness (the results support  $\beta = 0.087$ ,  $p < 0.1$ ), so H3 is also accepted. Finally, to assess the mediating role of the job crafting behavior construct following steps are followed (Preacher and Hayes, 2008). First, we examined the total effect of independent variables on the dependent variable (Table 5). if the total effect is significant, then the indirect effect should be assessed. If both values (i.e., total and indirect) are significant, there is a chance of either partial or full mediation (Maxwell et al., 2011). Otherwise, there is no mediation. Further, to assess the partial or full mediation, the direct effect of the independent variable on the dependent

variable should be assessed. If the direct path is significant and the value of path coefficient is decreased compared to the total effects, then it is a case of partial mediation (Maxwell et al., 2011). Otherwise, it is full mediation (Maxwell et al., 2011). The two hypotheses were tested based on these steps of mediation analysis proposed by Preacher and Hayes (2008). In H4a, it was proposed that work meaningfulness mediates significantly between social expansion and work engagement. The total effect of social expansion on work engagement is positive and significant ( $\beta = 0.235$ ,  $p < 0.001$ ). Subsequently, the indirect effect of social expansion on work engagement through work meaningfulness was found positive but insignificant ( $\beta = 0.010$ ,  $p > 0.1$ ) (Table). Thus, no mediation was concluded, and H4a was not accepted. In H4b, it was proposed that work meaningfulness mediates significantly between metacognition and work engagement. The total effect of metacognition on work engagement positive and significant ( $\beta = 0.330$ ,  $p < 0.001$ ). Subsequently, the indirect effect of metacognition on work engagement through work meaningfulness is positive and significant ( $\beta = 0.034$ ,  $p < 0.001$ ). Thus, there were chances of either partial or full mediation. Subsequently, we assessed the direct effect to identify partial or full mediation. The direct effect of metacognition on work engagement was positive and significant. Thus, partial mediation was concluded and H4b was accepted. Further, the model fit was assessed. The result demonstrated that SRMR = 0.083 ( $< 0.9$ ), NFI = 0.65, dG = 0.167 ( $< 0.95$ ) and dULS = 0.544 ( $< 0.95$ ) shows an adequate and significant fit (Shamim et al., 2021; Henseler et al., 2016)

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Insert Table 5

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## Discussion

Results indicate that job crafting positively impacts behavioral outcomes like work meaningfulness and work engagement. Findings argue that employees who engage in approach role-resource crafting are likely to find work meaningful and be more engaged. We also proposed that work



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3 meaningfulness mediates that relationship between approach role-resource crafting work  
4 engagement. However, it was seen that work meaningfulness mediates the relationship between  
5 metacognition (job crafting) and work engagement, not for social expansion (job crafting) and  
6 work engagement. Therefore, as proposed, the relationship between work meaningfulness and  
7 work engagement is supported.  
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15 The positive relationship between work meaningfulness and engagement is in line with previous  
16 research work. However, these studies were predominantly conducted in USA and UK or the  
17 Health Sector (Soane et al., 2013) therefore result of this study significantly contributes to  
18 literature on meaningfulness and engagement in terms of generalizability of the relationship  
19 between both the constructs in the services sector. Furthermore, studies (Christian et al., 2011;  
20 Soane et al., 2013) corroborates with the finding that when employees experience positive meaning  
21 about their work it enables them to be more engaged at workplace.  
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32 Social expansion represents includes proactively altering the restrictions around social activity  
33 through expansion. It can also involve employees taking on self-adopted team roles or varying  
34 how they communicate with others. It signifies variations to the social characteristics of work  
35 (Bruning and Campion, 2019). Service employees who engaged in social expansion found their  
36 work meaningful and were highly engaged. This finding resonates with the results of Zhang and  
37 Parker, 2019, who also argued that social expansion has positive outcome (meaningfulness and  
38 engagement). Whereas metacognition represents a form of resource crafting that includes the  
39 independent creation of meaning, sensemaking, identity within the employee's mind (Bruning and  
40 Campion, 2018). Result metacognition positively impacts work meaningfulness and engagement,  
41 which is in line with previous studies (Burning and Campion, 2018;2019). Research works of  
42 Siddiqi, 2015  
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3 in the hospitality sector (part of the services industry) have argued that employees who engage in  
4 job crafting find more meaning in their work and have high engagement score.  
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8 Findings show that work meaningfulness mediates the relationship between job crafting and work  
9 engagement whereas the mediation between social expansion and work engagement is  
10 insignificant. This is in line with Schaufeli & Taris (2014), who argued that employees do not  
11 innately feel an active state of mind and utilize personal resources but when they experience the  
12 occurrence of meaningful work, as the latter reflects a positive experience.  
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20 Employees need to showcase a proactive role in terms of expending their personal resources to  
21 experience a greater degree of work engagement. Employee behavior is depicted in job crafting,  
22 wherein they attempt to actively change their job demands and resources so that their perception  
23 of work meaningfulness is transformed into work engagement.  
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### 29 30 **Implication for research**

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33 This study provides an empirically tested, nuanced and comprehensive understanding of job  
34 crafting dimensional structure and explains how new forms of job crafting are related to specific  
35 outcomes. For instance, how metacognition (Job crafting) in service industry employees improves  
36 their work meaningfulness and engagement. Prior research works (Burning and Campion, 2019)  
37 have investigated role and resource orientation. However, the present study integrates two  
38 overlapping yet differentiating perspectives on job design: approach role - resource job crafting.  
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The present study confirms the extant theoretical insights that approach social expansion would  
improve employees work meaningfulness through whereas metacognition would do the same  
through an increase in resources (Burning and Campion,2018).

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3 Furthermore, this study theoretically contributes to job crafting literature by elucidating work  
4 meaningfulness as distinguishing mediator between metacognition (job crafting) and work  
5 engagement. Earlier studies (Kossek et al., 2016) have investigated work meaningfulness as  
6 independent or dependent variable. However, the present study positions it as a mediator to  
7 understand presence of meaningful work due to job crafting behavior resulting into increase in  
8 work engagement in service industry employees. In addition, it conceptually extends our  
9 understanding of the association between approach role-resource crafting with work engagement  
10 and what factor (work meaningfulness) may influence this connect. Though this is not the first  
11 study to understand the relationship between job crafting and engagement (Tims et al., 2013), it  
12 investigates the role of positive experience (work meaningfulness) in the services industry context.

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27 The present study addresses the ongoing discourse on whether cognitive job crafting can be  
28 bracketed as job crafting (Zhang and Parker, 2017). In alignment with Berg et al. 2013 the current  
29 study argues that the cognitive component of crafting (metacognition) is linked with work  
30 meaningfulness and identity. In addition, the relationship between metacognition and work  
31 engagement is mediated by work meaningfulness. Therefore, this study takes the stand cognitive  
32 crafting is one of the dimensions of job crafting.

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41 Most studies (Tims et al., 2016; Bakker et al., 2003; Bakker et al., 2020) on job crafting are rooted  
42 in the assumption that employees craft their job to attain person-job fit (mechanistic). However,  
43 the present study in line with the work of Burning and Campion (2018) found that employee craft  
44 their job to improve their work motivation (meaningfulness and engagement).

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51 Finally, we contribute to the job crafting literature by empirically testing the hierarchical  
52 framework of Zhang and Parker (2019). The framework proposes three levels of crafting (a) job  
53 crafting orientation, (b) job crafting form (c) job crafting content. The present study aligns with  
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3 the suggested framework with services employees' approach (job crafting orientation), which is a  
4 role- resource-based (job crafting form) is exhibited in the form of social expansion, and  
5 metacognition (Job crafting content) influences work meaningfulness (process) and work  
6 engagement (outcome)  
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### 12 **Implication for managers**

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14 We think it is important that organizations support and facilitate individuals' job crafting behaviors.  
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16 The study offers several recommendations for management practices. First, job crafting that meets  
17 employee objectives but conflicts with expected organizational goals can be disadvantageous.  
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19 Therefore, employee needs to be trained to facilitate desired crafting in order to harness the benefits  
20 of the crafting (Wrzesniewski & Dutton, 2001).  
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28 As job crafting has a positive impact on employee engagement levels, it is suggested that  
29 organizations should proactively build avenues for their employees to engage in approach crafting  
30 (Zhang & Parker, 2019). Furthermore, given job crafting is self-driven and voluntary behavior,  
31 service sector employees should be provided with enough autonomy so that they can make changes  
32 in their jobs as per their needs and goals (Wrzesniewski & Dutton, 2001). Our findings suggest  
33 that varied types of approach crafting are predominantly significant in different contexts. For  
34 example, social expansion and metacognition for service employees positively impact their work  
35 engagement.  
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47 First, human resource managers in the services industry must devise measures to enhance  
48 employees' work meaningfulness to strengthen the relationship between job crafting behavior and  
49 work engagement (Teng, 2019). We also suggest that managers in the services industry could  
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3 create and/ or improve work content and quality and ensure that employees have job crafting  
4 orientation to craft and enhance their work (Bavik et al., 2017).  
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8 The integrative framework of Burning and Campion (2018) argues that employees may approach  
9 and avoid roles and resources. Therefore, providing employees with opportunities to develop and  
10 expand their social roles and cognitive resources may increase their work engagement because  
11 they can personally identify meaning in their work.  
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18 Furthermore, the present study highlighted the relevance of individuals in enhancing their  
19 engagement. Therefore, it is not always about organization-driven initiatives; organizations must  
20 provide a conducive environment wherein employees can proactively craft their jobs to improve  
21 work engagement (Bakker et al., 2012). Therefore, organizations can conduct regular employee  
22 pulse surveys to understand the work environment to take adequate measures (Bakker et al., 2012).  
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29 Furthermore, the predominant research on job crafting indicates that employees not only search  
30 but also actively capture whatever opportunity they find to craft their jobs (Berg et al., 2010).  
31 Therefore, service managers must provide all the conducive contexts for their employees to engage  
32 in job crafting that meet their requirements and needs.  
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39 Identifying job resources and role expansion specific to the service industry is critical for  
40 improving job attitude. For instance, in the present study, social role expansion and metacognition  
41 resources positively increased service employees' work engagement.  
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### 47 **Conclusion and Limitation**

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50 The main objective of this study was to increase understanding of the association between job  
51 crafting and engagement in the services sector to test the possible influence of the meaning that  
52 employees ascribe to their job and work role. Results indicate that job crafting positively impacts  
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behavioral outcomes like work meaningfulness and work engagement. Findings argue that employees who engage in approach role-resource crafting are likely to find work meaningful and be more engaged. We also proposed that work meaningfulness mediates that relationship between approach role-resource crafting work engagement. However, it was seen that work meaningfulness mediates the relationship between metacognition (job crafting) and work engagement, not for social expansion (job crafting) and work engagement. As proposed, the relationship between work meaningfulness and work engagement is supported. The findings of the present study can only be generalized to the services sector in India, which limits the external validity of the results. The present study focused on the positive implications of job crafting behavior. Some empirical works argue for negative job crafting consequence, indicating the further need for research (Demerouti et al., 2015). finally, as this study was cross-sectional so its assumption of causality is limited.

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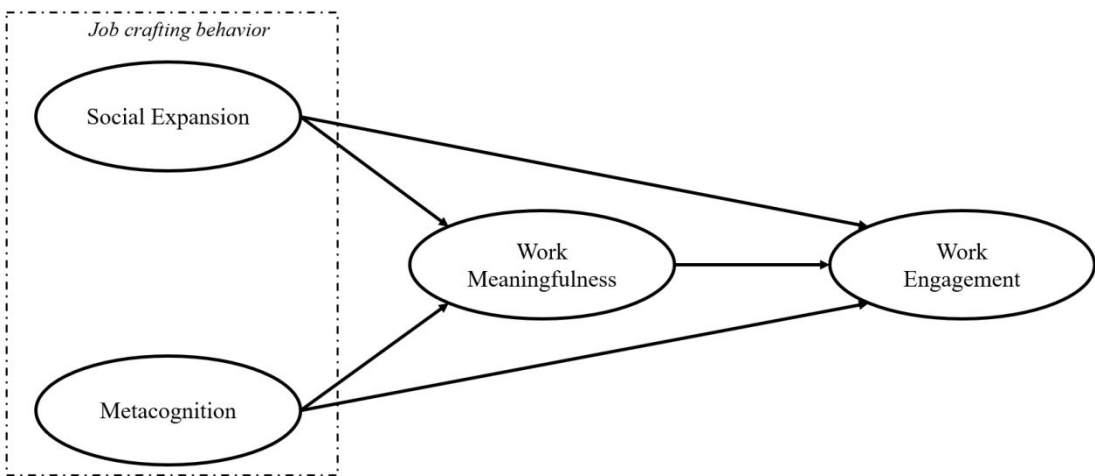
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Management Research Review

Appendix  
Tables and Figures

Figure 1: the proposed research model



*Table 1: Constructs and measurements*

Constructs	Indicators	Items	Sources
Social Expansion	SE1	Actively initiate positive interaction with others at work	Bruning and Campion (2018)
	SE2	Actively work to improve my communication quality with others at work	
	SE3	Actively develop my professional network at my job.	
Metacognition	MC1	Use my thoughts to put myself into a good mood at work	
	MC2	Use my thoughts to help me focus and be engaged at work	
	MC3	Use my thoughts to help me prepare for future work I will be doing	
Work Meaningfulness	WM1	The work that I do is important.	Bunderson and Thompson (2009)
	WM2	The work that I do makes the world a better place	
	WM3	The work that I do is meaningful.	
Work Engagement	WE1	At my work, I feel bursting with energy	Schaufeli et al., (2006).
	WE2	My job inspires me	
	WE3	I get carried away when I am working	

*Table 2: Descriptive statistics of the sample*

Attributes	Options	Frequency	Percentage
Gender	Male	211	40,3%
	Female	312	59,5%
	Prefer not to say	1	0,2%
Education	Diploma	23	4,4%
	Undergraduate	123	23,5%
	Postgraduate	320	61,1%
	Others	58	11,1%
Age	Less than 25 years	107	20,4%
	25 - 34 years	229	43,7%
	35-44 years	101	19,3%
	45-55 years	80	15,3%
	More than 55 years	7	1,3%

Number of years in the current organization			
0-5 years	304	58,0%	
6-10 years	108	20,6%	
11-15 years	61	11,6%	
16-20 years	21	4,0%	
20-25 years	13	2,5%	
More than 25 years	17	3,2%	

*Table 3: Reliability and convergent validity*

Variable	Items	Factor loadings	Cronbach's $\alpha$	CR	AVE
Social Expansion	SE1	0.842	0.725	0.846	0.647
	SE2	0.850			
	SE3	0.715			
Metacognition	MC1	0.771	0.716	0.840	0.637
	MC2	0.819			
	MC3	0.804			
Work Meaningfulness	WM1	0.666	0.643	0.806	0.583
	WM2	0.793			
	WM3	0.822			
Work Engagement	WE1	0.843	0.637	0.806	0.583
	WE2	0.787			
	WE3	0.648			

*Table 4: Discriminant validity and multi-collinearity*

	Fornell-Larcker Criterion				VIF
	Work Engagement	Work Meaningfulness	Metacognition	Social Expansion	
Work Engagement	0.764				1.137
Work Meaningfulness	0.272	0.763			1.247
Metacognition	0.412	0.430	0.798		1.325
Social Expansion	0.349	0.255	0.348	0.805	1.155
Heterotrait-monotrait ratio (HTMT)					

	Work Engagement	Work Meaningfulness	Metacognition	Social Expansion	
Work Engagement					
Work Meaningfulness	0.412				
Metacognition	0.603	0.625			
Social Expansion	0.509	0.360	0.476		

*Table 5: path analysis*

Hypotheses	Path	Direct effects <i>β/t-value</i>	Indirect effects <i>β/t-value</i>	Total effects <i>β/t-value</i>	Result
H1a	Social expansion → work engagement	0.224***/5.106			Accepted
H1b	Metacognition → work engagement	0.296***/6.137			Accepted
H2a	Social expansion → work meaningfulness	0.120*/2.483			Accepted
H2b	Metacognition → work meaningfulness	0.388***/9.919			Accepted
H3	Work meaningfulness → work engagement	0.087*/1.828			Accepted
H4a	Social expansion → work meaningfulness → work engagement	0.224***/5.106	0.010/1.322	0.235***/5.389	Rejected
H4b	Metacognition → work meaningfulness → work engagement	0.296***/6.137	0.034*/1.812	0.330***/7.638	Accepted

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Management Research Review