



A burnout model of job crafting: Multiple mediator effects on job performance

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Abstract Studies establish that job crafting, i.e. the proactive changes made in one's work through balancing available job demands and resources, results in various positive outcomes at the individual, job, and organisational levels. This study examines how employees proactively craft their jobs to avoid stress and burnout, and become better performers. We ground our study in the occupational health context of knowledge workers. Structural equation models on data from 268 Information Technology (IT) management professionals demonstrate the coping effect of job crafting in decreasing role stress and burnout, and increasing one's psychological availability, along with multiple mediation effects in improving job performance.

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Introduction

Burnout is an occupational hazard that continues to draw immense attention as it relates to significant costs for employees and organisations (Bakker, Demerouti & Verbeke, 2014; Schaufeli, Bakker & VanRhenen, 2009). It has emerged as a major problem in most countries, not only in the lowest socioeconomic groups, but at all societal levels (Albertsen et al., 2010). A majority of the burnout studies exist in the context of psychosocial professions of physicians, nurses and teachers. However, burnout may pertain to any occupation where there is an imbalance between demands and possible renewal of resources (Bakker & Demerouti, 2014). This is evident in many careers within fast-paced firms, where work

is varied, complex, deadline driven and competitive, with long workdays, and where it is difficult to separate work from home life (Hetland, Sandal & Johnsen, 2007). This study is based on data from knowledge workers belonging to the information technology (IT) services, which typically carries all of these characteristics. Knowledge work, often characterised by a “boundaryless” work environment stresses the potential demands and performance pressures in these kinds of jobs that lead to stress and burnout (Benson & Brown, 2007; Lee, Blackman & Hurst, 2007).

The way people cope with burnout is very important to determine its impact (Chen & Cunradi, 2008). Consequently, the relationship between burnout and coping has been the focus of much research over the past few decades (Angelo & Chambel, 2014; Van Rhenen, Schaufeli, Van Dijk, & Blonk, 2008). Traditionally, the burnout literature has considered coping as a reactive mechanism in diminishing distress (Schwarzer & Knoll, 2003). However, the conceptualisation

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of coping has changed in the context of the positive psychology movement (Peiró, 2007) to include proactive coping that involves a confirmatory and positive approach to dealing with burnout (Greenglass, 2002). Hence, several researchers have proposed a change in emphasis, investigating whether coping strategies are associated with decreased distress, as well as higher levels of positive outcomes (Angelo & Chambel, 2014; Crant, 2000). Such emphasis is reflected in the concept of job crafting, which constitutes self-driven work related changes through a proactive balance of job demands and job resources (Tims & Bakker, 2010; Wrzesniewski & Dutton, 2001). The conservation of resources (COR) theory (Hobfoll, 1988, 2001, 2002) and the job demands-resources (JD-R) model (Demerouti, Bakker, Nachreiner & Schaufeli, 2001) also suggest that resources play a dual role in enhancing positive and reducing negative outcomes. Hence, given the individual level resourcefulness, job crafting can play an effective role as a proactive coping mechanism in decreasing negative or detrimental outcomes as well as increasing positive outcomes.

The goal of this study was to examine the role of job crafting as a proactive coping mechanism in reducing stress and burnout, and also increasing psychological availability or resourcefulness of individuals. We also examine the extent to which proactive coping through job crafting explains job performance through multiple mediating effects of role stress, burnout and psychological availability.

This study contributes in the following ways. First, it contributes to the burnout literature by positioning job crafting as a proactive coping strategy. Second, it contributes to role stress literature by suggesting the effectiveness of job crafting in reducing role stress. Third, following the concept of resource caravans in COR theory, this study also suggests that job crafting results in higher individual resourcefulness or psychological availability at work. Finally, based in the context of knowledge workers, this study underlines the important role of job crafting in proactively coping with their stress and burnout, while enhancing their psychological availability and job performance, as evident through multiple mediation effects.

Job crafting

Based on social constructionism (Gergen, 1994), Wrzesniewski and Dutton (2001) define job crafting as “the physical and cognitive changes individuals make in the task or relational boundaries of their work” (p. 179). From a working environment perspective, in job crafting, employees independently modify aspects of their jobs to improve the fit between the characteristics of the job and their own needs, abilities, and preferences (Tims, Bakker & Derks, 2013; Berg, Dutton, & Wrzesniewski, 2008). Since job crafting involves initiating changes in one’s job design, it is operationalised according to the types of job characteristics suggested in the JD-R model (Demerouti et al., 2001), these being job demands and job resources. Job characteristics that require sustained effort from employees and are, therefore, associated with certain costs are labelled job demands. Job characteristics that contribute towards achieving work related goals, reducing the effect of job demands and associated costs, and stimulating personal

development, are called job resources (Bakker et al., 2007). Hence, individual job crafting constitutes increasing structural job resources (such as requesting more autonomy), increasing social job resources (such as asking for feedback), increasing challenging job demands (i.e. start new projects), and decreasing hindering job demands (i.e. cognitive and emotional demands (Tims et al., 2012, 2013).

Existing research has identified various antecedents to job crafting, such as individual characteristics (Bakker et al., 2012), attitudes (Tims et al. 2014), job characteristics (Lyons, 2008), job demands (Petrou et al., 2012), person-job fit (Tims, Derks & Bakker, 2016), as well as factors at the collegial (Arts et al., 2012) and supervisory/leader level (Ghitulescu, 2006). Another set of studies show that job crafting results in various proximal outcomes such as positive feelings and attitudes (Ko, 2011), social relatedness (Slemp & Vella-Brodrick, 2015) and work engagement (Demerouti et al., 2015), that further lead to positive outcomes of wellbeing and performance at work (Leana et al., 2009) as well as career success (Akkermans & Tims, 2017 and Plomp et al., 2016). However, overall, there is a dearth of studies that have focussed on examining how job crafting is resourceful in increasing individual wellbeing, such as psychological availability at work. To be psychologically available at work is significant from the perspective of task completion as well as handling work related pressures. There is a need for studies that engage with understanding the dynamics of how job crafting is resourceful in both, increasing individual resources as well as decreasing individual level demands.

Conservation of resources theory is one of the leading resource theories and it complements the JD-R theory in explaining job stress and burnout (Gorgievski, Halbesleben & Bakker, 2011; Halbesleben & Buckley, 2004). It defines resources as “those entities that either are centrally valued in their own right, or act as means to obtain centrally valued ends” (Hobfoll, 2002: p. 307). According to COR theory, people work to obtain resources that they do not have, retain those resources that they possess, protect resources when threatened, and foster resources by positioning themselves so that their resources can be put to best use (Angelo & Chambel, 2014; Gorgievski & Hobfoll, 2008). There are two main assumptions in the COR theory (Xanthopoulou et al., 2007): First, individuals invest their resources in order to deal with threatening situations and prevent negative outcomes; second, individuals strive not only to protect their resources, but also to accumulate them (Hobfoll, 1989). Further, since initial gain begets further gain, individuals possessing strong resource pools experience spirals of resource gain, and that resource surplus promotes positive outcomes (Hobfoll, 2001).

The COR theory emphasises the importance of resources in avoiding burnout. It reiterates that people should not engage in reactive coping but rather act in a proactive way that will help them gain resources, and become less vulnerable to the threat of future or actual resource loss (Westman et al., 2005). Job crafting is representative of such proactiveness, since it does not necessitate any negative appraisals, such as loss, and reflects efforts to build up resources (Schwarzer & Knoll, 2003). Job crafting is characteristically similar to anticipatory coping (Angelo & Chambel, 2014) because it involves the assessment of future demands and resources opportunities not as threats, but as personal challenges, through taking initiatives to increase challenges in job.

Mediation of role stress between job crafting and job performance

According to role theory, employees with client facing roles experience role stress by virtue of the position they occupy as organisational boundary-spanners (Kahn & Byosiere, 1992). Occupational role stress emerges as individuals experience conflict, ambiguity or overload in work-related roles (Travis, Lizano & Barak, 2016). The need for flexibility in addressing unique needs, as well as interactions within a large role set, results in feelings of stress among employees (Rizzo, House & Lurtzman, 1970). Devi and Sharma (2013) advocate a customised and individual approach to managing role stress at work. The COR theory posits that individuals invest in resources in order to protect themselves from potential negative work conditions. The JD-R model also suggests that job resources are critical in mitigating detrimental outcomes such as stress and burnout. Hence, job crafting should be instrumental in reducing role stress through proactive initiatives taken to increase one's resources and flexibility at work. For instance, employees may improve their job design features by revising their work methods and schedules to fulfil job demands. Further, the individual resourcefulness through job crafting also enables employees to perform more tasks or more complex tasks, thus improving their performance levels (Bakker, Demerouti & Verbeke, 2014; Tims, Bakker & Derks, 2014). Hence, it is likely that one of the mechanisms through which job crafting results in improved performance is by playing a proactive role in coping with stress. Accordingly, we hypothesise that,

Hypothesis 1a. Job crafting will be negatively related to role stress.

Hypothesis 1b. Role stress will mediate the relationship between job crafting and job performance.

Mediation of burnout between job crafting and job performance

Burnout is a negative affective state occurring due to recurring distress, conceptualised as a depletion of an individual's energetic coping resources (Kristenson et al., 2005; Maslach, Schaufeli & Leiter, 2001; Pines & Keinen, 2005; Shrivom, 2005). High levels of burnout signify insufficient resources for employees to effectively deal with their job demands (Gorjievski & Hobfoll, 2008). From this notion, it follows that accumulation of individual resources will reduce experiences of burnout. From the perspective of COR theory, individuals actively invest in resources for protection against situational demands or negative experiences (Hobfoll, 2002). Hence, the individual resourcefulness of job crafting will decrease burnout through the coping mechanism of balancing job demands and resources. Further, the JD-R model also states the significant role of job resources in negating the effects of burnout, which in turn results in positive work outcomes (Bakker & Demerouti, 2007, 2014; Taris, 2006). Resourceful and proactive employees are likely to avoid or reduce burnout, and avoid deterioration in their performance levels. Recent evidences also indicate that job crafting improves task performance through reducing exhaustion of employees (Demerouti et al., 2015; Petrou et al., 2015). Studies, such as that of Chauhan (2009) and Azeem (2010) emphasise the provision of

necessary tools and mechanisms that can enable individuals to effectively handle work place demands towards curbing stress and burnout. Therefore, we posit that job crafting will be instrumental in improving job performance by proactively coping with burnout. Accordingly, we hypothesise that:

Hypothesis 2a. Job crafting will be negatively related to burnout.

Hypothesis 2b. Burnout will mediate the relationship between job crafting and job performance.

Mediation of psychological availability between job crafting and job performance

Psychological availability is the "sense of having physical, emotional, or psychological resources to personally engage at a particular moment" (Kahn, 1990). In essence, it assesses the readiness or confidence of a person to engage in tasks (May, Gilson & Harter, 2004). According to COR theory, individuals are likely to invest in resources that further result in accumulation of resources, thus forming resource caravans (Hobfoll, 2001, 2002). Hence, the initiatives to increase resources through job crafting will result in improved psychological conditions or resources such as psychological availability. Further, psychologically available persons will have higher emotional, physical, and cognitive resources that will boost work outcomes (Kahn, 1990). The JD-R model also states that increase in resources, such as through job crafting, plays a motivational role in further promoting positive work outcomes, including performance. Accordingly, we hypothesise that,

Hypothesis 3a. Job crafting will positively relate to psychological availability.

Hypothesis 3b. Psychological availability will mediate the relationship between job crafting and job performance.

Thus, our burnout model of job crafting in Figure 1 presents employee initiated job crafting as a proactive coping mechanism in dealing with stress and burnout, while improving positive individual and job outcomes. Specifically, the model tests the dual effect of job crafting in decreasing role stress and burnout, while increasing psychological availability of individuals. Further, the model explains the performance effect of job crafting by examining multiple mediation influences on the relationship of job crafting and job performance, through burnout, role stress and psychological availability.

Method

Context, participants and procedures

Drucker (1999) emphasises that knowledge workers' productivity is the great challenge of this century and identifies it as the true competitive edge of a global economy. Given that there are multiple views on defining a knowledge worker (Albertsen et al., 2010), for the purpose of this study we consider a knowledge worker as: "any employee who is involved in consultancy based on their specialist knowledge or know-how, or research and development work for new products, services or processes; and required to gather, analyse, add value and communicate information to empower

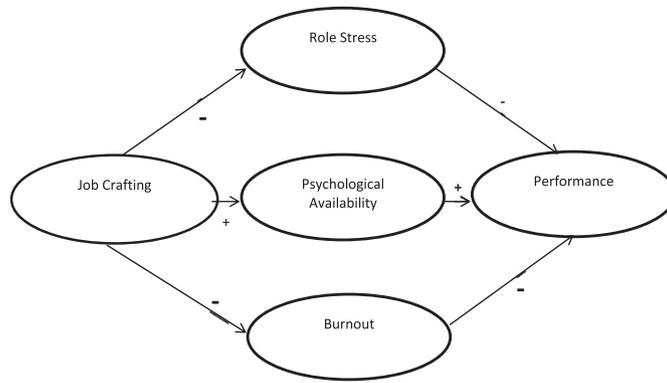
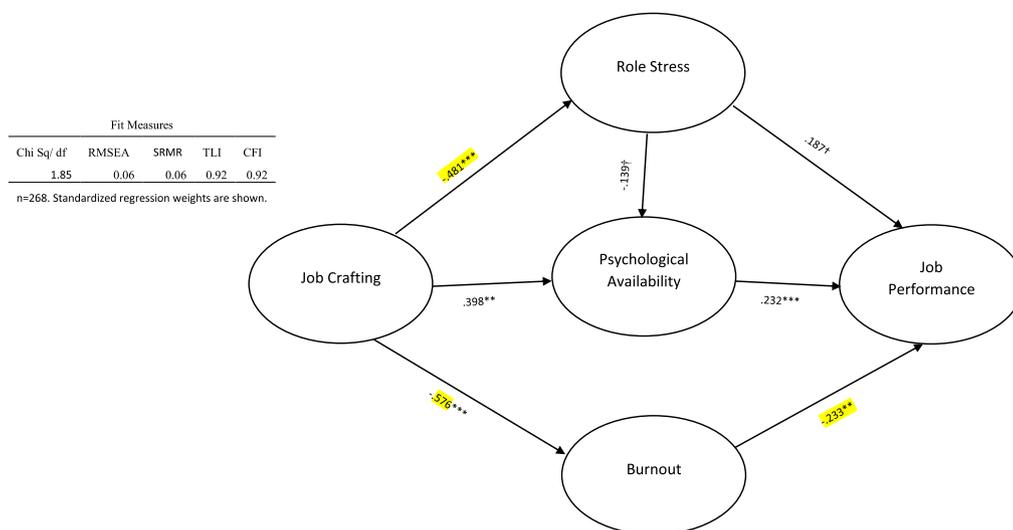


Figure 1 Hypothesised Model. Note: Job crafting and role stress are second order latent variables.

decision making” (Roy et al., 2001: p. 1; Lee, Blackman & Hurst, 2007). While professionals experience various kinds of stress which lead to job dissatisfaction, burnout and turnover (Phelan et al., 1991), there is, however, a dearth of studies that have considered these issues in the context of consulting professionals. To the best of our knowledge there is no evidence yet on the occupational health issues on the group, management consultants. Particularly, we ground our study in the context of IT management consultancy services. This is for three reasons. First, existing literature highlights the significant demands that exist for consultants where long work hours and a frantic work pace (demanded and expected by the management) are often a central part of their daily work life (Merilainen et al., 2004). Recent analyses of the work roles consultants perform have stressed extensive variety of work tasks, the variations in the nature of the expertise employed (varying from esoteric to more technical knowledge), differing boundary relationships with clients - transactional to relationship-based (Kitay & Wright, 2007), as well as diverse client needs and political positions (Alvesson & Johansson, 2002). Second, scholars have indicated that professionals or project-based workers might particularly benefit from crafting their jobs, as these employees

usually have more autonomy and higher career aspirations, and are increasingly subjected to excessive job demands that may require crafting efforts (Parker, 2014). Third, IT services are a growing business domain and also characteristic of high attrition and performance pressures, especially in client facing or advisory roles (Hetland et al., 2007).

This study reports the results of the second phase of a larger study (Singh & Singh, 2016; Singh et al., 2018). In the first phase, we designed a qualitative daily diary study and a series of in-depth interviews to develop a greater contextual understanding of job crafting and to guide further study design (for instance the reason we include psychological availability, stress and burnout in the current research model). The study was undertaken in two organisations (with 1000-2000 employees) operating in the management consultancy sector (specialising in information technology services), and located in the National Capital Region (NCR) of India. We contacted the potential respondents in the organisations through their respective Human Resources (HR) heads, and explained the purpose of our study along with assurances of confidentiality to the volunteering participants regarding exclusive data access rights of the research team. First, participants were provided with the



Job crafting and Role stress are second order latent variables.
 *** p < .001 ** p < .01 * p < .05 † p < .10 two-tailed tests. Chi Sq./df/ normed chi-square, RMSEA root mean square error of approximation, SRMR standardized root mean-square residual, TLI Tucker-Lewis index, CFI comparative fit index.

Figure 2 Structural Model.

questionnaire along with instructions and a return envelope. Next, at a later stage, responses for job performance and psychological availability were taken from peers of respondents (Grandey, 2003). Our choice was guided by the notion that more often than not, supervisors or managers have less opportunity to directly observe the behaviour of employees, while peers or co-workers, sharing a closer relationship with to the employees, are more observant of their behaviours at work (Penny and Spector, 2005).

In the first phase, responses were elicited from employees (consultants) for questions related to job crafting, role stress and burnout. In the next phase, responses for psychological availability and performance were taken from peers of employees (consultants from the first phase). In the first phase, we sent out a total of 500 questionnaires to employees (consultants), and received 297 responses, reaching a response rate of 59.40%. Of these, only 268 responses were usable on account of incomplete questionnaires and data cleaning (we excluded nine cases where the missing values were greater than 5%, and we had to further exclude 21 more cases due to incomplete matched responses between respondent and peer ratings). Consistent with the general distribution of gender within the organisations in context, most of the participants were male (73.64%). The mean age of employees was 29 years (Standard Deviation = 2.9). Of the respondents, 16.79% were graduates, 52.23% were post-graduates, and 30.97% had additional qualifications after post-graduation. The mean total experience and tenure for the respondents in the organisations was 4.34 years (SD = 2.25) and 2.13 years (SD = 0.93) respectively.

Measures

Job crafting was assessed with a 21 item scale developed by Tims, Bakker & Derks (2012), that constitutes the following: increasing structural job resources (e.g. "I try to develop myself professionally"; $\alpha = .93$); increasing social job resources (e.g. "I ask others for feedback on my job performance"; $\alpha = .96$); increasing challenging job demands (e.g. "When an interesting project comes along, I offer myself proactively as project co-worker"; $\alpha = .87$), and decreasing hindering demands (e.g., "Last month, I organised my work such that I did not have to concentrate for too long a period at once"; $\alpha = .94$). All the items were rated on a five point Likert scale ranging from 1= "seldom" to 5= "always". A confirmatory factor analysis (CFA) reveals that the hypothesised correlated four-factor structure fits well with the data ($\chi^2/df = 2.01$, SRMR = .05, RMSEA = .06, TLI = .94, CFI = .94).

Burnout was measured by the work-related burnout dimension of the Copenhagen Burnout Inventory (Kristensen et al., 2005), defined as "The degree of physical and psychological fatigue and exhaustion that is perceived by the person as related to his/her work". It has seven items that were rated on a five point Likert scale. The first three questions were measured ranging from 1= "to a very low degree" to 5= "to a very high degree", an example being, "Is your work emotionally exhausting?"; while, the last four questions ranged from 1= "Always" to 5= "Never", an example being, "Do you feel worn out at the end of the working day?" ($\alpha = .89$). A confirmatory factor analysis reveals that the

hypothesised one-factor structure fits well with the data ($\chi^2/df = 2.16$, SRMR = .04, RMSEA = .05, TLI = .96, CFI = .96).

Role stress constituting role ambiguity, conflict and overload was measured using the Rizzo, House, and Lirtzman instrument (1970). Role ambiguity has five items, e.g. "I do not feel certain about how much authority I have" ($\alpha = .92$); role conflict has six items, e.g. "I have to do things that should be done differently" ($\alpha = .92$), and role overload has four items, e.g. "I just can't find the energy in me to do all the things expected of me" ($\alpha = .85$). All the items were rated on a five point Likert scale ranging from 1 ("not agree at all") to 5 ("very strongly agree"). A confirmatory factor analysis reveals that the hypothesised correlated three-factor structure fits well with the data ($\chi^2/df = 2.41$, SRMR = .06, RMSEA = .07, TLI = .93, CFI = .93).

Psychological availability was assessed using peer ratings with five items developed by May, Gilson & Harter (2004). The respondent's peer responded to items including, "Does he/she display confidence in the ability to display appropriate emotions at work?" ($\alpha = .91$). All the items were rated on a five point Likert scale ranging from 1= "Seldom/Never" to 5= "Always". A confirmatory factor analysis reveals that the hypothesised one-factor structure fits well with the data ($\chi^2/df = 1.36$, SRMR = .05, RMSEA = .06, TLI = .96, CFI = .96).

Job performance was assessed using peer-ratings on a five point Likert type scale, ranging from 1= "needs much improvement" to 5= "excellent", the item for example being, "How would you rate him/her in terms of client satisfaction provided?" The construct was measured with four items developed especially in the context of project-based professionals by Welbourne, Johnson & Erez (1998) ($\alpha = .89$). A confirmatory factor analysis reveals that the hypothesised one-factor structure fits well with the data ($\chi^2/df = 2.39$, SRMR = .05, RMSEA = .07, TLI = .95, CFI = .96). The scores for the scales were obtained by individually adding and dividing each result, with high scores on each scale indicating higher measured concept. All the item loadings for each of the constructs were significant and above the acceptable .70 level. The Cronbach's alpha values were analysed for the final structures of each instrument, with acceptable values of above .75.

Analytical strategy

Structural equation modelling (SEM) was used to deal with multi-item latent variables and mediation paths to test hypotheses. All analyses were conducted in AMOS 20 Basic programme. The covariance matrix was analysed using the maximum likelihood estimation method (Arbuckle, 2005). To test the fit of our model to the data, the traditional chi-square ratio to its degree of freedom (should be < 3) was assessed. However, the critical value of chi-square is sensitive to large sample sizes and easily produces a statistically significant result, and the results were significant across our analysis (Consiglio, Borgogni, Alessandri & Schaufeli, 2013). Hence, as widely recommended, the goodness of fit measures, e.g. the standardised root mean square residual (SRMR); and parsimony adjusted measures, like the root mean square error of approximation (RMSEA) were also assessed (Hoyle, 1995). As a rule of thumb, SRMR and RMSEA < .05 indicates excellent fit, while < .08 indicates a reasonable fit of the model to the data (Browne and Cudeck, 1993). As recommended by Marsh et al. (1996), we

also assessed the base line comparisons using the Tucker-Lewis Index (TLI) and the comparative fit index (CFI). These values should meet the minimum criterion of .90 to suggest a good model fit to the data. For testing mediation, the bootstrap procedure of AMOS was used to obtain 95% non-biased confidence intervals around the parameter estimates using 1000 bootstrap runs. Bootstrapping is considered a powerful resampling method when the variables are not normally distributed (Mackinnon, 2008). The null hypothesis that x has no indirect effect on y via m is rejected when the confidence interval lies above or below zero (Preacher, Rucker & Hayes, 2007).

Results

Descriptive statistics

Table 1 presents the means, standard deviations, and zero-order correlations for the latent variables. Most of the mean values were above the value of 3.00 on the Likert scale. Correlations values between most of the variables had an acceptable magnitude. The correlations between the job crafting dimensions had the expected relations, with all of them being positive and significant. As expected, job crafting was significantly and positively related to psychological availability and performance, indicating higher psychological availability and higher performance among employees crafting their jobs. Also, job crafting significantly and negatively related to role stress and burnout, suggesting lower stress and burnout among job crafters. Similarly, the dimensions of role stress were significantly and positively related. Role stress was positively related to burnout and negatively related to psychological availability. As expected, burnout was also negatively related to job performance. As for the non-significant correlations, the lack of correlation does not disprove possibility of causality, as advocated by Bollen (1989).

Measurement model

We followed the two-step approach given by Anderson and Gerbing (1988): the first step involves examining the convergent and discriminant validity of the measurement model using confirmatory factor analysis, and the second step requires testing of the structural model.

Convergent validity and reliability

Table 1 shows Cronbach's alpha, construct reliability, and average variance extracted (AVE) of the latent variables. All the values are above the desired cut-off of .70 value in case of Cronbach's alpha (ranging between .85 to .96) as well as composite construct reliability (ranging between .86 and .96), and .50 cut-off value in the case of average variance extracted, ranging between .55 to .82 (Fornell & Larcker, 1981). In addition, each indicator's estimated coefficient on its underlying latent factor is significant at $p < .001$ (Anderson & Gerbing, 1988).

Discriminant validity

All squared correlations of first-order latent variables are less than AVE as desired, varying within the difference range of .13 to 1.22 (Fornell & Larcker, 1981). Similarly, the values of maximum shared variance (MSV) and average shared

Table 1 Means, standard deviations, correlations, Cronbach alphas, construct reliabilities and average variances extracted.

First order latent variable	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	Composite construct reliability	Average variance extracted
1. Job resource	4.56	0.92	(.93)										.93	.74
2. Social resource	3.20	0.97	.38***	(.96)									.96	.77
3. Challenge demand	2.91	0.79	.39***	.35***	(.87)								.87	.57
4. Hindering demand	3.95	0.68	.38***	.26***	.30***	(.94)							.94	.66
5. Burnout	3.98	0.70	-.34***	-.40***	-.31***	-.33***	(.89)						.89	.55
6. Psychological availability	3.63	0.90	.30***	.32***	.25***	.17**	-.26***	(.91)					.93	.72
7. Role conflict	3.13	0.94	-.27***	-.23***	-.14†	-.20**	.21**	-.29***	(.92)				.92	.66
8. Role ambiguity	2.89	0.96	-.26***	-.23***	-.39***	-.15*	.28***	-.18**	.57***	(.92)			.92	.71
9. Role overload	3.84	0.91	-.30***	-.25***	-.01	-.20**	.29***	-.19**	.66***	.35***	(.85)		.86	.61
10. Job performance	4.01	0.71	.21***	.18*	.24***	.13†	-.33***	.30***	.10	-.17*	-.09	(.89)	.91	.71

N = 268. Cronbach's α in parentheses.
 1, 2, 3 & 4 are dimensions of job crafting; 7, 8 & 9 are dimensions of role stress
 † $p < .10$
 * $p < .05$
 ** $p < .01$
 *** $p < .001$

variance (ASV) are less than AVE for all the constructs, as required, indicating that the items share more common variance with their respective constructs. Also, factor score weights are high for their own constructs and low for other constructs, clearly establishing the discriminant validities (Singh & Sarkar, 2012).

Common method variance and alternate models

Gathering perceptual data increases the risk of common method bias. To mitigate the effects of such bias, we followed the steps as recommended by Podsakoff, MacKenzie, Lee, and Podsakoff (2003). First, peer ratings were used to measure job performance, thus separating the source of the predictor data from the outcome data. Second, we also conducted Harman's test for common method bias using orthogonal rotation, and found our ten-factor model had better fit (74% variance) with the data compared to the alternative one factor model (23% variance). Third, we tested alternate models by running a two-factor confirmatory analysis (job crafting, and all others as a single factor). The fit indices of the resulting model were not good ($\chi^2/df = 3.15$, RMSEA = .09, SRMR = .12, TLI = .68, CFI = .72), indicating that respondents could differentiate the constructs, thus implying that the results should not be affected by common method variance. We further compared the eleven-factor model to an alternative four-factor model, which included job crafting as a single factor, the three mediator variables (burnout, psychological availability, role stress) as a single factor, and job performance as a separate factor ($\chi^2/df = 2.86$, RMSEA = .08, SRMR = .09, TLI = .81, CFI = .87). The four-factor and one-factor models clearly show a poorer fit to the data with lower values of fit indexes. Overall, the indices for the proposed measurement model indicate acceptable fit ($\chi^2/df = 1.85$, RMSEA = .06, SRMR = .06, TLI = .92, CFI = .92). Therefore, we used the proposed measurement model to examine the theoretical structural model.

Structural model

In the structural model, apart from the hypothesised relationships, we also included all plausible paths in order to account for possible theoretical relationships in view of model completeness. The structural model showed a good fit to the data ($\chi^2/df = 1.85$, SRMR = .06, RMSEA = .06, TLI = .92, CFI = .92), and explained variance of 26% in role stress, 32% in burnout, 23% in psychological availability and 21% in job performance. The estimates of the direct and indirect effects were based on 1000 bootstrap samples with 95% confidence interval (MacKinnon, 2008). The standardised direct effects of job crafting on psychological availability ($\beta = .40$, $p < .01$) is significant and positive (supporting Hypothesis 3a), while on burnout ($\beta = -.58$, $p < .001$) and role stress ($\beta = -.48$, $p < .001$) is significant and negative (supporting Hypothesis 2a, 1a). Furthermore, psychological availability ($\beta = .23$, $p < .001$) related positively with job performance, and burnout ($\beta = -.23$, $p < .01$) related negatively to job performance, while role stress was somewhat weakly related to job performance ($\beta = .187$, $p < .05$). In addition, though weakly significant, results also

reveal a negative relationship between role stress and psychological availability ($\beta = -.139$, $p < .10$) (Figure 2).

We tested the mediating effect of burnout between job crafting and job performance, and found significant results ($\beta = .13$, $p < .01$), with the bias-corrected confidence interval (B-CCI) ranging from $-.28$ to $-.06$ (as confidence interval does not contain 0), thus supporting Hypothesis 2b. Second, the mediating effect of role stress between job crafting and job performance, was comparatively weak ($\beta = .09$, $-.23 \leq B-CCI \leq -.05$, $p < .05$). The results of the third and final bootstrap analysis showed that the mediating effect of psychological availability between job crafting and job performance was also significant ($\beta = .09$, $.03 \leq B-CCI \leq .20$, $p < .01$), thus supporting Hypothesis 3b. The comparative results for mediation significance using the percentile bootstrap method (Fritz, Taylor & MacKinnon, 2012) also revealed similar results.

Discussion

Stress and burnout are increasingly common features of the current work environment and indeed, in some sense, they are emblematic of working life in the 21st century. For instance, knowledge workers, especially professionals in client facing roles, have to balance the demands of many internal and external parties, often with disparate wants and needs. The different goals held by heterogeneous role partners such as the clients, supervisors, managers, company officials and colleagues, can result in perceiving the need to meet multiple and often incompatible goals. Such employees also face issues with work-life balance, project/task allocation, and the impact of having too many responsibilities or too many clients (Albertsen et al., 2010; Benson & Brown, 2007; Hetland et al., 2007; Phelan et al., 1991). However, there is scarce evidence on the occupational health issues of such knowledge work professionals, hence we contextualised our study on understanding the extent of stress and burnout among consulting professionals in the areas of IT management services. Drawing from JD-R and COR theories, the goal of the present study was to understand the proactive coping role of employee job crafting in reducing detrimental or negative outcomes as well as increasing positive outcomes. Hence, the first aim of the study was to highlight the proactive effect of job crafting in reducing role stress and burnout, as well as increasing psychological availability; the second aim was to explain the influence of these inter-relationships on job performance.

Taking cues from the JD-R and COR theories that state resources to be instrumental in combating negative work conditions, we hypothesised that job crafting will reduce role stress and burnout. The perspective of proactive employee behaviours in stress research has been largely unexplored (Crant, 2000; Greenglass & Fiksenbaum, 2009; Schwarzer & Knoll, 2003). The individual resourcefulness of job crafting, wherein employees take initiatives to reduce demands and increase job and social resources, is instrumental in proactively decreasing stress and burnout levels of individuals. Recently, Tims, Bakker & Derks (2015) demonstrated the influence of job crafting at the collegial level, where individual job crafting resulted in increased role conflict and overload for colleagues. In turn, at the personal

level, we show that job crafting decreases role stress for individuals. In addition, though not focussed on in our hypothesised model, results also show that role stress is likely to reduce the psychological availability of individuals, thus reinforcing the importance of fostering proactive initiatives through job crafting in order to control stressful work conditions. Tims, Bakker & Derks (2013) and Petrou, Demerouti & Schaufeli (2015) demonstrate that job crafting significantly decreases exhaustion levels of employees. Our study also shows job crafting to be effective in reducing work related burnout. Thus, besides extending job crafting theory, we add to the stress and proactive behaviour literature by showing that job crafting allows employees to proactively cope with their stress levels, and reinforcing that job crafting reduces burnout, based on evidence from an unexplored occupational and regional context.

Further, by suggesting the proactive coping role of job crafting in not only reducing negative outcomes, but also in increasing positive outcomes, we hypothesised that job crafting will predict psychological availability among individuals. This is in line with the COR theory that explains how resources further lead to accumulation of resources. Hence, the individual resourcefulness of job crafting is likely to result in positive outcomes. Unlike earlier research that has largely emphasised job outcomes (such as job satisfaction, commitment, engagement) (Chen, Yen, Tsai, 2014), we considered the inclusion of psychological conditions or resources as a proximal outcome of job crafting that may further explain the link between job crafting and other work outcomes. Our results indeed suggest more psychologically available employees as a result of undertaking crafting initiatives.

Finally, we hypothesised that role stress, burnout and psychological availability will mediate the relationship between job crafting and job performance. The results confirm mediation effects between job crafting and job performance through burnout and psychological availability. Though the results of role stress in influencing the performance effect of job crafting is not as expected, it should be noted that the influence of role stress on performance has been contradictory and debated in earlier studies (Fay & Sonnentag, 2002; Lindberg, Wincent & Ortqvist, 2013). Indeed, this study contributes by presenting a multiple-mediator model in explaining the relationship between job crafting and job performance through the proactive coping role in reducing burnout and increasing psychological resource. Thus, we contribute to an integrated vision of occupational health that considers the simultaneous positive and negative responses of workers (Nelson & Simmons, 2003). This study also extends the search for explanatory mechanisms between job crafting and performance by examining holistically both positive and negative factors, as suggested in the JD-R and COR theories stressing the role of individual resourcefulness.

Our study also contributes to organisational scholarship by bringing together the stress-burnout literatures with proactive behaviour literature through focussing on job crafting as an effective employee initiated anticipatory or proactive coping mechanism to reduce stress and burnout, along with increasing individual or psychological resources and performance levels. In doing so, this study also provides evidence on the increasingly important, yet under-researched, context of knowledge work professionals in terms of their

increasingly taxing work life and occupational health concerns through a proactive management lens. Additionally, our study also provides support to the global applicability and validity of the concept of job crafting by providing pioneering evidence on an emerging economy South-Asian context, thus relevant from an international employee management perspective.

Limitations and future research

The study is not without limitations. For example, the research design of this study is largely cross-sectional in nature and hence limits our ability to infer causality among examined relationships. However, it should be noted that the outcome variables of job performance and psychological availability were peer rated and that too after the stage of questionnaire completion by the respondents. Hence, the results of this study can be accepted as we took measures to control same source bias in the study design. But future studies will need to adopt a longitudinal or experimental design to confirm causal relationships. Also, the study sample of management consultants may not be representative of the general population as they are white-collar workers with an above-average level of education. However, in view of our focus to understand the occupational health issues of this unexplored group of knowledge professionals, the sample is deemed suitable, and moreover, it offers evidence on a less researched response set, in terms of existing literature on stress, burnout and proactive coping. Nevertheless, future research can examine whether our findings are equally replicable in more diverse samples and work settings. Further, it is possible that there exist more complex relationships among examined variables. Though we tested multiple mediation effects, we did not model potential moderators among examined relationships. For example, Wrzesniewski & Dutton (2001) suggest that perceived opportunities to job craft and job characteristics may influence the examined relationships of job crafting. Hence, future research can explore the boundary conditions of our model, such as exploring the role of extrinsic motivation or incentives in relation to job crafting.

Practical implications

Management consultants are required to undertake a range of activities, roles and responsibilities involving the provision of their expertise to clients, as well as managing themselves and their businesses in a profitable manner (Kitay & Wright, 2007). The demands that knowledge workers or professionals have to face today within and across nations are expected to grow in the future, and call for investigation and understanding of their inner professional world (Kremer & Goldstein, 1990). Job crafting is a means by which individuals customise their jobs and fit them to their own sense of what and how the job should be by optimising their work environment (Wrzesniewski & Dutton, 2001; Tims et al., 2012). Scholars assert that job crafting is both a trait and daily level behaviour, and is characteristic of employees across ranks, jobs and occupations (Berg, Wrzesniewski & Dutton, 2010; Petrou et al., 2012; Wrzesniewski & Dutton, 2001). Since job crafting influences which tasks get completed, how employees

complete them and the interpersonal dynamics of the workplace, it has the potential to greatly impact individual and as well as organisational performance (Wrzesniewski & Dutton, 2001). This is especially true from the view of proactive coping, as employee job crafting is instrumental in decreasing negative outcomes, as well as increasing positive outcomes, which will eventually result in improved job performance and thus, professional wellbeing.

In the light of employees influencing their own job characteristics through proactive efforts of job crafting, this study suggests the importance of focussing on individual perspectives when considering performance outcomes. Employees who attempt to craft through available job demands and resources are more psychologically available at work as well as more efficient in combating stress and burnout. Such personalised proactive coping efforts and individual resourcefulness result in higher performance outcomes for employees. Thus, organisations can train and guide their employees by equipping them with skills and foster information to realise the opportunities to job craft. Job crafting interventions can be developed to facilitate the acquisition of job, social and personal resources, such as through presentations and exercises convened to raise awareness of resources and to highlight opportunities to extend these resources, while also emphasising the benefits to employees (Bakker et al., 2012). Particularly, in the context of knowledge work professionals, coaching and mentoring might serve as the best way to understand their needs and provide them with essential expertise or guidance in managing and crafting their jobs. At the organisational level, managers and leaders should design a work environment which enables employees to be proactive and feel psychologically available or confident to perform and be productive, while efforts aimed at the reduction and prevention of burnout should also be an important concern for managers and organisations.

Conclusions

Given the exponential increase of internal and external pressures on jobs, the relation between such pressures and work outcomes is receiving increased attention of scholars and practitioners. In order to understand these dynamics, a number of factors need to be taken into account such as proactive behaviours at work such as job crafting or the self-initiated work related changes made through balancing job demands and resources. This study suggests that burnout and psychological availability function as critical elements by channelising the performance effect of job crafting, thus supporting the integrated vision of occupational health in considering both positive and negative responses of workers, as well as the importance of individual resourcefulness in an organisational setup. Thus, managers desiring to hire proactive employees capable of coping should consider individuals that craft or have the potential to job craft, while organisations should endeavour to build a work climate that understands and encourages employee job crafting which will make them less stressed and avoid burnout, and thus boost their psychological availability and performance at work. This is important because employee well-being, both personal and professional, does matter for our health, our relationships and our economy.

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