Protean Career Attitudes, Employability and Subjective Career Success: The Mediating Role of Job Crafting

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Abstract: This study examined the mediating role of job crafting behaviors in the relationships between employees' protean career attitudes and career outcomes. The data were collected from 406 employees and their supervisors. The results from this study showed that self-directed career management had a positive relationship with perceived employability through job crafting behaviors. This study also found that job crafting behaviors positively affects employees' perceived employability. These findings clearly showed that employees themselves play a significant role in actively shaping and influencing their work environment and outcomes.

Keywords: Protean career, job crafting, employability, career success

Paper type: Research paper

1. Introduction

Employees are increasingly aware of the importance of managing their own careers and focus on their personal values to guide their career development (Direnzo and Greenhaus, 2011; Fugate, Kinicki, and Ashforth, 2004). It is known as "Protean career", a concept introduced by Hall in 1976. The term came from the metaphor of the Greek god of sea, Proteus. He could change his shape and form as he wishes at any time to avoid enemy. The term protean career incorporates the core values of independence and

evolution (Hall, 2004). This suggest that protean careerists tend to navigate their own career and priorities (Briscoe, Hall, and Frautschy DeMuth, 2006).

Job crafting is viewed as a mechanism for individuals to acquire more resources and to take control over some aspects of their work in order to accomplish personal desirable outcomes or to evade detrimental outcomes in the workplace (Bakker and Demerouti, 2014). By engaging in job crafting activities, employees could anticipate and create changes in the way they perform their work (Grant and Parker, 2009). Despite its potential in helping individuals at work, research in job crafting is still in its infancy stage (Demerouti and Bakker, 2014).

A growing body of literature has also been devoted to the study of employees' job crafting behavior. Previous studies have examined the effects of job crafting behavior on perceived control and readiness to change (Lyons, 2008), work engagement (Bakker, Tims, and Derks, 2012) and performance (Leana, Appelbaum, and Shevchuk, 2009), and organizational commitment (Ghitulescu, 2006). However, little is known about the effects of job crafting on other employee career outcomes, such as employability and subjective career success. To the best of our knowledge, no empirical studies have addressed this gap. Besides, little is known about whether individuals with protean career attitudes are more likely to engage in job crafting behavior. Therefore, this study examines the relationships between the protean career attitudes and employee career outcomes and the mediating role of job crafting behavior.

In summary, this paper extends prior work in three ways. First, we extend the understanding of the protean career attitudes by investigating its relationship with job crafting behavior. Second, this paper sheds light on the potential effects of job crafting behavior on employees' employability and subjective career success. Third, we aim to examine the mediating role of job crafting behavior on the relationships between protean career attitudes, and employees' work outcomes (employability and subjective career success).

2. Literature Review

To investigate the influences of the individual dispositions (i.e., the protean career attitudes) on the job behavior (i.e., job crafting), we make use of the regulatory focus theory (Higgins, 1997). The regulatory focus theory distinguished two different self-regulatory systems: the promotion focus (focusing on aspirations and accomplishments) and the prevention focus (focusing on responsibilities and safety). Higgins (1997) suggests that promotion-focused individuals want to make the most of positive outcomes, and therefore once they accomplished their goals, they will experience the pleasure of achieving success. In contrast, prevention-focused individuals will experience the pleasure of non-loss when negative outcomes are minimised.

Individuals with the protean career mindset are promotion-focused. Their growth and advancement needs inspire them to be their ideal selves (Brockner and Higgins, 2001). They are more open to change and tend to craft their jobs consistent with their ideal selves to fulfill meaningful personal outcomes (Liberman, Idson, Camacho, and Higgins, 1999; Tims and Bakker, 2010). Individuals with a promotion focus also seek positive outcomes and strive for self-defined and autonomous values (Brockner, Higgins, and Low, 2004). As they have desire to grow and develop themselves, it is expected that they will be inclined to engage in job crafting behavior to increase their job resources. The arguments and theoretical logic for the hypotheses are provided in the sections that follow.

A. Protean career attitudes and job crafting behavior

Protean career attitudes are conceptualized based on two dimensions, namely the self-directed career management and the values-driven career orientation (Hall, 2004).

Self-directed career management reflects the extent to which individuals feel they are in charge of their own career (Briscoe et al., 2006). It implies one's pro-activeness in taking actions to pursue their own

career opportunities. Values-driven career orientation describes the degree to which personal values drive the individual's career decisions as opposed to extrinsic values such as money (Hall, 2004). These individuals attempt to make their careers consistent with their own values, rather than the values of the organization (Briscoe et al., 2006). To be values driven, the employee know his or her own needs, motivation, abilities, values, and interests. According to Briscoe and Hall (2006), these personally meaningful values may create the standards for experiencing career success.

Job crafting is a kind of proactive behavior as it involves adjustments which would modify the meaning of one's work and his or her work identity (Berg, Wrzesniewski, and Dutton, 2010). Drawing on the regulatory focus theory (Higgins, 1997, 1998), those individuals are intrinsically motivated, and they seek out challenges by engaging in job crafting behavior. Prior studies (Bakker et al., 2012; Tims, Bakker, and Derks, 2012) found that proactive personality were positively related with both seeking resources and seeking challenges of the job crafting behavior. Given that self-directed individuals are expected to engage in proactive behavior (Seibert, Kraimer, and Crant, 2001), they are more likely to seek job resources and challenges in achieving their desired career outcomes. Therefore, we hypothesize:

H1. Self-directed career management is positively related to (a) seeking resources and (b) seeking challenges of the job crafting behavior.

Protean careerists are also values-driven. They are motivated to navigate their own careers around personal values, motives, and needs (Briscoe et al., 2006). Drawing on the regulatory focus theory (Higgins, 1997, 1998), values-driven individuals are more inclined to fulfill their own dreams and aspirations. As such, they are promotion-focused and are looking for autonomous values. Such individuals are more likely to craft aspects of their jobs (seeking resources and challenges) to be aligned with their ideal self. It is predicted that:

H2. Values-driven career orientation is positively related to (a) seeking resources and (b) seeking challenges of the job crafting behavior.

B. Job crafting behavior and perceived employability

Fried, Grant, Levi, Hadani, and Slowik (2007) suggest that employees are more likely to craft their jobs when they feel that doing so would help them to advance in their careers. By crafting their jobs, employees are preparing themselves for career growth. This is in line with Van der Van der Heijde and Van der Heijden (2005)'s operationalization of employability which takes into account work improvement and career advancement.

Employability means continuously creating work by optimally using one's competencies (Van der Heijde and Van Der Heijden, 2006). Tims et al. (2012) found that job crafting is positively related to colleague-ratings of work engagement, employability, and performance. Therefore, employees who engage in job crafting activities are likely to be perceived as possessing the "occupational expertise" or the "know-how" in the job domain by their supervisors (Van der Heijde and Van Der Heijden, 2006).

By seeking for more job resources and challenging job demands, employees may become more employable. Challenging job demands, according to Crawford, LePine, and Rich (2010), are difficult demands that will contribute to constructive outcomes such as enhanced skills and personal growth. Besides, job resources can reduce the impact of challenging job demands, and could encourage personal growth, learning, and development (Demerouti, Bakker, Nachreiner, and Schaufeli, 2001). Hence, it is

expected that employees who seek challenging job demands and increase their job resources via job crafting activities will be viewed as more employable. Accordingly, the following hypothesis is formulated:

H3. (a) Seeking resources and (b) seeking challenges of the job crafting behavior is positively related to employability.

C. Job crafting behavior and subjective career success

The notion that alterations in job characteristics influence employee career success are not new. For example, Heuvel, Demerouti, and Peeters (2015) found that job crafting intervention improved employees' well-being. Wrzesniewski and Dutton (2001) highlighted that individuals may actively change boundaries of their jobs to create more satisfying work. As job crafting, a form of proactive work behavior, which entails radical job redesign by employees to alter the characteristics of their jobs, it is anticipated that job crafting will lead to higher level of subjective career success.

Furthermore, Seibert et al. (2001) found that individuals who have a proactive disposition tend to accomplish career progression and satisfaction with their careers. Tims, Bakker, and Derks (2013) found that job crafting can increased engagement and job satisfaction, and lessened burnout over time. Job crafting behavior may help employees to enhance their careers. Based on these arguments, we propose that job crafting behavior (i.e. seeking resources and seeking challenges) positively related to subjective career success.

H4. (a) Seeking resources and (b) seeking challenges of the job crafting behavior is positively related to subjective career success.

D. Job crafting behavior as mediator

Several prior studies showed that an individual work orientation (i.e., calling orientation) is related to job crafting behavior (Ko, 2011; Park, 2008; Wrzesniewski and Dutton, 2001), and those behaviors will be perceived as more employable (Tims et al., 2012), we posit that job crafting behavior mediates the relationship between protean career attitudes and employability.

Tims et al. (2012) found that job crafting behavior create better performance because employees are actively shaping their work according to their needs. Hence, we propose that job crafting behavior increase chances for personal development and boost the perceptions of employability. Those who embrace the protean career attitudes will seek resources and challenges in the workplace, and eventually will be able to increase their employability. This leads to the following hypotheses:

H5. Seeking resources mediates the relationship between (a) self-directed career management, (b) values-driven career orientation and employability.

H6. Seeking challenges mediates the relationship between (a) self-directed career management, (b) values-driven career orientation and employability.

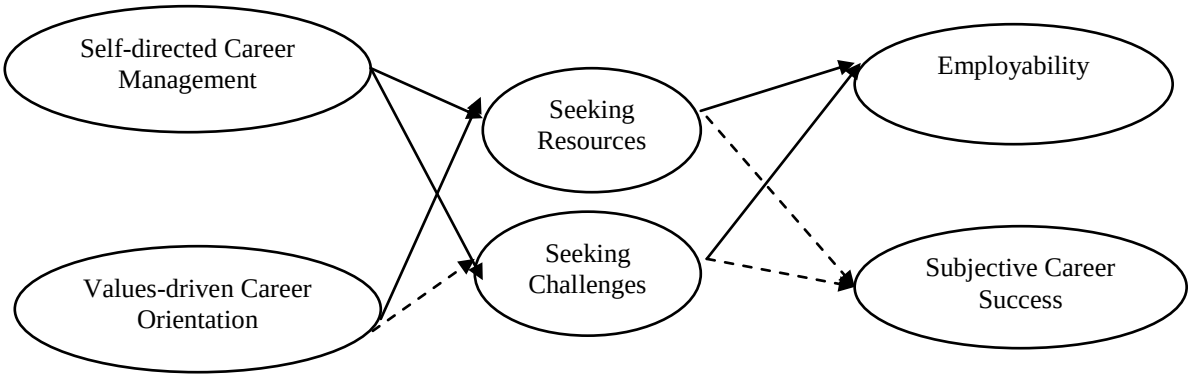
De Vos and Soens (2008) found that protean career attitudes is a predictor of career success and this relationship is mediated by the development of career insight. Thus, in this study, we imply that the protean careerists will seek more resources and challenges at work to accomplish their desired career goals, and eventually achieve success in their careers (Arthur, Khapova, and Wilderom, 2005; Ng, Eby, Sorensen, and Feldman, 2005; Wrzesniewski, McCauley, Rozin, and Schwartz, 1997). Thus, the following hypotheses are formulated:

H7. Seeking resources mediates the relationship between (a) self-directed career management, (b) values-driven career orientation and subjective career success.

H8. Seeking challenges mediates the relationship between (a) self-directed career management, (b) values-driven career orientation and subjective career success.

Figure 1 shows the present research theoretical model.

Figure 1. Theoretical model



3. Research Design

A. Sample

The research was conducted with employees at private organizations in Malaysia as research participants. A total of 550 employees, and 550 supervisor questionnaires were distributed in numerous private organisations located in Kuala Lumpur and Selangor. Of these, 450 sets of employee-supervisor questionnaires were returned. After discarding questionnaires that were incomplete and unusable, a total of 406 matched employee-supervisor questionnaires constituted the final matched sample. The dyadic employee-supervisor data were used to reduce the problem associated with common method variance.

B. Data screening

The data of this study were screened using the SPSS Version 21.0 software for frequency test, errors and missing values. The frequencies of all cases for each item were checked to detect logically inconsistent and out of range data, as well as data with values not defined by the coding scheme. The inconsistent and out of range values in the data file were then replaced with the correct values. The questionnaires with missing data were discarded. Frequency test was then run again to obtain clean data. The test confirmed the data to be in compliance with its true range and the data file was then ready for further statistical analysis. Next, outliers were identified by residual scatter plot. In doing so, standardised values (i.e. Z score) were created for each of the 72 study items. In a scatter plot, the standardized residual of cases (Z score) must be within the range of $-3.3<x<3.3$; In other words, any Z-score values of ± 3.3 and above are considered as outliers (Tabachnick and Fidell, 2007). Outliers are defined as out-of-range values and cases with extreme values must be excluded from analysis as they may alter the statistic results (Hair et al., 2010). Fifteen cases were

identified as outliers and these cases were deleted as the z-scores were above the cut-off point, leaving a remaining 406 usable matched employee-supervisor samples for further analysis.

C. Variable re-specification

The process of transforming data to create new variables or to modify existing data is known as variable re-specification (Malhotra, 2010). This is performed to create variables that are consistent with the objectives of the study, such as to recode a ratio variable into a categorical variable. Eight reverse-coded items and few items of demographic profile variables were transformed. Age of the employees and their supervisors, tenure in the current organisation and position, the employees' years of working experience, and the supervisors' length of time supervising the employee variables were undergone scale transformation, from ration scale to nominal scale.

D. Test for multivariate assumptions

The multivariate assumptions must be fulfilled as any violation will lead to an inaccurate result and wrong prediction of the dependent variable and hypothesised relationships (Hair et al., 2010). As such, 406 usable matched employee-supervisor samples are assessed on the four multivariate assumptions: Normality, Homoscedasticity, Linearity, and Multicollinearity.

E. Measures

Protean career attitudes. Protean career attitudes were measured by Protean Career Attitudes Scale developed by Briscoe et al. (2006). Eight items were used to measure self-directed career management and six items were used to assess the values-driven career orientation. Responses were made on a 5-point scale ranging from 1 (to little or no extent) to 5 (to a great extent).

Job crafting behavior. Seeking resources measure included six items developed by Petrou et al. (2012) while seeking challenges encompassed five items from the Increasing Challenging Job Demands scale developed by Tims et al. (2012). The supervisors were asked to evaluate how often their subordinates engaged in each of the behaviors (1 = never, 2 = seldom, 3 = regularly, 4 = often, 5 = very often).

Employability. Employability was assessed using a 15-item measure adapted from Van der Heijde and Van Der Heijden (2006). Responses were made on a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree).

Subjective career success. Subjective career success was assessed by four items from Greenhaus, Parasuraman, and Wormley (1990). The employees were asked to indicate on a five-point Likert scale to what extent they were satisfied with their career successes, career progress, income, and development progress.

F. Data analysis

The analysis was performed using the IBM SPSS Statistics for Windows, Version 21.0 software. Structural Equation Modeling (SEM) with IBM AMOS 20.0 was used to test the measurement model and structural model.

4. Results

A. Descriptive profile of sample

Frequency analysis was performed on the final 406 matched employee-supervisor questionnaires. Tables 1 and 2 summarise the demographic characteristics of the employees and their supervisors respectively, on gender, ethnicity, age, and academic qualification, tenure in the organisation and position, total years of working experiences as well as their job designation level.

Table 1. Demographic profile of 406 employees

Demographic Variables		Frequency	Percentage (%)
Gender	Male	149	36.7
	Female	257	63.3
Ethnicity	Malay	159	39.2
	Chinese	193	47.5
	Indian	40	9.9
	Others	14	3.4
Age (years)	25 or less	42	10.3
	26 - 30	130	32.0
	31 - 35	93	22.9
	36 - 40	69	17.0
	Over 40	72	17.7
	Primary Education	1	.2
Academic Qualification	Secondary Education	28	6.9
	Certificate / Diploma / College	111	27.3
	Bachelor's degree	156	38.4
	Master's degree	100	24.6
	PhD / Doctorate	10	2.5
	Less than 1 year	50	12.3
Tenure in Organisation	1 - 3 years	172	42.4
	4 - 6 years	87	21.4
	7 - 9 years	30	7.4
	10 years or more	67	16.5
	Less than 1 year	60	14.8
Tenure in Current Position	1 - 3 years	207	51.0
	4 - 6 years	73	18.0
	7 - 9 years	27	6.7
	10 years or more	39	9.6
	Less than 1 year	9	2.2
Total Years of Work Experience	1 - 5 years	149	36.7
	6 - 10 years	113	27.8
	11 - 15 years	48	11.8
	16 - 20 years	51	12.6
	21 years or more	36	8.9
	Top Management	2	.5
Job Designation Level	Middle Management	14	3.4
	First Line Management	81	20.0
	Executive / Senior Executive	242	59.6
	Others	67	16.5

	Retail and Wholesale	18	4.4
Industry Category	Telecommunication / IT	72	17.7
	Construction	11	2.7
	Education / Training	127	31.3
	Real Estate	15	3.7
	Manufacturing	38	9.4
	Banking / Finance / Insurance	55	13.5
	Hospitality and Tourism	29	7.1
	Electricity, Gas and Water	28	6.9
	Others	13	3.2

Table 2. Demographic profile of 97 supervisors

Demographic Variables		Frequency	Percentage (%)
Gender	Male	51	52.6
	Female	46	47.4
Ethnicity	Malay	28	28.9
	Chinese	56	57.7
	Indian	8	8.2
	Others	5	5.2
Age (years)	30 or less	4	4.1
	31 - 35	15	15.5
	36 - 40	26	26.8
	41 - 45	31	32.0
	Over 45	21	21.6
Academic Qualification	Primary Education	1	1.0
	Secondary Education	3	3.1
	Certificate / Diploma / College	19	19.6
	Bachelor's degree	46	47.4
	Master's degree	26	26.8
	PhD / Doctorate	2	2.1
Tenure in Organisation	Less than 1 year	5	5.2
	1 - 3 years	17	17.5
	4 - 6 years	18	18.6
	7 - 9 years	17	17.5
	10 years or more	40	41.2
Tenure in Current Position	Less than 1 year	6	6.2
	1 - 3 years	36	37.1
	4 - 6 years	22	22.7
	7 - 9 years	16	16.5
	10 years or more	17	17.5
Length of Time Supervising this Employee	Less than 1 year	12	12.4
	1 - 3 years	50	51.5
	4 - 6 years	18	18.6
	7 - 9 years	11	11.3
	10 years or more	6	6.2
Job Designation Level	Top Management	9	9.3
	Middle Management	56	57.7

	First Line Management	25	25.8
	Executive / Senior Executive	6	6.2
	Others	1	1.0
Industry Category	Retail and Wholesale	5	5.2
	Telecommunication / IT	18	18.6
	Construction	5	5.2
	Education / Training	11	11.3
	Real Estate	7	7.2
	Manufacturing	11	11.3
	Banking / Finance / Insurance	23	23.7
	Hospitality and Tourism	6	6.2
	Electricity, Gas and Water	7	7.2
	Others	4	4.1

Of the total 406 employees, 36.7% were male and 63.3% were female. Malays, Chinese, and Indians made up 39.2%, 47.5%, and 9.9% of the employees, respectively. Regarding age distribution, the result indicated that most of the employees were young working adults, with the average age of 33.77 years. The majority of the sample of employees belonged to the 26-30 (32.0%) years age group and this is followed by 31-35 years (22.9%) and those above 40 years of age (17.7%). With regard to the respondents' educational level, about 27.3% of them had completed college qualification and the majority of them (38.4%) had obtained bachelor degrees. A substantial number (24.6%) of the respondents had Master's degree qualification and only 6.9% with secondary level education, and 2.5% had Ph.D. or doctorate qualification. As for the tenure in the organisation and current position, a vast majority of the samples (42.4%) had worked for their organisations within one to three years and more than half of them (51%) had been in their current position for one to three years period. Overall, many respondents (36.7%) had between 1 to 5 years of working experience, and 27.8% of the respondents had between 6 to 10 years of experience. In addition, nearly 60% of the samples worked as executives or senior executives. The 406 sample of employees came from diverse industries, in which 31.3% were from education and training, followed by 17.7% from telecommunication or information technology industry. The rest of the employees served for banking, finance or insurance, manufacturing, hospitality and tourism, electricity, gas and water, as well as real estate and construction sectors.

Table 5.3 depicts the demographic profile of the 97 supervisors who participated in the survey. The sample included 51 male (52.6%) and 46 female (47.4%). The majority of them were Chinese (57.7%). Most of them were between the ages of 41 to 45 (32.0%) and had bachelor degrees (47.4%). A considerable number (41.2%) of the supervisors had been working for their organisations for more than ten years, and more than half of them (51.5%) had been supervising the participating employee(s) between 1 to 3 years period. The supervisors were mostly from the middle management level (n = 56; 57.7%), followed by the first line management level (n = 25; 25.8%).

B. Descriptive statistics

Table 3 shows the means, standard deviations, reliabilities and correlations of all study variables. The reliability coefficients of the variables used in this study were between 0.71 and 0.94. As showed in Table 3, all correlations were significant at p = .001, with the exception of values-driven career orientation variable.

To test the factor structure of all measures, Confirmatory Factor Analysis (CFA) using AMOS were performed (Arbuckle, 2006). The CFA results indicated that the model provided a good fit with the data (CMIN/DF = 2.283 < 3, GFI = 0.853, AGFI = 0.830, TLI = 0.908, CFI = 0.916, RMSEA = 0.056), and Hoelter's critical N' for 0.5 and 0.1 level was 196 and 204 respectively. The model did not get a p-value higher than 0.05 (χ^2 = 1244.33, df = 545, p < 0.001). Hoever, this is the usual case to measurement model where the Chi-square value is very sensitive to substantial sample size (Hair, Black, Babin, and Anderson, 2010). The parsimony fit index of PNFI (0.788) was above the 0.5 value suggested by Mulaik et al. (1989). The results indicated that all of the variables were distinct.

Table 3. Means, standard deviations, reliabilities, and correlations for study variables.

	Mean	SD	1	2	3	4	5	6
1. Self-directed Career Management	3.91	0.57	**(0.80)**	.225**	.204**	.146**	.277**	.205**
2. Values-driven Career Orientation	3.34	0.73		**(.71)**	-.012	-.006	.042	.073
3. Seeking Resources	3.25	0.69			**(.90)**	.743**	.540**	.168**
4. Seeking Challenges	3.00	0.82				**(.93)**	.600**	.182**
5. Employability	5.35	0.71					**(.94)**	.185**
6. Subjective Career Success	3.39	0.68						**(.90)**

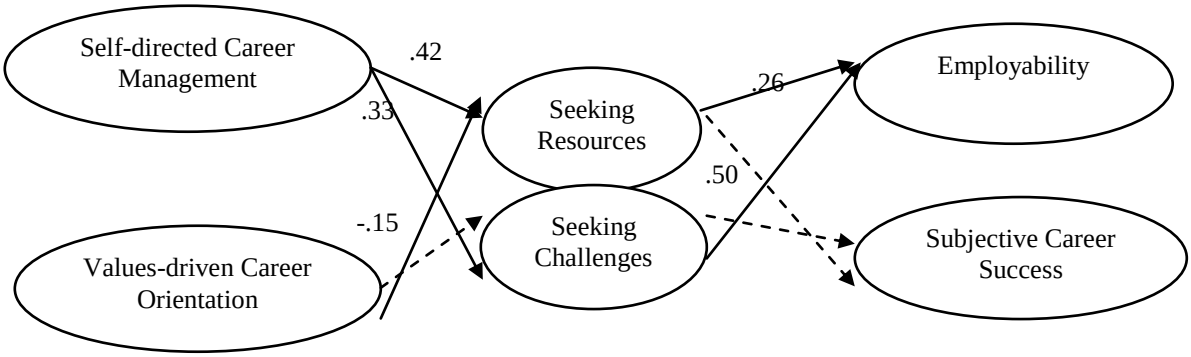
Note. Cronbach's alphas are on the diagonal. (N =406 dyads of employees and supervisors). ** p < .01.

C. Hypothesis Testing

Figure 2 illustrates the path coefficients of the hypothesized model. The model showed a satisfactory fit to the data (χ2 = 1101.30, df = 425, χ2/df = 2.59, GFI = .86, TLI = .89, CFI = .90, RMSEA = .063). As predicted in hypothesis 1a and 2a, self-directed career management had a positive relationship with both job crafting behavior (seeking resources and seeking challenges). However, the values-driven career orientation had a negative relationship with both job crafting behavior. Thus, both hypotheses 2a and 2b were not supported.

Next, as predicted in Hypothesis 3, both seeking resources and seeking challenges had positive relationship with employability. Hence, Hypotheses 3a and 3b were supported. Both seeking resources and seeking challenges had no significant relationships with subjective career success. Thus, hypotheses 4a and 4b were rejected.

Figure 2. Resulting standardized paths of the hypothesized model.



The mediation hypotheses H5 to H8 were analyzed using the PROCESS macro for SPSS (Hayes, 2013). Table 4 depicts the results of direct and indirect effects. The results showed positive indirect paths from self-directed career management to employability through seeking resources (estimate = .095, SE = .046, 95% CI = [.020, .200]) and seeking challenges (estimate = .220, SE = .073, 95% CI = [.093, .376]). Therefore, Hypotheses 5a and 6a were supported.

The indirect effect of self-directed career management to subjective career success through seeking challenges was positive (estimate = .020, SE = .014; CI = [.001, .056]), thus Hypothesis 8a was supported. The direct effect between self-directed career management and subjective career success was positive (estimate = .152, SE = .048, t = 3.197) indicating partial mediation (Zhao, Lynch, and Chen, 2010). These findings lend supports to H5a, H6a, and H8a and suggest that the relationships between self-directed career management and two outcomes variables are mediated by seeking challenges.

Moreover, seeking resources was found to mediate the relationships between self-directed career management and employability. The indirect and direct effect of seeking challenges was significant, suggesting a partial mediation (Zhao et al., 2010). Similarly, both the indirect and direct effect of seeking resources was significant from self-directed career management to subjective career success, indicating partial mediations.

Table 4. Summary of path models

Path	Direct Effects			Indirect Effects			
	Estimate	S.E.	t-value	Estimate	S.E.	CI_L	CI_U
H5a: SDCM → SR → PE	0.470	0.11	4.297***	**0.095**	**0.046**	**0.020**	**0.200**
H5b: VDCO → SR → PE	0.039	0.143	0.273	-0.040	0.032	-0.131	0.003
H6a: SDCM → SC → PE	0.470	0.11	4.297***	**0.220**	**0.073**	**0.093**	**0.376**
H6b: VDCO → SC → PE	0.039	0.143	0.273	-0.031	0.087	-0.197	0.145
H7a: SDCM → SR → SCS	0.152	0.048	3.197**	-0.001	0.017	-0.035	0.034
H7b: VDCO → SR → SCS	0.048	0.062	0.765	0.000	0.009	-0.017	0.02
H8a: SDCM → SC → SCS	0.152	0.048	3.197**	**0.020**	**0.014**	**0.001**	**0.056**
H8b: VDCO → SC → SCS	0.048	0.062	0.765	0.000	0.009	-0.027	0.013

Note. SE = standard error; CIL = lower confidence interval; CIU = upper confidence interval; 5,000 bootstrap samples, **p < .01. ***p < .001. Boldface values represent significant indirect effects. All models include other independent variables as a covariate.

5. Conclusion

This study found that self-directed career management is positively related to job crafting behavior (i.e. seeking resources and seeking challenges). The findings implied that protean self-directed individuals are more likely to craft their jobs. The results of this study affirmed a relatively similar findings by Ko (2011). Ko found that individuals' career orientation is positively related to job crafting behavior. The findings from this study also supported Hall and Heras (2010)'s contention that individuals with a protean career orientation, who are self-directed, are more likely to seek jobs that allow for autonomy so that they can craft their jobs.

Hypothesis 2 was not supported. Perhaps as Berkelaar and Buzzanell (2014) discovered, pursuing own passion and values can undermine proactivity at work. When employees consider their personal values as the primary sources of work identity and make career decisions based on this orientation, they may be less likely to consider alternative roles.

Consistent with prior research, the findings of this study showed that both job crafting behavior were positively related to employability. Therefore, Hypothesis 3a ($\beta = .263$, $p < .001$) and 3b ($\beta = .496$, $p < .001$) were supported. Tims et al. (2012) also established a positive relationship between job crafting behavior and employability.

Hypotheses 5a, 6a, and 8a were supported. This implied that the protean self-directed individuals need to engage in job crafting activities to fulfill the positive work outcomes that they desired. The results supported the mediating role of job crafting behavior. This study helps to explain why certain career attitudes might not be sufficient for employees to realize certain work outcomes. Those who have strong attitudes towards managing their own career will achieve better work outcomes when they are provided with the avenues for job crafting.

Job crafting is a way for employees to improve their work lives and to achieve personally desirable outcomes. Employees can create optimal job designs to achieve better outcomes at work. Employees who crafted their level of job demands and resources were perceived to be more employable and they were more satisfied with their career. Thus, interventions that stimulate employees to craft their optimal level of job characteristics are crucial.

One way to guide interventions at the organizational level is to introduce regular employee surveys (Bakker et al., 2012). These reports could include feedback and suggestions on how employees could achieve meaningful change in the job with the support from the organization.

Furthermore, the results of this study showed that the protean self-directed career attitudes influence employability indirectly through the mediating role of job crafting behavior. These individuals are likely to craft their jobs to accommodate their needs and preferences in order to achieve more positive work outcomes. Organizations can assign these individuals to jobs where they feel they have the autonomy to carry out their work.

Training and counseling can also promote the protean self-directedness (Park and Rothwell, 2009; Verbruggen and Sels, 2008; Waters et al., 2014) and job crafting behavior (Bakker and Demerouti, 2014). Throughout the training programs, employees were encouraged to incorporate job crafting in their daily work, by learning to execute job crafting assignments and action. Organizations can also offer career services such as counseling to help individuals understand themselves better.

This study showed that employee work outcomes can be improved by promoting employee self-

directedness, and also by encouraging job crafting behavior in the workplace. It is important for organizations to recognize the importance of providing resources and challenges to the employees. Organization must encourage, promote and train their employees to craft their jobs in a way that fits them and at the same time in line with the organizational objectives.

References

Arbuckle, J. L. (2006), AMOS (version 7.0) [Computer software], SPSS: Chicago.

Arthur, M.B., Khapova, S.N. and Wilderom, C.P.M. (2005), "Career success in a boundaryless career world", *Journal of Organizational Behavior*, Vol. 26 No. 2, pp. 177-202.

Bakker, A.B. and Demerouti, E. (2014), "Job Demands–Resources Theory", in Chen, P.Y. and Cooper, C.L. (Eds.), Work and Wellbeing: A complete Reference Guide, John Wiley and Sons, New York, NY, pp. 1-28.

Bakker, A.B., Tims, M. and Derks, D. (2012), "Proactive personality and job performance: The role of job crafting and work engagement", *Human Relations*, Vol. 65 No. 10, pp. 1359-1378.

Berg, J.M., Wrzesniewski, A. and Dutton, J. E. (2010), "Perceiving and responding to challenges in job crafting at different ranks: When proactivity requires adaptivity", *Journal of Organizational Behavior*, Vol. 31 No. 2-3, pp. 158-186.

Berkelaar, B.L. and Buzzanell, P.M. (2014), "Bait and switch or double-edged sword? The (sometimes) failed promises of calling", *Human Relations*, Vol. 68 No. 1, pp. 157-178.

Briscoe, J.P. and Hall, D.T. (2006), "The interplay of boundaryless and protean careers: Combinations and implications", *Journal of Vocational Behavior*, Vol. 69 No. 1, pp. 4-18.

Briscoe, J.P., Hall, D.T. and Frautschy DeMuth, R.L. (2006), "Protean and boundaryless careers: An empirical exploration", *Journal of Vocational Behavior*, Vol. 69 No. 1, pp. 30-47.

Brockner, J. and Higgins, E.T. (2001), "Regulatory focus theory: Implications for the study of emotions at work", *Organizational Behavior and Human Decision Processes*, Vol. 86 No. 1, pp. 35-66.

Brockner, J., Higgins, E.T. and Low, M.B. (2004), "Regulatory focus theory and the entrepreneurial process", *Journal of Business Venturing*, Vol. 19 No. 2, pp. 203-220.

Crawford, E.R., LePine, J.A. and Rich, B.L. (2010), "Linking job demands and resources to employee engagement and burnout: A theoretical extension and meta-analytic test", *Journal of Applied Psychology*, Vol. 95 No. 5, pp. 834-848.

De Vos, A. and Soens, N. (2008), "Protean attitude and career success: The mediating role of self-management", *Journal of Vocational Behavior*, Vol. 73 No. 3, pp. 449-456.

Demerouti, E. and Bakker, A.B. (2014), "Job Crafting", in Peeters, M.C.W., De Jonge, J. and Taris T.W. (Eds.), An introduction to contemporary work psychology, Wiley-Blackwell, Chichester, UK, pp. 414-433.

Demerouti, E., Bakker, A.B., Nachreiner, F. and Schaufeli, W.B. (2001), "The job demands-resources model of burnout", *Journal Applied Psychology*, Vol. 86 No. 3, pp. 499-512.

Direnzo, M. S. and Greenhaus, J. H. (2011), "Job Search and Voluntary Turnover in a Boundaryless World: A Control Theory Perspective", *Academy of Management Review*, Vol. 36 No. 3, pp. 567-589.

Eby, L.T., Butts, M. and Lockwood, A. (2003), "Predictors of success in the era of the boundaryless career", *Journal of Organizational Behavior*, Vol. 24 No. 6, pp. 689-708.

Forrier, A., Sels, L. and Stynen, D. (2009), "Career mobility at the intersection between agent and structure: A conceptual model", *Journal of Occupational and Organizational Psychology*, Vol. 82 No. 4, pp.739-759.

Fried, Y., Grant, A.M., Levi, A.S., Hadani, M. and Slowik, L.H. (2007), "Job design in temporal context: a career dynamics perspective", *Journal of Organizational Behavior*, Vol. 28 No. 7, pp. 911-927.

Fugate, M., Kinicki, A.J. and Ashforth, B.E. (2004), "Employability: A psycho-social construct, its dimensions, and applications", *Journal of Vocational Behavior*, Vol. 65 No. 1, pp. 14-38.

Grant, A.M. and Parker, S.K. (2009), "Redesigning Work Design Theories: The Rise of Relational and Proactive Perspectives", *The Academy of Management Annals*, Vol. 3 No. 1, pp. 317-375.

Greenhaus, J.H., Callanan, G.A. and DiRenzo, M. (2008), "A boundaryless perspective on careers", *The SAGE handbook of organizational behavior*, pp. 277-299.

Greenhaus, J.H., Parasuraman, S. and Wormley, W.M. (1990), "Effects of race on organizational experiences, job performance evaluations, and career outcomes", *Academy of Management Journal*, Vol. 33 No. 1, pp. 64-86.

Hair, J., Black, W., Babin, B. and Anderson, R. (2010), Multirative Data Analysis: A Global Perspective, Pearson Prentice Hall, New Jersey.

Hall, D.T. (1996), "Protean Careers of the 21st Century", *The Academy of Management Executive* (1993-2005), Vol. 10 No. 4, pp. 8-16.

Hall, D.T. (2004), "The Protean Career: A Quarter-Century Journey", *Journal of Vocational Behavior*, Vol. 65 No. 1, pp. 1-13.

Hall, D.T. and Heras, M.L. (2010), "Reintegrating job design and career theory: Creating not just good jobs but smart jobs", *Journal of Organizational Behavior*, Vol. 31 No. 2-3, pp. 448-462.

Hayes, A.F. (2013), Introduction to mediation, moderation, and conditional process analysis: A regression-based approach, Guilford Press, New York, NY.

Heuvel, M., Demerouti, E. and Peeters, M.C. (2015), "The job crafting intervention: Effects on job resources, self-efficacy, and affective well-being", *Journal of Occupational and Organizational Psychology*, Vol. 88 No. 3, pp. 511-532.

Higgins, E.T. (1997), "Beyond pleasure and pain", *American Psychologist*, Vol. 52 No. 12, pp. 1280-1300.

Higgins, E.T. (1998), "Promotion and prevention: Regulatory focus as a motivational principle", *Advances in Experimental Social Psychology*, Vol. 30, pp. 1-46.

Ko, I. (2011), "Crafting a job: Creating optimal experiences at work", PhD thesis, The Claremont Graduate University, <http://search.proquest.com/docview/885000577?accountid=28930>.

Leana, C., Appelbaum, E. and Shevchuk, I. (2009), "Work process and quality of care in early childhood education: The role of job crafting", *Academy of Management Journal*, Vol. 52 No. 6, pp. 1169-1192.

Liberman, N., Idson, L.C., Camacho, C.J. and Higgins, E.T. (1999). "Promotion and prevention choices between stability and change", *Journal of Personality and Social Psychology*, Vol. 77 No. 6, pp. 1135-1145.

Lyons, P. (2008), "The Crafting of Jobs and Individual Differences", *Journal of Business and Psychology*, Vol. 23 No. 1-2, pp. 25-36.

Mulaik, S.A., James, L.R., Van Alstine, J., Bennett, N., Lind, S. and Stilwell, C.D. (1989), "Evaluation of goodness-of-fit indices for structural equation models", *Psychological Bulletin*, Vol. 105 No. 3, pp. 430-445.

Ng, T.W., Eby, L.T., Sorensen, K.L. and Feldman, D.C. (2005), "Predictors of objective and subjective career success: A meta-analysis", *Personnel Psychology*, Vol. 58 No. 2, pp. 367-408.

Park, Y. (2008), "The effect of the learning organization, career-enhancing strategy, and work orientation on the protean career: A quantitative study of workplace learning and performance practitioners in a

Korean financial company", PhD thesis, The Pennsylvania State University, <http://search.proquest.com/docview/807447431?accountid=28930>.

Park, Y. and Rothwell, W.J. (2009), "The effects of organizational learning climate, career-enhancing strategy, and work orientation on the protean career", *Human Resource Development International*, Vol. 12 No. 4, pp. 387-405.

Petrou, P. and Bakker, A.B. (2015), "Crafting one's leisure time in response to high job strain", *Human Relations*, Vol. 69 No. 2, pp. 507-529.

Petrou, P., Demerouti, E., Peeters, M.C.W., Schaufeli, W.B. and Hetland, J. (2012), "Crafting a job on a daily basis: Contextual correlates and the link to work engagement", *Journal of Organizational Behavior*, Vol. 33 No. 8, pp. 1120-1141.

Seibert, S.E., Kraimer, M.L. and Crant, J.M. (2001), "What Do Proactive People Do? A Longitudinal Model Linking Proactive Personality and Career Success", *Personnel Psychology*, Vol. 54 No. 4, pp. 845-874.

Tims, M. and Bakker, A.B. (2010), "Job crafting: Towards a new model of individual job redesign", *South African Journal of Industrial Psychology*, Vol. 36, pp. 1-9.

Tims, M., Bakker, A.B. and Derks, D. (2012), "Development and validation of the job crafting scale", *Journal of Vocational Behavior*, Vol. 80 No. 1, pp. 173-186.

Tims, M., Bakker, A.B. and Derks, D. (2013), "The impact of job crafting on job demands, job resources, and well-being", *Journal of Occupational Health Psychology*, Vol. 18 No. 2, pp. 230-240.

Tims, M., Bakker, A.B. and Derks, D. (2015), "Examining Job Crafting from an Interpersonal Perspective: Is Employee Job Crafting Related to the Well-Being of Colleagues?", *Applied Psychology: An International Review*, Vol. 64 No. 4, pp. 727-753.

Van der Heijde, C.M. and Van der Heijden, B.I.J.M. (2005), "The development and psychometric evaluation of a multi-dimensional measurement instrument of employability—and the impact of aging", *International Congress Series*, Vol. 1280, pp. 142-147.

Van der Heijde, C.M. and Van Der Heijden, B.I.J.M. (2006). "A competence-based and multidimensional operationalization and measurement of employability", *Human Resource Management*, Vol. 45 No. 3, pp. 449-476.

Verbruggen, M. and Sels, L. (2008), "Can career self-directedness be improved through counseling?", *Journal of Vocational Behavior*, Vol. 73 No. 2, pp. 318-327.

Waters, L., Briscoe, J.P., Hall, D.T. and Wang, L. (2014), "Protean career attitudes during unemployment and reemployment: A longitudinal perspective", *Journal of Vocational Behavior*, Vol. 84 No. 3, pp. 405-419.

Wrzesniewski, A. and Dutton, J.E. (2001), "Crafting a job: Revisioning employees as active crafters of their work", *The Academy of Management Review*, Vol. 26 No. 2, pp. 179-201.

Wrzesniewski, A., McCauley, C., Rozin, P. and Schwartz, B. (1997), "Jobs, careers, and callings: People's relations to their work", *Journal of Research Personality*, Vol. 31 No. 1, pp. 21-33.

Zhao, X., Lynch, J.G. and Chen, Q. (2010), "Reconsidering Baron and Kenny: Myths and Truths about Mediation Analysis", *Journal of Consumer Research*, Vol. 37 No. 2, pp. 197-206.