Does Organizational Justice Influence Employee Innovative Behavior in an Arabic Context? Evidence From the Libyan Oil Industry

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Abstract
Innovative employees are the main source of an organization's survival in a dynamic environment. Therefore, understanding how to stimulate and sustain employee innovative behaviors is of great importance for organizations. From this perspective, based on the social exchange theory, the current study seeks to investigate the influence of organizational justice on employee innovative behavior within the Libyan context. Through a pre-designed questionnaire, data were gathered from 295 employees working for 5 Libyan national oil companies and analyzed using partial least squares—structural equation modeling [PLS]. The results indicated that procedural justice is positively related to employee innovative behavior, whereas distributive justice and interactional justice are not. The findings foster the assumption that organizational justice perceptions and responses differ across cultures based on national values. The results and implications are discussed in light of the literature and the Libyan work environment and culture.

Keywords
Libya, organizational justice, employee innovative behavior, oil industry, culture

Introduction
Petroleum is the most important source of energy and provides over 50% of all commercial energy consumption worldwide (Jegede et al., 2013). Oil and gas-based economies (e.g., Libya) are able to use this natural wealth to achieve and sustain growth and development (Al-Sabah & Palliam, 2017). However, the oil sector has faced great challenges recently (Hassani et al., 2017). For example, economically, the cost of producing an oil barrel has risen by 60% compared with 10 years ago (Bolton, 2011), and lately, the oil market has witnessed severe price fluctuations (Kitous et al., 2016). Moreover, the environmental consequences of oil diverse operations have influenced the attitudes and behaviors of authorities, companies, and society at large (Swart & Otremba, 2016).

In the business environment featuring sharp competition (Andronova, 2017), continuous unstable oil prices, high costs, and growing complexity, the need for innovation has become an imperative need for oil companies (Swart & Otremba, 2016). Innovation within the oil industry involves high-performance solutions to increase productivity, reduce costs, save time, gain efficiency, and sustain growth (Hassani et al., 2017). According to Li and Zheng (2014), employees are the main force that drives innovation within organizations. Therefore, organizations are required to boost their employee’s innovative capabilities and behaviors (Hakimian et al., 2016). Employee innovative behavior (EIB) is a major source of value for organizations (Bysted & Hansen, 2015), therefore, it is seen as an important asset for organizations and considered as a key determinant for their survival in a dynamic environment (Akram et al., 2016). However, EIB is an extra role, not inherent in an employee’s primary job (Afsar, 2016), but rather, it depends on the employee’s self-desire and motivation (Akram et al., 2018). Therefore, organizations need to be knowledgeable about the motives of an employee’s innovation (Engelen et al., 2018). Identifying the latter’s antecedents is considered an important research area (Bani-Melhem et al., 2018; Engelen et al., 2018; Hakimian et al., 2016) that requires further investigations (Agarwal et al., 2012).

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In this context, as OJ is suggested to play a major role in employee attitudes and behaviors (Pan et al., 2018; Silva, 2015), including extra-role behaviors (Chen, 2018), it is likely to influence EIB in the organizational context. Justice and other motivation theories assume that employees tend to make efforts to improve their organizations when they judge them as fair (Moon et al., 2008). However, there is growing evidence that employees from different socio-cultural backgrounds with various expectations and value systems are likely to vary in how they perceive and react to their organizational environments (Hassan & Noor, 2008). Despite that the OJ-EIB correlation has been widely researched, the knowledge on how justice perceptions and reactions differ across cultures is still incomplete (Silva, 2015). In this context, Skarlicki (2001) indicated that as OJ is assumed to be of universal understanding, deep cultural differences that may exist between people from different nations remain overlooked. Jain and Jain (2015) added that these differences uniquely affect employee behaviors by relying on their justice perceptions and dominant values. Carnevale et al. (2017) also noted that research on the effects of OJ dimensions has not provided consistent and supporting inferences for generalizability across cultures as most OJ research has been limited to certain cultures (Arab & Atan, 2018). In their systematic review of OJ literature consisting of 74 studies conducted from 1978 up to 2014 (14 are literature reviews, 60 are cross-cultural empirical studies, and 5 of which are meta-analysis), Silva and Caetano (2016) indicated that the least investigated regions are the Middle East (12%) and sub-Saharan Africa (3%) in comparison with the USA: the most investigated region, representing 73% of the empirical studies, followed by Asia (China and Hong Kong: 60%), European states (43%), South American countries and Canada (23%), and countries of Oceania (20%).

Therefore, based on the above discussion, and as the findings from one culture cannot be generalized to other cultures without being empirically evidenced (Gadelrab et al., 2018), the current study seeks to investigate whether the influence of OJ dimensions (distributive, procedural, and interactional) on EIB is differentiated based on the national norms of an uninvestigated culture by replicating OJ-EIB research within the Libyan oil sector. Conducting this study within the Libyan context is deemed important for several reasons. First, although the oil sector is the first source of Libyan national income and Libyan oil reserves are considered among the largest in Africa (Etelawi et al., 2017), scarce background information is available on how Libyan and other oil employees evaluate and react to their justice perceptions. Second, Libya is an Arabic country. Very little is known about the impact of OJ on EIB in this cultural region (Almansour & Minai, 2012), whose distinctive features are represented in the common beliefs, ethnicity, land, and language spoken by more than 5% of the world overall population. These features have led the Arabic region to establish its own social and cultural environment reflected in the design and operation of its organizational processes and managerial systems (Gadelrab et al., 2018). Therefore, this study is expected to be insightful so as to build a global understanding of the OJ concept and consequences in diverse cultures (Skarlicki, 2001). Third, Libya has witnessed a major political and social change recently. As the environment in which organizations operate forms their work behavior, the change in this environment undoubtedly affects organizational practices and consequences (Beugr, 2002). Hence, in light of recent developments in Libya, a serious investigation on OJ in this context is needed because this is usually associated with distinct theoretical and practical implications (Gadelrab et al., 2018), especially within a region that rarely faces substantial change at different levels. Such research would boost the internalization of OJ research, add to the increasing body of OJ knowledge, and evaluate the cross-cultural nature of the concept (Beugr, 2002).

This study contributes to the extant literature in several ways. First, the study is conducted in and focused on the public sector owing to the scarce attention paid to innovation in this sector despite its importance as a source of employment and job security for citizens in Libya and other countries (Abuhadra & Ajaali, 2014; Lan & Galaskiewicz, 2012; Nijenhuis, 2015). Second, the current study investigates innovative behavior at the individual level. From this perspective, the literature on innovation in the public sector focuses on policy, organizational, program, and project levels rather than the individual level (Bysted & Hansen, 2015). Therefore, identifying factors that influence innovation at the individual level is a significant research area (Bani-Melhem et al., 2018; Bos-Nehles et al., 2017). Third, the study is categorized as empirical research. Recent literature has focused on the conceptual meaning and importance of public sector innovation rather than on empirical research (De Vries et al., 2016). Therefore, empirical research could verify and confirm the conceptual arguments in this regard. Lastly, the study provides some practical and managerial implications, limitations, and suggestions for further research.

**Theoretical Background**

**Organizational justice.** OJ is among the most popular concept of major interest within organizations in the last three decades (Colquitt, 2001). OJ is conceptualized as the extent to which employees perceive workplace decisions, procedures, and outcomes as fair (Macklin et al., 2015). The literature and research on the concept of justice and its implications have accumulated over time as it widely dominates the interest of several scholars in the fields of organizational and social science. Adams’ (1965) Equity theory was the ground on which many of subsequent studies of OJ were built. According to Adams (1965), employees decide their work contributions in the organizational social exchanges based on their perceptions of the fairness of the outcomes they receive in return. This is called distributive justice (DJ;
Gozukara & Yildirim, 2016). Nevertheless, following the inability of equity theory to fully explain or predict employee reactions regarding perceived injustice, the focus was shifted toward the fairness of procedures used to allocate outcomes (procedural justice; PJ; Thibaut & Walker, 1975). In this context, several studies have shown that outcome distributions were not always important as much as the procedures through which those outcomes were distributed (Cohen-Charash & Spector, 2001). Thibaut and Walker (1975) added that in many situations, employees were dissatisfied despite being allocated favorable outcomes. Cropanzano and Greenberg (1997) also indicated that outcomes are not simply produced; they are generated from specific series of procedures or processes and employees may enquire on how their performance was evaluated, how decisions regarding promotion, pay, and selection were made, and whether these decisions were based on fair procedures or not.

Besides DJ and PJ, interactional Justice (IJ) is the third component in the OJ model. It is defined as the treatment an employee receives in terms of providing explanations for decisions and information with compassion and respect (Usmani & Jamal, 2013). IJ was explored by Bies and Moag (1986) when they observed that organizational events involve three aspects; a decision, a procedure, and an interpersonal interaction. IJ focuses on the quality of interpersonal treatment received by employees when procedures are executed (Hao et al., 2016); therefore, IJ is conceptually different from PJ and deserves to be considered separately (Thorn, 2010).

These three constructs (DJ, PJ, and IJ) are the main OJ sub-dimensions that are commonly used (Jain & Jain, 2015); therefore, they are adopted in this study.

**Employee innovative behavior.** EIB is associated with innovation at the individual level; it consists of all types of employee initiatives and practices linked to business innovation at the workplace (De Spiegelaere et al., 2012), which includes the expansion and renewal of ideas, processes, methods, products, or services (Ramamoorthy, Gupta et al., 2005). However, the effective EIB is conditioned by numerous determinants including relevant personality traits such as intrinsic motivation (Li & Zheng, 2014), curiosity (Bani-Melhem et al., 2020), persistence, enthusiasm, and the propensity to adventure (taking a risk and dealing with uncertainty; Bibi & Afsar, 2018) as individual factors, job demands (Afsar & Umranı, 2019; Bani-Melhem et al., 2020), leadership style (Afsar & Umranı, 2019; Contreras et al., 2020; Masood & Afsar, 2017), perceived organizational support (e.g., promotion, recognition, fairness, rewarding, development opportunities, participation in the decision-making process, etc. Rhoades & Eisenberger, 2002; Mathafena & Grobler, 2020), job security (Bos-Nehles et al., 2017), job autonomy (De Spiegelaere et al., 2014) as organizational factors. EIB is a complex process as it often challenges the status quo of organizations, leading probably to a significant breakthrough/s in the organization’s reality. In doing so, innovative employees engage in non-routine, risky, and uncertain tasks to initiate novel and applicable ideas and solutions, therefore, they need a less restricted environment and the empowerment against the responsibility of potential failure and change resistance by non-innovative co-workers which might lead to worsened organizational intra-individuals relationships (Bibi & Afsar, 2018; De Spiegelaere et al., 2014). Although scholars distinguish between two, three, four, or even five sub-dimensions of IWB (see de Jong & Den Hartog, 2010; De Spiegelaere et al., 2014; Janssen, 2000; Kleysen & Street, 2001), a large share of the literature has identified just three sub-dimensions: Idea creation, generation, and implementation (Akram et al., 2016). Idea creation refers to finding novel ideas that help in analyzing various problems and related solutions (De Spiegelaere et al., 2014). Idea promotion is the seeking of support from fellow workers by promoting creative ideas (Akram et al., 2016). Idea implementation is the practical carrying out and simulation of developed and promoted ideas (De Spiegelaere et al., 2014). Nevertheless, following Scott and Bruce (1994) and de Jong and Den Hartog (2010), and Tuominen and Toivonen (2011), EIB dimensions should not be considered as sequential phases; It’s a discontinuous process, differs across employees (De Spiegelaere et al., 2014). Bos-Nehles et al (2017) added that although EIB theoretically seems to be multidimensional, empirical proof is difficult to collect due to the apparent high inter-correlations among the stages.

**Culture values and justice perceptions.** Culture is defined as the shared meanings and value systems that have a normative effect on individuals in certain countries (Hassan & Noor, 2008). Among the values that distinguish culture from its counterparts are the degree of collectivism—individualism, power distance, and uncertainty avoidance (Hofstede, 2001). Collectivism refers to the degree to which individuals value and adhere to a group’s duty and harmony (Hofstede, 2011); individualism indicates the degree to which individuals value personal liberty, self-sufficiency, life control, and the traits that distinguish them from others. Power distance is understood as the extent to which people accept the inequality of power distribution in society (Hassan & Noor, 2008). Uncertainty avoidance reflects the degree to which a culture’s members tolerate uncertainty, risks, and ambiguous situations regarding their tasks, jobs, and future occupational scenarios.

According to Hassan and Noor (2008), OJ’s influence on extra-role behaviors (such as EIB) might vary based on certain values among a cultural group. Specifically, Li and Cropanzano (2009) pointed out that employees in individualistic countries (mainly western societies) are more concerned with personal achievement and task goals, therefore, they focus on equitable reward distributions. In contrast, employees in collectivistic countries (such as eastern, developing, and Asian countries) are more concerned with social and group harmony; therefore, they prioritize equal outcome
distribution and to achieve group goals over personal ones (Li & Cropanzano, 2009). Accordingly, they are less sensitive to outcome fairness compared with those in individualistic countries (Li & Cropanzano, 2009). Moreover, it is suggested that employees in eastern countries characterized by high power distance are likely to accept their superior’s decisions and procedures without questioning or scrutinizing them with regard to perceived justice (Hassan & Noor, 2008). The authors added that the social relations of employees in eastern countries are role restricted and they pay less attention to the quality of their relationship with their managers because they already accept their workplace positions motivated by their beliefs in social order and subordination to their managers. On the other hand, western countries featured with low power distance are egalitarian, and employees are keen to have a voice over the decisions made as they use it for singling identification and as a sign of relative status within their organization (Silva, 2015). They are also intolerant with arbitrary treatment from their superiors (Lam et al., 2002).

**Libyan culture and its organizational reflections.** Libya is a large country located in North Africa with a population of 6,422,772 (2011); 90% live in the coastal zone which represents 10% of the land area whose total amount to 1,750,000 km² (Abuhadra & Ajaali, 2014). Libya adopts Islam as the main and only religion, whose teachings guide and regulates most of the social life and interpersonal relations in this country. On the basis of Hofstede’s (1980) cultural dimension model, Libya (similar to other developing countries in Africa and the Arab world) is classified as a collectivistic, high in power distance and uncertainty avoidance country. These attributes can be observed organizationally. In that, Libyan institutions, especially public ones, adopt hierarchical rigid structures with bureaucratic and traditional administrations, in which the decision—making power is centralized at the top administrative levels with limited participation from lower-level employees (Sawani, 2018). Moreover, a broad domain of organizational relationships and procedures including recruitment, privileges, rewards, punishments, immunities, and other organizational practices, are considerably decided on a social and personal base where tribal, kinship, and friendship ties play key roles (Lamma, 2017; Sawani, 2018). These factors are also significantly used to deal with financial and managerial issues, including corruption which is one of the main apparent phenomena widely propagated in Libyan public institutions (Domoro & Syed Agil, 2012). Regarding the Libyan workforce, most of them work within the public sector [1.486 million employees compared with 235,000 employees in the other sectors in 2013 (Abuhadra & Ajaali, 2014)]. The inflated public sector is attributed to (i) the lack of private-sector jobs for skilled and unskilled Libyans and (ii) the fact that Libyans prefer public jobs for their high security [World Bank (IBRD, 2015)]. Libyans are also less willing to accept jobs in trades and manual work (which are often filled by low-skill foreign workers) along with those requiring skillful workers [which are also filled by none—nationals, IBRD, 2015]. These reasons are also deemed actual causes for the high unemployment among Libyans, which amounted to 19% in 2012 (IBRD, 2015). Finally, Libya is a masculine conservative society in which only 34% of the overall workforce are women (IBRD, 2015), whose positions, roles, and aspirations are restricted by local norms that are stem from religious rules (Safer World: Oxfam Organization, 2017).

**Hypothesis**

**Organizational justice and employee innovative behavior.** OJ is likely a motivational factor of EIB because of its vital impact on employee attitudes and behaviors (Pan et al., 2018), including those that are discretionarily performed (Akram et al., 2016; Chen, 2018; Momeni et al., 2014). The influence of OJ on EIB has been widely emphasized from both the theoretical and empirical standpoints. For example, Kaya et al., 2016; Chen, 2018; Momeni et al., 2014). The influence of OJ on EIB has been widely emphasized from both the theoretical and empirical standpoints. For example, Kaya & Minai, 2012; Bos-Nehles & Veenendaal, 2019; Jiun-Lan & Minai, 2012; Bos-Nehles & Veenendaal, 2019; Jiun-Lan & Jeng-Hwan, 2015; Kim & Park, 2017; Lee & Kim, 2013; Momeni et al., 2014; Wojtczuk-Turek & Turek, 2013; Young, 2012; Zeb et al., 2019), however, the results were divergent and inconsistent in numerous cases, mostly attributed to the cultural differences among countries as a key reason (Arab & Atan, 2018; Belwalkar et al., 2018; Li & Cropanzano, 2009). Therefore, continuous research on uninvestigated cultural settings is likely insightful in terms of providing an external validity to the OJ and EIB theories developed in the west (Lam et al., 2002; Young, 2012). Moreover, it is noteworthy
that in much OJ-EIB research, OJ three constructs have not been simultaneously encompassed (see Agarwal, 2014; Janssen, 2000, 2004; Moon et al., 2008; Ramamoorthy, Flood et al., 2005; Streicher et al., 2012). In that, Young (2012) argued that “including one or two justice dimensions in an investigation may proffer only a limited comprehension of how an organization’s fair treatment of its members is related to IIB, because the exclusion of one or two justice dimensions may lead researchers to overlook any significant relationship that would exist if the omitted dimensions were included” (p. 221). Thus, inspired by the call of Almansour and Minai (2012) to investigate the influence of OJ perceptions on EIB within the Arabic environment [in which evidence of how OJ perceptions affect employee innovation and other extra-role behaviors is missing (Elamin & Tlaiss, 2015), the current study seeks to explore this relationship in the Libyan context. The study also seeks to investigate the influence of OJ three constructs (DJ, PJ, and IJ) on EIB in the same context.

Accordingly, it is hypothesized that:

**H1:** (a) DJ, (b) PJ, and (c) IJ have a significant positive impact on EIB.

**Method**

This study framework as depicted in Figure 1 indicates the nexus among our variables. A nexus between distributive justice (DJ), procedural justice (PJ), interactional Justice (IJ), and employees’ innovative behavior (EIB) is proposed in this framework. In this study, we contend that the three dimensions of organizational justice will positively influence EIB. In order words, distributive, procedural, and interactional justice will have a direct and positive influence on EIB.

**Sample and procedure.** The Libyan employees working for five oil companies (Arabian Gulf, Al-Jowfe, Ras Lanuf, Al-Brega, and Sirt) that are fully affiliated and managed by the Libyan national oil corporation [NOC], engaging in diverse oil and gas operations and relevant services were the target population for this study. However, due to an accessibility challenge to the location of two of the companies (Ras Lanuf and Sirt), the two companies were excluded, and only three companies were considered. The management of the three selected companies was contacted through an official letter detailing the study objectives and sought their permission for data collection. Given that Arabic is the first language for all the respondents and a number of them do not speak English, the questionnaire was subjected to back-translation (English–Arabic–English) with assistance from a linguist to ensure equivalence. To guarantee the response of employees, the cover page of the questionnaire sheet contained clear information that the questionnaire is anonymous and their answers will be confidential. After written permissions were obtained from the investigated companies, the questionnaires were distributed to respondents by the researcher himself with the cooperation of some employees in those companies using a non-probability sampling method. In each of the companies, 128 questionnaires were distributed with an instruction to return the questionnaires in a sealed envelope which had to be dropped in a plastic folder provided for them by the author. Out of 384 questionnaires distributed, 295 forms were valid for analysis with a response rate of 76.6%. In all, 69.5% of the respondents were male, while 30% were females. A total of 187 respondents hold the first university degree (bachelor). Around half of the sample members (52%) had experience between 16 and 20 years. Most of the sample members (56%) were over 40 years. As for position, about 62% of sample members were employees (without positions; see Table 1).

**Measurement.** The construct measured in this study includes the three types of OJ which are: DJ, PJ, and IJ that were measured with 5, 6, and 9 items adapted and modified from Niehoff and Moorman (1993), while EIB was measured through a 14 item scale developed by Kleysen and Street (2001). The items were measured on 5-point Likert scale, which ranges from 1 (strongly disagree) to 5 (strongly agree).
Table 1. Descriptive Demographic Statistics.

| Variable | Category     | Frequency | Percentage |
|----------|--------------|-----------|------------|
| Gender   | Male         | 207       | 69.5       |
|          | Female       | 91        | 30.5       |
|          | 21–25        | 5         | 1.7        |
|          | 26–30        | 29        | 9.7        |
|          | 31–35        | 45        | 15.1       |
|          | 36–40        | 52        | 17.4       |
|          | Over 40      | 167       | 56.0       |
| Education| PhD          | 3         | 1.0        |
|          | Master       | 55        | 18.5       |
|          | Bachelor     | 187       | 62.8       |
|          | High School  | 31        | 10.4       |
|          | Others       | 22        | 7.4        |
| Experience| 0–5         | 63        | 21.1       |
|          | 6–10         | 38        | 12.8       |
|          | 11–15        | 41        | 13.8       |
|          | 16–20        | 156       | 52.3       |
| Position | Employee     | 184       | 61.7       |
|          | Chief        | 49        | 16.4       |
|          | Head of a dept.| 53 | 17.8 |
|          | Director     | 12        | 4.0        |

Analysis

Data screening. We inspected several data-related issues, including outliers and common method bias. First, we estimated the Z standard scores for each variable in the study to check whether there is an outlier observation (Hair et al., 2010). The results indicate that almost all of the Z standard scores are below the cut-off value of 0.5. Second, we utilized Harman’s one-factor test to examine common method bias. The result indicated that the principal component of one fixed factor explains only 31%, indicating that no systematic bias influences the collected data (Podsakoff et al., 2003).

Data analysis method. This study employed the partial least square- structural equation modeling (PLS-SEM) for data analysis with the aid of WarpPLS 7.0 (Kock, 2020). A large body of literature points out that PLS offers a flexible approach to test complex models, containing several latent variables, latent variables in higher-order, and intervening variables such as mediating and moderating variables (Hair et al., 2014). Moreover, PLS imposes minimal restrictions for regression assumption, such as data normality, sample size, and true independence of the variables. Scholars suggest that PLS works professionally for predicting purposes, such as explaining target constructs, exploring new relationships, or identifying key “driver” constructs with minimal concern for the omission of regressors (Alsaad et al., 2018).

Measurement model assessment. In this section, we utilized a two-step approach to model high-order constructs (Becker et al., 2012). We first estimated a confirmatory factor analysis to assess the psychometric properties and dimensionality of the first-order constructs. Then, we used the factor scores of the first-order constructs to estimate the structural model. First-order is assessed based on the reliability of indicators; the internal consistency of indicators constructs convergent validity and discriminant validity as recommended by Hair et al. (2014). Statistically, composite reliability, outer loadings, and average variance extracted (AVE) are used to assess the reliability of indicators, the internal consistency of indicators, and the constructs convergent validity respectively (Hair et al., 2011).

As shown in Table 2, outer loadings are well above the threshold value of 0.7 except for six items. One of these items is below 0.4, and therefore we dropped it from the model as recommended by Hair et al. (2014). The loadings of the rest of the items (five items) are between 0.54 and 0.64. We decided to retain these items because dropping them from the model will not substantially increase the composite reliability and convergent validity (Hair et al., 2011). The table also shows that the composite reliability of all the constructs is well above the threshold value of 0.7, indicating that all constructs are internally consistent and reliable. To examine convergent validity, we estimated AVE for each construct in the model. As shown in Table 2, all constructs show an AVE value higher than 0.5 which meets the standard that AVE should be above 0.5. This suggests that each construct in the model explains more than half of the variance of its indicators, confirming the convergent validity of the measurement model.

We used two techniques to examine the discriminant validity: items cross-loading and the square root of AVE (Hair et al., 2014). In the first technique, item loadings should load more highly on their postulated construct than on any other construct. The results of discriminant validity show that all items are loaded on their postulated construct. Furthermore, Fornell and Larcker (1981) suggested that discriminant validity is also confirmed if the square root of AVE is greater than the correlations between the latent variables. The results show that the square root of AVE is greater than the correlations between the latent variables (see Table 3). The results of item cross-loading and the square root of AVE suggest that each construct in the research model is empirically distinct from other constructs. Collectively, the psychometric properties of the measurement model satisfy the conventional standards and thus, being sufficiently strong to support valid testing of the postulated structural model.

Moreover, with respect to the “common method bias” (CMB), we utilized Harman’s one-factor test to examine for common method bias. The result indicated that the principal component of one fixed factor explains only 31%, indicating that no systematic bias is influencing the collected data (Podsakoff et al., 2003). In reference to the study of Kock (2015) that the coefficients of “full collinearity VIF” are sensitive to “pathological common variations” across the constructs. This implies that the sensitivity enables CMB to be...
identified in a model that nevertheless passes the assessment of convergent and discriminant validity criteria based on a “confirmatory factor analysis” (CFA), as we have in our study. Some studies suggested a threshold value of 5 to be acceptable and <3.3 to be the best for full VIF coefficients (Kock, 2015). Thus, with the full VIF presented in Table 2, none of the values is greater than the acceptable threshold (≤5), which is an indication that the constructs are free from CMB.

**Structural model assessment.** We ran the PLS bootstrapping procedures using 1,000 resamples (Hair et al., 2014). The structural model’s quality and model fitness were examined and presented in Table 4. The indices as presented in Table 4 are either statistically or consistent with the respective thresholds, which indicates the quality and adequacy of our structural model (Hair et al., 2010; Kock, 2020).

The results are shown in Table 6 and depicted in Figure 2. Our model explains 50% of the variance in EIB. We assessed the suggested hypotheses based on the magnitude of path coefficients and their significance level. In line with Henseler et al. (2016) who argued that it makes sense to evaluate the weight of the path coefficient to examine its significance effect through the assessment of the effect size ($f^2$), Table 5 shows the effect size of each of the path in the model. The effect size of DJ (0.468) was found to be strong on the EIB,
Table 3. Discriminant Validity.

|          | EIB  | DJ      | PJ      | IJ      |
|----------|------|---------|---------|---------|
| EIB      | 0.741|         |         |         |
| DJ       | 0.270| 0.769   |         |         |
| PJ       | 0.402| 0.507   | 0.727   |         |
| IJ       | 0.332| 0.543   | 0.735   | 0.852   |

Note. “Square roots of AVE” shown on diagonal. EIB = employees’ innovative behavior; DJ = distributive justice; PJ = procedural justice; IJ = interactional justice.

Table 4. Model Fit indices.

| Index                                | Value | Interpretation |
|--------------------------------------|-------|----------------|
| Average path coefficient (APC)       | 0.247 | *p < .01*      |
| Average $R^2$ (ARS)                  | 0.337 | *p < .01*      |
| Average adjusted $R^2$ (AARS)        | 0.330 | *p < .01*      |
| Average block VIF (AVIF)             | 1.640 | Acceptable if ≤5, ideally ≤3.3 |
| Average full collinearity VIF (AVFIF)| 2.001 | Acceptable if ≤5, ideally ≤3.3 |
| Tenenhaus GOF (GOF)                  | 0.439 | Small ≥ 0.1, medium ≥ 0.25, and large ≥ 0.36 |
| Standard root mean squared residual (SMSR)| 0.069 | Acceptable if ≤0.1 |

Table 5. Effect Size.

| Interaction | Effect size ($f^2$) |
|-------------|---------------------|
| DJ $\rightarrow$ EIB | 0.468 |
| PJ $\rightarrow$ EIB | 0.10  |
| IJ $\rightarrow$ EIB | 0.16  |

Results

The results as presented in Table 6 show that DJ is not significantly related to EIB ($\beta = -0.04$, $p > .05$). Similarly, IJ is not significantly related to EIB ($\beta = -0.12$, $p > .05$). Accordingly, H1a and H1c are rejected. Contrary to DJ and IJ, PJ is significantly related to EIB ($\beta = 0.14$, $p < .05$), providing support for H1b.

Discussion

Drawing on SET (Blau, 1964), the fundamental purpose of this research was to deepen the understanding of how OJ influences EIB in non-western culture by discovering this relationship within the Libyan context. As expected, the results were interesting, indicating that although PJ positively affected EIB, DJ, and IJ did not. For PJ, the result is consistent with SET (Blau, 1964) and other research conducted in similar cultures in Asia (Akram et al., 2016; Lee & Kim, 2013; Momeni et al., 2014) and Europe (Jiun-Lan & Jeng-Hwan, 2015; Streicher et al., 2012; Wojtczuk-Turek & Turek, 2013) and inconsistent with Arabic research by Almansour and Minai (2012) where EIB was influenced solely by IJ. The result is also inconsistent with Libya being a collectivistic and high power distance country (Hofstede, 2011), wherein employees are expected not to have any input into decisions that affect them and to accept their manager’s resolutions without questioning or scrutinizing (Hassan & Noor, 2008). One possible explanation is that as Libya is a country that has witnessed a significant political and structural change that has reshaped the country particularly its public institutions, employees have probably started to express and discuss their opinions and problems with their managers more freely. For DJ, the result is consistent with Libyan’s collectivistic and high power distance features (Hofstede, 2011) where employees tend to accept the unfair distribution of outcomes and rewards (Adamović, 2014), and is also consistent with the result of Almansour and Minai (2012) who found that DJ is not related to EIB, however, it is inconsistent with SET (Blau, 1964) and Asian context research (Akram et al., 2016; Gozukara & Yildirim, 2016; Lee & Kim, 2013; Momeni et al., 2014). For IJ, the result is inconsistent with all the aforementioned theory and research and in agreement with Libyan cultural values (collectivistic and high power distance), where employees are role-restricted and less interested in and influenced by the quality of their social relationship with their managers (Adamović, 2014).
A possible interpretation for PJ being more important for Libyan oil employees than DJ and IJ is that employees’ PJ perceptions are used as an instrumental tool through which they assess DJ and IJ within their organizations. Janssen (2004) indicated that employee’s assessment of the application of PJ principles (accuracy, representativeness, consistency, correctability, bias suppression, and ethics), provides them with a sense of control over the exchange process, as the procedural safeguards drive organizations to treat their employees fairly in terms of the process of determining efforts and rewards. Folger (1993) pointed out that employees mainly use PJ perceptions and information to judge the suitability of the exchange conduct by organizations, and the extent to which organizations are trustworthy as a fair exchange party (Brockner, 2002), especially in light of the recent change in Libya.

Study Findings Implications

The study findings have some implications which are discussed in this section. First, the significance of procedural justice on the employees’ outcomes among the three dimensions of organizational justice addresses the concern of Young (2012) who argued that investigating one or two dimensions of organizational justice might not provide a comprehensive understanding on the relationship between organizational justice and employees’ outcomes. Similarly, in response to the call by Almansour and Minai (2012) and Elamin and Tlaiss (2015) to conduct this investigation within Arab environment, this study has demonstrated that the SET theory sufficiently explained the significance of procedural justice as an antecedent of innovative work behavior in public companies in Libya. This implies that among the dimensions of organizational justice, the employees are more interested in the process through which they are evaluated, how their promotional decision were taken, their pay, selection, and the fairness of the organizational decision, which in turn motivate them to exhibit their innovative behavior.

Second, the managerial implication of the PJ as a significant factor in stimulating EIB is that, the Libyan oil managers should give it more attention. Managers could become more transparent with respect to how decisions are made and this will empower employees to have a constant voice in the decision-making process, thus enhancing their PJ perceptions and resulting work behaviors. Libyan managers should foster fair procedures considering group values (Adler, 1999), which align with the collectivistic orientations of Libyan society (Hofstede, 2011).

Conclusion

The current study is deemed the first that investigates the influence of OJ on EIB in Africa and the oil sector. The results significantly foster the assumption that OJ is a subjective concept and uniquely influences workplace behavior based on cultural dominant values (Jain & Jain, 2015). However, it is remarkable that the impact of OJ dimensions on employee behaviors especially innovative behaviors is not fully congruent even in countries with similar cultural norms. Hence, replicating such research within investigated or new cultural contexts, in association with other research and existing theories, would contribute to building a global understanding of the OJ concept and knowledge on how to promote positive OJ perceptions, leading to positive work
outcomes. Further research may test the moderating/mediating effects of these values on the OJ-EIB relationship which would capture the role of cultures more clearly. Future research could also focus on comparative studies between countries of similar cultural values including other organizational variables.

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