



**DEVELOPMENT AND VALIDATION OF A SEVEN-DIMENSIONAL JOB CRAFTING SCALE IN THE CHEMICAL INDUSTRY**

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**Abstract:**

Job crafting describes the proactive ways in which employees modify aspects of their work to better manage job demands and make effective use of available resources. While existing measures have provided a useful foundation for understanding job crafting, they may not fully reflect the conditions experienced by employees in the chemical industry, where workplace safety, technical requirements, and resource utilization are particularly important. This study therefore develops and validates a multidimensional job-crafting scale specifically for employees in the chemical industry. A quantitative scale-development approach was adopted, and data were collected from 100 employees working in chemical industries in Cuddalore district, Tamil Nadu. A 36-item questionnaire was developed by drawing on the existing literature and the specific characteristics of the chemical-industry work environment. Exploratory Factor Analysis was used to identify the underlying structure of the scale, followed by Confirmatory Factor Analysis to assess the proposed measurement model. The analysis resulted in seven dimensions: Increasing Psychological Job Resources, Decreasing Hindering Job Demands, Increasing Structural Job Resources, Increasing Social Job Resources, Increasing Challenging Job Demands, Increasing Easier Usage of Job Resources, and Increasing Safety Job Resources. The findings suggest that job crafting in the chemical-industry context encompasses established resource- and demand-related aspects as well as context-specific concerns associated with the easier use of job resources and workplace safety. The study extends job-crafting research by providing an industry-specific measurement framework that can help human-resource practitioners understand and support employees' proactive approaches to managing their work. The scale also provides a basis for future research on job crafting across industrial and occupational contexts.

**Keywords:** Job Crafting; Chemical Industry; Job Demands; Job Resources; Workplace Safety; Scale Development; Scale Validation

**Introduction:**

In any industry, while commissioning jobs are designed based on certain considerations which tend to get changed as the learning curve tends to expand. Employees feel comfortable when the work gets redesigned in a way that is more palatable to the working condition as desired by employees. There will conditions where changes might improve the ergonomics of the job, or can be a drastic improvement that facilitate the ease of doing a job. These changes that start from employee and bottom –up in approach which tend to improve the work pattern or easier the work is identified as job crafting. For instance, Justus & Sunitha (2014) identified how ease of working was improved after the introduction of equalizing value in the main stream line that reduced the temporary need of excess manpower during the start up of the plant.

Wrzesniewski & Dutton (2001) in their pioneering work defined job crafting as changes implemented in their work that enabled them to reach meaning and identity in their work. Ariani, D. W. (2023) identified that in earlier an day a top-down approach designed by the leader was followed which presently is not suitable to favor employee engagement. Often bottom up approaches are facilitated through quality circle and safety committee meetings where empowered leadership is facilitated by getting inputs from hands on people and the same goes a long way in improving the production and enhancing work atmosphere of the organization. Presently works by (Bakker & Oerlemans, 2019; Debus et al., 2019) identified that a self-directed bottom up approach tended to improve employee needs.

Hakanen et al., (2017) identified that job crafting can motivate employees by increasing the resources. Hulshof et al., (2020) studied that job design safeguarded employee welfare and improved employee performance. Tims et al., 2012 stated that job crafting as a process enabled employees to amend the limitations of their jobs, and can possibly impact the commitment of knowledge workers' towards their organization. Ilgen & Hollenbeck, 1992 identified employee's job as composed of a task elements assembled under a job title and intended to be carried out by a sole individual.

Changing task boundaries means altering the form or number of activities one engages in while doing the job, whereas changing cognitive task boundaries refers to altering how one sees the job and changing relational boundaries means exercising discretion over with whom one interacts while doing the job. The chemical industry requires employees not only to manage psychological and social resources but also to ensure workplace safety, operational efficiency, and ergonomic work practices. Employees often redesign their jobs to minimize workplace hazards, reduce physical strain, optimize production processes, and improve communication among team members. These industry-specific characteristics necessitate the development of an appropriate job-crafting scale that reflects the realities of the chemical-industry work environment.

In the context of work, need fulfilment can lead to positive outcomes for both individuals and organizations in terms of increased employee well-being (Ilardi, Leone, Kasser & Ryan, 1993) employees independently modify aspects of their jobs to improve the fit between the characteristics of the job and their own needs, abilities, and preferences (Berg, Dutton, & Wrzesniewski, 2008). Wrzesniewski, Nicholas, Dutton and Berg (2013) the process of job crafting puts the proactive, agentic behaviors of employees center-stage, conceptualizing and empirically exploring the creative and motivational bases of employees altering their jobs to improve their experience of work.

**Job Crafting History:**

Job crafting refers to the proactive modifications employees make to their job tasks, relational interactions, and cognitive perceptions of work, aimed at enhancing meaningfulness and effectiveness in their roles. The construct was first introduced by Wrzesniewski and Dutton (2001), who posited that employees are not passive recipients of formally prescribed roles but rather active agents in reshaping their work. Prior to this conceptualization, job design was predominantly viewed as a top-down process exclusively managed by organizational hierarchies. Job crafting fundamentally shifted this perspective toward a bottom-up, employee-driven approach.

Subsequently, Bakker and Demerouti (2007, 2017) expanded the theoretical underpinnings of job crafting by embedding it within the Job Demands–Resources (JD-R) model. Under this framework, job crafting is operationalized as two complementary processes: the proactive increase of job resources and the strategic reduction of hindering job demands, thereby optimizing work-related outcomes (Bakker & Demerouti, 2017). Empirical research has since established that job crafting significantly enhances employee engagement, job satisfaction, and overall performance (Bakker & Demerouti, 2017; Rudolph, Katz, Lavigne, & Zacher, 2017).

Over time, the construct has evolved to encompass the psychological, social, and structural dimensions of work (Wrzesniewski & Dutton, 2001; Tims, Bakker, & Derks, 2012). More recently, industry-specific manifestations of job crafting—including safety-oriented and efficiency-driven adaptations—have been integrated into the framework, reflecting its growing applicability across diverse occupational contexts (Petrou, Demerouti, & Schaufeli, 2018).

**Review of Literature:**

Wrzesniewski and Dutton (2001) defined job crafting as the proactive physical and cognitive changes employees make to redefine their jobs, shifting the perspective of job design from a top-down managerial process to a bottom-up employee-driven approach. Tims and Bakker (2010) embedded job crafting within the Job Demands–Resources (JD-R) framework, categorizing crafting behaviors into increasing structural and social job resources, increasing challenging demands, and decreasing hindering demands. Bakker and Demerouti (2017) further refined this theoretical integration, stating that job crafting enables employees to optimize the balance between job demands and resources, thereby enhancing work engagement and performance. Rudolph, Katz, Lavigne, and Zacher (2017) conducted a comprehensive meta-analysis revealing that job crafting exhibits consistent positive relationships with job satisfaction, affective commitment, and task performance, while also reducing burnout. Petrou, Demerouti, and Schaufeli (2018) found that the significance of job crafting extends beyond individual well-being and includes measurable improvements in organizational adaptability and change readiness. Zhang and Parker (2019) identified that the main intention of job crafting research is to understand how employees proactively shape their roles to achieve meaningful work outcomes, not merely to comply with prescribed task descriptions. Wang, Demerouti, and Bakker (2016) stated that leadership behaviors and organizational climate serve as critical antecedents that enable or constrain employees' ability to craft their jobs effectively. Rofcanin, Bakker, Berber, Gölgeci, and Las Heras (2019) revealed that relational job crafting, which involves modifying interactions with coworkers and supervisors, significantly influences team-

level dynamics and social support structures. Lichtenthaler and Fischbach (2019) indicated that promotion-focused crafting (increasing resources and challenges) yields stronger positive effects on well-being and performance, whereas prevention-focused crafting (decreasing hindering demands) primarily reduces strain. Finally, Tims and Twemlow (2025) identified that recent industry-specific adaptations, including safety crafting in high-risk sectors and efficiency crafting in operations, have expanded the applicability of job crafting across diverse occupational contexts while maintaining the theoretical core established by foundational scholarship.

### Objective:

To develop a scale to measure job crafting suited to chemical industry employees.

### Method:

The questions were based on measuring job crafting behaviours suited to chemical industry employees. This scale was developed on a five point Likert scale anchored at 1 indicating strongly disagree at one end and anchored at 5 representing strongly agree at the other end. The components were built using the theoretical base of the dimensions of job crafting and the appropriate basis of focus group results. The resultant questionnaire comprised nineteen Likert-scale items distributed across seven dimensions of job crafting. Each item was designed to measure a specific aspect of its respective dimension, enabling a comprehensive assessment of employees' job crafting behaviours. The study was conducted among 100 employees from the chemical industry in Cuddalore, Tamil Nadu. Respondents were selected using the convenience sampling method to collect the required data.

The Kaiser-Meyer-Olkin (KMO) value was found to be 0.903, which is higher than the recommended threshold value of 0.70, indicating adequate sampling. Bartlett's Test of Sphericity was statistically significant ( $\chi^2 = 38737.344$ ,  $p < 0.001$ ), confirming that the data were suitable for factor analysis, denoting that EFA can be applied.

**Table 1 KMO and Bartlett's Test**

| Particulars                                           | Value     |
|-------------------------------------------------------|-----------|
| Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy | 0.903     |
| Approximate Chi-Square                                | 38737.344 |
| Degrees of Freedom                                    | 630       |
| Significance Value                                    | 0.001     |

Source: Primary Data

**Table 2 Components of Job Crafting suited in chemical industry**

| Components of Job Crafting                                                 | Dimensions                             | Loadings |
|----------------------------------------------------------------------------|----------------------------------------|----------|
| I try to create opportunities where I can openly express my ideas at work. | Increasing Psychological Job Resources | 0.978    |
| I actively express my opinions on work-related matters                     |                                        | 0.975    |
| I ask questions to improve my understanding of my work                     |                                        | 0.971    |
| I initiate conversations to clarify doubts or concerns related to my job   |                                        | 0.962    |

|                                                                                                             |                                                   |       |
|-------------------------------------------------------------------------------------------------------------|---------------------------------------------------|-------|
| I try to create an environment where I feel comfortable expressing myself.                                  |                                                   | 0.956 |
| I seek opportunities to share my thoughts and suggestions about work.                                       |                                                   | 0.956 |
| I encourage open communication between myself and others at work.                                           |                                                   | 0.948 |
| I try to keep my task from being too cognitively taxing.                                                    | Decreasing<br>Hindering Job<br>Demands            | 0.957 |
| I try to make my work less emotionally taxing.                                                              |                                                   | 0.955 |
| I attempt to limit my interactions with folks whose issues emotionally impact me by managing my employment. |                                                   | 0.927 |
| I arrange my job such that I don't interact with folks who have unreasonable expectations.                  |                                                   | 0.919 |
| I try to avoid having to make a lot of tough choices at work.                                               |                                                   | 0.908 |
| I set up my job such that I don't have to focus on it for extended periods of time at once.                 |                                                   | 0.904 |
| I work to improve my skills.                                                                                | Increasing<br>Structural Job<br>Resources         | 0.965 |
| I try to advance professionally.                                                                            |                                                   | 0.961 |
| I try to pick up new skills at work.                                                                        |                                                   | 0.960 |
| I make sure to make the most of my abilities.                                                               |                                                   | 0.956 |
| I make my own decisions on how to proceed.                                                                  |                                                   | 0.955 |
| I ask for coaching from my boss.                                                                            | Increasing<br>Social Job<br>Resources             | 0.956 |
| I inquire as to if my boss is happy with my job.                                                            |                                                   | 0.958 |
| I turn to my boss for motivation.                                                                           |                                                   | 0.953 |
| I solicit input from others on my work performance.                                                         |                                                   | 0.950 |
| I seek guidance from my peers.                                                                              |                                                   | 0.931 |
| I aggressively offer myself as a project co-worker whenever an intriguing project arises.                   | Increasing<br>Challenging<br>Job Demands          | 0.914 |
| I am among the first to find out about and test out any new innovations.                                    |                                                   | 0.907 |
| I consider it an opportunity to begin new initiatives when there isn't much to accomplish at work.          |                                                   | 0.907 |
| I frequently take on additional work even though I don't get paid more for it.                              |                                                   | 0.903 |
| I look at the underlying connections between many facets of my work to make it more difficult.              |                                                   | 0.894 |
| I want to craft my job that saves on production time                                                        | Increasing<br>Easier Usage<br>of Job<br>Resources | 0.989 |
| I want to craft in a way that makes the work easier for all employees                                       |                                                   | 0.981 |
| I want to craft in a way that makes the job way to supervise                                                |                                                   | 0.978 |
| I want to ensure that lesson manpower can complete the work without extra effort and shorter time           |                                                   | 0.975 |

|                                                                            |                                 |       |
|----------------------------------------------------------------------------|---------------------------------|-------|
| I want to craft in a way that unwanted bruises and hits can be avoided     | Increasing Safety Job Resources | 0.964 |
| I want to ensure that where possible unnecessary climbing may be avoided   |                                 | 0.963 |
| I want to ensure operational practices be introduced to avoid accident     |                                 | 0.963 |
| The ergonomics of job must be modified to avoid long term damage to health |                                 | 0.958 |

**Table 3 Eigen Values and Variance of dimensions of dimensions of job crafting**

| Summary Statistics          | F1     | F2                       | F3     | F4     | F5                     | F6    | F7     |
|-----------------------------|--------|--------------------------|--------|--------|------------------------|-------|--------|
| Eigen Values                | 6.664  | 6.341                    | 4.817  | 4.467  | 3.836                  | 3.241 | 3.155  |
| % of variance explained     | 18.511 | 17.613                   | 13.380 | 12.409 | 10.657                 | 9.002 | 8.763  |
| Cum % of variance explained | 18.511 | 36.124                   | 49.505 | 62.913 | 72.570                 | 8.763 | 90.335 |
| N = 100                     |        | Sample = All respondents |        |        | Unit = Factor loadings |       |        |

Source: Primary data

The first dimension sorted was identified as increasing psychological safety resources that included factors such as open communication, expressing my opinions, improving my understandings, clarifying doubts, comfortable in expressing myself, and sharing their thoughts. Edmondson, A. (1999) coined that psychological safety encourages members to share knowledge, report errors, and contribute innovative ideas, which ultimately improves team performance and organizational learning. This dimension accounted for 18.511 percent of variance.

The second dimension was identified as decreasing hindering job demands that straighten out the factors such as minimizing contact with peoples, limiting interactions with others for unreasonable expectations, avoid making tough choice, avoiding long focus of time in work, reducing mental load and emotional strain at work. Fong et al., (2020) state that decreasing hindering job demands refers to employees put effort to avoid difficult tasks and emotionally demand demanding situations that may hinder their performance and well-being in an organization. It can be crafted in a “promotion-focused” way by optimizing demands to make work more efficient (Demerouti & Peters, 2018). These factors accounted for 17.613 percent of variance.

The third dimension was identified as increasing structural job resources that included factors such as learning and improving new skills, making own decisions, using my abilities, and to develop professionally at work. Through job crafting, employees proactively modify their work conditions, seek innovative ways to accomplish their tasks, and initiate changes that improve work processes, thereby enhancing creativity and promoting innovative behavior in the workplace (Wrzesniewski & Dutton, 2001; Zhang & Parker, 2019). These factors accounted for 13.380 percent of variance.

The fourth dimension was explored as increasing social job resources that included factors such as coaching from my boss, seeking feedback, peer guidance, motivational support,

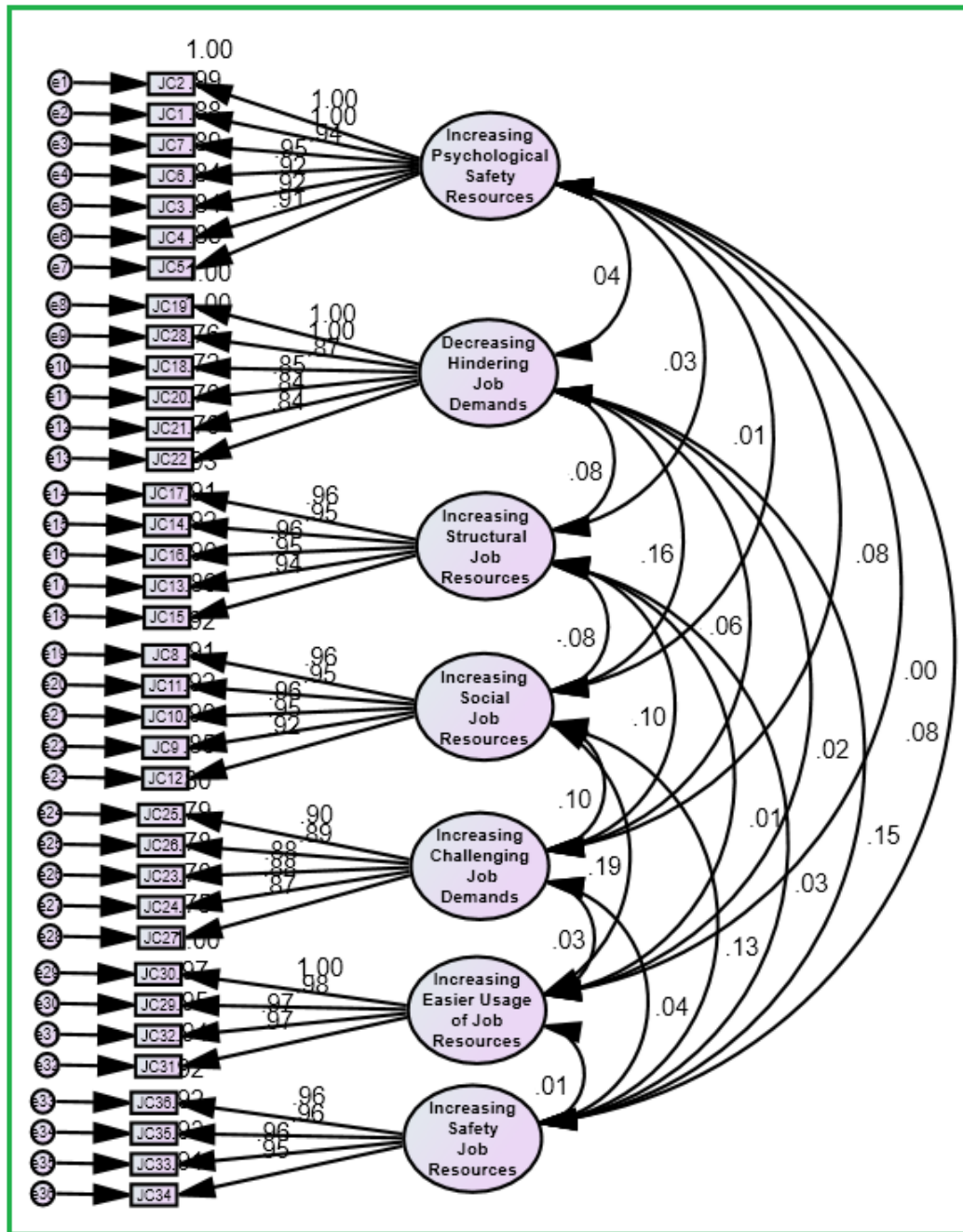
and getting feedbacks from my supervisor in an organization. Bakker & Demerouti, (2007) stated that social job resources assist employees to cope with job demands at organization and activate the job resources to increase employees work engagement (Xanthopoulou et al., 2007). This factor accounted for 12.409 percent of variance.

The fifth dimension was identified as increasing challenging job demands which included factors such as project volunteering, innovation exploration, initiative working, additional workload, and task complexity at work. Challenging job demands are necessary to avoid boredom and dissatisfaction (Han & Yin, 2016) which provide opportunities for employee personal growth and development (Guskey, 2002). This may lead to the development of new ideas and innovatively involve in project works. This factor accounted for 10.657 percent of variance.

The sixth dimension was explored as increasing easier usage of job resources which included factors such as saving production time, making easier work for employees, making the job easy to supervise, and tasks to be completed with minimal manpower, reduced effort, and shorter time duration. Wrzesniewski and Dutton (2001), emphasizes that employees can redesign their tasks to improve efficiency and ease of work. Further, Tims and Bakker (2010) explain that optimizing job demands and resources helps in reducing effort and enhancing productivity, thereby enabling better supervision and effective utilization of manpower. These processes may lead to enhanced operational efficiency, improved productivity, effective supervision, and optimal utilization of resources. This factor accounted for 9.002 percent of variance.

The last dimension was identified as increasing safety job resources which included factors such as avoiding bruises, hits, unnecessary climbing, and accidents and to improve ergonomics. The job is crafted with a strong emphasis on employee safety by minimizing physical injuries such as bruises and impacts (Heinrich, 1931). Job activities are structured to reduce unnecessary climbing and physical strain, while standardized operational practices are introduced to prevent workplace accidents (Bird, 1974). Furthermore, ergonomic modifications are incorporated to reduce long-term health risks and improve employee well-being (Grandjean, 1980; Sanders & McCormick, 1993). These factor's with occupational safety principles that promote a safe and healthy work environment (ILO, 2019). The last dimension accounted for 8.763 percent of variance.

### **Fig 1 Confirmation Factor Analysis with seven dimensions of Job Crafting**



**Table 4 Model fit indicators for the five dimensions of Job crafting**

| CFI   | GFI   | AGFI  | NFI   | RMR   | RMSEA |
|-------|-------|-------|-------|-------|-------|
| 0.968 | 0.951 | 0.869 | 0.955 | 0.038 | 0.059 |

Confirmatory Factor Analysis was carried out for the seven dimensions of job crafting. The AMOS output on the seven dimensions of job crafting gave an overall indication of an acceptable model fit. The confirmatory factor analysis results indicate that the measurement model demonstrated a satisfactory fit. According to Hair et al. (2019), the chi-square to degrees of freedom ratio (CMIN/df) should be less than 5.0, while the values of GFI, AGFI, CFI, and NFI should exceed 0.90. In the present study, the values obtained were CMIN/df = 2.021, GFI = 0.951, AGFI = 0.869, CFI = 0.968, and NFI = 0.955, indicating a good model fit. Furthermore, the RMR value (0.038) and RMSEA value (0.059) were below the recommended threshold of

0.08 suggested by Byrne (2016) and Browne and Cudeck (1993), confirming confirming that the seven-dimensional job crafting measurement model demonstrates an acceptable level of construct validity and is suitable for further structural analysis.

**Table 5 Reliability and Validity Analysis**

| Dimensions | CR    | AVE   |
|------------|-------|-------|
| 1          | 0.984 | 0.847 |
| 2          | 0.963 | 0.814 |
| 3          | 0.980 | 0.908 |
| 4          | 0.978 | 0.900 |
| 5          | 0.947 | 0.781 |
| 6          | 0.975 | 0.906 |
| 7          | 0.967 | 0.880 |

Source: Primary Data

According to Nunnally and Bernstein (1994), all reliability values exceeded the recommended threshold of 0.70, indicating satisfactory internal consistency. These findings indicate that all seven dimensions of Job Crafting possess excellent internal consistency and reliability.

#### **Conclusion:**

The list of components used to measure the seven dimensions of job crafting in the chemical industry. The dimensions identified include Increasing Psychological Job Resources, Decreasing Hindering Job Demands, Increasing Structural Job Resources, Increasing Social Job Resources, Increasing Challenging Job Demands, Increasing Easier Usage of Job Resources, and Increasing Safety Job Resources. This is essential for every technically working employee to feel secure and capable of changing their behavior in response to organizational challenges. By proactively encouraging open communication, sharing ideas, and discussing problems, employees could increase the availability of psychological resources that help them cope with job demands and collaborate effectively with others. It helps employee to prevent errors, improves problem-solving and a better decision-making in technically demanding working environments, this ultimately leads to employee engagement in their work collaboratively, and improves individual performance and organizational outcomes. It plays a significant role in enhancing employee well-being, communication, safety, and productivity in chemical industries. The study contributes to the existing job-crafting literature by introducing industry-specific dimensions related to operational efficiency and workplace safety. From a managerial perspective, organizations can utilize these dimensions to design effective human-resource policies, training programs, and safety initiatives that encourage employees to proactively reshape their work roles and enhance organizational effectiveness. However, the study is limited by its relatively small sample size and its focus on employees from chemical industries in Cuddalore District. Therefore, the findings reflected only in specific industry and location. Future research may extend to other sectors and geographical regions to enhance the generalizability of the findings.

#### **Appendix 1 – Job Crafting Scale**

| Job Crafting Components                                                    | Mean | SD    | Dimensions | Mean | SD    |
|----------------------------------------------------------------------------|------|-------|------------|------|-------|
| I try to create opportunities where I can openly express my ideas at work. | 3.75 | 1.340 |            | 3.75 | 1.345 |

|                                                                                                             |      |       |                                           |      |       |
|-------------------------------------------------------------------------------------------------------------|------|-------|-------------------------------------------|------|-------|
| I actively express my opinions on work-related matters                                                      | 3.76 | 1.341 | Increasing Psychological Safety Resources |      |       |
| I ask questions to improve my understanding of my work                                                      | 3.75 | 1.351 |                                           |      |       |
| I initiate conversations to clarify doubts or concerns related to my job                                    | 3.75 | 1.343 |                                           |      |       |
| I try to create an environment where I feel comfortable expressing myself.                                  | 3.75 | 1.352 |                                           |      |       |
| I seek opportunities to share my thoughts and suggestions about work.                                       | 3.75 | 1.340 |                                           |      |       |
| I encourage open communication between myself and others at work.                                           | 3.77 | 1.350 |                                           |      |       |
| I try to keep my task from being too cognitively taxing.                                                    | 3.94 | 1.277 | Decreasing Hindering Job Demands          | 3.85 | 1.308 |
| I try to make my work less emotionally taxing.                                                              | 3.94 | 1.278 |                                           |      |       |
| I attempt to limit my interactions with folks whose issues emotionally impact me by managing my employment. | 3.93 | 1.283 |                                           |      |       |
| I arrange my job such that I don't interact with folks who have unreasonable expectations.                  | 3.93 | 1.286 |                                           |      |       |
| I try to avoid having to make a lot of tough choices at work.                                               | 3.90 | 1.302 |                                           |      |       |
| I set up my job such that I don't have to focus on it for extended periods of time at once.                 | 3.45 | 1.424 |                                           |      |       |
| I work to improve my skills.                                                                                | 3.46 | 1.416 | Increasing Structural Job Resources       | 3.56 | 1.401 |
| I try to advance professionally.                                                                            | 3.44 | 1.428 |                                           |      |       |
| I try to pick up new skills at work.                                                                        | 3.46 | 1.419 |                                           |      |       |
| I make sure to make the most of my abilities.                                                               | 3.46 | 1.409 |                                           |      |       |
| I make my own decisions on how to proceed.                                                                  | 4.00 | 1.335 |                                           |      |       |
| I ask for coaching from my boss.                                                                            | 4.01 | 1.343 | Increasing Social Job Resources           | 4.04 | 1.281 |
| I inquire as to if my boss is happy with my job.                                                            | 4.00 | 1.329 |                                           |      |       |
| I turn to my boss for motivation.                                                                           | 4.02 | 1.295 |                                           |      |       |
| I solicit input from others on my work performance.                                                         | 3.94 | 1.269 |                                           |      |       |
| I seek guidance from my peers.                                                                              | 4.05 | 1.170 |                                           |      |       |

|                                                                                                    |      |       |                                          |      |       |
|----------------------------------------------------------------------------------------------------|------|-------|------------------------------------------|------|-------|
| I aggressively offer myself as a project co-worker whenever an intriguing project arises.          | 4.06 | 1.165 | Increasing Challenging Job Demands       | 4.00 | 1.281 |
| I am among the first to find out about and test out any new innovations.                           | 4.09 | 1.153 |                                          |      |       |
| I consider it an opportunity to begin new initiatives when there isn't much to accomplish at work. | 4.08 | 1.158 |                                          |      |       |
| I frequently take on additional work even though I don't get paid more for it.                     | 4.06 | 1.167 |                                          |      |       |
| I look at the underlying connections between many facets of my work to make it more difficult.     | 4.01 | 1.344 |                                          |      |       |
| I want to craft my job that saves on production time                                               | 4.06 | 1.165 | Increasing Easier Usage of Job Resources | 3.78 | 1.352 |
| I want to craft in a way that makes the work easier for all employees                              | 4.09 | 1.153 |                                          |      |       |
| I want to craft in a way that make the job easy to supervise                                       | 4.08 | 1.158 |                                          |      |       |
| I want to ensure that lesser manpower can complete the work without extra effort and shorter time  | 4.06 | 1.167 |                                          |      |       |
| I want to craft in a way that unwanted bruises and hits can be avoided                             | 3.87 | 1.293 | Increasing Safety Job Resources          | 3.87 | 1.281 |
| I want to ensure that where possible unnecessary climbing may be avoided                           | 3.85 | 1.291 |                                          |      |       |
| I want to ensure operational practices be introduced to avoid accident                             | 3.89 | 1.265 |                                          |      |       |
| The ergonomics of job must be modified to avoid long term damage to health                         | 3.86 | 1.276 |                                          |      |       |

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