



# Does employees' spirituality enhance job performance? The mediating roles of intrinsic motivation and job crafting

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## Abstract

This study aims to examine how employees' spirituality influences their job performance and its mediated link through intrinsic motivation and job crafting. Working with a sample of 306 employees in South Korea, the results indicate that employees' spirituality is positively related to their intrinsic motivation, which in turn results in engagement in job crafting and hence is positively related to job performance. That is, the findings of this study show that the relationship between employees' spirituality and their job performance are sequentially and fully mediated by intrinsic motivation and job crafting. This study advances understanding of the positive effect of employees' spirituality on job performance by considering employees' spirituality as a personal resource based upon the Job Demands-Resources (JD-R) model.

**Keywords** Employee's spirituality · Intrinsic motivation · Job crafting · Job performance

## Introduction

In recent years, there has been a growing interest in understanding spirituality in the workplace and its effects on employees' psychological outcomes and job performance (Duchon and Plowman 2005; Fry 2003; Mitroff and Denton 1999; Pawar 2009). Despite the lack of a widely accepted definition of spirituality – there are more than 70 definitions of spirituality at work (Karakas 2010; Kinjerski and Skrypnik 2004) – there is a consensus that spirituality is a multifaceted construct which is associated with seeking meaningfulness and purpose from work, and living according to one's deeply held

values, which may include a relationship with a higher power, the sacred, God, or the divine (Dehler and Welsh 2003; Milliman et al. 2003; Mitroff and Denton 1999). The current study draws upon the conceptualization developed by Liu and Robertson (2011) who recognize three dimensions: “interconnection with a higher power”, “interconnection with human beings”, and “interconnection with nature and all living things”. We utilize this framework, according to which spirituality in the workplace is defined as the basic feeling amongst employees of being connected with a higher power, feeling interconnected with other human beings, and experiencing an interconnection with nature and all living things (Liu and Robertson 2011).

Spirituality in the workplace is manifested at both an individual and the organizational level (Garcia-Zamor 2003). At the individual level, employees express their spiritual selves in terms of the cognitive and affective experience of believing in a spiritual connection to the job and the workplace. At the organizational level, the organization's spirituality is reflected through spiritual value that is part of the organization's climate and culture, manifested within employees' attitudes and behavior, decision-making, and resource allocation (Kolodinsky et al. 2008; Pawar 2008). Although many studies have examined the relationship between spirituality and individual and organizational outcomes (e.g., Duchon and Plowman 2005; Kinjerski and Skrypnik 2004; Markow and Klenke 2005; Mitroff and Denton 1999), several researchers have stressed the need to clarify the links between spirituality and

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employees' job performance (Beekun and Westerman 2012; Duchon and Plowman 2005; Giacalone and Jurkiewicz 2003a; Sheep 2006). Thus, the fundamental objective of this research is to explore how an employee's spirituality affects his or her job performance, and specifically to identify the precise mechanism through which an employee's spirituality may enhance his or her job performance. Although there has been an increasing interest in spirituality in the workplace, few studies have empirically examined how employees' spirituality influences job performance via mediating mechanisms. This study contributes to the extant spirituality literature by developing an understanding of the underlying mechanism through which employees' spirituality may positively affect job performance based on the Job Demands-Resources (JD-R) model (Schaufeli and Bakker 2004).

The JD-R model suggests that employees' well-being and job outcomes are influenced by job demands and job resources with its recent extension involving personal resources (Bakker and Demerouti 2007). Job demands (e.g., excessive workload, role ambiguity, and interpersonal conflicts) require cognitive or emotional effort, leading to burnout, while job resources (e.g., salary, supervisory support, autonomy, and career development opportunities) and personal resources (e.g., self-efficacy, optimism, physical strength, and self-esteem) increase work engagement, contributing to the accomplishment of work goals (Schaufeli and Bakker 2004). Personal resources are closely associated with an individual's resilience and perceived ability to manage his or her environment successfully (Hobfoll et al. 2003). Drawing upon the JD-R model, we suggest that employees' spirituality may be one of the important personal resources that serve as an effective coping mechanism for decreasing job demands and promoting personal growth and development, which may ultimately improve job performance.

The crucial research question here is how employees' spirituality as a personal resource is related to job performance. The JD-R model suggests that personal resources help employees foster their intrinsic motivation for growth, learning, and development, which in turn leads to them accomplishing work goals (Bakker and Demerouti 2007). Spirituality increases employees' intrinsic motivation and work engagement by providing meaningfulness and perceived control (Saks 2011). Thus, it is expected that intrinsic motivation will act as an important mediator in the impact of employees' spirituality on job performance. Another possible mediator on the relationship between employees' spirituality and job performance may be job crafting, which is defined as "the physical and cognitive changes individuals make in the task or relational boundaries of their work" (Wrzensniewski and Dutton 2001 p.179). According to SDT, an individual's behavior outcomes are predominantly influenced by the type of motivation (i.e., intrinsic and extrinsic motivation) operating in the individual. Since employees' spirituality intrinsically motivates them to

seek meaningfulness in the workplace, it may increase effort due to the enjoyment of task activities involving self-expression and self-actualization, or the challenge of completing difficult tasks or solving problems for their own sake rather than for any external rewards (Amabile 1996), which leads to engagement in more expansive job crafting. Moreover, job crafting is considered to be a job resource that increases challenging job demands, and diminishes hindering job demands (Tims et al. 2012), which may help enhance employees' job performance. Therefore, we argue that job crafting may function as another important mediator on the relationship between employees' spirituality and job performance.

Finally, drawing on the JD-R model and SDT, we make an empirical contribution to the literature by investigating whether the serial mediation effect on the relationship between employees' spirituality and their job performance is sequentially mediated by intrinsic motivation and job crafting (see Fig. 1).

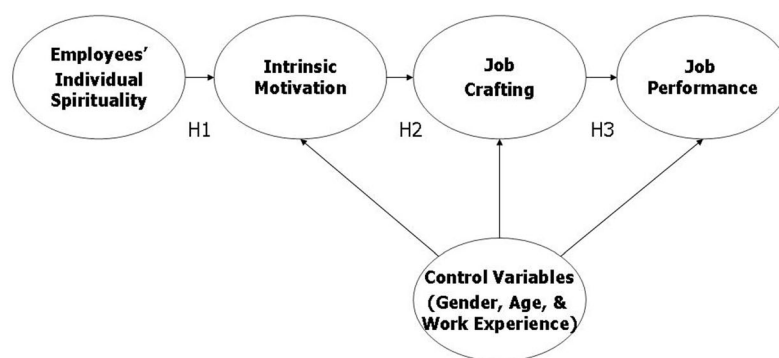
## Research Background and Hypotheses

### Spirituality at Work and its Effects on Employee Outcomes

Although there is robust research activity in the area of workplace spirituality, the existing spirituality studies which have proposed several measurements of spirituality have several limitations: 1) they are mainly descriptive and lack a rigorous approach to the theoretical development of the concept of spirituality; 2) they do not use data to empirically demonstrate the relationship between religiosity and spirituality; 3) they do not use large data to validate and cross-validate the scales. For example, Dehler and Welsh (2003) suggested that the extant spirituality research has only paid attention to what is expected to occur not why it is expected to occur, consequently calling for stronger theoretical foundations for the concept of spirituality. Fornaciari et al. (2005) indicated that 65 spirituality scales used in 29 empirical studies within the spirituality, religion, and work domains emphasize ethics, religion, faith, and values rather than spirituality itself. Moreover, the majority of such spirituality studies have been conducted in areas other than the business and management domains, and more than 50% of the existing spirituality studies have used college or MBA students as convenience samples with relatively small sizes, leading to the problem of the generalizability of their results to employees in the workplace and a lack of construct validity, or confirmation without cross-validating the measurement on new independent samples (Fornaciari et al. 2005).

We adopt Liu and Robertson's (2011) conceptualization and scale of spirituality due to the problems with the existing spirituality research. Liu and Robertson's (2011) study proposed a new theoretical definition of spirituality by integrating

Fig. 1 Research model



**H4: Employees' Individual Spirituality → Intrinsic Motivation → Job Crafting → Job Performance**

the existing spirituality literature in social psychology, transpersonal psychology, psychology of religion, sociology of religion, management, social work, and theology, which are best captured by three dimensions: interconnection with human beings, interconnection with nature and all living things, and interconnection with a high power. All three dimensions indirectly relate to meaningful work. The interconnection with human beings integrates various aspects of self into a coherent wholeness by connecting with oneself through introspection and finding meaning through a deep awareness of one's inner self (Liu and Robertson 2011). The interconnection with nature and all living things emphasizes the transcendental connections with all living things and finds meaning through expanding the self-boundary to integrate other species into the self in order to accomplish holism (Liu and Robertson 2011). Interconnection with a high power is about the link between the self and God, which finds meaning and purpose in one's life by defining the self and others in a "God's eye view" (Liu and Robertson 2011). Liu and Robertson's (2011) study used 2,230 individuals as convenience samples with relatively large sizes to cross-validate the spirituality scale. Finally, the study clarified the ambiguous relationship between spirituality and religiousness by integrating one of the definitions of religiousness into one dimension of the spirituality construct in their study (e.g., interconnection with a higher power). Pandya (2015) measured the spiritual orientation of social work educators using Liu and Robertson's (2011) scale, thus providing validity and replicability in an Indian context.

With the growing interest in spirituality at work in recent years, spirituality research has examined the effects of spirituality on many individual and organizational outcomes (Duchon and Plowman 2005; Kinjerski and Skrypnik 2004; Mitroff and Denton 1999). At the organizational level, spirituality has been associated with organizational commitment (Markow and Klenke 2005), organizational performance (Thompson 2000), productivity and profitability (Fry 2005; Garcia-Zamor 2003), and reduced absenteeism and turnover

(Fry 2003, 2005; Giacalone and Jurkiewicz 2003b). At the individual level, spirituality has been linked to intrinsic, extrinsic, and total job rewards (Kolodinsky et al. 2008), employee well-being (Sprung et al. 2012), reduced stress at work (Atkins 2007), conflict and absenteeism (Fry 2003; Giacalone and Jurkiewicz 2003a), and withdrawal cognitions (Sprung et al. 2012).

Spirituality in the workplace plays a major role in providing a new lens through which employees assign meaning to day-to-day work experiences. For instance, spirituality provides a positive effect on employee outcomes by increasing the meaningfulness accrued from work and perceived control over goal accomplishment, suggesting that spirituality performs a role as a personal resource with motivational potential and leads to high work engagement and job performance (Bickerton et al. 2014). Employees with a higher spirituality tend to have the well-being and a better quality of life since they have higher levels of hope, optimism, gratitude, and compassion (Kim-Prieto and Diener 2009). Emmons (1999) found a significant correlation between spirituality and life satisfaction, happiness, self-esteem, hope and optimism, and meaning in life.

Research suggests that the development and encouragement of spirituality at work helps enhance employees' morale, commitment and productivity. Facilitating spirituality and the expression of spirituality as a work routine allow employees to feel satisfied and authentic at work (Burack 1999), leading to higher levels of employee fulfillment and morale, and increased organizational performance (Karakas 2010). According to Bento (1994), employees equipped with higher spirituality are likely to be more honest, courageous, and compassionate. Krishnakumar and Neck (2002) argued that fostering spirituality in the workplace can have beneficial consequences for the creativity, honesty, personal fulfillment, and commitment of employees, which ultimately results in increased organizational performance. All this research supports and demonstrates that spirituality indeed enhances employees' morale, commitment, and productivity.

## The Relationship between Spirituality and Job Performance Via Intrinsic Motivation and Job Crafting

Although an increasing interest in spirituality in the workplace has shown positive relationships between spirituality and many crucial individual and organizational outcomes (Duchon and Plowman 2005; Kinjerski and Skrypnik 2004; Mitroff and Denton 1999), a major gap exists in the exploration of the mediators in this relationship. As a result, there is still little understanding about the psychological mechanism that explains how and why spirituality in the workplace leads to favorable outcomes (Giacalone and Jurkiewicz 2003b). Thus, drawing upon the JD-R model and SDT, we attempt to fill this gap by examining the serial mediation effect of intrinsic motivation and job crafting on the relationship between employees' spirituality and their job performance.

Several JD-R research studies suggest that the job resources in the JD-R model may be extended to include personal resources (Xanthopoulou et al. 2007). The possession of personal resources helps employees to better handle their work by increasing motivational potential (Bakker and Demerouti 2007). The JD-R model defines personal resources as individual traits and skills that are related to resilience and enhance an individual's capability to adapt to his or her environment successfully (Hobfoll et al. 2003). Other types of personal resource include self-efficacy, optimism, and self-esteem (Karatepe and Olugbade 2009; Xanthopoulou et al. 2007). Spirituality as a personal resource consists of personal beliefs, practices and experiences associated with the sacred, which intrinsically motivates employees to improve their resilience and perceived ability to control and impact their environment successfully (Bickerton et al. 2014).

Although the JD-R model can explain the motivational process of how spirituality in the workplace influences job performance, our study also adopts SDT to better explain the serial mediation effect of intrinsic motivation and job crafting on the relationship between employees' spirituality and their job performance. SDT proposes that the motivation to fulfill fundamental needs (e.g., autonomy, competence, and relatedness) varies from individual to individual (Deci and Ryan 1985). In particular, intrinsically motivated people tend to fulfill or act in accordance with these needs of autonomy, competence and relatedness (Kasser et al. 2004). Hence, we expect that intrinsic motivation rooted in employees' spirituality is positively related to their engagement in job crafting, which results in the enhancement of job performance.

### Spirituality and Intrinsic Motivation

Recent research into the JD-R model highlights the importance of personal resources that represent an employee's psychological capability to effectively adapt to the work environments (Boudrias et al. 2011; Karatepe and Olugbade 2009).

Bickerton et al. (2014) suggest that spirituality serves as a personal resource that can provide sufficient motivational and psychological capability to promote the accomplishment of work goals. Consistent with this body of research, we consider spirituality as a primary factor amongst the many personal resources. Employees with higher levels of spirituality are more likely to have socio-emotional resources which help them to have an intrinsic motivation for fostering their growth, learning and development (Bickerton et al. 2014). While little is known about the exact mechanism through which spirituality positively influences employees' job performance, it is clear that spirituality as a personal resource plays the motivational role of fostering the growth, learning and development of employees, leading to the achievement of work goals (Bakker and Demerouti 2007). The JD-R model suggests that personal resources begin a motivational process associated with work engagement and employees' well-being (Bakker and Demerouti 2008).

Krishnakumar and Neck (2002) suggest that spirituality increases employees' intrinsic motivation by inspiring a sense of individual fulfillment and increased morale. Spirituality helps employees to fulfill their highest potential for greater meaning and life purpose in their work, subsequently leading to raised employee creativity, motivation, and organizational commitment (Neck and Milliman 1994). Since spirituality has been linked to employees' beliefs, goals, and practices associated with the divine or meaningfulness at work (Dehler and Welsh 2003; Milliman et al. 2003; Mitroff and Denton 1999), those possessing high levels of spirituality may engage in activities due to intrinsic motivation (i.e., personal interest, values, or enjoyment in the work itself) rather than extrinsic motivation (i.e., external rewards such as monetary incentives, reward, or payoffs). Thus, employees with high levels of spirituality are likely to be intrinsically motivated since spirituality is associated with deriving meaning from work that transcends our normal lives and instills a strong desire for learning and growth (Dehler and Welsh 2003; Milliman et al. 2003). Spirituality includes the personal ties or experiences with the divine that shed new light on an individual's existence and forms his or her meaning, purpose, and mission in life beyond the fulfillment of economic or material benefits (Roof 2015), in short motivating employees to seek fun for their job and challenge or self-expression in their work beyond external rewards. Based on the preceding discussion, we advance the following hypothesis:

H1: Employees' individual spirituality is positively related to their intrinsic motivation.

### Intrinsic Motivation and Job Crafting

According to self-determination theory (SDT), the type of motivation possessed by individuals (i.e., intrinsic and

extrinsic motivation) shapes employee behavior outcomes (Gagné and Deci 2005). More specifically, previous research has found that the desire to work harder due to feelings of enjoyment and value congruence (i.e., intrinsic motivation) leads to a number of positive cognitive, affective, and behavioral outcomes, whereas the drive to work due to feelings of pressure and obligation (i.e., controlled motivation) results in negative outcomes (Deci and Ryan 1985; Vallerand 1997).

Since intrinsically motivated employees have greater curiosity, a desire for learning and growth, positive affection, cognitive flexibility, openness to risk-taking and persistence (Ryan and Deci 2000; Shalley et al. 2009), we propose that they may be more likely to engage in job crafting. Wrzensniewski and Dutton (2001) suggest that employees tend to change the boundaries of their tasks in jobs when they are intrinsically motivated and satisfied. Intrinsic motivation tends to develop passion and positive feelings amongst employees for their work (Thomas 2000), allowing them to creatively modify task and relational boundaries. Employees become more proactive and creative identity builders (i.e., job crafters) at work when they are motivated by three individual needs: the need for control over one's job and work meaning; the need for positive self-image; and the need for human connection with others (Wrzensniewski and Dutton 2001). These may be variously represented in feelings of meaningfulness (i.e., seeking meaning, value and control from work, and finding coworkers who share similar ideals), choice (i.e., feeling free to choose activities and to contact others for needed information), competence (i.e., feeling skillful in performing the task activities, and identifying and establishing a relationship with others), and progress (seeking out advances in meaningfulness, choice, and competence with respect to one's career) (Thomas and Tymon 1994).

According to self-determination theorists, intrinsically motivated employees are likely to have a stronger interest in growth and learning, providing them with the cognitive flexibility and initiative to take risks and embrace complexity (Amabile 1996). Such employees may actively change the task or relational boundaries of their work. Intrinsic motivation consisting of the experience of meaningfulness, choice, competence, and progress allows employees to persist with new and challenging complex tasks (Gagné and Deci 2005), and to concentrate on those tasks (Amabile 1996), which may lead to their proactive engagement in job crafting. On the other hand, emotion theorists have argued that intrinsic motivation generates positive emotion that promotes cognitive flexibility for defining patterns and relations between ideas (Silvia 2008), which helps employees shape the task boundaries of their jobs either physically or cognitively. Based on the preceding discussion, we advance the following hypothesis:

H2: Employees' intrinsic motivation is positively related to their job crafting.

## Job Crafting and Job Performance

A number of studies have already examined the positive effect of job crafting on job performance (e.g., Demerouti et al. 2015; Leana et al. 2009; McClelland et al. 2014; Tims et al. 2012, 2015). For instance, Leana et al. (2009) found that teachers engaged in job crafting receive higher quality of care evaluation scores from their students. Berg et al. (2008) suggested that job crafting enhances employees' competence, personal growth and learning, and persistence with future adversity, all of which produce positive outcomes in terms of goal achievement, enjoyment, and meaning. Job crafting is positively associated with job performance since employees change the boundaries of their job and shape a work context that fits their interests, capabilities, and values (Wrzensniewski and Dutton 2001).

Within the JD-R model, job crafting serves as an important strategy that allows employees to change their job demands and job resources (Tims and Bakker 2010; Tims et al. 2012). Job crafting consists of the three dimensions: increasing job resources (i.e., crafting more autonomy, chances for growth, social support); increasing challenging job demands (i.e., developing knowledge and skills for more difficult goals); and decreasing hindering job demands (i.e., lower emotional and cognitive demands) (Tims et al. 2012). Tims et al. (2015) posit that the combined components of job crafting contribute to increasing work engagement, which leads to the enhancement of job performance. Based upon the JD-R model, we suggest three reasons why job crafting will lead to enhanced job performance. First, since job crafting involves the modification of the number and type of tasks, the number and intensity of interactions with others, and adjustments to the meaning of their jobs to fit the employees' preferences and needs, it increases job resources which in turn may lead to enhanced job performance (Bakker and Demerouti 2007). Second, because job crafting increases challenging job demands by allowing employees to adjust their workload and get involved in new projects, it leads to employees' personal growth and development (Bakker et al. 2006), which may result in increased job performance. Finally, since job crafting decreases hindering job demands by allowing employees to change the content and scope of their jobs to fit their interests and needs, it reduces stress and burnout triggered by job demands (Tims et al. 2012), again leading to better job performance. Based on the preceding discussion, we advance the following hypothesis:

H3: Employees' job crafting is positively related to their job performance.

## Serial Mediation Effect of Intrinsic Motivation and Job Crafting

Although the literature indicates that spirituality is capable of positively influencing employee or organizational

outcomes (e.g., Duchon and Plowman 2005; Kinjerski and Skrypnik 2004; Markow and Klenke 2005; Mitroff and Denton 1999), little is known about the sequence by which employees' spirituality enhances employee outcomes. Beyond examining the direct relationship between spirituality and job performance, we examine the hypothesis proposing that spirituality is related to job performance through the mediating variables of intrinsic motivation and job crafting. The logic of the serial mediation effect of intrinsic motivation and job crafting on the relationships between employees' spirituality and job performance is based on the JD-R model and SDT. Based on the combined rationales of these, we propose that employees' spirituality does not directly affect employees' job performance, but rather that intrinsic motivation and job crafting function as serial-mediators between these two variables.

Within the JD-R model, intrinsic motivation may be a primary mediator that links employees' spirituality and job performance since spirituality as an important personal resource plays an intrinsic motivation role for development and learning, which allows employees to accomplish work goals (Bakker and Demerouti 2007). Similarly, the extant research has found that other job resources (i.e., social support, supervisory coaching, performance feedback, and time control) also trigger intrinsic motivation for work engagement, which in turn reduces turnover intentions. Thus, employees equipped with spirituality may be considered to have a spiritual resource, a type of personal resource generated by an interaction with the sacred (Bickerton et al. 2014), which promotes intrinsic motivation for work engagement through providing meaningfulness and perceived control at work (Bakker and Demerouti 2008). The existence of meaningfulness at work encourages an employee to have stronger intrinsic motivation for work engagement (Saks 2011). When employees perceive their work to be inherently meaningful by virtue of their serving the divine or fulfilling their own ideals and values, they are likely to be internally motivated to make larger investments of time and energy, leading to work engagement and positive organizational outcomes (Hirschi 2012). In addition, spirituality can provide employees with perceived control over expected work goal accomplishment (Bickerton et al. 2014), which may be closely associated with self-directed motivation based on the belief in one's competence and capabilities. For example, an employee's belief in God may increase his or her perceived control over work (Hood Jr et al. 2009), which results in stronger intrinsic motivation for achieving goals as well as overcoming challenging work-related hardships (Park 2012). Such fundamental motivation may have a more powerful impact on that employee's outlook, perceptions, coping styles, and behaviors than any practical motivation might do (Dehler and Welsh 1994). In this respect, we propose that employees' spirituality is most likely to increase job performance when it is accompanied by intrinsic motivation.

In addition to the JD-R model, we suggest that SDT helps explain the serial mediation effect of intrinsic motivation and job crafting on the link between employees' spirituality and job performance. Drawing on SDT, we propose that employees' spirituality motivates them to seek fun, fulfillment of curiosity, free self-expression, or personal challenge at work, which leads to job crafting and in turn increases job performance. Spirituality involves employees looking for their own deeply personal values, which is consistent with SDT's main proposition that individuals are inherently and naturally motivated to fulfill the fundamental needs of autonomy, competence and relatedness (Gatling et al. 2016). Employees with intrinsic work values are more likely to express their natural desires for growth and self-development (Vansteenkiste et al. 2007), which are also main components in the achievement of spirituality. SDT proposes that spirituality in the workplace motivates employees to fulfill deeper intrinsic needs and meaning for the common good (Barrett 2003), leading to the development of their complete selves at work (Mitroff and Denton 1999). Since employees with spirituality look for experiences and tasks to deeply internalize their environment into their own values and interests (Gatling et al. 2016), they may be more likely to engage in job crafting.

Regarding SDT, the motivation to get involved in job crafting is closely associated with the three SDT needs for autonomy, relatedness, and competence (Wrzensniewski and Dutton 2001). Employees are motivated to engage in job crafting since they desire to have a sense of personal control over their work (e.g., autonomy), to develop positive and sustainable interrelationship with others (e.g., relatedness), and to seek challenges and activities to express their capabilities and develop their complete selves at work including fulfilling their creative and intellectual potential (e.g., competence) (Gatling et al. 2016; Wrzensniewski and Dutton 2001). Based on the alignment between job crafting and these three SDT needs, it is predicted that spirituality may promote employees' intrinsic motivation to engage in job crafting in terms of the pursuit of the satisfaction of the three SDT needs, which ultimately results in the enhancement of job performance.

In sum, spirituality is closely associated with the willingness to seek fulfillment and freedom at work, the pursuit of non-materialism, and the finding of meaning and a relationship with the divine (Fry 2003; Marques et al. 2005), which may lead to intrinsic motivation to craft and job crafting behaviors. Spirituality helps employees to expand the boundaries of their consciousness beyond the normal frontiers, which promotes creativity and intuition (Cash and Gray 2000). Job crafting is a creative and intuitive process since it involves psychological, social, and physical acts, such as changing a job's task boundaries, changing the way they consider the interrelationships between job tasks, and changing their identity and the meaning of the work in the process (Wrzensniewski and Dutton 2001). Based on SDT, spirituality

may be positively linked to intrinsic motivation for developing creative behaviors such as job crafting, which will result in increased job performance. Based on the preceding discussion, we advance the following hypothesis:

H4: The positive relationship between employees' spirituality and job performance is serially and sequentially mediated by intrinsic motivation and job crafting.

## Research Method

### Data Collection and Participant Characteristics

The participants for this study were South Korean employees from a variety of occupations working for several organizations identified through the researchers' personal contacts. In order to get a diverse set of research samples from various organizations, we used a snowball sampling method (Oh et al. 2014). The snowball sampling technique is particularly effective in locating special populations where the purpose of the research relates to a sensitive issue (e.g., spiritual life and belief) (Faugier and Sargeant 1997). With spiritual life and belief belonging to the private sphere, snowball sampling has been successfully used in previous research in this area (e.g., Joelle and Coelho 2017; Liu and Robertson 2011; Schreurs et al. 2014). Our starting point for finding contact points (i.e., HR managers) was our own network. Some of the HR managers who were contacted helped us obtain access to a larger number of HR managers. In turn, we encouraged e-mail or telephone recipients to forward the survey on to recruit additional HR managers in various organizations. We then contacted those human resource managers again to obtain permission to collect data. In this way, after initially contacting about 90 human resource managers across 40 organizations, we were able to secure a total of 44 human resource managers to conduct the survey administration in 27 organizations which included banking, construction, electronic manufacturing, public service, and transportation operations. Between ten and twenty employees and their supervisors from each organization were selected as respondents. The human resource managers provided them with a packet containing a cover letter, self-administered questionnaire, and stamped pre-addressed envelope. The cover letter explained that all responses would be kept confidential and anonymous, and emphasized that participation was voluntary. We collected data at two different time points to deal with the potential problems of common method variance (CMV) and the lack of causality (Podsakoff et al. 2012). At Time 1 (T1), we asked the employees to report the degree of spirituality, intrinsic motivation, and job crafting. One month after the T1 survey (Time 2), each employee's immediate supervisor provided a comprehensive rating of the target employee's job performance.

A total 306 sets of completed questionnaires were obtained after discarding three questionnaires collected from three employees who did not receive a performance assessment from a supervisor (response rate = 78.5%). To impute missing values, we used the full-information maximum likelihood (FIML) technique. FIML estimation is superior to other imputation techniques, including listwise deletion, previous studies having found that the exclusion of missing cases (i.e., listwise deletion) can lead to biased results (Asendorpf et al. 2014). Preliminary analysis established that 73.9% of the 306 subjects were male. In terms of their age, 14.7% of the subjects were 29 years old or less, 37.9% were between the ages of 30 and 39, 30.4% were 40 to 49 years old, and 17% were 50 and above. A majority of the participants had a university education (52.9%), while of the remainder, 27.5% had a high school education, 18.6% indicated a college education, and 1% had completed graduate school. The respondents had an average of 9.07 (SD = 8.22) years' work experience between them.

### Measurement Scales

As the scales that we selected were English-based, the English questionnaires were translated into Korean, which were checked again by the researchers following the process recommended by Brislin (1970). We used five-point scales to measure all the constructs (see Table 1).

**Spirituality** In line with prior research (e.g., Pandya 2015), individual spirituality was measured with a 10-item scale, the construct of spirituality being measured by three correlated yet distinct factors (Liu and Robertson 2011, p.41; Yazdi and Reza 2015): interconnection with a higher power (e.g., "There is an order to the universe that transcends human thinking"; three items,  $\alpha = .76$ ), interconnection with human beings (e.g., "I am concerned about those who will come after me in life"; three items,  $\alpha = .75$ ), and interconnection with nature and all living things (e.g., "I believe that on some level my life is intimately tied to all of humankind"; four items,  $\alpha = .80$ ). Based on the transcendental and relational views on spirituality, the three factors were incorporated into a higher order factor (Pandya 2015). Items were rated along a five-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree).

**Intrinsic Motivation** Intrinsic motivation was measured by Tierney et al.'s (1999) original four-item scale. Items were rated along a five-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree).

**Job Crafting** We used a four-item scale developed by Leana et al. (2009) to measure job crafting. Respondents were asked to indicate the frequency with which they engaged in the six job crafting behaviors on their own from 1 (never) to 5 (every day).

**Table 1** Scale items and construct evaluation

Construct	Items	$\lambda^a$
Interconnection with a higher power (a)	There is an order to the universe that transcends human thinking.	.70
	I feel that I have a calling to fulfill in life.	.70
	There is a higher plane of consciousness or spirituality that binds all people.	.76
Interconnection with human beings (a)	I am concerned about those who will come after me in life.	.66
	Life is most worthwhile when it is lived in service to an important cause.	.69
	Humans are mutually responsible to and for one another.	.76
Interconnection with nature and all living things (a)	I sometimes feel so connected to nature that everything seems to be part of one living organism.	.66
	I have had moments of great joy in which I suddenly had a clear, deep feeling of oneness with all that exists.	.69
	All life is interconnected.	.74
	I believe that on some level my life is intimately tied to all of humankind.	.74
Employees' spirituality	Interconnection with a higher power.	.91 <sup>c</sup>
	Interconnection with human beings.	.63 <sup>c</sup>
	Interconnection with nature and all living things.	.89 <sup>c</sup>
Intrinsic motivation (a)	I enjoy coming up with new ideas for products/services.	.78
	I enjoy engaging in analytical thinking.	.81
	I enjoy creating new procedures for work tasks.	.83
	I enjoy improving existing processes or products.	.82
Job crafting (b)	Do you introduce new approaches on your own to improve your work in the workplace?	.77
	Do you change minor work procedures that you think are not productive (such as lunchtime or transition routines) on your own?	.82
	On your own, do you change the way you do your job to make it easier for yourself?	.74
	Do you rearrange equipment or furniture in the rest areas of your workplace on your own?	.54
Job performance (a)	He/she adequately completes assigned duties.	.88
	He/she performs tasks that are expected of him/her.	.80
	He/she meets formal performance requirements of the job.	.83
	He/she neglects aspects of the job he/she is obligated to perform. ®	.85
Goodness-of-fit: $\chi^2_{200} = 375.76$ , $p < .05$ ; CFI = .95; TLI = .94; RMSEA = .05, SRMR = .06		

<sup>a</sup> All factor loadings are significant ( $p < .01$ );

(a): Items measured on a scale ranging from 1 'strongly disagree' to 5 'strongly agree'

(b): Items measured on a scale ranging from 1 'never' to 5 'every day'

(c): Second/Higher order loading

**Supervisor-Rated Job Performance** Supervisor-rated task performance was measured using a four-item measure that asked supervisors to select the number on a five-point scale that corresponded to the employee's task performance (Williams and Anderson 1991). Items were rated along a five-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree).

**Control Variables** In testing the hypotheses, we controlled for age, gender, and work experience (years) in all analyses. These variables were controlled because they affect levels of job performance (e.g., Amabile 1996; Scott and Bruce 1994; Tierney and Farmer 2002), intrinsic motivation (e.g., Hur et al. 2016) and job crafting (e.g., Lin et al. 2017).

## Analysis Strategy

We carried out the analysis using M-plus version 8 (Muthén and Muthén 1998–2017) and used latent and observed (covariate) variables as the input for the analysis. First, we fit a confirmatory factor analysis (CFA) to our data. Second, to test our research model, we conducted structural equation modeling (SEM). Furthermore, we tested the serial mediation hypothesis (i.e., Hypothesis 4) using the mediation model (Macho and Ledermann 2011; Lau and Cheung 2012). We also estimated the indirect effects, along with the symmetric and 95% bias-corrected bootstrapped confidence intervals for our path estimates ( $N = 5,000$ ; Shrout and Bolger 2002; Hayes 2013). This method is preferred to the delta method CI provided by M-plus because it does not make assumptions about



**Table 2** Mean, standard deviations, and correlations among variables

	1	2	3	4
1. Employees' Spirituality	<b>.67</b>			
2. Intrinsic motivation	.40**	<b>.66</b>		
3. Job crafting	.48**	.70**	<b>.53</b>	
4. Job performance	.12 <sup>†</sup>	.12*	.20**	<b>.71</b>
Mean	3.49	3.30	3.52	3.91
SD	.61	.76	.63	.72
A	.74	.89	.80	.90
CR	.85	.89	.81	.91

<sup>†</sup>  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$

Numbers along the diagonal are the AVEs (Average Variance Extracted); CR = composite reliability

the distribution of indirect effects. Finally, we compared our research model and the alternative model.

## Results

### Reliability, Validity and Common Method Bias Testing

Table 2 presents the mean, standard deviations, Cronbach's alpha coefficients, and intercorrelations of the study variables. The reliability coefficients for the variables ranged from .74 to .90, which is considered satisfactory (Nunnally 1978). We tested a series of confirmatory factor analyses (CFAs) to assess the convergent and discriminant validity of our variables using M-plus 7.4 software. As reported in Table 3, the hypothesized four-factor model<sup>1</sup> (i.e., spirituality, intrinsic motivation, job crafting, and job performance) exhibited a good fit ( $\chi^2_{(200)} = 375.76$ ,  $p < .05$ ; RMSEA equaled .05, SRMR equaled .06, CFI equaled .95, and TLI equaled .94), and significantly fitted data better than any other alternative measurement model. Across our measurement models, all factor loadings exceeded .54, with t-values greater than 2.58, providing evidence of convergent validity among our measures. All measures exhibited strong reliability with composite reliabilities ranging from .85 to .91 (see Table 2). Additionally, we evaluated the discriminant validity among the constructs as suggested by Fornell and Larcker (1981). All AVE were larger than the squared correlation between the construct and any others. Taken together, these results indicate that the hypothesized four-factor models possessed sufficient reliability and validity.

Although our data were collected from two different sources (i.e., employees and supervisors), there remained a possibility that common method bias might still influence some of the postulated linkages in the model. Accordingly,

<sup>1</sup> Since the spirituality measure consisted of three sub-dimensions, we used a second-order measurement model in the CFAs.

we implemented a range of procedural and statistical remedies in line with the recommendations by Podsakoff et al. (2012): procedurally, we took steps to protect respondent anonymity, reduce evaluation apprehension, improve item wording, and separate the measurement of the predictor and outcome variables; statistically, we applied a confirmatory factor-analytic approach to Harman's one-factor analysis. All measures of the goodness of fit indicated a worse fit for the one-factor model than for the original measurement model ( $\chi^2_{(209)} = 1978.33$ ;  $p < .05$ , CFI = .45, TLI = .39, RMSEA = .17, SRMR = .15) and was indeed significantly worse than the four-factor solution ( $\Delta\chi^2_{(9)} = 1602.57$ ,  $p < .01$ ). In addition, we employed the ex-post procedure recommended by Podsakoff et al. (2012) in which an unmeasured latent method factor is introduced to the measurement model. This factor did not account for any substantial variance in the indicator variables (13.3%) given that an average of 18–32% of the variance in a typical measure is attributable to method variance (Podsakoff et al. 2012). We concluded that our results were not seriously compromised by common method bias.

### Hypothesis Testing

We estimated the path coefficients in the structural model analysis. Figure 2 illustrates our research model. The hypothesized model offers an acceptable fit to the data ( $\chi^2_{(257)} = 496.72$ ,  $p < .05$ ; CFI = .93, TLI = .92, RMSEA = .06, SRMR = .07). Overall, the hypothesized structural model does a good job of explaining variance ( $R^2_{(\text{intrinsic motivation})} = 23.6\%$ ,  $R^2_{(\text{job crafting})} = 50.3\%$ , and  $R^2_{(\text{job performance})} = 8.7\%$ ). First, individual spirituality is positively related to intrinsic motivation ( $b = .39$ ,  $p < .01$ ) and so supported Hypothesis 1. Second, intrinsic motivation was found to be a significant predictor of job crafting ( $b = .59$ ,  $p < .01$ ), supporting Hypothesis 2. Furthermore, job crafting was shown to be positively related to job performance ( $b = .25$ ,  $p < .01$ ), supporting Hypothesis 3.

Finally, in order to test a serial mediation hypothesis, we fixed three additional paths (i.e., spirituality  $\rightarrow$  job crafting, spirituality  $\rightarrow$  job performance, and intrinsic motivation  $\rightarrow$  job performance) (Macho and Ledermann 2011; Lau and Cheung 2012). Based on this saturated model, we estimated the serial mediation effect. We provide estimates of the indirect effects in Table 4, along with the symmetric and 95% bias-corrected bootstrapped confidence intervals for our path estimates ( $N = 5,000$ ; Shrout and Bolger 2002; Hayes 2013). Our results showed employees' intrinsic motivation and job crafting sequentially mediated the relationship between employees' individual spirituality and job performance ( $b = .050$ , 95% CI [.001, .118]). These results indicate that individual spirituality is associated with higher intrinsic motivation and job crafting, which turns into higher employee job

**Table 3** Comparison of factor structures

Measurement models	$\chi^2$	<i>df</i>	$\Delta\chi^2$	$\Delta df$	CFI	RMSEA
1: Hypothesized four-factor model	375.76**	200	–	–	.95	.05
2: Three-factor model: Combining intrinsic motivation and job crafting	541.99**	203	166.23**	3	.89	.07
3: Two-factor model: Combining spirituality, intrinsic motivation, and job crafting	1220.36**	494	844.60**	8	.69	.13
4: One-factor model: A single-factor model combining all measures	1978.33**	209	1602.57**	9	.45	.17

\*  $p < .05$ , \*\*  $p < .01$ ; All models were compared with Model 1

performance. In addition, the direct effect on the relationship between employees’ spirituality and job performance was no longer statistically significant ( $b = .022, p > .05$ ). In sum, we confirmed that the positive relationship between employees’ spirituality and job performance was fully and sequentially mediated by employees’ intrinsic motivation and job crafting.

**Alternative Model**

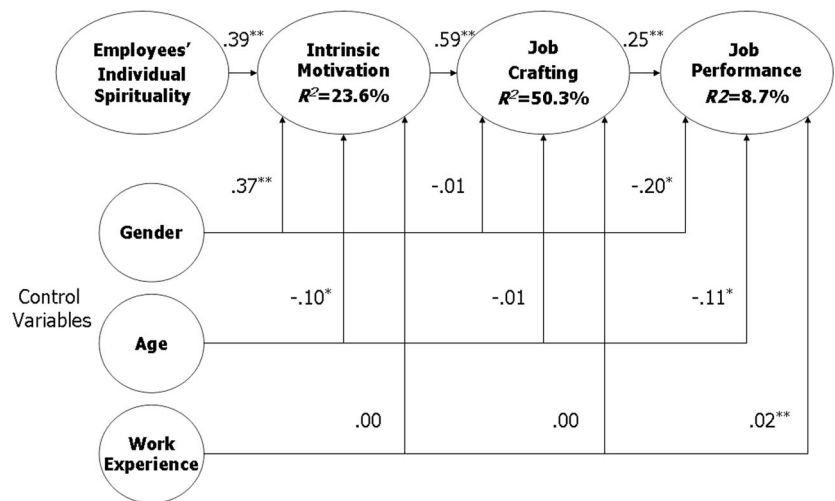
Due to the cross-sectional nature of our data, we could not ascertain causality among the variables. To deal with this issue, we compared our proposed research model with an alternative model using structural equation modeling (Iacobucci et al. 2007). Several studies (e.g., Grant 2008; Karatepe and Tekinkus 2006; Joo et al. 2010) suggest that employees’ intrinsic motivation has an impact on their job performance. Considering the change in  $\chi^2$  relative to the difference in the degrees of freedom, this alternative model does not significantly differ from the research model ( $\chi^2_{(1)} = .08$ ). As our hypotheses model was more

parsimonious, we concluded that our originally proposed model was the best-fitting one.

**Discussion**

The goal of this research was to present clear empirical evidence that experiencing spirituality induces intrinsic motivation and job crafting, which in turn enhances employees’ job performance. The results of our serial mediation analysis showed that the effect of employees’ spirituality and their job performance was fully and sequentially mediated by employees’ intrinsic motivation and job crafting (see Fig. 2 and Table 3). As predicted, employees’ job crafting mediated the positive relationship between employees’ spirituality and their job performance. While intrinsic motivation was not solely responsible for mediating this relationship, it did intervene in the relationship between employees’ spirituality and job performance through the intermediary process of job crafting. The post-hoc results confirm this sequential mediation by ruling out alternative causal relationships.

**Fig. 2** Testing the hypothesized model. Note: \*  $p < .05$ , \*\*  $p < .01$ , unstandardized path coefficients



**H4: Employees’ Individual Spirituality → Intrinsic Motivation → Job Crafting → Job Performance : .050\* [.001, .118]**

**Table 4** Effects for mediation models

Path	Effect ( <i>b</i> )	95%CI <sub>low</sub>	95%CI <sub>high</sub>
Total indirect effect			
Employees' spirituality → Intrinsic motivation → Job performance	-.013	-.100	.077
Employees' spirituality → Job crafting → Job performance	.049	.003	.133
Employees' spirituality → Intrinsic motivation → Job crafting → Job performance	.050	.001	.118
Direct effect			
Employees' spirituality → Job performance	.022	-.126	.175
Total effect			
Employees' spirituality → Job performance	.108	-.013	.240

## Theoretical Implications

This research makes several important contributions. First, it contributes to the literature on the relationship between employees' spirituality and job performance. Demonstrating a positive relationship between spirituality and job performance indirectly through the serial mediation of intrinsic motivation and job crafting, we reconcile the gap in the previous literature which suggested positive relationships between spirituality in the workplace and individual and organizational outcomes (Duchon and Plowman 2005; Giacalone and Jurkiewicz 2003a; Kinjerski and Skrypnik 2004; Mitroff and Denton 1999), or a harmful relationship through managerial control and instrumentality (Lips-Wiersma et al. 2009), but could not explain how and why employees' spirituality in the workplace leads to favorable or harmful outcomes. To the best of our knowledge, the current research is the first attempt to empirically document the indirect impact of employees' spirituality on their job performance and explore an underlying mechanism for the effect. We showed that combining the rationales of the JD-R model and SDT provided a complete explanation for the serial mediation roles of intrinsic motivation and job crafting for the effect of spirituality on job performance. Drawing on the JD-R model, we postulate that spirituality functions as a personal resource which in turn triggers intrinsic motivation. Building on SDT, we posit that employees with intrinsic motivation are more likely to engage in job crafting. By combining the JD-R model with SDT, we have introduced a new mechanism for explaining the relationship between employees' spirituality and their job performance. Adopting a multi-theoretical approach, we were able to examine the serial mediation effect of intrinsic motivation and job crafting, filling a gap in the literature and opening a new avenue for employee spirituality and job performance research.

Second, our findings also contribute to the job crafting literature. We offer a different way to increase job crafting, namely by exposing employees to spiritual experiences that are capable of internally motivating them to implement job crafting. The current research is the first to examine how an

individual's spirituality may influence job crafting, leading to better job performance. In everyday life, people encounter spiritual objects, thoughts, and experiences. Thus, examining how employees' spirituality may influence their affect and cognition for job crafting is an important next step to understanding the influence of spirituality in the workplace.

Finally, this study contributes to the theoretical literature on cognitive resources and intrinsic motivation by introducing employee spirituality as an important factor affecting employees' cognitive resources. Earlier research on the influence of spirituality on employee or organizational outcomes focused on the direct effect (e.g., Duchon and Plowman 2005; Kinjerski and Skrypnik 2004; Markow and Klenke 2005; Mitroff and Denton 1999). The current research draws on the JD-R model and demonstrates that spirituality functions as a personal resource which in turn triggers intrinsic motivation. Several researchers have suggested that spirituality facilitates pro-social behavior because religious institutions, beliefs, and rituals may assist individuals in developing self-control (e.g. McCullough and Willoughby 2009; Rounding et al. 2012). Pro-social behavior requires self-regulatory resources to manage conflict between selfish impulses and pro-social motivations (DeWall et al. 2008). The literature on self-regulation claims that self-control requires mental resources and that the resources are limited in capacity and can be depleted. Since many studies have documented a positive link between religion and pro-sociality (Diener et al. 2011; Saroglou et al. 2005; Graham and Haidt 2010; McCullough and Willoughby 2009; Galen 2012a, b), and further that the pro-social behaviour requires resources for self-control, we can theorize that spirituality similarly provides such resources. To the best of our knowledge, our research is the first attempt in both the business and the psychology literature to document the impact of spirituality on cognitive resources and intrinsic motivation.

## Practical Implications

From a practical perspective, this research highlights spirituality as an important practical consideration in constructing a

positive work environment. By clarifying the meaning and measurement of employees' spirituality, we introduce this concept into organizational practice as a new method of developing intrinsic motivation and job crafting. The current research provides insights for organizations and managers in pursuit of internally motivated employees who voluntarily perform job crafting, and supports the use of environmental strategies employing workplace spirituality. Given the increasing evidence that employees' spirituality has positive ramifications on their job-related motivation, design (i.e., job crafting), and job performance, organizations need to care about employees' spirituality. Considering that today's society is flooded with material abundance and that more individuals are now interested in working for organizations that provide 'meaning' and 'identity' to them, organizations ought to pay greater attention to employees' spirituality in order to differentiate themselves in the marketplace by supplying 'meaning to life and self-worth' to employees (Shachar et al. 2011). Employees are not merely on the lookout for the material benefits to perform better at their work but are increasingly in search of value added by the immaterial aspects of life. In order to motivate them to engage in job crafting and thereby better job performance, organizations need to provide them with a deeper sense of connection with others, whether that be a higher power, other human beings, or nature and all living things. To do so, the firm should develop a very strong set of spiritual values that shape its corporate culture. For example, Southwest Airlines has a strong emphasis on enthusiasm and commitment, emotional expression, and personal relationships that are manifestations of spirituality at work (Milliman et al. 1999). Additionally, management should carefully monitor how employees' values and attitudes are connected with a deeper sense of others, and then provide an internal device for public relations (PR) so that the narratives of corporate spiritual values are spread through the organization, promoting a shared recognition amongst employees that their organization truly cares about spirituality. Furthermore, our study would help HR professionals in their search for high caliber employees by highlighting the benefits of selecting a more spiritually competent workforce. By demonstrating the relationship between spirituality and job performance through intrinsic motivation and job crafting, our study encourages firms to develop and utilize more searching staff aptitude tests during the recruitment process. Our findings should suggest the importance of incorporating a spirituality measure in addition to the conventional assessments used by HR teams to gauge potential employees' current knowledge, skills, abilities and so forth. In short, it may be necessary to develop an appropriate index for measuring spirituality to recruit and select employees who would be the best fit for a particular firm. The development of a specific spirituality measurement to be included in organizational selection assessment instruments might include a workplace spirituality scale, role-play, or

interview to test for those employee attitudes and values which indicate a deep sense of meaning and purpose in one's work and in society as a whole, as well as a sense of connectedness with others as a source of spiritual growth. Likewise, criteria should be provided in the performance appraisals of managers who oversee the selection process to enhance their capability to screen for candidates who have spiritual values.

## Limitations and Future Research

Our work inevitably suggests additional questions to be answered by future research. For example, the meaning of spirituality in the workplace may vary by culture. Certain cultures are high or low in terms of their religious norms, and may be more tolerant or intolerant of spiritual expression at work than others (Griffin et al. 1987). This differential acceptance of spiritual expression and freedom across cultures may lead to varying effects of employees' spirituality on intrinsic motivation and job crafting. Previous psychological research into spirituality has proposed that spirituality is intrinsically embedded in all humanity and differs from religiosity, which is usually defined as beliefs and practices that are rooted in a particular religion (Del Rio and White 2012) and whose expression is often institutional, denominational, ritualistic, and external, such as going to a temple or attending a church service (Hunsberger and Jackson 2005; Pargament et al. 2005; Silberman 2005; Hogg et al. 2010; Ho and Ho 2007). Moreover, culture provides a great impact on how individuals experience spirituality (Cassaniti and Luhrmann 2014). The South Korean employees who participated in this study provided us with their spiritual or religious background information: 24.8% Christian (Protestant 11%, Roman Catholic 13.8%); 14.5% Buddhist; 8.8% other religion; and 51.9% no religion. As shown above, South Korea has a diverse religious culture, but is without a single dominant religious community (Baker 2008). Koreans have been traditionally influenced by Shamanism and Confucianism, so particularly Buddhists and those who have no religion tend to share those characteristics of shamans, Confucians, and practitioners of numerous new religions (Baker 2008). Therefore, the Korean notion of spirituality may be different from an American and Western Europe cultural perspective with a strong Judeo-Christian focus. Hence, we would expect to get dissimilar results if the study were conducted in the U.S. or a European country. To the extent that the effect of employees' spirituality on their job performance is driven by intrinsic motivation leading to job crafting, future research examining the influence of culture on the effects of employees' spirituality could be fruitful. For example, one of Hofstede's (2001) cultural dimensions, namely individualism/collectivism, would be a strong moderating variable on the effect of workplace spirituality on employees' work attitudes. Since collectivistic cultures such as Korea, China, and Japan place a greater emphasis on connections

with others and harmony between people than is generally the case in individualistic cultures found in North America and Europe (Hofstede 2001), employees in a collectivist society may be more likely to place considerable value on workplace spirituality.

Because the current research theorized the role of spirituality as a personal resource which triggers intrinsic motivation, and further demonstrated the positive significant effect of spirituality on job performance through the path from intrinsic motivation to job crafting, future research may examine the role of spirituality as a personal resource by directly measuring it. Although there was a one-month interval in the current study between the measurement of the independent variable and the two mediators on the one hand, and the assessment of job performance on the other, the research design is not longitudinal in a strict sense, which makes it difficult to establish causality among the study variables. Therefore, the causality and reciprocity among employees' spirituality, intrinsic motivation, job crafting, and job performance needs to be better determined in future research by using more rigorous research designs.

Even though much of the workplace spirituality literature speaks to positive relationships between spirituality at work and organizational performance and outcomes, there are some critical views of workplace spirituality as well (Lips-Wiersma et al. 2009; Lips-Wiersma and Mills 2014). For example, Lips-Wiersma et al. (2009) pointed out the ways in which workplace spirituality can be misused or misappropriated for managerial control, for instance the degree of direction exercised by the organization over its members in the conduct of their work; likewise, for instrumental gain, such as the extent to which employees are treated as means toward a goal. They claimed that because firms are goal-driven by nature with a well-defined emphasis on profitability, any attempt to incorporate spirituality in firms will open up the potential for misuse and misappropriation, presenting some level of instrumentality toward its employees. Future research should incorporate the potential harmful effect of spirituality in the research model. In addition, future research on what the antecedents are that lead to the spread of positive and harmful spirituality, and what the consequences are of positive and harmful spirituality for individuals and organization would be worth pursuing to achieve a better understanding of how and why some organizations nurture the positive influence of spirituality whilst others are marked by the harmful influence of spirituality. In order to measure the potential harmful effects of spirituality at work in such future studies, the workplace spirituality scale must include questions targeting the negative symptoms of spirituality such as employees bearing excessive responsibilities to meet the spiritual demands of the firm (i.e., compassion fatigue, role overload, and burnout) (Karakas and Sarigollu 2017).

In addition, future research should investigate the effect of employee spirituality on other organizational variables. Previous research has suggested various benefits of spirituality and religion: religion can be a source of self-control (Kay et al. 2010; Laurin et al. 2012); afterlife beliefs associated with spirituality can help coping with existential fears about death and meaninglessness (Jonas and Fischer 2006; Vail et al. 2010); God can act as an attachment figure providing a sense of security (Granqvist et al. 2010); identification with religious groups can reduce feelings of uncertainty (Hogg et al. 2010); religion can support self-enhancement and develop self-worth (Sedikides and Gebauer 2010; Shachar et al. 2011); and religion can offer social identity with a distinctive worldview and group membership (Ysseldyk et al. 2010). Demonstrating robust positive relationships to outcome variables such as self-regulation at work, pro-social behavior in teams, value and meaningfulness of work, organizational trust, and a sense of job security and self-worth can offer insights to organizations by getting them to consider developing the organizational environment to foster employee spirituality and thereby enhance employees' job crafting and job performance.

Although we employed employees' demographic traits (e.g., gender, age, and work experience) as control variables in our research, we did not consider employees' job resources/demands and personality factors as covariates. With previous research (e.g., Bickerton et al. 2014; Henningsgaard and Arnau 2008) having shown that spirituality is related to job resources and the Big Five personality traits, to more elaborately test the research hypotheses here, future research would need to add these variables as covariates.

Our study makes reference to meaningful work as a crucial aspect of workplace spirituality, but the scale adopted by our study from Liu and Robertson (2011) does not include this variable. Although three dimensions of the scale (e.g., interconnection with human beings, interconnection with nature and all living things, and interconnection with a higher power) indirectly relate to meaningful work, future research should include the workplace spirituality dimension of meaningful work since it is of particular relevance to both intrinsic motivation and job crafting.

Finally, we suggest that future research should investigate the boundary conditions that affect the causal path of employee spirituality → intrinsic motivation → job crafting → job performance at the organizational or individual level. In particular, drawing on the JD-R model, we posited that spirituality plays a role as a personal resource which in turn triggers intrinsic motivation and then job crafting which leads to enhanced job performance. Because previous research has shown that being independent of the actual state of resource depletion, and noting that perceived regulatory depletion can impact subsequent task performance (Clarkson et al. 2010), individual variation in the perception of personal resource

levels can act as a boundary condition at an individual level. At the organizational level, organizational characteristics or environments such as organizational trust, support, autonomy, and career development opportunities can moderate the effect of employees' spirituality on their motivational outcomes.

## Conclusion

Although previous studies have anecdotally claimed that spirituality increases various outcomes such as work unit performance (Duchon and Plowman 2005), organizational commitment (Markow and Klenke 2005), and ethical decision-making (Beekun and Westerman 2012; Giacalone and Jurkiewicz 2003a), there is a shortage of empirical evidence documenting the positive effect of employees' spirituality on their job performance and the psychological process that underlies it. To shed light on the process mechanism, we hypothesized and tested the relationships between employees' spirituality, their intrinsic motivation, job crafting, and job performance based on the Job Demands-Resources (JD-R) model (Schaufeli and Bakker 2004) and self-determination theory (SDT) (Deci and Ryan 1985). The results of this study extend previous research on employees' spirituality and job performance by suggesting that job resources and self-determination-based motivation are key underlying mechanisms of job performance.

## Compliance with Ethical Standards

**Conflict of Interest** The authors declare that they have no conflict of interest.

**Ethical Approval** All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Declaration of Helsinki and its later amendments or comparable ethical standards.

**Informed Consent** Informed consent was obtained from all individual participants included in the study.

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