Organizational Support and Adaptive Performance: The Revolving Structural Relationships between Job Crafting, Work Engagement, and Adaptive Performance

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Abstract: This study has two primary purposes: (1) examining the structural relationships between organizational support, job crafting, work engagement, and adaptive performance, and (2) identifying a revolving relationship derived from these relationships. To that end, the research sampled 250 human resources professionals in companies with at least 300 employees in South Korea and employed structural equation modeling. The study’s findings showed that organizational support affects adaptive performance through job crafting and work engagement. In addition, job crafting and adaptive performance mediated the relationship between organizational support and work engagement. Lastly, revolving relationships existed among job crafting, work engagement, and adaptive performance. Our findings make a positive contribution to comprehending the role of adaptive performance in motivating individuals further to craft their jobs creatively. Moreover, it advances our understanding of the complexities of the revolving relationships among job crafting, work engagement, and adaptive performance.

Keywords: organizational support; job crafting; work engagement; adaptive performance

1. Introduction

Modern organizations have embraced a world of increasing uncertainty and abrupt changes. As a result, their business environments are unstable and unpredictable [1]. Globalization, rapid technological advances, and aging trends further complicate today’s business environments. Amid such turmoil, an employee’s ability to be tactful while satisfying ever-changing business and customer needs has become a pivotal asset for an organization’s survival and success. The concern for organizations’ continuous survival has made their leaders increasingly pay attention to making them sustainable. Such corporations positively affect society in terms of economic, environmental, and human aspects [2,3]. Scholars in human resources have become interested in the impact on efficacy of employees’ sustainable adaptive performance in their work. Thus, currently, job performance demands adaptive performance—individual employee’s task-oriented behavior when anticipating changes in job situations [4]—which has caught the attention of many organizational researchers and practitioners. Researchers’ keen interest in improving employees’ ability to handle fast-paced tasks and
deal with uncertain work situations is growing more than ever. However, little research has sought to identify the core attributes and characteristics of adaptive performance and what organizational variables influence an employee’s adaptability and performance in business settings.

Similarly, job crafting is another core personal attribute that employees in modern organizations need—to face various pressures stemming from external and internal changes effectively. Researchers have emphasized employees’ voluntary and proactive behavior while performing their tasks because it may influence both each employee’s development and the organization’s long-term competitiveness [5]. Job crafting is an intentional change in an employee’s cognition and behavior in task situations to meet the organization’s business needs [6]. At an escalated level, employees can change the meaning and scope of their tasks in anticipation of changes in a new business environment [7]. Yet, considering how critical job crafting is in attaining organizational effectiveness, little research has sought to verify how it affects organizational or employee variables, such as an employee’s satisfaction [8] and sense of ownership [9]. Moreover, little research has investigated its relationship with adaptive performance.

If employees lack the motivation to work and lack critical competencies to adapt to changing task situations, many companies will suffer from low productivity and dismaying quality in their products and services. Eventually, this situation could cost an organization its competitiveness in the global business environment [10]. From a practical standpoint, many believe that improving employees’ adaptive performance and job crafting will become a core human resource and organizational development task. Researching how job crafting interrelates with other critical organizational variables, such as organizational support and work engagement, becomes a timely and essential research topic that many human-resource and organizational-development practitioners and researchers need.

This paper is structured as follows. The conceptual research framework and hypotheses development based on the literature review appear in Section 2. Section 3 outlines the methods including sample and procedure, measures, and data analysis, and Section 4 presents the results. The paper presents the discussion, conclusion/practical implications of the study, and limitations/future research in Sections 5–7, respectively.

2. Conceptual Research Framework and Hypotheses Development

2.1. Conceptual Research Framework

To reveal a theoretical framework for studying adaptive performance, many researchers have studied various individual and organizational-level variables affecting it. For example, they have identified complexity in task domain [11], situational demands (e.g., task, social, and organizational demands) [12], and organizational cultures and norms [13], as individual- or organizational-level moderators and mediators of adaptive performance. Recently, researchers have examined work engagement as a mediating variable between person-environment fit and adaptive performance [14]. However, the effects of job crafting and work engagement and their revolving structural relationships with adaptive performance have yet to be studied.

Additionally, the job demands-resources (JD-R) model [15,16] and the JD-R model of work engagement [17] are significant frameworks for conceptualizing how job characteristics promote employees’ motivation and, thus, their job performance. The JD-R model, especially, proposes that job resources, such as social support, lead to work engagement, which influences job performance. Many evidence-based studies have followed these models, but research identifying reciprocal relationships between job resources, job crafting, and work engagement is lacking, and previous studies on the JD-R model did not pay attention to adaptive performance.

This study examines the relationships between organizational support, job crafting, work engagement, and adaptive performance to address these demanding research needs. Moreover, we attempt to identify the indirect effects of job crafting and adaptive performance in the relationship between organizational support and work engagement. Figure 1 illustrates our research model, reflecting our research variables and their relationships.
workers who perceive elevated organizational support will also perform more job-crafting activities.

This expectation leads to our second hypothesis.

2.2. Organizational Support

Organizational support (sometimes interchangeable with “perceived organizational support”) refers to workers’ perceptions of whether an organization cares about their well-being and contributions [18]. It also encompasses employees’ assessment of whether the organization helps them achieve professional and personal goals [19]. When employees perceive good organizational support, they feel safer in their jobs and are more engaged with their work [20].

Research demonstrates that perceived organizational support strongly correlates with many progressive workplace characteristics and behaviors, such as positive organizational climates [20] and organizational citizenship behaviors [18]. Many of these associations appear to relate to other variables within this study. For instance, Kose [20] discusses organizational citizenship behavior as employees’ willingness to help others beyond the scope of their assigned duties. It appears to be similar to a social dimension in job crafting.

Previous research has indicated a relevant relationship between organizational support and work engagement. For example, Kose [20] suggests that there is a statistically significant and positive relationship between work engagement and organizational support. When workers feel that the company cares about their well-being, they offer their dedication as a social exchange. Organizational support also boosts employees’ sense of belonging [18]. Because employees believe they are part of something greater than themselves, they are more dedicated to the company’s goals. With this knowledge in mind, we suggest the following hypothesis.

**Hypothesis 1 (H1).** Organizational support has a significant positive relationship with work engagement.

Kose [20] identified that, often, employees who perceive organizational support feel secure in their positions and believe that their organizations are concerned about their professional development [19]. Unsurprisingly, workers who think that their organizations care about their personal and professional life are willing to seek out more resources for task completion or gain more responsibilities — dimensions of job crafting. Organizational support has a positive association with organizational citizenship behavior [18], which predicts more helping behaviors within a corporation. Therefore, we expect that workers who perceive elevated organizational support will also perform more job-crafting activities. This expectation leads to our second hypothesis.

**Hypothesis 2 (H2).** Organizational support has a significant positive relationship with job crafting.

Figure 1. Proposed research framework.
2.3. Job Crafting

Throughout daily work, employees often change how they complete tasks, especially when they perform service-related and people-oriented jobs. Job crafting occurs when an employee proactively modifies the boundary of a task, the amount of personal interaction, or the cognitive limits of the individual’s job [6,21,22]. These boundary changes happen outside of formal arrangements between a supervisor and subordinate, often with the supervisor unaware of those changes [22]. The boundaries of a task are the “form or number of activities one engages in while doing the job” ([6], p. 179).

Employees can also alter the cognitive and social boundaries of their jobs. Changing their cognitive boundaries includes revising one’s perception of the job [6]. As mentioned previously, employees can also adjust their relational boundaries by changing the personnel involved or levels of involvement in tasks [6,22]. Deciding to avoid or approach people concerning different tasks, much like changing assignments and cognitive boundaries, modifies the design of the job [6]. These boundary changes are, in effect, the foundation of job crafting.

Job crafting’s range is fairly broad because it includes behaviors, cognitions, and social relations at work. Petrou et al. [21] narrowed their analysis to three behavioral areas of job crafting: (a) seeking resources, (b) seeking challenges, and (c) reducing demands.

2.4. Work Engagement

Work engagement denotes a persistent, positive mental state about the workplace [23]. Workers who are engaged will have more enthusiasm, focus, and energy for completing tasks [24]. Tims et al. [25] identified the following three dimensions as vital: vigor, dedication, and absorption. These dimensions fall in line with descriptions of work engagement in the extant literature, but they focus almost exclusively on tasks. Vigor concerns the energy one needs to complete tasks. Dedication refers to enthusiasm about the job. Absorption describes how engrossed a worker is with the assignments of the work. Schaufeli et al. [26] developed a short questionnaire to measure work engagement.

While exploring the relationship between job crafting and work engagement, several researchers verified that there is a positive association between the two [21,25,27]. Employees who proactively look for resources and new challenges are more likely to indicate higher engagement [6]. Petrou et al. [21] showed that challenge-seeking in employees relates closely to work engagement, but found no significant link between resource-seeking and work engagement. Bakker et al. [27] demonstrated that proactive personalities were likely both to job craft and feel engaged. The study seems to suggest a positive correlation between job crafting and work engagement, although there might not be a relationship with all job crafting activities and work engagement. Therefore, we suggest the following hypothesis.

**Hypothesis 3 (H3):** Job crafting has a significant positive relationship with work engagement.

2.5. Adaptive Performance

Previous literature has inconsistently described adaptive performance. Aside from also calling it performance adaptation and adaptive expertise, some articles refer to adaptive performance as a behavior, whereas others define it as a willingness/ability to adapt [28]. Several researchers [1,4] prefer to define adaptive performance as the ability of individual employees or groups to change cognitions and behaviors to adapt to changing environments. However, others define adaptive performance as employees modifying “their behavior to meet the demands of a new situation or event or a changed environment.” ([29], p. 615)

Jundt et al. [28] assert that adaptive performance behaviors are usually “aimed at maintaining performance levels or minimizing performance decrements as a result of change.” ([28], p. S54) They also argue that adaptive performance may require interpersonal and organizational changes to achieve
objectives. In comparison, Pulakos et al.’s [29] extensive literature review initially identified six dimensions of adaptive performance. They include

1. creative problem solving,
2. handling ambiguous/unintended work situations,
3. mastering tasks, technical tools, and work procedures,
4. maintaining adaptive interpersonal relationships,
5. showing cultural adaptability,
6. demonstrating physical adaptability.

They then added two more dimensions: timely management of emergencies or work crisis, and stress management, taken from a research study targeting a group of military personnel.

By showing the relationship between adaptive performance and work engagement, Breevaart et al. [24] revealed that workers who feel engaged in their work exhibit more focus within their daily performance. Furthermore, because they dedicate their energies and attention to their tasks, they are more mindful of their work. That is, their mindfulness enables them to anticipate new challenges or recognize current deficiencies in processes. Those who are more mindful of their work are the readiest to address external challenges. We assume that an engaged worker also has the vigor and motivation to work through dynamic environments. Considering that, we suggest the following hypothesis.

**Hypothesis 4 (H4).** Work engagement has a significant positive relationship with adaptive performance.

Research studies investigating the relationship between adaptive performance and job crafting have found that job-crafting activities, such as seeking additional resources, improve performance in response to organizational changes [30]. In a comparison of American and Dutch health-care professionals, Gordon et al. [31] claimed that there is a positive relationship between proactive job-crafting activities (seeking resources and challenges) and job performance. Peeters et al. [32] support the findings that job crafting has a positive relationship with adaptivity in a three-day longitudinal study of dyads in a multitude of organizations.

**Hypothesis 5 (H5).** Adaptive performance has a significant positive relationship with job crafting.

### 2.6. Mediating Relationships between Variables

Several studies have focused on how the mediational roles of job crafting, work engagement, and adaptive performance independently affect organizational variables. For example, an analysis of three Romanian organizations discovered that work engagement was the mediator between organizational support, positive extra-role behaviors, and organizational citizenship behaviors. Moreover, it mediated between organizational support and negative extra-role behaviors [33]. Babcock-Roberson and Strickland [34] also highlighted that work engagement played a mediating role in the relationship between leadership and organizational citizenship behaviors.

Previous studies suggest that work engagement, job crafting, and adaptive performance reveal mediating relationships between other organizational variables, such as organizational citizenship behavior. However, there is little existing literature analyzing job crafting, work engagement, and adaptive performance through a mediational model. Therefore, our study proposes several hypotheses.

**Hypothesis 6 (H6).** Work engagement has an indirect effect on the relationship between organizational support and adaptive performance.
Hypothesis 7 (H7). Job crafting and work engagement have an indirect effect on the relationship between organizational support and adaptive performance.

Hypothesis 8 (H8). Organizational support has an indirect effect on job crafting through work engagement and adaptive performance.

Hypothesis 9 (H9). Organizational support has an indirect effect on work engagement through adaptive performance and job crafting.

3. Methods

3.1. Sample and Procedure

We gathered the samples for this research from human resource (HR) personnel in companies with at least 300 employees in South Korea. We used the proportional stratified sampling framework to achieve our goal. First, we selected 250 companies by considering their sizes (number of employees), industry categories, and regions based on the 2016 business directory from the Korean Statistical Information Service.

In this procedure, we proportionally chose companies from different industry categories (manufacturing, construction, wholesale and retail, publication/broadcasting, information services, and science and technology services), sizes (300–499 employees, 500–999 employees, and over 1000 employees), and regions (16 metropolitan cities/provinces). We then sampled 250 HR representatives, one from each company. Forward- and backward-translation, explained by Maneesriwongul and Dixon [35], translated all measures into Korean, except a Korean version of the job crafting scale. Out of the 250 distributed surveys, participants returned 227 (a 90% response rate). After excluding cases with missing data, we used 212 responses in the analysis.

Among the 212 respondents, employees who worked in firms with 300–499 employees made up 49.5% of the sample, followed by 28.8% from companies with 500–999 employees, and 21.7% from companies with more than 1000 employees. Respondents worked across various industries, including manufacturing (44.8%), construction (18.9%), science and technology services (18.9%), publication/broadcasting and information service (9.4%), and retail and wholesale (8.0%).

3.2. Measures

Organizational support indicates how employees perceive the degree to which their company appreciates their work and places importance on their well-being [36,37]. Previous research consistently showed that organizational support closely relates to employee performance and well-being. In this study, we used the short form of the eight items that Rhoades et al. [37] constructed. We did so because organizational support is unidimensional, and using the short version captures individual differences in such support [37]. All measures in the current study used a five-point Likert scale ranging from “strongly disagree” (1) to “strongly agree” (5). The initial reliability (Cronbach’s α) for our sample was 0.691. However, after we removed one item (OS8) based on the scale results, its Cronbach’s α was 0.842.

Job crafting refers to workers’ actions to redefine and adapt their jobs to create positive results in their organizations [6]. Our research used a Korean version of the job crafting scale that Kim and Sim [38] devised. They modified Wrzesniewski and Dutton’s work [6] and validated the revised scale to customize it for Korea. The scale includes 12 items from three subscales, such as task crafting, cognitive crafting, and relational crafting. In this instance, the internal consistency (Cronbach’s α) was 0.930.

Work engagement signifies a positive and fulfilling affective-cognitive state related to work. It comprises three dimensions: vigor, dedication, and absorption [39]. In this research project, we used the nine-item version of the Utrecht work engagement scale (UWES-9) to collect participants’ responses [39]. The internal consistency (Cronbach’s α) for our sample was 0.953.
Adaptive performance denotes employees’ abilities to adjust their behaviors to satisfy work demands [40]. We used an abbreviated version of the scale that Charbonnier-Voirin et al. suggested [40]. The original scale contains 19 items measuring five domains of adaptive performance: handling emergencies and unpredictable situations, handling work stress, solving problems creatively, learning, and demonstrating interpersonal adaptability. To compose a concise scale with the most relevant items for our study, we selected three items from each subscale, 15 items in total. In this study, the reliability (Cronbach’s α) was 0.886.

### 3.3. Data Analysis

We examined the collected data set by employing structural equation modeling (SEM) with reliability, normality tests, common method bias (CMB), and correlations. This study depends on self-reported data from the participants. Thus, we tested the CMB because individual attitudes and behavioral relationships are exposed to the inflation of correlations by common method variance (CMV). To evaluate the overall fit of the proposed research model, we examined the Satorra-Bentler (SB) scaled chi-square to handle the non-normality of the collected data [41] with other fit indices, such as the root mean square error of approximation (RMSEA), the standardized root mean square residual (SRMR), the comparative fit index (CFI), and the Tucker—Lewis index (TLI) (RMSEA < 0.08, SRMR < 0.08, CFI > 0.90, TLI > 0.90) [42]. Also, to check for improper solutions of the proposed research model, we examined data for individual parameter estimates with negative error variances, magnitudes, reasonable signs, and non-significant paths [43]. Furthermore, to test research hypotheses, we investigated standardized estimates of path coefficients (SPC) of the direct effects and bias-corrected (BC) bootstrap estimates of the indirect effects.

### 4. Results

#### 4.1. CMB, Normality, Reliability, and Correlation

Prior to SEM analysis, we scanned the CMB, multivariate normality, reliability, and correlations. First, we did a confirmatory factor analysis (CFA) for the single-factor measurement model to check potential issues with CMB [44]. The results of the study showed that the single-factor model had a poor fit with the data (SB χ² (135) = 1044.877, p < 0.001; RMSEA = 0.178; SRMR = 0.126; TLI = 0.440; CFI = 0.505). CMB is not a critical issue in this research since there is no common latent factor accounting for the major variance of the observed data. Also, since the extant empirical literature has validated all the measures used in this study, we employed the facet-representative parceling approach for multidimensional constructs as an item-parceling technique to represent the corresponding latent constructs optimally [45].

For the univariate and multivariate normality, we investigated the data by kurtosis and skewness. The results demonstrated that the univariate test ([skewness] < 0.513 [<2], [kurtosis] < 1.902 [<7]) and multivariate normality (p < 0.05) with the relative multivariate kurtosis (RMK = 1.199 [<3]; [46]) indicated that the current dataset was moderately non-normal, which can be handled by using robust ML (maximum likelihood). Also, the results of Cronbach’s alpha in Table 1 indicated that all measurements were reliable and acceptable (Cronbach’s α ranged from 0.842 to 0.953; [47]). Additionally, correlations between latent variables (|r| < 0.85; [44]) shown in Table 1 indicate no issue of multicollinearity.

| Variables               | M    | SD   | 1    | 2    | 3    | 4    |
|-------------------------|------|------|------|------|------|------|
| 1. Organizational support (OS) | 3.188 | 0.493 | (0.842) |      |      |      |
| 2. Job crafting (JC)    | 3.712 | 0.512 | 0.466 ** | (0.930) |      |      |
| 3. Work engagement (WE) | 3.298 | 0.628 | 0.483 ** | 0.786 ** | (0.953) |      |
| 4. Adaptive performance (AP) | 3.309 | 0.403 | 0.303 ** | 0.778 ** | 0.618 ** | (0.886) |

Note. n = 212. Cronbach’s α is in parentheses. ** p < 0.01.
4.2. Model Evaluation

We assessed the overall fit results, potential improper solutions of the measurement (MA), and the full (MB) models in order. The results of the overall fit statistics in Table 2 show that the SB chi-square of MA was statistically significant ($\chi^2 (129) = 468.612, p < 0.001$). Also, other fit statistics did not meet the cut-off criteria except for SRMR (RMSEA = 0.101, SRMR = 0.072, TLI = 0.820, and CFI = 0.848). We did not identify any issues regarding improper solutions when examining negative error variances, out-of-range of $r$, and all signs and magnitudes of parameters. However, for the factor loadings, two of them (OS1 = 0.459 and OS3 = 0.055) were less than 0.5 [48]. Based on these results, we removed two items of MA (OS1 and OS3) and re-evaluated the modified measurement model (MA-1). The results demonstrated that, although the SB chi-square of MA-1 was statistically significant ($\chi^2 (98) = 247.206, p < 0.001$), other fit statistics met the criteria, RMSEA = 0.077, SRMR = 0.060, TLI = 0.909, and CFI = 0.925. For the improper solutions in MA-1, all paths were statistically significant ($\lambda$ ranged from 0.505 to 0.985; $p < 0.05$). We did not identify any issues when checking negative error variances, out-of-range of $r$, or all of the parameters’ signs and magnitudes. Therefore, we concluded that MA-1 fits adequately with the dataset.

| Table 2. Overall fit statistics of the measurement models. |
|----------------------------------------------------------|
| **SB Scaled $\chi^2$ (df) | RMSEA | SRMR | TLI | CFI |
|----------------------------|-------|------|-----|-----|
| **Measurement Model (MA)** | $\chi^2 (129) = 408.092, p < 0.001$ | 0.101 | 0.072 | 0.820 | 0.848 |
| **Modified Measurement Model (MA-1)** | $\chi^2 (98) = 221.610, p < 0.001$ | 0.077 | 0.060 | 0.909 | 0.925 |

Note: Abbreviation: Satorra-Bentler (SB).

Since MA-1 was valid and feasible, we examined the overall fit indices of MB (full model). For the overall fit statistics of MB (see Table 3), although the SB chi-square of MB was statistically and positively significant ($\chi^2 (99) = 252.316, p < 0.001$), other fit statistics were within the criteria: RMSEA = 0.078, SRMR = 0.071, TLI = 0.907, and CFI = 0.924. Regarding improper solutions in MB, all paths were statistically significant ($p < 0.05$; see Figure 2). There was no major issue in improper solutions. Therefore, we can assume that MB fits adequately with the current dataset.

| Table 3. Overall fit statistics of the full model. |
|--------------------------------------------------|
| **SB Scaled $\chi^2$ (df) | RMSEA | SRMR | TLI | CFI |
|---------------------------------|-------|------|-----|-----|
| **Full Model (MB)** | $\chi^2 (99) = 225.443, p < 0.001$ | 0.078 | 0.071 | 0.907 | 0.924 |

Figure 2. Full model with standardized path coefficient estimates.

4.3. Hypotheses Testing

According to the results, we tested all nine research hypotheses. We primarily used SPC estimates, shown in Figure 2, to examine the direct effects between the four latent research variables. The SPC
estimates indicated that the direct effect of OS on WE ($\gamma_{21} = 0.239, t = 2.948$) was statistically significant for Hypothesis 1. Thus, the results supported Hypothesis 1’s premise that organizational support (OS) has a significant positive relationship with work engagement (WE). Regarding Hypothesis 2, we found that the direct effect of OS on JC ($\gamma_{11} = 0.311, t = 4.221$) was statistically and positively significant. Hence, we retained Hypothesis 2: organizational support (OS) has a significant positive relationship with job crafting (JC). The positive and direct effect of JC on WE ($\beta_{21} = 0.543, t = 5.003$) was statistically significant concerning Hypothesis 3, as presented in Figure 2. The results supported Hypothesis 3: job crafting (JC) has a significant positive relationship with work engagement (WE). The results also demonstrated that the direct effect of WE on AP ($\beta_{32} = 0.400, t = 4.077$) was positively and statistically significant when considering Hypothesis 4. Thus, they supported Hypothesis 4’s theory that work engagement (WE) has a significant positive relationship with adaptive performance (AP). Notably, the direct effect of AP on JC ($\beta_{13} = 0.569, t = 5.951$) was positively and statistically significant for Hypothesis 5. Therefore, the results supported Hypothesis 5: adaptive performance (AP) has a significant positive relationship with job crafting (JC).

We utilized bootstrapping estimates to investigate the indirect effects (mediating effects) of JC, WE, and AP in the full research model for hypotheses 6 through 9. Preacher and Hayes [49] highly recommended the use of the bootstrapping approach to examine indirect effects. Because bootstrapping is a non-parametric approach that does not require a normal distribution, many considered it to be the most powerful test method. Moreover, because Preacher and Hayes [49] encouraged a bias-corrected bootstrapping approach, we scrutinized the indirect effects through the BC bootstrapping procedure (3000 bootstrap samples). We present the results in Table 4.

| Indirect Paths | ab | Bias-Corrected 95% CI * |
|---------------|----|------------------------|
| OS $\rightarrow$ WE $\rightarrow$ AP | 0.096 | 0.016 $\rightarrow$ 0.241 |
| OS $\rightarrow$ JC $\rightarrow$ WE $\rightarrow$ AP | 0.068 | 0.030 $\rightarrow$ 0.174 |
| OS $\rightarrow$ JC $\rightarrow$ WE $\rightarrow$ AP $\rightarrow$ JC | 0.039 | 0.021 $\rightarrow$ 0.068 |
| OS $\rightarrow$ WE $\rightarrow$ AP $\rightarrow$ JC $\rightarrow$ WE | 0.030 | 0.009 $\rightarrow$ 0.057 |

*Note. ab = completely standardized estimate; CI = confidence interval; OS = organizational support; JC = job crafting; WE = work engagement; AP = adaptive performance. * This 95% CI does not include zero.

When we tested Hypothesis 6, we found that the indirect effect of WE in the relationship between OS and AP (ab = 0.096, 95% CI [0.016, 0.241]) was statistically significant. This result supported Hypothesis 6: work engagement (WE) plays a mediating role in the relationship between organizational support (OS) and adaptive performance (AP). The results after testing Hypothesis 7 revealed that the multi-mediating effects of JC and WE on the relationship of OS with AP (ab = 0.068, 95% CI [0.030, 0.174]) were statistically significant. Hence, we retained Hypothesis 7: job crafting (JC) and work engagement (WE) play mediating roles in the relationship between organizational support (OS) and adaptive performance (AP). We discovered when testing Hypothesis 8 that the multi-mediating effects of JC, WE, and AP in the relationship of OS with JC (ab = 0.039, 95% CI [0.021, 0.068]) were statistically significant. Thus, the results supported Hypothesis 8: organizational support (OS) has a mediating effect on job crafting (JC) through work engagement (WE) and adaptive performance (AP). The results concerning Hypothesis 9 demonstrated that the multi-mediating effects of WE, AP, and JC on the relationship of OS with WE (ab = 0.030, 95% CI [0.009, 0.057]) were statistically significant. Therefore, we retained Hypothesis 9: organizational support (OS) had a mediating effect on work engagement (WE) through adaptive performance (AP) and job crafting (JC). Ultimately, the results supported all nine of this study’s hypotheses.
5. Discussion

The results of this research support many previous studies about the influence of organizational and individual factors on an employee’s adaptive performance. As predicted, our findings confirmed that organizational support affects work engagement and job crafting [18,20]. Also, our findings concur with previous research that asserts that job crafting has a beneficial effect on work engagement [10,21,27]. Additionally, our study supports earlier findings regarding the positive relationship between work engagement and adaptive performance [24], suggesting that engaged workers can modify their work behavior through active adaptation and proactively anticipating possible future changes.

Moreover, the results stress the critical value of job crafting and work engagement in improving an employee’s adaptive behavior and performance at work [33,35]. Organizational support that values employees’ work and well-being successfully contribute to enhancing their adaptive performance when they proactively try to change their job resources and fulfill their work [50]. Our results also emphasize that organizational support influences work engagement via job crafting. Fostering job crafting to optimize the work environment is beneficial for employee work engagement. Indeed, evidence that used a quasi-experimental design showed that job-crafting interventions encouraged medical specialists to seek challenges, stimulated work engagement, and developed adaptive performance [50].

The findings concerning the mediating effects of job crafting between organizational support and work engagement can contribute to the JD-R model of engagement [17] by showing the reversed relationships. The JD-R model of engagement assumed that work engagement predicted job resources through job crafting. However, this research demonstrated that job resources, such as organizational support, influenced work engagement through job crafting. Additionally, the results add new knowledge to the JD-R model because we found adaptive performance to be an outcome measure in the model’s motivational process.

Our study has demonstrated that there are revolving relationships among job crafting, work engagement, and adaptive performance. When employees are active in interpreting their jobs and in shaping the task boundaries, their levels of vigor, dedication, and absorption improve simultaneously [27]. Also, employees’ passion and ambition make them more likely to undertake adaptive actions. Several researchers posit that there might be a bi-directional relationship between job crafting and adaptive performance [30–32]. Whereas previous research found that job crafting can help individuals adjust better to existing work behaviors [30], there has been little literature showing that adaptive performance directly leads to job crafting. In this sense, our study is meaningful because it provides evidence that adaptive performance can inspire individuals to craft their jobs creatively. Moreover, the results that uncovered revolving relationships could offer more insights into the phenomena of job crafting, work engagement, and adaptive performance and, thereby, in the JD-R model of engagement’s dynamics.

6. Conclusions

Our study’s findings suggest that when workers feel that their organizations support their work and well-being, their perceptions of organizational support increase their willingness to find more resources and modify the cognitive boundaries of their jobs. In turn, those job crafting behaviors inspire employees to be more dedicated to their work with increased attention and energy. By doing so, work engagement ultimately enables employees to alter their behaviors to deal with the demands of changing or new work environments. Additionally, an employee’s level of work engagement increases when he or she crafts a work environment, and an engaged employee is more likely to modify existing work behaviors. These situations reveal the revolving relationships among job crafting, work environment, and adaptive performance. Moreover, an employee’s proactive and adaptive mind is more likely to enhance their crafting behaviors for job resources and challenges since they would handle unpredictable situations and solve problems creatively.

To survive in the ever-changing global business world, sustainable work cultures and adaptive employee performances become key attributes for organizational success. Our findings are meaningful
in discerning these variables’ complicated relationships at organizational and individual levels by revealing their influential roles in improving a company’s sustainability. As our study indicates, organizational support as a foundational component of organizational culture creates a sustainable work environment for employees’ mental, emotional, and behavioral engagement in the workplace [18,20]. Notably, we also reveal that job crafting becomes a pivotal variable for cultivating sustainable work cultures through engaged employees. Our findings concerning the revolving relationship between work engagement, adaptive performance, and job crafting illustrate how different work and employee variables interact and function to create a sustainable organizational environment. We believe these results are significant and contribute to organizational studies since organizational sustainability focuses on maximizing employees’ engagement, motivation, and potential as agents that drive organizational performance and success.

We provide several recommendations for the practical implications of the study’s findings. As our conclusions suggest, encouraging job crafting among employees and cultivating a job-crafting culture at the organizational level are critical measures to facilitate adaptive employee performance outcomes. As Petrou et al. [21] suggested, organizations should create a flexible working environment to meet this need, so that individual employees can learn how to acquire additional resources inside and outside the organization. Furthermore, they should modify ineffective work procedures with a challenging mind and attitude and focus more on creative work for product and service innovations. Our findings also indicate that organizational support roles are a pivotal factor for initiating both job crafting and work engagement and affect the multi-route mediating processes between the variables toward adaptive performance. Organizational support amounts to the extent to which supervisors, peers, and executives care about their employees’ well-being and help them navigate their career goals [19]. Therefore, organizational leaders need to use organizational support mechanisms and job-crafting programs efficiently to facilitate employees’ work engagement and adaptive performance.

7. Limitations and Future Research

Our study is limited in several areas. These limitations are starting points for future research, as future research can take the rigorous approaches suggested below to address them.

First, the participants’ self-report for all the variables could be a limitation as it could create inflated results in the study’s findings. Therefore, future research should use objective indicators such as peer-ratings of organizational support, job crafting, work engagement, or adaptive performance to avoid common method bias. Additionally, adaptive performance could be assessed by performance ratings or by other sources, such as supervisors or colleagues.

Second, the design of this study was cross-sectional. Future research should employ experimental or longitudinal design to investigate causal relationships of the variables.

Third, this research considers unidirectional relationships between variables. Organizational support predicts job crafting and work engagement, which influence adaptive performance. However, future research should investigate all the reversed and reciprocal relationships of the model Bakker and Demerouti [15] and Lesener et al. identified [51]. Hence, scholars could explore the reversed influences of work engagement and adaptive performance on job crafting and organizational support. Adaptive performance could foster work engagement, which facilitates job crafting and the acquisition of organizational support. A future study on reciprocal relationships would expand the dynamic feature of the JD-R model [51].

Fourth, we conducted this study at the individual level. Future research needs to integrate factors from another level. Multilevel perspectives may capture a better understanding of complex organizational phenomena and find more effective solutions [16]. Future research may, therefore, consider the multilevel approach of data, such as individual, team, and organizational levels. For example, new research could examine how team-level or organizational-level social support, such as job resources, job crafting, and engagement, relate to adaptive performance at an individual level [16].
Fifth, this study did not consider personal factors. Thus, another avenue for future research is to include personal resources, including optimism, self-efficacy, resilience, and self-esteem. It could also observe personality traits like goal-setting, self-regulation, expectations, emotional instability, and perfectionism [16,17] as independent variables, mediators, or moderators between organizational support and work engagement. If future study contains personal factors, work pressure, and emotional demands, it could uncover the interactive effects of social support, individual needs, or job demands [15–17].

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**References**

1. Heinze, K.; Heinze, J. Individual innovation adoption and the role of organizational culture. *Rev. Manag. Sci.* 2020, 14, 561–586. [CrossRef]
2. Kim, W.; Khan, G.F.; Wood, J.; Mahmood, M.T. Employee engagement for sustainable organizations: Keyword analysis using social network analysis and burst detection approach. *Sustainability* 2016, 8, 631. [CrossRef]
3. Kim, W.; Park, J. Examining structural relationships between work engagement, organizational procedural justice, knowledge sharing, and innovative work behavior for sustainable organizations. *Sustainability* 2017, 9, 205. [CrossRef]
4. Sweet, K.M.; Witt, L.A.; Shoss, M.K. The interactive effect of leader-member exchange and perceived organizational support on employee adaptive performance. *J. Organ. Psychol.* 2015, 15, 49–62.
5. Dierdorff, E.C.; Jensen, J.M. Crafting in context: Exploring when job crafting is dysfunctional for performance effectiveness. *J. Appl. Psycho.* 2018, 103, 463–477. [CrossRef]
6. Mäkikangas, A. Job crafting profiles and work engagement: A person-centered approach. *J. Vocat. Behav.* 2018, 106, 101–111. [CrossRef]
7. Vande Griek, O.; Clauson, M.; Eby, L.; Weng, Q. Organizational career growth and proactiveness: A typology for individual career development. *J. Career Dev.* 2020, 47, 344–357. [CrossRef]
8. Berg, J.M.; Dutton, J.E.; Wrzesniewski, A. Job crafting and meaningful work. In *Purpose and Meaning in the Workplace*; Dik, B.J., Byrne, Z.S., Steger, M.F., Eds.; American Psychological Association: Washington, DC, USA, 2013; pp. 81–104. ISBN 9781433831346.
9. Wang, H.J.; Demerouti, E.; Blanc, P.L.; Lu, C.Q. Crafting a job in ‘tough times’: When being proactive is positively related to work attachment. *Human Performance Management. J. Occup. Organ. Psychol.* 2018, 91, 569–590. [CrossRef]
10. Tims, M.; Bakker, A.B.; Derks, D. Development and validation of the job crafting scale. *J. Vocat. Behav.* 2012, 80, 173–186. [CrossRef]
11. Dorsey, D.W.; Cortina, J.M.; Luchman, J. Adaptive and citizenship-related behaviors at work. In *Handbook of Employee Selection*; Farr, J.L., Tippins, N.T., Eds.; Routledge/Taylor and Francis Group: Hove, UK, 2010; pp. 463–487.
12. Tett, R.P.; Burnett, D.D. High-performance human resource practices, citizenship behavior, and organizational performance: A relational perspective. *Acad. Manag. J.* 2003, 50, 558–577.
13. Ployhart, R.E.; Turner, S.F. Organizational adaptability. In *Organization and Management Series, Individual Adaptability to Changes at Work*; Chan, D., Ed.; Routledge/Taylor & Francis Group: Milton Park, UK, 2014; pp. 73–91.
14. Shahidan, A.N.; Abdul Hamid, S.N.; Ahmad, F. Mediating influence of work engagement between person-environment fit and adaptive performance: A conceptual perspective in Malaysia public hospitals. *J. Bus. Soc. Rev. Emerg. Econ.* 2018, 4, 17–26.
15. Bakker, A.B.; Demerouti, E. The job demands-resources model: State of the art. *J. Manag. Psychol.* 2007, 22, 309–328. [CrossRef]
16. Bakker, A.B.; Demerouti, E. Job demands-resources theory: Taking stock and looking forward. *J. Occup. Health Psychol.* 2017, 22, 273–285. [CrossRef] [PubMed]
17. Bakker, A.B.; Demerouti, E. Towards a model of work engagement. *Career Dev. Int.* 2008, 13, 209–223. [CrossRef]

18. Demir, K. The effect of organizational justice and perceived organizational support on organizational citizenship behaviors: The mediating role of organizational identification. *Eurasian J. Educ. Res.* 2015, 15, 131–148. [CrossRef]

19. Uppal, N.; Mishra, S.K. Moderation effects of personality and organizational support on the relationship between prior job experience and academic performance of management students. *Stud. High. Educ.* 2014, 39, 1022–1038. [CrossRef]

20. Kose, M.A. Comments on “Pareto weights as wedges in two-country models” by D. Backus, C. Coleman, A. Ferriere and S. Lyon. *J. Econ. Dyn. Control* 2016, 72, 111–114. [CrossRef]

21. Petrou, P.; Demerouti, E.; Peeters, M.C.W.; Schaufeli, W.B.; Hetland, J. Crafting a job on a daily basis: Contextual correlates and the link to work engagement. *J. Organ. Behav.* 2012, 33, 1120–1141. [CrossRef]

22. Tims, M.; Bakker, A. Job crafting: Towards a new model of individual job redesign. *SA J. Ind. Psychol.* 2010, 36, 1–9. [CrossRef]

23. Jiang, H.; Luo, Y. Crafting employee trust: From authenticity, transparency to engagement. *J. Commun. Manag.* 2018, 22, 138–160. [CrossRef]

24. Breevaart, K.; Bakker, A.B.; Demerouti, E.; Sleebos, D.M.; Maduro, V. Uncovering the underlying relationship between transformational leaders and followers’ task performance. *J. Pers. Psychol.* 2014, 13, 194–203. [CrossRef]

25. Tims, M.; Bakker, A.B.; Derks, D.; van Rhenen, W. Job crafting at the team and individual level: Implications for work engagement and performance. *Group. Organ. Manag.* 2013, 38, 427–454. [CrossRef]

26. Petrou, P.; Demerouti, E.; Schaufeli, W.B. Job crafting in changing organizations: Antecedents and implications for exhaustion and performance. *J. Occup. Health Psychol.* 2015, 20, 470. [CrossRef]

27. Gordon, H.J.; Demerouti, E.; Le Blanc, P.M.; Bipp, T. Job crafting and performance of Dutch and American health care professionals. *J. Pers. Psychol.* 2015, 14, 192–202. [CrossRef]

28. Peeters, M.C.W.; Arts, R.; Demerouti, E. The crossover of job crafting between coworkers and its relationship with adaptivity. *Eur. J. Work Organ. Psychol.* 2016, 25, 819–832. [CrossRef]

29. Sulea, C.; Virga, D.; Maricutoiu, L.P.; Schaufeli, W.; Dumitru, C.Z.; Sava, F.A. Work engagement as mediator between job characteristics and positive and negative extra-role behaviors. *Career Dev. Int.* 2012, 17, 188–207. [CrossRef]

30. Babcock-Roberson, M.E.; Strickland, O.J. The relationship between charismatic leadership, work engagement, and organizational citizenship behaviors. *J. Psychol.* 2010, 144, 313–326. [CrossRef]

31. Maneesriwongul, W.; Dixon, J.K. Instrument translation process: A methods review. *J. Adv. Nurs.* 2004, 48, 175–186. [CrossRef] [PubMed]

32. Rhoades, L.; Eisenberger, R. Perceived organizational support: A review of the literature. *J. Appl. Psychol.* 2002, 87, 698–714. [CrossRef] [PubMed]

33. Rhoades, L.; Eisenberger, R.; Armeli, S. Affective commitment to the organization: The contribution of perceived organizational support. *J. Appl. Psychol.* 2001, 86, 825–836. [CrossRef]

34. Kim, C.; Sim, W. A study on the impact of leader’s authenticity on the job crafting of employees and its process. *Korean J. Hum. Resour. Manag.* 2012, 36, 131–162.

35. Schaufeli, W.; Salanova, M.; Gonzales, R.; Bakker, A. The measurement of burnout and engagement: A confirmatory analysis. *J. Happiness. Stud.* 2002, 3, 71–92. [CrossRef]

36. Charbonnier-Voirin, A.; El Akremi, A.; Vandenberghhe, C. A multilevel model of transformational leadership and adaptive performance and the moderating role of climate for innovation. *Group. Organ. Manag.* 2010, 35, 699–726. [CrossRef]
41. Kline, R.B. *Principles and Practice of Structural Equation Modeling*; Guilford Press: New York, NY, USA, 2011; ISBN 9781606238769.

42. Hu, L.; Bentler, P.M. Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Struct. Equ. Model.* **1999**, *6*, 1–55. [CrossRef]

43. Lei, P.; Wu, Q. Introduction to structural equation modeling: Issues and practical considerations. *Educ. Meas.* **2007**, *26*, 33–43. [CrossRef]

44. Podsakoff, P.M.; MacKenzie, S.B.; Lee, J.Y.; Podsakoff, N.P. Common method biases in behavioral research: A critical review of the literature and recommended remedies. *J. Appl. Psychol.* **2003**, *88*, 879–903. [CrossRef]

45. Little, T.D.; Rhemtulla, M.; Gibson, K.; Schoemann, A.M. Why the items versus parcels controversy needn’t be one. *Psychol. Methods* **2013**, *18*, 285–300. [CrossRef] [PubMed]

46. Finney, S.J.; DiStefano, C. Non-normal and categorical data in structural equation modeling. In *Structural Equation Modeling: A Second Course*; Hancock, G.R., Mueller, R.O., Eds.; Information Age: Greenwich, CT, USA, 2013; pp. 439–492. ISBN 9781623962449.

47. Urdan, T.C. *Statistics in Plain English*; Routledge: New York, NY, USA, 2010; ISBN 9780415872911.

48. Hair, J.F., Jr.; Black, W.C.; Babin, B.J.; Anderson, R.E. *Multivariate Data Analysis*; Pearson Prentice Hall: London, UK, 2014.

49. Preacher, K.J.; Hayes, A.F. Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behav. Res. Methods* **2008**, *40*, 879–891. [CrossRef]

50. Gordon, H.J.; Demerouti, E.; Le Blanc, P.M.; Bakker, A.B.; Bipp, T.; Verhagen, M.A.M.T. Individual job redesign: Job crafting interventions in healthcare. *J. Vocat. Behav.* **2018**, *104*, 98–114. [CrossRef]

51. Lesener, T.; Gusy, B.; Wolter, C. The job demands-resources model: A meta-analytic review of longitudinal studies. *Work Stress* **2019**, *33*, 76–103. [CrossRef]

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