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A career success model for academics at Malaysian research universities

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Abstract

Purpose – The purpose of this paper is to develop a career success model for academics at the Malaysian research universities.

Design/methodology/approach – Self-administered and online surveys were used for data collection among 325 academics from Malaysian research universities.

Findings – Based on the analysis of structural equation modeling, the proposed model explained 48 per cent of the variance of academics' career success. Specifically, the result shows that there are positive significant effects between organizational support, extraversion personality, person-job fit and academics' career success. A full mediation effect of proactive behavior was established on the relationship between organizational support and career success. Overall, the results confirmed that the proposed model succinctly explains career success among academics in Malaysian research universities.

Research limitations/implications – The authors present a career success model for academics at Malaysian research universities. The study represents an important extension of previous research of which it tested the applicability of the career success theories and identified the key factors related to career success of academics based on the context of Malaysian research universities. Most current career success studies were conducted in the context of the Western culture or developed countries; therefore, the results based on the Malaysian sample provide strong evidence of cross-cultural comparability of the career success construct and model.

Practical implications – The findings provide implications to both individuals and human resource development practitioners on career success among academics. Practical interventions are suggested to assist individuals and organizations toward achieving career success. This study sheds some light on the effective management of the academics.

Originality/value – The authors propose a model of academics' career success based on the context of Malaysian research universities.

Keywords Proactive behavior, Career success, Career, Extrinsic career success, Intrinsic career success, Research university

Paper type Research paper

Introduction

Career success can be seen as a dynamic and changing concept in explaining a person's actions in striving for self-development, progression and self-fulfillments (Abramo *et al.*, 2014). Career is said to be influenced by culture (Meyer *et al.*, 2010), but the literature has

not fully explained this dynamic (Gloria and Thomas, 2004). It appears that the majority of studies in career success specifically involving research universities have been done in Western contexts. The exploration of the career theory to the Malaysian cultural context has not been widely tested (Abu Said *et al.*, 2015). There are cultural differences between societies in the USA, Asia and Europe (Hazrina, 2010). Specifically, the Malaysian research university cultural environment is framed by ethnic/racial diversity and also characterized by the Western culture which has been a trend for over the past 50 years. The impact of this is due to Malaysian academics who have been exposed to overseas education and who have expressed more liberal values as well as demonstrated a Western-educated outlook (Jasbir *et al.*, 2008). Given this unique context, it is pertinent that we embark on the study of developing academics' career success model based on the Malaysian research universities context.

Research universities in Malaysia
In Malaysia, research universities are differentiated from their non-research counterparts in terms of their focus on research and commercialization activities. The growth of research universities in Malaysia is seen as furthering the nation's aspirations to be a premier educational hub in the region. The primary concerns for Malaysian research universities which have been cascaded to academics as their key performance index are: the quantity and quality of researchers, the quantity and quality of research, the number of postgraduate enrolments, the quality of postgraduate programs, innovation, professional services and networks and links. Research universities also have the priority in terms of the allocation of grants for research from the government, which can be extended to postgraduate students in the form of scholarships, equipment and the financing of research activities. Such devotion to research and ensuing commercialization is hoped to bring in more funds to these universities. Furthermore, a research university must generate 30 per cent of its own financial resources (Ministry of Higher Education Malaysia, 2011).

Malaysian's Higher Education Development Plan (2011-2015) under the Tenth Malaysia Plan has set goals to attain competencies in three key areas, which are as follows:

(1) improvement in graduates' competence;

(2) the increasing number of academic staffs with PhDs; and

(3) the movement and provision of the impetus for research, development and commercialization activities.

In this regard, the Government implements a holistic measure to strengthen the human resource management practice and provides the best teaching and learning infrastructures. They also ensure the high quality of academics which Rampersad and Hussain (2014) advocated as measures for academics' career success.

This study contributes to both theory and practices. It proposes a theoretical model of academics' career success within the context of Malaysian research universities. The academic unique career features and performance appraisal system differ from the traditional career model, which is solely based on hierarchical considerations. The difference laid in the measures of academics' career success which incorporated the research and publication achievements. Subjective career success was also given prime importance due to the changes in the psychological contract between employees and employers. As a result, the

responsibility for career management shifts from universities to individual academics. Academics have to be proactive in managing their career development.

Career success studies have highlighted that proactive behavior is instrumental to individual's career success (Mohd Rasdi *et al.*, 2011). However, most of these findings cannot be generalized to the academics context (Barnett and Bradley, 2007). There are also scant articles that make any attempt to examine how proactive behavior mediates the relationship between organizational support and career success (Hirschi *et al.*, 2013). While one of the objectives of this study is the role that proactive behavior can play in individuals' career success, it is important to also determine the mediating role of the proactive behavior on the path of organizational support and academics career success, particularly given the trend that academics should be involved in career self-management process. This is in line with the emerging trends of the protean career which is dominating the current workforce (Wong and Mohd Rasdi, 2015). Exploring the influence of individual difference variables (personality traits and person-job fit) on career success will result in a clear understanding of these relationships and also help academics in Malaysia research universities design an effective career plan. However, minimal research has explored the effects of the extraversion personality on career success (Bozionelos and Bozionelos, 2010; Ng *et al.*, 2005). There is a gap in the literature because the extraversion personality and person-job fit are found to be important in many other related domains of organizational behavior (Hassan *et al.*, 2012). Few studies have attempted a comprehensive examination of the effects of extraversion personality (Bozionelos and Bozionelos, 2010) and person-job fit (Hassan *et al.*, 2012; Tak, 2011) on career success. Besides, previous empirical researches have paid negligible attention on the mediating hypothesis (Barnett and Bradley, 2007) and merely examined the direct relationship between independent variables (organizational support, extraversion personality, person job fit and proactive behavior) and career success. To fill these gaps, this study intends to examine how proactive behavior develops the link between organizational support and career success at Malaysian research universities. In total, the study aims to develop a career success model for academics at Malaysian research universities.

This paper begins with an introduction on the context of the study, followed by a theoretical explanation of academics' career success and empirical evidences linking the selected variables to career success. The section proceeds with the method of the study followed by results and discussion. The paper ends with the conclusion, implications and suggestions for future research.

Theorizing academics' career success

Over the past years, a number of researchers have examined individual career success, paying particular attention to the individual and organizational factors that have an impact on the construct (Adcroft, 2013; Riordan and Louw-Potgieter, 2011). Subsequently, research has identified another conceptual approach of factors explaining career success (Crant, 2000; Lent and Brown, 2006), i.e. the behavioral approach. Examination of the relevant literature reveals that researcher has explained career success primarily by using few variables in a piecemeal fashion. They did not consider the relative effect of the diverse set of theoretically based variables (Gunz, 2015; Tlaiss, 2015). Moreover, despite the voluminous number of career success studies, very few have discussed the phenomenon of career success within the context of academics in higher learning institutions. This has raised concerns about the impact of environmental and organizational changes, as well as the organic structure on

academics' interpretation of career success, and factors explaining academics' career success in Malaysian research universities.

The advanced Social Cognitive Career Theory (SCCT) (Lent and Brown, 2006) was used to theorize academics' subjective career success. The SCCT posits that the interaction between person and environment form learning experiences can, in turn, influence career interest and actions. Under supportive environmental condition, individual's career interest tends to orient toward performing proactive behavior which leads individuals to career success (Lent *et al.*, 2012). Likewise, an extraversion personality interacts with the environmental variable to explain intrinsic career success. As such, the model sheds light on a direct influence of organizational support on the subjective career success and an indirect influence of organizational support on the intrinsic career success via proactive behavior (Lent and Brown, 2006). Barnett and Bradley (2007) found limited empirical evidences for the mediating effect of proactive behaviors on the relationship between organizational support and career satisfaction. Nevertheless, Lent (2006) suggested that an individual will be more likely to take actions to achieve their career goals and career satisfaction if they received organizational support.

Thus, we propose the following key factors explaining academics' career success at Malaysian research universities: extraversion personality, person-job fit, organizational support and proactive behavior (as the mediating variable).

Conceptualizing academics' career success
The definitions of career success have evolved from the traditional definitions, which are based on individual hierarchical development to the contemporary definitions which incorporated the psychological elements (Tlaiss and Kauser, 2011). Verbruggen (2012) described career success as the result of psychological or work-related and personal and professional achievements in individual's career life. Career success is further explained by involving both dimensions of objective and subjective success (Biemann and Braakmann, 2013) which are also referred to as extrinsic and intrinsic success. Intrinsic career success reflects individuals' judgments about their career attainments including such assessments as the value of their human capital (Stumpf, 2010), their appraisals of their self-worth and capabilities (Restubog *et al.*, 2011) and the satisfaction they experience in their career (Ganiron, 2013). Studies on intrinsic career success also use measures such as career satisfaction (Hofmans *et al.*, 2008; Ng *et al.*, 2005), job satisfaction (DeCastro *et al.*, 2014), advancement satisfaction (Abele and Spurk, 2009) and perceived career success (Turban and Dougherty, 1994), among others.

While extrinsic measures of success are important, they may not be the *only* measures an individual seeks to achieve. As much as individuals define career success based on their assessment of career prospects (Ng *et al.*, 2005), individuals expect a lot more from their careers other than compensation (Dilchert and Ones, 2008), promotion (Restubog *et al.*, 2011) and other objective measures. Individuals also expect to learn new skills, challenge and work–life balance, among others (Gattiker and Larwood, 1988).

Referring to the academic context, researchers have included many indicators of career success such as research productivity and financial reward (Stamm and Buddeberg-Fischer, 2011). Riordan and Louw-Potgieter (2011) measured academics' career success using various indicators such as career satisfaction, research publications in indexed journals, research grants obtained, the number of papers

presented at international seminars, participation in faculty administration and professional contributions to the community. Hence, we conclude that the definition of academics' career success has evolved, and it is developed based on the context of study.

Conceptual framework and research hypotheses

Perceived organizational support and career success

Perceived organizational support refers to individuals' perception of the contribution made by the organization for which they work toward their well-being. While one focus of this study is on the role that organizational support can play in academics' career success, it is important to also consider the role that individuals play in their own career success, particularly given the trend toward more individualistic career management (proactive behavior) in the past few decades (Russo *et al.*, 2014). Exploring the impact that organizational support variables have on career success will result in a more comprehensive understanding of these relationships. The social exchange theory posits that the exchange between employees' contribution to the organization and the tangible reward as well as the socio-emotional comfort they obtain for service are more likely to maintain reciprocal effect (Cropanzano, 2005). The extent to this reciprocal effect will lead to beneficial outcome for both employee and organization. In other words, academics will feel indebted to the organization; to show their gratitude to their organization, they will increase their level of proactive behavior that leads to increased individual career success (Crant, 2000). Few meta-analyses studies have provided empirical evidence supporting the relationship between organizational support and career success (Allen *et al.*, 2005; Ng *et al.*, 2005). Based on ten studies of career success, Allen *et al.* (2005) found a significant positive relationship between organizational support and employees' career success, with the effect size between 0.21 and 12.29. Using 18 relevant studies, Ng *et al.* (2005) revealed a significant effect size (between 0.38 and 0.46) between organizational support (i.e. career sponsorship, supervisor support, training opportunities and development) and career success. In addition, these meta-analyses findings showed that the correlation coefficient is higher for intrinsic career success than for extrinsic career success (Ng *et al.*, 2005). Based on the above, we hypothesize:

H1. The perception of organizational support will have a positive and significant influence on the career success of academics.

Extraversion and career success

Extraversion is also related positively to career performance (Seibert and Kraimer, 2001) and life satisfaction (Leung *et al.*, 2011), an aspect of intrinsic career success. Furthermore, positive affect is a component of extraversion (Watson and Clark, 1997) and indicates a general positive reaction to situations and events. Extraverts are characterized as active, assertive and excitement-seeking, and they are therefore likely to take actions to deal with unsatisfactory career situations, creating a better match between their vocational needs and values and the requirements of the organization (Seibert *et al.*, 1999). Theories of career development have consistently emphasized the importance of this matching process in producing career satisfaction (Smulders and Meijer, 2008). Due to extraverts' general positive reaction to events and their greater tendency to take action to deal with unsatisfactory situations, we expect a positive relation between extraversion and both types of career success. Extraversion is one of

the personality factors proposed by Lent and Brown (2006), Lent *et al.* (2011) and Lent *et al.* (2012) in the advanced model of the SCCT. Boudreau *et al.* (2001) and Sutin *et al.* (2009) found that extraversion is associated with high levels of career satisfaction among employees in Europe. These findings are in agreement with Ng *et al.*'s (2005) findings that extraversion was positively correlated with career satisfaction. In addition, extraversion has a positive relationship with extrinsic career success (i.e. salary and organizational position) (Sulaiman *et al.*, 2012). Similarly, Ng *et al.*'s (2005) meta-analysis study found a significant positive relationship between extraversion and salary and promotions. Based on the above, we postulate the following hypothesis:

H2. Extraversion personality will have a positive and significant influence on career success of academics.

Person-job fit and career success
In this study, we adopted Lauver and Kristof-Brown's (2001) definition of person-job fit as a fit between the abilities of a person and the demands of the job, or between the desires of a person and the attributes of a job. Based on Similarity-Attraction Theory (Billsberry, 2007), person-job fit is an exchange process involving two types of fit: need-supply fit and demand-ability fit. When job requirements include an expectation of achieving certain goals, individuals are likely to experience psychological satisfaction if they meet these requirements, thereby affecting their perception of fit with the job (Hassan *et al.*, 2012). Conversely, if individuals do not achieve the requirements of the job, they perceive that the job is not a good fit for them, and this results in a decreased level of intrinsic career success for those individuals, also affecting their perception of their fit for the job. O'Reilly *et al.* (1991) indicated that an individual's characteristics and job characteristics are consistent. Thus, person-job fit may have a significant influence on career satisfaction and vice versa. When individual's ability and job complexity do not fit, this may affect his/her career performance and career satisfaction and result in thoughts of resignation by the individual (Iplik *et al.*, 2011). Previous studies showed that person-job fit was associated with job-related outcomes (Tak, 2011). Yang *et al.* (2008) also found that individual-environment fit was the most influential determinant of career satisfaction. Similarly, Kong *et al.* (2012) found in their studies that there is a significant positive relationship between person-job fit and career satisfaction. The above discussions conclude that person-job fit has a positive impact on an individual academics' extrinsic and intrinsic career success. Thus, we hypothesize:

H3. person-job fit will have a positive and significant influence on career success of academics.

The mediation effect of proactive behavior
Proactive behavior refers to individuals' ability to take the initiative and responsibility for their actions. Proactive behavior drives individuals to be more inclined toward initiatives, innovation, creativity and ability to influence the work situation and environment, as well as taking up opportunities to further their careers (Abu Said *et al.*, 2015). Individuals with proactive behavior are more likely to be sponsored because proactivity is considered as an indicator of leadership potential (Crant, 2000). In addition, proactive behavior was positively related to individuals' perception of accessibility to resources and information related to work strategies (Hirschi *et al.*, 2013).

The proposed model depicts the proactive career behavior process as a sequence of interrelated acts (e.g. career planning, self-initiative and networking) and phases that occur over time, that are affected by individual career goals and that will be associated with extrinsic and intrinsic career success. The constructs in the model have been chosen based on the process models of the proactive behavior proposed by Crant (2000), Barnett and Bradley (2007) and Grant and Ashford (2008). The first step in the proactive behavior process is anticipation. Anticipation enables people to form a mental representation of the desired impact of behavior on the self or environment and, as such, functions as a navigation and comprehension tool for future goals (Williams, 2010).

Barnett and Bradley (2007) found that proactive behavior plays a significant mediating role between organizational support and career success. Based on these evidences, we conclude that there are multiple interdependent relationships among organizational support, proactive behavior and extrinsic as well as intrinsic career success for academics at research universities. We propose next that:

H4. Proactive behavior mediates the relationship between organizational support and career success of academics.

The relationships between the study variables and academics' extrinsic and intrinsic career success were conceptualized as in Figure 1.

Methods
Research design, sampling and data collection
This quantitative study conducted a survey for data collection. The selection of academics at the five research universities was made through a stratified random sampling procedure which is based on the three ranks of position: Lecturer/Senior Lecturer, Associate Professor and Professor. The five research universities in Malaysia are Universiti Malaya (UM), Universiti Sains Malaysia (USM), Universiti Putra Malaysia (UPM) Universiti Kebangsaan Malaysia (UKM) and Universiti Teknologi Malaysia (UTM). Upon access from the Registrar of each university, questionnaires were distributed using two techniques of data collection, i.e. "drop-and-pick-later" and online survey. Relatively high response rate (84 per cent) was received from both techniques due to follow-up contacts with the human resource officers within each organization.

Respondents
The respondents comprised 325 academics from the five research universities in Malaysia. Their average age was 43 years (SD = 8.0). The sample comprised 170 males (52.3 per cent) and 155 females (47.7 per cent) with 54 (16.6 per cent) from UM, 66 (20.3 per cent) from USM, 80 (24.6 per cent) from UKM, 55 (16.9 per cent) from UPM and 70 (21.5 per cent) from UTM. The breakdown of professors, associate professors, senior lecturers and lecturers are 35 (10.7 per cent), 64 (19.7 per cent), 161 (49.5 per cent) and 65 (20.0 per cent), respectively. On average, these respondents have served as academics for 17.2 years (SD = 8.70).

Instrument
The research instrument was pilot tested before it was distributed to the actual respondents. Appendix 1 shows the psychometric table comprising all constructs in this study. A total of 30 academics consisting of 16 females and 14 males of various academic

Figure 1.
A research
framework for
predicting
academics' career
success
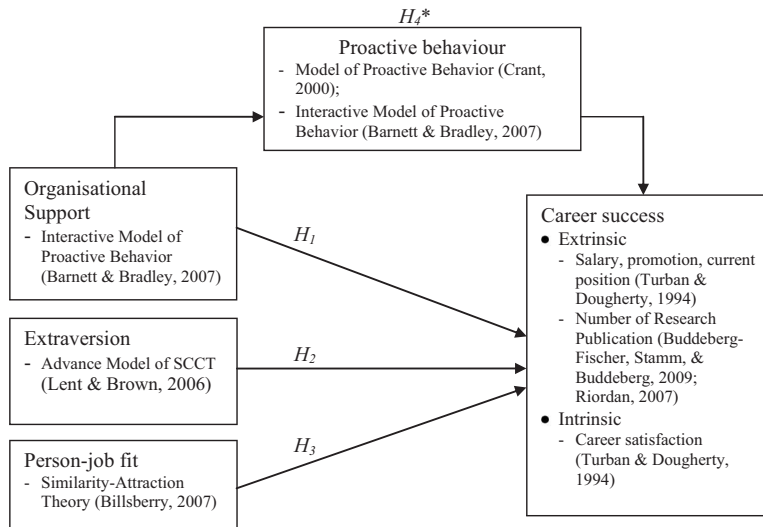
Note: *Mediation effect

positions from lecturer to professor were involved. The results of the pilot test showed that all instruments are valid and achieved acceptable reliability value.

Extrinsic career success. Over the past three decades, extrinsic career success has been measured using objective indicators such as salary, current position and number of promotions (Turban and Dougherty, 1994). Following previous researchers, we took a similar approach in conceptualizing extrinsic career success. In addition, we also included several measures of extrinsic career success such as: current position that was measured on a six-point scale (1 = lecturer; 2 = senior lecturer; 3 = associates professor; 4 = professor grade C; 5 = professor grade B; and 6 = professor grade A); total number of articles published in peer-reviewed and indexed journals in the past three years were measured on a six-point scale (1 = 0 publication; 2 = 1-6 publications; 3 = 7-12 publications; 4 = 13-18 publications; 5 = 19-24 publications; and 6 = more than 25 publications; number of promotions were measured on a six-point scale (1 = never; 2 = one time; 3 = two times; 4 = three times; 5 = four times; 6 = more than four times); and salary grades were measured on a six-point scale (1 = DS45; 2 = DS51/52; 3 = DS53/54; 4 = VK7; and 5 = VK6; 6 = VK5 upwards. These measures are in line with Riordan's (2007) and Buddeberg-Fischer *et al*. (2009) studies of academics' career success that had used the same indicators. The composite reliability for these measures was 0.96.

Intrinsic career success. Intrinsic career success was measured using a four-item scale developed by Turban and Dougherty (1994). The items were measured on a seven-point scale (1 = very dissatisfied to 7 = very satisfied). One sample item is "I am satisfied with the success I have achieved in my career". The composite reliability found in this study was 0.95.

Organizational support. Organizational support was assessed using a four-item scale adapted based on the work of Eisenberger *et al*. (1986). All items were measured using a seven-point Likert-like scale with values ranging from 1 = "strongly disagree" to 7 =

"strongly agree". Organizational support was assessed using a four-item scale adapted based on the work of Johlke *et al.* (2002) which in turn was adapted from the work of Eisenberger *et al.* (1986). The original instrument by Eisenberger *et al.* (1986) has been adapted by Johlke *et al.* (2002), and it was found that the four items have acceptable reliability (0.91) and variance extracted (0.71). The sample item is "The organization really cares about my wellbeing". The composite reliability in this study was 0.95.

Extraversion. Extraversion was measured using a four-item scale adapted based on the work of Goldberg (2001). All items are measured using a five-point Likert scale with values ranging from 1 = "strongly disagree" to 5 = "strongly agree". Sample item is "I feel comfortable around people". The composite reliability in this study was 0.93.

Person-job fit. person-job fit was measured using a three-item scale which was adopted and adapted from Saks and Ashforth (1997). All items were measured using a five-point Likert scale with values ranging from 1 = "very unsuitable" to 5 = "very suitable". The sample item is "To what extent do your knowledge, skills and abilities match the requirements of job?" The composite reliability in this study was 0.94.

Proactive behavior. Proactive behavior was measured using a four-item scale rated on a five-point Likert scale designed by Frese *et al.* (1997). The sample item is "I actively attack problems". The composite reliability for this construct was 0.95.

Data analysis

We tested the proposed research framework using the structural equation modeling (SEM). In this study, a confirmatory factor analysis (CFA) was applied to validate the measurement model, and the structural model was estimated using path analysis (Hair *et al.*, 2010). We used the AMOS 20.0 program as SEM software with the maximum likelihood method of estimation measuring the strength of relationships and model suitability.

Test of the measurement model. For the purpose of achieving the objectives of the study and testing the hypotheses, the full structural model which was the default model in AMOS was first developed. This model was later renamed the full mediation model (Figure 2). The estimates from this model were used to answer the hypotheses that involved causal one-to-one relationships between constructs in the framework. In this study, the fit indices were utilized to assess the overall fit of the measurement model. These indices and their recommended criteria are: χ^2, $p > 0.05$; the ratio of χ^2 to its degree of freedom (χ^2/df) < 3.0; goodness of fit index (GFI) > 0.9; root mean square error of approximation (RMSEA) < 0.08; and incremental fit index (IFI) > 0.9 (Hair *et al.*, 2010). The full mediation model illustrated in Figure 2 is the overall structural model depicting the relationships among all constructs of the study. The result revealed that except for the χ^2 measure, all values satisfied the recommended level of acceptable fit: $\chi^2 = 391.039$ ($p < 0.05$), χ^2/df $= 1.802$, GFI $= 0.907$, RMSEA $= 0.050$, IFI $= 0.970$, AIC $= 509.309$ and PNFI $= 0.801$. However, the χ^2 measure tends to indicate significant differences as the sample size exceeded 200 (Hair *et al.*, 2010).

Overall, the results indicated a good fit for the measurement model and yielded a significantly better fit for the data. None of the items of each latent variable were deleted in the test, as the convergent validity and discriminant validity were achieved in the measurement model.

Convergence validity. To ensure the validity and reliability of the measurement model, convergence validity and discriminant validity were examined. The convergent validity of the items for each construct should be supported by item reliability,

Chi-square (df) = 423.816 (220)
;P value (> = 0.05) = 0.000
;Relative Chi-Sq (< = 5) = 1.926
;GFI (> = 0.9) = 0.902
;AGFI (> = 0.9) = 0.877
;CFI (> = 0.9) = 0.964
;IFI (> = 0.9) = 0.964
;RMSEA (< = 0.08) = 0.053
;RMR (< = 0.08) = 0.162
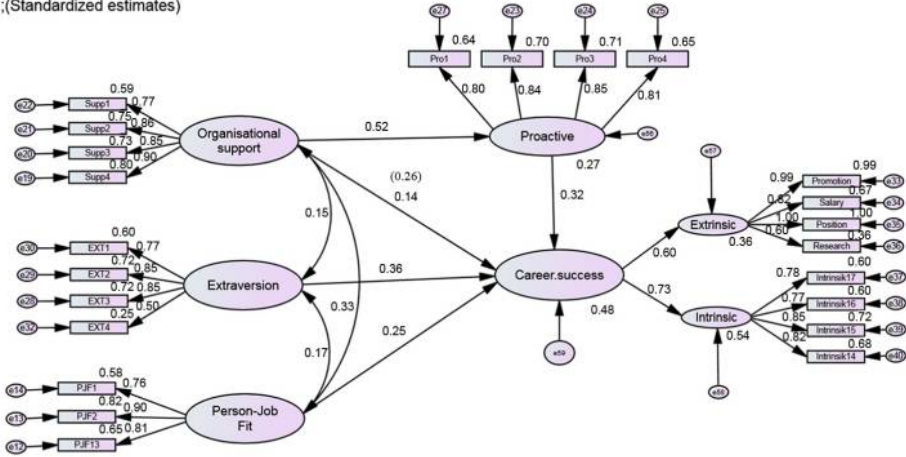;AIC = 535.816
;(Standardized estimates)

Figure 2.
Results of testing the
proposed model
(Mediation Model)

Notes: $\beta > 0.12$ = significant at 0.05; $\beta > 0.20$ = significant at 0.01; ( ) indicates beta value without mediator

composite reliability and the average variance extracted (AVE) (Hair *et al.*, 2010). In this study, the CFA results demonstrated that the loadings of all items were significant ($p <$ 0.01) and were greater than 0.5 (Table I), indicating good item reliability (Hair *et al.*, 2010). Table II demonstrates satisfactory convergent and the discriminant validity of the measures. The AVE for all constructs is more than 0.50. The composite reliability of each construct is above the threshold of 0.7; and the AVE of each construct is above the threshold of 0.5 (Hair *et al.*, 2010). Thus, the above evidence shows satisfactory convergence validity of the constructs examined in the study.

Discriminant validity. Discriminant validity measures the extent to which constructs differ from one another. It is assessed by comparing the square root of a given construct AVE with the correlations between that construct and other constructs (Hair *et al.*, 2010). Table II shows that the estimates for all constructs are strongly correlated with their own measures than with any other constructs. Diagonal elements are the square root of the variance shared between the constructs and their measurement (AVE). Off-diagonal elements are the correlations among constructs. Diagonal elements should be larger than off-diagonal elements to obtain the discriminant validity. The findings revealed a high level of discriminant validity. Having achieved convergent validity and discriminant validity, the constructs in the proposed model are deemed adequate.

Mediation analysis. The test of mediation requires: the independent variable related to the mediating variable; the independent variable related to the dependent variable;

Construct and label	Factor loading (>0.5)	AVE (>0.5)	Composite reliability (>0.7)	Mean	SD
Extrinsic career success		0.87	0.96	–	–
Research	0.60				
Position	1.00				
Promotion	0.99				
Salary	0.82				
Intrinsic career success		0.81	0.95	5.03	1.09
Intrinsic14	0.83				
Intrinsic15	0.85				
Intrinsic16	0.79				
Intrinsic17	0.78				
Extraversion		0.71	0.93	3.70	0.99
EXT1	0.77				
EXT2	0.85				
EXT3	0.85				
EXT4	0.50				
Organizational support		0.83	0.95	4.57	1.22
Supp1	0.75				
Supp2	0.88				
Supp3	0.85				
Supp4	0.85				
Person-job fit		0.80	0.94	3.76	0.64
PJF1	0.77				
PJF2	0.90				
PJF3	0.81				
Proactive behavior		0.79	0.95	5.44	0.88
Pro1	0.80				
Pro2	0.84				
Pro3	0.85				
Pro4	0.80				

Table I. Convergent validity of the measurement model

Constructs	AVE	1	2	3	4	5	6
1. Proactive behavior	0.79	**0.89**					
2. Extraversion	0.71	0.25	**0.84**				
3. Organizational support	0.83	0.51	0.14	**0.91**			
4. Person-job fit	0.80	0.55	0.17	0.31	**0.89**		
5. Extrinsic career success	0.87	0.39	0.36	0.17	0.21	**0.93**	
6. Intrinsic career success	0.81	0.41	0.38	0.38	0.45	0.46	**0.90**

Notes: Bold values are the average variance extracted (AVE) values; AVE = average variance extracted

Table II. Convergent and discriminant validity coefficients

the mediating variable related to the dependent variable; and the relationship between the independent and dependent variable that is non-significant (full mediation) or is reduced (partial mediation) when the effect of the mediator on the dependent variable is statistically controlled (Baron and Kenny, 1986). This study also used the multiple

mediation macro developed by Preacher and Hayes (2008), where coefficients for direct and indirect paths were computed. Following these recommendations, we created 5,000 bootstrap samples using Preacher and Hayes' (2008) multiple mediation macro to test the significance of the indirect effect for mediating variables (proactive behavior and extrinsic career success). Bootstrapping has been described as a reasonable and yet powerful method of confidence estimations for specific indirect effect under most conditions (Preacher and Hayes, 2008). It is a computationally intensive technique that shapes the sampling distribution through numerous re-sampling distributions of statistics (Hu and Nccu, 2010). It produces an estimate that shows the indirect effect, together with the confidence interval and statistical significance for the point estimate (Awang *et al.*, 2015). Specifically, this test was used for testing *H4*.

Results

Test of the structural model

The aforementioned fit indices are also used to measure the fit of the proposed structural model. The results show that except for the χ^2 measure, all values have satisfied the recommended level of acceptable fit: $\chi^2 = 423.816$ ($p < 0.05$), $\chi^2/df = 1.926$, GFI = 0.902, RMSEA = 0.053 and IFI = 0.964. Therefore, the result demonstrates a good overall fit for the proposed structural model. Overall, the model explained 48 per cent of the variance of academics' career success. We conclude that the proposed theoretical model fits the sample data and supports our analysis.

The objective of the study is to develop a career success model for academics at Malaysian research universities. To achieve the objective, we tested the direct and indirect influences of perceived organizational support, extraversion personality, person-job fit and proactive behavior toward academics career success. Figure 2 (constructed in AMOS 20.0 with standardized values) shows the path coefficients of the proposed model. A total of four hypotheses (*H1*, *H2*, *H3* and *H4*)were tested. The first three were tests of direct effects between variables while the fourth was a test of the mediation effect.

H1 tests the direct effect of organizational support on academics' career success. The result (Table III) shows that a positive significant effect was found ($\beta = 0.26$, CR = 3.97 and significance = 0.00) between the relationship. As such, *H1* was accepted. *H2* tests the effect of extraversion personality on academics' career success. For *H2* (extraversion $\rightarrow$ career success), the regression weights of extraversion on academics' career success was found to be significant at level 0.05 ($\beta = 0.33$, CR = 4.94, significance = 0.00). *H3* investigates the direct effect of the person-job fit on academic career success. In the direct model, we found that the person-job fit had a positive significant influence ($\beta = 0.36$, CR = 5.18 and significance = 0.00) with academics' career success.

H4 tests the mediation effect of the proactive behavior on the relationship between organizational support and career success. To test this mediation effect, the

	Independent variables	β	Critical ratio	p
Table III. Standardized direct effect of career success (direct model)	Organizational support	0.26	3.97	0.00
	Extraversion	0.33	4.94	0.00
	Person-job fit	0.36	5.18	0.00

bootstrapping technique was used. The bias corrected interval was used to decide on the significance of the mediation effect. Following the bootstrap procedure at 95 per cent confidence with 5,000 re-sampling requests, the result of the bootstrap test (Table IV) produced a standardized mediation effect of 0.17, a lower bound estimate of 0.04, an upper bound 0.31 and two-tailed significance of 0.01. As p-value (0.01) is less than the level of significance (0.05), the indirect effect of organizational support on career success via proactive behavior was found to be significant. The mediation model is compared with the direct model to uncover whether the beta (β) and significance of the direct path (organizational support → career success) in the direct model would be reduced and become insignificant in the mediation model. The result of this comparison showed that the beta in the mediation model of 0.14 was lower and become insignificant compared to the beta of the direct model of 0.26; thus, a full mediation effect was established (Table IV). Thus, *H4* is supported.

Discussion

We developed and empirically examined a model for academics' career success in Malaysian research universities. The study aimed to contribute to the career literature by unraveling the direct relationship between perceived organizational support, extraversion personality, person-job fit and academics' career success. Evidence was also provided for a model wherein proactive behavior mediates the relationship between perceived organizational support and the two indicators of career success, i.e. extrinsic career success and intrinsic career success. All of our hypotheses which comprised the model were supported.

The study has shown that organizational support has a direct positive influence on academics' career success. This result suggests that the better the respondents perceived their organizational support, the higher the salary, promotion, job position and number of publications. The significant effect of organizational support on career success is also consistent with the assertion made by Barnett and Bradley's (2007) and Onyishi and Ogbodo's (2012) findings that the better the employees perceived their organizational support, the greater they felt about their intrinsic career success.

The extraversion personality exerted a significant direct effect on academics' career success at Malaysian research universities. This result is consistent with Sutin *et al.*'s (2009) study which found that highly extrovert persons are more likely to achieve greater career success than introvert persons. The result of this study was also

Hypothesis direction			β	p	95% CI Boostrap BC LB	UB
Direct model						
Organizational support	→	Career success	0.26	0.00		
Mediation model						
Organizational support	→	Career success	0.14	0.94		
Organizational support → Proactive → Career success			0.17	0.01	0.04	0.31

Notes: BC = bias-corrected; CI = confident interval

Table IV.
Standardized indirect effect of organizational support career success

supported by the findings of Rode *et al*. (2008). Specifically, Lent and Brown (2006) posit that specific personality traits (e.g. extraversion) impact both types of career success. This result is also consistent with previous research (Barnett and Bradley, 2007; Forret and Dougherty, 2004), whereby extraversion was positively related to interpersonal attraction, seeking social support and self-nomination. This means extrovert individuals tend to engage in strategies involving relationships with others such as interpersonal attraction, seeking social support and self-nomination. Individuals with sociable and outgoing characteristics can handle social situations well (Guthrie *et al*., 1998), as they know how to subtly develop good relationships with significant people who are valuable to their career advancement.

Our findings show that person-job fit is an important factor contributing to academics' career success. It could be seen that a match between job scope as well as responsibilities, personal ability and motive contributes toward career satisfaction. The results of this study also revealed that the person-job fit has a greater influence on intrinsic career success than organizational support and extraversion. With regard to individual career development, person-job fit may be achieved when talents meet environmental demands (career path, psychological success and continuous learning). In other words, person-job fit occurs when academics choose careers that utilize their individual knowledge, skills and abilities, resulting to a satisfying career. Thus, person-job fit is an important predictor of academics' career success.

Our investigation also emphasizes the importance of perceived organizational support among academics as a drive for academics' proactive behavior and that proactive behavior is a supportive mechanism for academics' career success. The results support Crant's (2000) theoretical proposition which postulates that organizational support impacts career success via proactive behavior. This results also support the advanced model of SCCT, which suggests that highly proactive individuals are more likely to achieve greater career success than less proactive individuals (Barnett and Bradley, 2007). This was achieved by testing a relationship proposed by the SCCT and the integrated model of proactive behaviors.

Conclusion

Our study offers and validates a framework of career success among academics in Malaysian research universities. We propose a novel view of the relevance of perceived organizational support, extraversion personality and person-job fit toward academics success. Further, we conclude that academics' proactive behavior is a precedence for academics' career success, and their perceived organizational support acts as a drive for academics' proactive behavior. This finding contributes to the literature on academics' career success in the context of Malaysian research universities. Even though the finding can be generalized only for Malaysian research universities, the relevance of proactive behavior toward academics' career success must be considered in similar studies elsewhere.

Implication
Theoretical implications
Our contribution to the literature is threefold: first, we introduce the indicators of academics careers success to the study of careers and manifest its relevance and worth

for this area; second, by integrating three theories of career success into the overarching academics career success framework, we enrich the theoretical lenses for studying careers; and finally, and of both theoretical and practical relevance, we explored the mediating role of proactive behavior which is highly relevant to the academics' career success around the world.

We present a career success model for academics at Malaysian research universities. Most current career success studies were conducted in the context of the Western culture or developed countries; therefore, the results based on the Malaysian sample provide strong evidence of cross-cultural comparability of the career success construct and model. Our results, however, imply that there is no robust evidence that exists for cultural differences in the underlying academics' career success. The differences are matters of individual characteristics and behavior.

Academics' career success dimension and elements depend on many influencing factors, and these factors evolve through time as the nature of career and organizational career changed. These evolutions were noted in the theory of academics' career development. Notwithstanding, perceived organizational support remains to be the strongest explanatory power. The data in this study highlighted some the individual factors to academics' intrinsic career success in Malaysian research universities. The significance of the person-job fit variable to academics' intrinsic career success is due to the emergence of the boundary-less career and increasingly self-directed (proactive behavior) employees. Thus, these current and contemporary factors of academics' extrinsic and intrinsic career success serve to be the interplay between the individual and organizational factors. Academics should equip themselves with the right personalities and characteristic, able to seize most of the opportunities provided by the organizational system and, at the same time, strategize their career development with proactive career-enhancing strategies.

Organizational and managerial implications

This study also sheds some light on the effective management of the academics. In particular, academics' perception about themselves and toward the support received from organizations would trigger a positive self-driven behavior in reaping organizational rewards. Therefore, the administration of research universities could strategize instrumental actions and system which assist academics in implementing their academic roles. Such actions include providing adequate physical facilities (e.g. strengthening the Internet facilities), conducting appropriate training and offering mentoring system, whereby all these would encourage academics to initiate proactive career behavior. In working environments such as the Malaysian research universities where organizations are oppressive and where top managers presiding their organizations to the detriment of the academics and other stakeholders, the need to adopt supportive behavior is critical.

Study limitations and future research

This study suggests some limitations and suggestions for future research. First, the sample of this study is academics from the five research universities in Malaysia. Thus, the generalization of its findings is relevant only in the context of this population. It does not reflect the general situation of academics in Malaysian public universities. Further studies can be done by including all public and private universities for the purpose of

widening the scope of generalizability. Given the large differences in the number of male and female professors at the research universities, this study also proposes on investigating the moderation effect of gender on the relationship between predictor variables and career success. Additionally, this study also suggests on testing the influence of emotional intelligence on academics' career success. Several researchers (Saeedi *et al.*, 2012) believe that there are new elements, such as emotional intelligence, that are necessary for employees to be successful in today's organizations. It is important to understand more fully how elements of emotional intelligence influence academics' career success.

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Appendix 1

Construct and label	Scale
Extrinsic career success	
Total Peer-Reviewed Journal or Indexed Journal published in the past three years	6
Current position	6
Number of promotion	6
Gred of salary	6
Intrinsic career success	
I am satisfied with the success I have achieved in my career	7
Compared with my co-workers, my career progress has been…	7
How does your "significant other" feel about your career success?	7
Given your age, you think that your career is…	7
Extraversion	
I don't mind being the center of attention	5
I feel comfortable around people	5
I start conversations	5
I talk to a lot of different people at parties	5
Organizational support	
My organization cares about my opinions	7
My organization has my interest at heart when making decisions	7
This organization really cares about my well-being.	7
This organization would not ignore complaints from me	7
Person-job fit	
To what extent do your knowledge, skills and abilities match the requirements of the job?	5
To what extent does the job fulfill your needs?	5
To what extent is the job a good match for you?	5
Proactive behavior	
I actively attack problems	7
Whenever something goes wrong, I search for a solution immediately	7
Usually I do more than I am asked to do	7
I take initiative immediately even when others don't	7

Table AI.
Psychometrics table
of all constructs

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