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Faculty Research Intentions: The Influence of Attitudes, Social Norms, Habit and Research Barriers[(1)]

Abstract

Aim of the Paper: The purpose of this study was to examine the influence of a number of individual and institutional factors on faculty members' research intentions.

Study Design: This study adopted the survey method in one specific academic environment, Kuwait University. It built and tested a Theory of Reasoned Action extended model to examine the influence of research barriers, habit, social norms, and attitudes on research intentions.

Sample and Data: A data set was collected from 261 faculty members working in six academic disciplines. A structural equation modeling technique was used to test the research hypotheses.

Results: Attitudes and social norms were the most influential predictors of research intentions, followed by habit, engaging in research-impeding activities, lack of extrinsic motivators, and lack of research resources. Collectively, these antecedents explain 60% of the variances in faculty's research intentions.

Conclusion: This study puts forward empirically based evidence that adds much needed nuance to the current discourse on research intentions and productivity. It also informs policies and strategies that enhance research productivity in academia.

Keywords: theory of reasoned action, research intention, attitude, habit, social norms, research barriers, higher education, Kuwait University.

INTRODUCTION

Higher education institutions expect their faculties to be productive in research, teaching, and service (Edgar and Gear 2013; Fairweather 2002). However, these institutions have lately placed greater emphasis on research productivity (Angaiz 2015;

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Hedjazi and Behravan, 2011; Bland *et al.* 2005). Research productivity has become an important criterion for decisions on recruitment, tenure, and promotion (Hardré *et al.* 2011). In addition, the quality and quantity of research by the faculty is a key factor in the national and international rankings of academic institutions and their accessibility to financial and quality resources (e.g., Nygaard, 2017; Clark and Thompson 2015; Jung, 2012; Hardré *et al.* 2011; Lukman *et al.* 2010; Hazelkorn 2008; Taylor and Braddock 2007; Bland *et al.* 2005). However, the average research productivity of a faculty tends to be low and varies from one discipline to another, from one faculty member to another in the same discipline, and from one institution to another (Khalil 2018; Hosseinpour and Gilavand 2017; Fairweather 2002; Fox 1983).

Knowledge on why some faculties are more productive than others and the factors that influence their research intentions and behaviors is essential to developing effective strategies and policies to improve research productivity. Researchers have sought explanations for the research performance of different faculties by using various demographic, individual, institutional, and leadership factors (e.g., Hardré *et al.* 2011; Bland *et al.* 2005; Fox 1983). Most of the studies use data sets from developed countries to produce their empirical results on research productivity (Teodorescu 2000). Yet, cultural and policy differences challenge the generalizability of these research results across national boundaries (Teodorescu 2000; Hardré *et al.* 2011).

In addition, many of the earlier studies independently examine the factors that influence research performance (Hardré *et al.* 2011; Creswell 1985, p. 42). With the exception of the literature that focuses on motivation (e.g. Williams and Kotrlik 2004), the research productivity literature generally makes little reference to theory (Nygaard 2017). Inclusive and theoretically driven causal research models should therefore be investigated to explain the variance in faculties research intentions and behaviors. Research performance is a social phenomenon that reflects a multiplicity of constructs where the significance of each construct is contingent on the distinct characteristics of the individual faculty member as well as of the workplace (Hardré *et al.* 2011).

This study uses a specific academic environment, Kuwait University (KU), to build and test a theoretically sound model to simultaneously examine the influence of a number of individual and institutional factors on a faculty's research intention. It seeks empirical evidence to answer the fundamental question of what motivates a faculty's research intention. The adapted model extends the Theory of Reasoned Action (TRA), which has been used to effectively explain and predict a wide range of human behavior (Conner *et al.* 2001). It incorporates constructs,

such as attitude, social norms, habit, and research barriers, that the TRA argues influence research intention. As a motivational construct, intention indicates the readiness to perform a given behavior (Ajzen 1985, 2005).

This study adopts the survey method, and 261 responses to the data collection instrument collected from KU faculty members. The data set was analyzed using LISREL, a structural equation modeling technique, to test seventeen hypotheses. Attitudes and social norms emerged as the most influential predictors of research intentions followed by habit, engaging in research-impeding activities, lack of extrinsic motivators, and lack of research resources. As such, this study makes three key contributions. Firstly, it puts forward empirically based evidence that adds much needed nuance to the current discourse on research productivity. Secondly, it augments the understanding of research as a social behavior and informs policies and strategies that will enhance research productivity in academia. Thirdly, since the contribution of Arab-based studies to the research on international higher education is still embryonic, this study is a step forward to bridging this gap.

The rest of the paper is organized accordingly: a theoretical background is introduced next, followed by hypotheses development, analysis and results, discussion of the results, contributions, limitations and future research, and conclusions.

THEORETICAL BACKGROUND

Researchers (e.g., Fox 1983; Bland *et al*. 2002, 2005; Chen *et al*. 2010; Hardré *et al*. 2011; Tafreshi *et al*. 2013) have long sought explanations for the research performance of faculties by using a complex set of correlates or predictors (Angaiz 2015). The extent of these factors may individually or collectively facilitate or impede research performance (e.g., Hardré *et al*. 2011; Hu and Gill 2000; Creswell 1985, p. 36; Fox 1983). These factors, however, were investigated either individually or through simple, theoretically speculative models. In addition, only scant research (e.g., Stanton *et al*. 2009; Standish-Kuon 2000; Milburn 1999) has focused on factors that influence a faculty's attitude and intention as predictors of research behavior. This study is designed to fill this research gap.

Since research behavior is a social phenomenon, research models designed to investigate that behavior could draw on the behavioral theories in social psychology. Among others (e.g. the Theory of Planned Behavior (TPB)), the TRA (Fishbein and Ajzen 1975) reportedly has high merit as a general theory of social behavior, especially in explaining behaviors that are under volitional control (Ajzen 1985, 1991a). The TRA stipulates that attitude and social norms are two

determinants of behavior. Behavior is a function of intention, which is a function of attitude and social norms.

The TRA provides a useful conceptual framework for investigating the complexities of research behavior. Further, a TRA-based model can be extended to incorporate extra factors that can better explain the social phenomenon (i.e., research behavior) under investigation (Ajzen 1991a). This study adapts an extended TRA research model to explore the predictors of a faculty's intention to do research. In addition to the TRA's original constructs, the proposed model includes habit and research barriers as two plausible determinants of research intention.

Intention is a motivational construct that indicates an individuals readiness to perform a given behavior (e.g., research), and the research shows that it is the immediate antecedent of behavior (Ajzen 1985, 2005). The attitude toward a behavior comprises positive or negative appraisals of performing that behavior and the consequences of doing so (Fishbein and Ajzen 1975; Ajzen 1985). Attitude is linked to behavior through its effect on intention. Also, social norms are a function of beliefs about the significance of referents and the motivation to act in accordance with those referents. They are one's perception of the social pressure to either commit or not commit to a behavior such as doing research (Ajzen 1985).

Habit refers to the tendency to repeat responses given a stable supporting context (Aarts and Custers 2009; De Guinea and Markus 2009; Ouellette and Wood 1998). The frequency of past behavior, a standard indicator of a habits strength (Triandis 1980), can affect future behavior directly through automatic repetition of previously established routines or indirectly through conscious intentions to behave (Fishbein and Ajzen, 2011; Verplanken 2006; Ajzen 1991b; Ouellette and Wood 1998). Despite the possible temporal effect of habit on research productivity (Creswell 1985; Finkelstein,1984), studies have not investigated its possible effect on research intention as of yet.

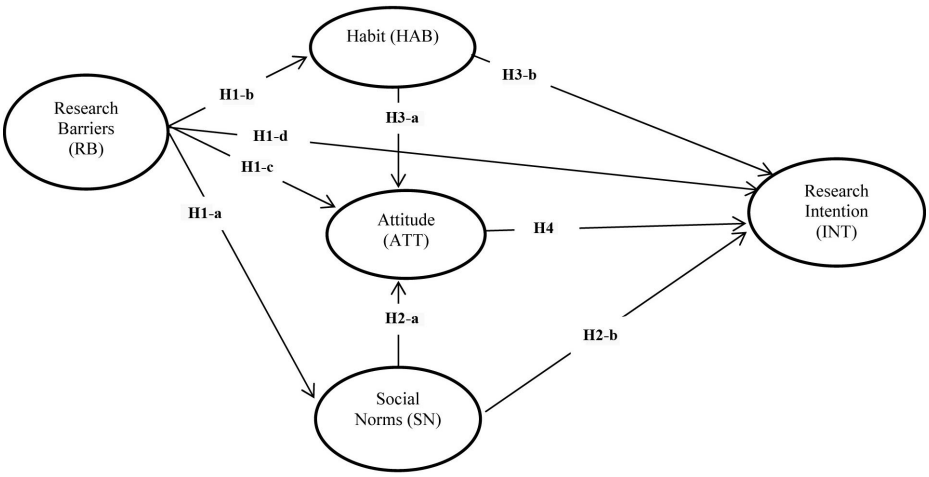
Lastly, the relevant literature has cited several individual and contextual factors as research barriers. These factors could negatively influence research productivity. Yet, the possible influence of contextual factors on the research intention of a faculty is worthier of investigation than the influences of individual factors. Once identified, the contextual factors can be manipulated through the policies and actions aimed at improving research productivity in a higher education institution (Hardré *et al.* 2011). This study identifies and investigates 20 contextual factors that could possibly influence research intention (Appendix A). Eighteen of the factors are selected for investigation because they have frequently been cited in the extant literature as possible barriers to faculty research.

The author added two more factors (barrier 2 "Substantial involvement in committees" and barrier 17 "Rigid rules for dispensing research grants") because of their relevance to the context of this study (i.e., Kuwait University).

HYPOTHESES DEVELOPMENT

A theoretical lens should be adopted in order to guide the research hypotheses development. This study adopts a research model that is grounded in the TRA (Figure 1). Behavioral intention (INT) is the outcome construct in the model since INT is the most important predictor of behavior (Triandis 1980; Ajzen 1991a). In addition, this study focuses on INT to minimize the respondents' reluctance to accurately postulate on their future research behaviors (Schwartzberg *et al*. 1999). The research model proposes that attitude (ATT), social norms (SN), habit (HAB), and research barriers (RBs) directly or indirectly affect a faculty member's INT to do research. The research hypotheses are developed accordingly.

Figure 1
The Research Model



First: The effect of the research barriers (RBs). A faculty member is expected to form an unfavorable ATT toward research when an individual associates research behavior with undesirable consequences (e.g., unfinished research projects, failure to publish in quality outlets, late promotion) because of perceived barriers to performance. Also, the extent of the SN that a faculty member is subjected to from significant others (e.g., colleagues, administrators, friends, and family members)

to perform research depends on the perceived value of research and on his or her assumed research efficacy. RBs are expected to decrease one's research efficacy and make research performance a less desirable behavior, which in turn reduces the influence of SN on ATT and INT.

RBs may also negatively affect HAB (i.e., frequency of past research behavior). HAB might also inform the judgments of perceived control such that a high-frequency behavior is judged to be under one's control (Ouellette and Wood 1998). The lack of requisite skills and the needed resources negatively influence the faculty member's research efficacy (Gutman 2000), and doing research becomes less habitual. These predicted effects of RBs on SN, HAB, ATT, and INT are expressed in the following group of hypotheses:

H1-a: RBs have a negative effect on SN.

H1-b: RBs have a negative effect on HAB.

H1-c: RBs have a negative effect on ATT.

H1-d: RBs have a negative effect on INT.

Second: The effect of social norms (SN). Although the TRA proposes no relation between ATT and SN, a few studies (e.g., Tarkiainen and Sundqvist 2005) find a correlation. The lack of positive SN and ATT could be a primary deterrent of positive research behavior (Milburn 1999). In addition, Standish-Kuon (2000) finds that SN influence the intention to commercialize research outcomes; Wei *et al.* (2015) find that SN influence the intention to conduct team research. However, Clarke (2010) finds no relation between the perceptions of SN regarding the intention to engage and the actual engagement in research. On balance, the SN should affect the ATT toward and INT to research as stated in the following group of hypotheses:

H2-a: SN have a positive effect on the ATT toward research.

H2-b: SN have a positive effect on the INT to research.

Third: The effect of habit (HAB). INT could positively correlate with HAB (Ray and Seo 2013), since an individual is likely to form a favorable INT about a behavior (i.e., research) that he or she had frequently performed in the past (Ouellette and Wood 1998). As such, HAB might combine with other variables (e.g., ATT and SN) that are specified in a logical reasoning model to predict INT (Ajzen 1991a). HAB might also be used to infer a favorable ATT toward a behavior, which in turn influences INT. A few earlier studies (e.g., Okiki 2013; Creswell 1985; Finkelstein 1984) find that faculties that had established scholarly

habits in the past were productive researchers. The predicted effect that HAB could have on ATT and INT are formulated in the following group of hypotheses:

H3-a: HAB has a positive effect on research ATT.

H3-b: HAB has a positive effect on research INT.

Fourth: The effect of attitude (ATT), The more favorable the ATT of a faculty member toward research, the stronger is his or her INT to do research. Stanton *et al.* (2009) find that the ATT toward the usefulness of research is positively related to the effort and its productivity; Milburn (1999) finds a clear dichotomy between positive research ATTs among faculty members and their negative research behaviors; Shim *et al.* (1998) find that the ATT toward research directly influences its productivity; Wei *et al.* (2015) find that the ATT influences the intention to conduct team research. Yet, Clarke (2010) finds no relation between the faculty members' ATT toward the intention to engage and their actual engagement in research. Nonetheless, ATT is predicted to affect INT as stated in the following hypothesis:

H4: A favorable ATT toward research has a positive effect on research INT.

METHODOLOGY

This study uses a survey approach on a single organization (i.e., KU). Brief descriptions of the variables measurement, sampling and data collection, and the sample profile follow.

Measurement:

This study employs measures that have been developed and verified in prior relevant studies. However, the adapted items have been slightly revised to fit this study context. First, INT measures an individuals readiness to perform a behavior (i.e., research). Four items (e.g., I plan to do research in the next six months; I intend to continue to do research in the next six months) that were commonly used to assess INT in earlier studies (Ajzen 2006a) are adapted. Second, a direct (i.e., global attitude) measure of ATT is used to assess the overall evaluation of performing research (Ajzen 2006a). The measure includes five affective and instrumental items (e.g., doing research is pleasant; doing research is the right thing) to measure ATT. Third, SN is the extent that an individual perceives that important people in his or her life endorse the performance of research (Ajzen 1985). Four items (e.g., my colleagues think that I should do research; my supervisors think that I should do research) are used to measure SN.

Fourth, HAB, the frequency of past behavior (Fishbein and Ajzen 2010; Verplanken 2006; Ajzen 2002), is measured as the extent of research occurrences in the last three years by using four performance indicators: the number of funded research projects, peer-reviewed publications, conference presentations, and self-rated productivity compared to colleagues in the discipline. The first two indicators are adapted from Hardré *et al.* (2011), and the third indicator is adapted from Angaiz (2015). The researcher added the fourth indicator to account for the possible variability in research norms across research disciplines. The higher the performance across the indicators, the more habitual the research behavior is. Fifth, this study adapts the twenty research barriers identified in Khalil (2018) and listed in (Appendix A).

All items are rated on a 5-point Likert scale. While the scale ranges from "strongly disagree" (1) to "strongly agree" (5) for INT, ATT, and SN, it ranges from "strongly agree" (1) to "strongly disagree" (5) for the research barriers.

A bilingual (English-Arabic) instrument was developed for data collection. Fifty-one faculty members from different academic disciplines piloted the instrument, and a few minor issues were cited and fixed.

Sampling and data collection:

The research setting is KU, which is the state's only comprehensive public institution of higher education. KU has approximately 1,600 full-time faculty members who serve approximately 36,000 students who are enrolled in 76 undergraduate and 71 graduate programs. It encompasses 17 colleges: Sharia and Islamic Studies, Medicine, Allied Health Sciences, Pharmacy, Life Sciences, Engineering and Petroleum, Architecture, Sciences, Computing Sciences and Engineering, Business Administration, Law, Social Sciences, Arts, Education, Dentistry, Graduate Studies, and Public Health.

Our goal was to get a clustered sample of 400 responses that represent 25% of the full-time faculty population. Paper copies of the data collection instrument were distributed to faculty members in 15 of the 17 KU colleges. Two colleges (the College of Graduate Studies and the College of Public Health) were excluded because they had five or fewer faculty members at the time of data collection. A total of 261 usable responses were collected. This sample is adequate based on Stevens' (1996) recommendation of having 5 to 15 responses per each construct.

Since the responses from some colleges were relatively small, the 15 colleges in the sample were regrouped into six academic disciplines. Table (1) presents the sample distribution by academic discipline.

Sample profile:

The majority (88%) of the respondents were male, 55% were 50 years old or younger, 61% were Kuwaiti nationals, and 36% had more than 20 years of experience in higher education. Also, 42% of the respondents were assistant professors, 31% were associate professors, and 25% were full professors. They reportedly spend 28% of their time on research, 48% on teaching, 13% on committees, and 11% on consulting and training.

ANALYSES AND RESULTS

This study conducted a factor analysis first to reduce the data set to reveal any patterns that might exist, remove redundancy between variables, and to screen the data for further analysis. Although all of the questions in the survey were used in data collection, only those that satisfied the following criteria were used for further analysis: reliability coefficients (Cronbach $\propto$) of at least 0.70, factor loadings of at least 0.60, extracted variances of at least 0.50, and commonalities of at least 0.50 (Hair *et al.* 2010; Nunnally and Bernstein 1994; Bagozzi and Yi 1988).

Table 1
Sample Distribution by Academic Discipline

Research Field	Number of Responses	Percent
Business	61	23.4
Sciences	61	23.4
Liberal Arts (Social Sciences, Life Sciences, and Literature)	42	16.1
Health Sciences (Medicine, Dentistry, Pharmacy, and Allied Health)	33	12.6
Engineering &Technology (Engineering and Petroleum, Computing Science & Engineering, and Architecture)	25	9.6
Humanities (Sharia and Islamic Laws, Law, and Education)	36	13.8
Unknown	3	1.1
Total	**261**	**100%**

Table (2) summarizes the factor analysis results. The overall variance that is explained by the produced factors is 0.73 ($\propto$ = 0.81). ATT comprises three items (variance explained = 0.70, $\propto$ = 0.77), INT includes three items (variance explained = 0.86, $\propto$ = 0.92), SN include three items (variance explained = 0.69, $\propto$ = 0.77), and HAB comprises three items (variance explained = 0.60, $\propto$ = 0.63). In addition, three groups (factors) of RBs emerge that include nine of the original twenty items: (1) research-impeding activities (RIA) consist of three items (variance explained = 0.72, $\propto$ = 0.80), (2) lack of extrinsic motivators (LEM) comprises three items (variance explained = 0.67, $\propto$ = 0.75), and (3) lack of research resources (LRR) includes three items (variance explained = 0.66, $\propto$ = 0.74). The other items were excluded because they either did not load on any of the factors, had low loading coefficients (< 0.60), loaded on multiple factors, or were eliminated to improve scale reliability.

The research hypotheses were revised based on the factor analysis results (Table 2). Since three research barriers (RIA, LEM, and LRR) emerged, hypotheses H1-a, H1-b, H1-c, and H1-d, which predict the effect of RBs on SN, HAB, ATT and INT, respectively, are replaced with 12 new hypotheses.

First: The effect of the research barriers on SN. The extent of the pressure that a faculty member is subjected to from significant others (e.g., colleagues, administrators, friends, and family members) to perform research depends on their perceptions of the faculty member's research efficacy. Engaging in research-impeding activities (e.g., teaching and advising, serving on committees, and taking administrative responsibilities,), lack of extrinsic research motivators (e.g., insufficient travel funds, lack of research influence on job security, and lack of extrinsic rewards), and lack of research resources (e.g., deficient online and offline library sources, inadequate research laboratories and/or equipment, and inadequate opportunities for professional development) are expected to reduce the significant others' expectations and pressure to do research, on the one hand, and decrease the faculty member's inclination to accept that pressure, on the other hand. These predicted effects are framed in the following group of hypotheses:

H1-a1: RIA has a negative effect on SN.

H1-a2: LEM has a negative effect on SN.

H1-a3: LRR has a negative effect on SN.

Second: The effect of the research barriers on HAB. The research barriers of RIA, LEM, and LRR are anticipated to affect HAB (frequency of past research

Table 2
Factor Analysis for Data Reduction

Dimensions	Reliability Coefficient	Explained Variance	Factor Loadings	Mean	St. Dev
Research Attitude (ATT)	76.7%	70%			
AT1 doing research is pleasant			0.826	3.67	0.804
AT2 doing research is the right thing			0.779	3.69	0.812
AT3 doing research is easy			0.762	2.93	1.017
Research Intention (INT)	91.9%	86.41%			
RI1 I plan to do research in the next six months			0.876	3.67	0.789
RI2 I intend to continue to do research in the next six months			0.892	3.65	0.835
RI3 I will make an effort to do research in the next six months			0.806	3.62	0.869
Social Norms (SN)	77.0%	68.58%			
SN1 People who are important to me expect me to do research			0.863	3.10	0.900
SN2 My colleagues think that I should do research			0.845	2.96	0.941
SN4 I feel under social pressure to do research			0.774	3.34	0.806
Habit (HAB)	63.2%	60.08%			
RP1 Number of funded research projects			0.773	1.55	0.730
RP2 Number of peer-reviewed publications			0.765	2.51	1.373
RP3 Number of conference presentations			0.863	1.98	1.121
Research-Impeding Activities (RIA)	80.1%	71.83%			
RB1 Heavy teaching and advisement responsibilities			0.722	3.10	1.005
RB2 Substantial involvement in committees			0.859	2.76	0.981
RB3 Demanding administrative responsibilities			0.859	2.60	1.008
Lack of Extrinsic Motivators (LEM)	74.8%	66.75%			
RB7 Lack of sufficient funding for attending conferences			0.716	2.73	1.063
RB8 Lack of research productivity influence on job security			0.742	2.60	1.107
RB9 Lack of extrinsic rewards for research			0.802	3.22	1.066
Lack of Research Resources (LRR)	73.5%	65.91%			
RB13 Deficient online and offline library sources			0.724	2.53	1.093
RB18 Inadequate research laboratories and/or equipment			0.793	2.80	0.956
RB19 Inadequate opportunities for professional development			0.747	2.83	0.963
Overall	81%	72.668%			

behavior). These barriers could negatively affect the faculty member's research efficacy (Gutman 2000) and his or her perceived control over research behavior (Ouellette and Wood 1998). Subsequently, doing research becomes less habitual. These predicted effects are outlined in the following group of hypotheses:

H1-b1: RIA has a negative effect on HAB.

H1-b2: LEM has a negative effect on HAB.

H1-b3: LRRs has a negative effect on HAB.

Third: The effect of the research barriers on ATT. The attitude toward a behavior like research comprises positive or negative appraisals of performing that behavior and its consequences (Fishbein and Ajzen 1975; Ajzen 1985). The research barriers of RIA, LEM, and LRR may impede a faculty member's research, which in turn causes a decline in his or her favorable ATT toward performing research. As such, an unfavorable ATT toward research is anticipated when a faculty member associates research behavior with undesirable consequences (e.g., unfinished research projects, failure to publish in quality outlets, or late promotion) because of perceived barriers to performance. These predicted effects are delineated in the following group of hypotheses:

H1-c1: RIA has a negative effect on ATT.

H1-c2: LEM has a negative effect on ATT.

H1-c3: LRR has a negative effect on ATT.

Fourth: The effect of the research barriers on INT. The lack of requisite skills and the needed research resources challenge the faculty members' research efficacy (Gutman 2000) and his or her INT and readiness to do research (Ajzen 1985, 2005). The research barriers of RIA, LEM, and LRR are therefore expected to impede research productivity (Hardré *et al.* 2007), and consequently weaken his or her INT to engage in research. These predicted effects are formulated in the following group of hypotheses:

H1-d1: RIA has a negative effect on INT.

H1-d2: LEM has a negative effect on INT.

H1-d3: LRR has a negative effect on INT.

Figure 2 depicts the revised research model.

Figure 2
The Revised Research Model

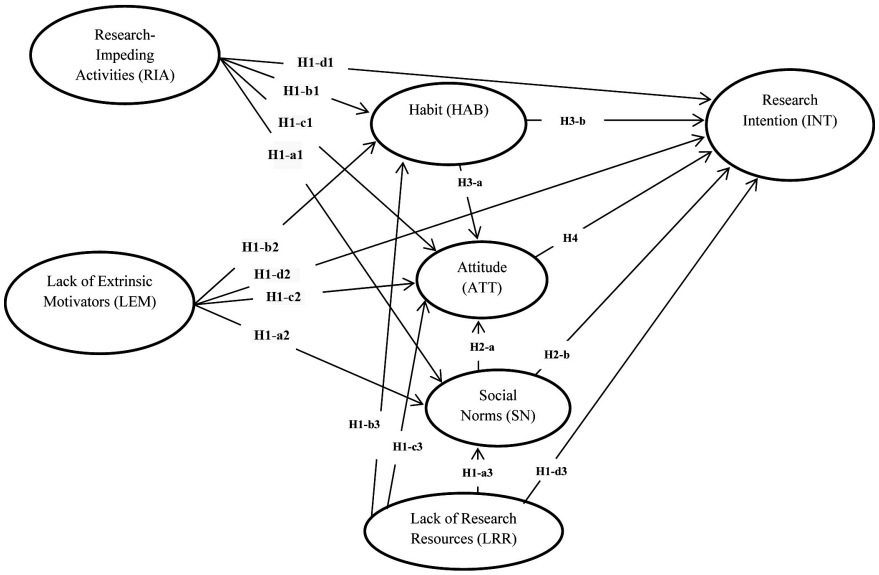


Table (3) presents the statistics for the research variables. Based on the means and the associated p-values, the faculty member's past research performance (HAB) is low (or infrequent), although they are socially pressured to do research, have positive ATT towards research, and intend to do research in the future. Further, the faculty members agree that engagement in RIA, LEM for research, and LRR impede their research performance.

Table 3
Statistics for the Research Variables

The Dependent variables	N	Min	Max	Mean	St. Dev.	P-Value
ATT	252	1.33	5.00	3.4410	0.72814	0.000*
INT	256	1.00	5.00	3.6467	0.77178	0.000*
SN	253	1.00	5.00	3.1219	0.74363	0.010*
HAB	252	1.00	5.23	2.0050	0.84464	0.000*
RIA	258	1.03	5.14	2.8735	0.87078	0.020*
LEM	258	1.00	5.00	2.8563	0.88153	0.009*
LRR	257	1.00	5.00	2.7299	0.81119	0.000*

* The difference from 3 (the midpoint of the scale) is significant at less than 5%.

Fitting the conceptual model:

To test the research hypotheses, LISREL (a structural equation modeling (SEM) procedure) was used to fit the data to the proposed model. Since there is no golden rule for assessing the model fit (Crowley and Fan 1997), several model fit indices were calculated and the results were compared with the recommended values (Table 4).

Table 4
The Model Fit Indices

Indices	Recommended Values	Calculated Values
Standardized Root Mean Residual (SRMR)	0.05 or less	0.066
Goodness-of-Fit Index (GFI)	0.85 or higher	0.84
Adjusted Goodness-of-Fit Index (AGFI)	0.80 or higher	0.79
Normal Fit Index (NFI)	0.90 or higher	0.90
Comparative Fit Index (CFI)	0.90 or higher	0.93

The SRMR, GFI, and AGFI are the most commonly used measures of model fit (Hair *et al.* 2010; Sharma 1996). Although the calculated indices are slightly below the recommended thresholds, they are still valid and substantiate the resulting model (Kline 1998). In addition, NFI (0.90) and CFI (0.93), which are appropriate fit indices (Hardré *et al.* 2011; Tanguma 2001), are in the acceptable range. These results substantiate the final fitted model. This conclusion is further corroborated by the fact that the calculated Chi-square X2/DF(degree of freedom) ration for the fitted model is 2.66, which is less than the recommended 4.00 threshold (Hair *et al.* 2010).

To verify the discriminant validity of the research constructs, the correlations between the latent variables were tested to see whether they are different from a perfect correlation of 1.00 (Bagozzi and Phillips 1991). None of the variables are highly correlated (all the correlations are below 0.70). These results support the discriminant validity of the analyzed data set.

Table (5) provides statistical summary measures for the variables in the model. All composite reliabilities are above the recommended threshold of 0.70, and all values of the extracted variance (the overall amount of explained variations accounted for by a construct) are greater than the recommended threshold of 0.50 (Hair *et al.* 2010).

Table 5
The Constructs Reliabilities and Extracted Variances

Research Variables	Composite Reliability (CR)	Average Variance Extracted (AVE)	R2
ATT	85.21%	66.54%	23%
INT	95.25%	87.01%	60%
SN	83.94%	63.64%	16%
HAB	82.52%	63.64%	16%
RIA	87.48%	63.54%	--
LEM	80.60%	58.67%	--
LRR	79.30%	55.91%	--

Testing the hypotheses:

In the fitted model, INT is the outcome (endogenous) variable; and ATT, HAB, SN, RIA, LEM, and LRR are the exogenous variables. Table (6) shows the causal relations (paths) between the exogenous and endogenous variables, total path coefficients (PCs), standard errors, t-values, and p-values. Appendix B presents the direct and indirect effects. The path coefficients determine the magnitude of the effects that the exogenous variables have on the endogenous variables, and the p-values determine the significance of these effects.

Table 6
Total Path Coefficients and Verification of Research Hypotheses

Effects	Path Coefficient	Standard Error	t-Value	P-Value	Significance*	Hypotheses
RIA → SN	-0.01	0.08	-0.18	0.429	NS	H1-a1
LEM → SN	0.12	0.10	1.18	0.119	NS	H1-a2
LRR → SN	0.31	0.10	3.01	0.001	S	H1-a3
RIA → HAB	0.00	0.02	0.09	0.464	NS	H1-b1
LEM → HAB	-0.34	0.11	-3.16	0.001	S	H1-b2
LRR → HAB	-0.06	0.04	-1.55	0.061	NS	H1-b3
RIA → ATT	0.02	0.04	0.18	0.429	NS	H1-c1
LEM → ATT	0.22	0.10	2.25	0.007	S	H1-c2
LRR → ATT	0.13	0.05	2.60	0.005	S	H1-c3
RIA → INT	0.16	0.08	2.00	0.023	S	H1-d1
LEM → INT	0.20	0.10	2.02	0.017	S	H1-d2

Cont/ Table 6
Total Path Coefficients and Verification of Research Hypotheses

Effects	Path Coefficient	Standard Error	t-Value	P-Value	Significance*	Hypotheses
LRR → INT	0.26	0.10	2.63	0.004	S	H1-d3
SN → ATT	0.44	0.08	5.48	0.000	S	H2-a
SN → INT	0.52	0.08	6.95	0.000	S	H2-b
HAB → ATT	-0.06	0.07	-0.78	0.781	NS	H3-a
HAB → INT	0.10	0.06	1.76	0.040	S	H3-b
ATT → INT	0.53	0.06	8.12	0.000	S	H4

* S means the effect is significant at $\propto$ Less has 5%. NS means the effect is not significant

Nevertheless, it should be noted that the research barriers (RIA, LEM, and LRR) items are rated using a scale ranging from (1) "strongly agree" to (5) "strongly disagree", while the INT, ATT, and SN items are rated using a scale ranging from (1) "strongly disagree" to (5) "strongly agree". As such, the positive coefficients in Table (6) for the paths from RIA, LEM, and LRR to NS, HAB, ATT, and INT indicate negative relationships (or effects).

Hypotheses *H1-a1* through *H1-d3* describe the predicted effects of the research barriers (RIA, LEM, and LRR) on social norms (SN), habit (HAB), attitude (ATT), and intention (INT). *H1-a1* predicts that RIA has a negative effect on SN. The path coefficient is negative (PC = -0.01) and insignificant, a result that supports the rejection of *H1-a1*. *H1-a2* predicts that LEM has a negative effect on SN. The path coefficient is positive (PC = 0.12) but insignificant, a result that supports the rejection of *H1-a2*. *H1-a3* predicts that LRR has a negative effect on SN, and the path coefficient is positive (PC = 0.31) and significant, a result that supports the acceptance of *H1-a3*.

In addition, *H1-b1* predicts that RIA has a negative effect on HAB. The path coefficient is zero (PC = 0.00) and insignificant, a result that supports the rejection of *H1-b1*. *H1-b2* predicts that LEM has a negative effect on HAB. The path coefficient is negative (PC = -0.34) and significant, a result that supports the rejection of *H1-b2*. *H1-b3* predicts that LRR has a negative effect on HAB, and the path coefficient is negative (PC = -0.06) and insignificant. Hence, *H1-b3* is rejected.

Moreover, *H1-c1* predicts that RIA has a negative effect on ATT. The path coefficient is positive (PC = 0.02) and insignificant, a result that supports the rejection of *H1-c1*. *H1-c2* predicts that LEM has a negative effect on ATT. The

path coefficient is positive (PC = 0.22) and significant, a result that supports the acceptance of *H1-c2*. Likewise, *H1-c3* predicts that LRR has a negative effect on ATT. The path coefficient is positive (PC = 0.13) and significant, a result that supports the acceptance of *H1-c3*.

As to the effects of the research barriers on intention (INT), *H1-d1* predicts that RIA has a negative effect on INT. The path coefficient is positive (PC = 0.16) and significant, a result that supports the acceptance of *H1-d1*. Similarly, *H1-d2* predicts that LEM has a negative effect on INT. The path coefficient is positive (PC = 0.20) and significant, a result that supports the acceptance of *H1-d2*. *H1-d3* predicts that LRR has a negative effect on INT. The path coefficient is positive (PC = 0.26) and significant, a result that supports the acceptance of *H1-d3*.

Regarding the effects of social norms (SN), *H2-a* predicts that SN has a positive effect on ATT. The path coefficient is positive (PC = 0.44) and significant, a result that supports the acceptance of *H2-a*. In addition, *H2-b* predicts that SN has a positive effect on the INT. The path coefficient is positive (PC = 0.52) and significant, a result that supports the acceptance of *H2-b*. Furthermore, H3-a and *H3-b* predict that HAB has positive effects on research ATT and INT. The coefficient for the HAB-ATT path is negative (PC = -0.06) and insignificant, a result that supports the rejection of *H3-a*. However, the coefficient for the HAB-INT path is positive (PC = 0.10) and significant, a result that supports the acceptance of *H3-b*. Finally, *H4* predicts that a favorable ATT toward research has a positive effect on INT. The path coefficient is positive (PC = 0.53) and significant, a result that supports the acceptance of *H4*.

To summarize, the hypotheses testing results suggest that (1) RIA (research-impeding activities) have a negative effect on INT and have no effect on SN, HAB, or ATT; (2) LEM (lack of extrinsic motivators) has negative effects on ATT and INT, has a surprisingly positive effect on HAB, and has no effect on SN; (3) LRR (Lack of Research Resources) has negative effects on SN, ATT, and INT, but has no effect on HAB; (4) SN (social norms) have positive effects on ATT and INT; (5) HAB (habit) has a positive effect on INT and has no effect on ATT; and (6) ATT (attitude) has a positive effect on INT. In addition, the fitted model explains 60%, 23%, 16%, and 16% of the variance in INT, ATT, SN, and HAB, respectively (Table 5). These results are discussed next.

DISCUSSION

This study uses a research model that is grounded in the Theory of Reasoned Actions to investigate the effect of attitude (ATT), social norms (SN), habit (HAB),

engagement in research-impeding activities (RIA), lack of extrinsic motivators (LEM), and lack of research resources (LRR) on research intention (INT). The results support the acceptance of 10 of the 17 research hypotheses. The model finds six determinants of INT, including ATT, SN, HAB, RIA, LEM, and LRR. They collectivity explain 60% of the variance in the intention to engage in future research. These results substantiate the explanatory power of the fitted model.

The faculty members have intentions to do research in the future, and they are expected to carry out their research intentions when the opportunity arises. Although their research habits are relatively low, the members hold a favorable ATT toward research, and they are subject to SN to do research. They also believe that engagement in RIA, LEM, and LRR challenge their research behaviors. Among the six determinants of INT, ATT and SN have the strongest effects. As such, both ATT and SN are two important determinants of research intentions.

The faculty members hold favorable research ATT because they believe that doing research is right, joyful, and easy. In addition, their ATT is positively influenced by the SN of significant others and negatively influenced by the two research barriers of LEM and LRR. These three determinants collectively explain 23% of the variance in their ATT. One plausible reason for this variance is that the investigated research barriers (i.e., set of belief statements) were arbitrarily selected, and they might not correlate highly with the adapted standard measure of ATT in this study (Ajzen 1991b; Fishbein and Ajzen 1975).

In addition, SN are a strong predictor of research INT since they have both direct and indirect effects on INT (Appendix B). The faculty members believe that significant others (e.g., university administrators, colleagues, friends, family members) expect them to do research, a social pressure that strengthens their INT to engage in future research. The indirect positive effect of SN on INT is caused by the direct positive effect that SN have on ATT. These normative beliefs help the faculty members to form a positive ATT toward research, which in turn reinforces their INT to do research.

Nevertheless, the LEM (e.g., insufficient travel funds, lack of research influence on job security, and lack of extrinsic rewards) has an indirect negative effect on research INT. This is caused by a direct effect that LEM has on ATT and HAB (Appendix B). The faculty members believe that LEM impedes their research, which in turn causes a decline in their favorable ATT toward research and in their INT. However, LEM, unexpectedly, increases the frequency of the members

HAB, which in turn strengthens their INT to do research. It appears that the faculty members who were scholarly productive in the past were more intrinsically motivated (e.g., engaged in research because of their interest in the activity itself) (Sansone and Harackiewicz 2000) rather than because of any expected extrinsic motivators (e.g., incentives or external pressures).

Likewise, LRR has both direct and indirect negative effects (through SN and ATT) on INT. Poor online and offline library sources, inadequate research laboratories and equipment, and inadequate opportunities for professional development appear to weaken the faculty members' INT to engage in research. Also, holding beliefs that LRR impedes research and negatively affects their ATT toward research, which in turn weakens research INT. Inadequate research resources also decrease the faculty members' research efficacy, which negatively affects their effort and their productivity in research (Hardré *et al.* 2007). Furthermore, LRR decreases the SN pressure on the members to do research, because their significant others (e.g., administrators, colleagues, friends, etc.) may not expect them to be productive in a workplace that lacks research resources. Low social pressure to do research should, in turn, result in a low intention to do research.

Engaging in RIA is also counterproductive and negatively affects research INT. The more heavily members engage in teaching and advising, serve on committees, and take administrative responsibilities, the less they intend to do research. Time, as a limited resource, creates tension between research and other time-consuming faculty activities such as teaching and advising (Chen *et al.* 2006; Hardré *et al.* 2007, 2011; Cadez *et al.*, 2017). The faculty members who carry heavy teaching loads tend to have low INT to do research and consequently become less productive.

Lastly, HAB has a direct, positive effect on INT. When research becomes habitual, the faculty members tend to have strong intentions to continue doing research in the future. However, among the six determinants of INT, HAB is the weakest. One possible reason for this result is that HAB was operationalized and measured as the level of research performance in the last three years. Past behavioral frequency, however, may not capture a few facets (e.g., unintentionality, uncontrollability, lack of awareness, and efficiency) in habit as a mental construct (Ajzen 2002; Bargh and Ferguson 2000; Verplanken 2006; Verplanken and Orbell 2003). In addition, the unique contribution of HAB to the explanation of INT lies in finding a residue of past experience that leads to habitual rather than reasoned responses (Ajzen 2002, 1991b). Therefore, HAB has little value as a determinant of research INT because the other determinants (ATT, SN, RIA, LEM, and LRR) in the fitted

model account for most of the variance explained in research intentions. The contributions of these findings to theory and practice are identified next.

CONTRIBUTIONS

Based on its findings, this study makes three key contributions. First, it puts forward empirically based evidence that adds much needed nuance to the current discourse on research productivity. It is the first of its kind to employ a well-recognized theory of social behavior (i.e., the TRA) to explain a relatively high percentage (60%) of the research intention variance as a function of attitude, social norms, habit, and research barriers. It also provides empirical evidence on the utility of the TRA in explaining a faculty's research intention.

Second, since the contribution of Arab-based studies to the research on international higher education is still embryonic, this study is a step forward to bridging this gap. Besides, the findings of Abouchedid and Abdelnour's (2015) study on research productivity in six Arab universities, this study establishes empirical evidence on faculty research intentions and a number of its determinants in a large, comprehensive Arab university. This study should therefore contribute to the growing international body of knowledge on the scholarly productivity of faculties and the individual and contextual predictors of this productivity.

Third, the findings of this study augments the understanding of research as a social behavior and informs policies and strategies that will enhance research productivity in academia. They should guide the efforts of KU and other similar institutions to improve scholarly productivity. Since individuals act on their beliefs about what they can do and about the likely outcomes of performance (Bandura 1994), actions that aim to strengthen the faculty members' sense of research efficacy should therefore enhance their research performance (Gutman 2000). Members who are highly assured of their capabilities can approach research activities as challenges to be learned from rather than as threats to be avoided. Therefore, KU, like other higher education institutions, has much to gain from eliminating research barriers and boosting research intentions, attitudes, and habits, as well as increasing the social pressure on the faculty to be scholarly productive.

Although the faculty may have strong intentions to engage in research, these intentions only become behaviors if doing research is under volitional control (Ajzen 1985, 1991a). Doing research depends on the availability of requisite

opportunities and resources such as time, money, skills, and the cooperation of others. Institutional support through policies, rewards, and values systems should have a positive influence on the research efficacy of faculty members and on the effort that they invest in performing research. A faculty's research productivity will suffer when working in an atmosphere that is not conducive to performance (Hardré *et al.* 2011).

Policies should be directed toward forming positive research attitudes and mounting social norms that pressure the faculty to be scholarly productive. Research barriers that negatively affect research intentions, attitudes, social norms, and habits should be eliminated or ostracized. Having a faculty heavily engaged in teaching and advising, serving on committees, and undertaking administrative responsibilities is counterproductive. Faculties struggle to prioritize competing institutional expectations, including teaching, research, and service (Murray 2013). There is often tension between the time spent on teaching and advising and the time spent on research. A policy that keeps teaching loads to a minimum when research productivity is expected would stimulate a faculty's research intention and behavior.

Experiencing positive consequences and rewards from encouraged research efforts could help the faculty construct positive attitudes and develop intentions to continue engaging in research. Performance evaluation models that acknowledge and reward different forms of scholarly outcomes should be established and constantly assessed against the evolving mission of the individual higher education institution. The adopted rewards systems (e.g., promotion, tenure, and contract renewal systems) should send out messages consistent with the institutions missions and values. In addition, the perception of a faculty member's own abilities and the perception of the institution's research priorities affect how that faculty member prioritizes and plans his or her research activities. Therefore, it is not only important to have clear institutional research goals but the goals also should be in line with the individual's own goals; otherwise, stress results and attitudes suffer (Williams and Kotrlikm, 2004; Blackburn and Bentley 1993).

Nevertheless, the creation of a supportive research culture in a higher education institution such as KU is not only bound to financial considerations but also to institutional support through policies, rewards, and value systems that influence the research efficacy of the faculty (Bland *et al.* 2005; Creswell 1985, p. 15). The creation of a supportive research culture should start at the top by appointing academic leaders who are exemplary researchers and role models to

influence individual and institutional research behaviors. In such a culture, the scholarly productivity of the faculty could undergo spiral growth, as the social pressure on the faculty to be productive rises, research intentions lead to research behaviors, and afterward, research behaviors become habitual. More experienced researchers tend to better understand their own research process, which not only underscores the importance of learning, but also indicates that habit is a predictor of productivity (Costas *et al.*, 2010).

LIMITATIONS AND FUTURE RESEARCH

The results of this study should be interpreted in light of its limitations. First, research intention is the outcome variable, and individuals generally tend to overestimate their readiness to perform socially desirable behaviors and underestimate their readiness to perform socially undesirable behaviors. It is therefore likely that the informants in this study over-reported their research intentions, which could confound the relations between the investigated variables (Nancarrow *et al.* 2001). Future studies should attempt to reduce the social desirability of respondents by using appeals to be honest, promises of confidentiality, and demonstrable anonymity (Nancarrow *et al.* 2001).

Second, the value of this study lies in identifying a few important predictors of research intentions at a higher education institution. However, intention may not necessarily be followed by any action, nor is it necessarily plausible that such action, if undertaken, will be successful (Ouellette and Wood 1998). Follow-up longitudinal studies are therefore needed to periodically assess and compare faculties' research intentions and behaviors and assess the predictability of these behaviors based on the intentions.

Third, this study focuses predominately on the influence of individual (i.e., habit and attitude) and institutional (i.e., research barriers and social norms) predictors of research intentions. However, research intention and behavior may not be simply functions of observable individual or institutional characteristics (Nygaard 2017; Lillis and Curry 2013; Yigitoglu 2012). Faculty members likely weigh and negotiate competing individual goals and institutional demands and adopt concrete research practices (e.g., decisions about what to produce, where to publish, whether and how to co-author, and what to prioritize). These practices (or intersecting factors) may influence research productivity (Nygaard 2017). Future research models should therefore investigate the influence of not only the

individual and institutional factors but also the influence of their intersecting factors on research intention and productivity.

Fourth, since the results come from one institution, cultural and policy differences could challenge their generalizability to other institutions and cultures (Teodorescu 2000). Other intervening variables might affect the hypothesized relations among the investigated variables. Future replications of this study should consider investigating the possible moderating effects that individual and contextual characteristics (e.g., gender, age, experience, academic rank, employment terms, time spent on research, time spent on teaching) could have on the relation between attitude, social norms, habit, and research barriers and research intention in other cultures and higher education institutions.

CONCLUSIONS

Learning why scholarly productivity varies from one faculty member to another and which factors influence such productivity is essential to developing enhanced research strategies and policies. This study adapts a TRA-based model to investigate the predictors of research intentions at KU. The study identifies six predictors of research intention: attitude toward research, social norms, habit, engagement in research-impeding activities, lack of extrinsic motivators, and lack of research resources. However, attitude and social norms are the most important predictors of research intentions. Collectively, the determinants explain 60% of the variance in the faculty's intentions to do research. This model has considerable explanatory power that lends support to the applicability of the TRA in explaining a faculty's research intention.

Attitude informs faculty members about the "positive" consequences of engaging in research, and social norms inform them about the opinions held by the significant others on whether they should do research. The faculty members intend to do research because they hold favorable attitudes toward research, are socially pressured to do research, and to some degree are in the habit of doing research. However, engagement in research-impeding activities, lack of extrinsic motivators, and the lack of research resources challenge their research efficacy, which in turn weakens research intentions. These results put forward empirically based evidence that adds much needed nuance to the current discourse on research intention and productivity, contribute to the emerging research on international higher education, and inform policies and strategies that enhance research productivity in academia.

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APPENDIX A
Research Barriers

No	Research Barrier	Source
1	Heavy teaching and advising load	Jung 2012; Hardré *et al.* 2007; Hardré *et al.* 2011; Smolentseva 2011
2	Substantial involvement in committees	Added by the researcher
3	Demanding administrative responsibilities	Alghanim and Alhamali 2011
4	Lack of research-supporting culture	Hu and Gill 2000; Hardré *et al.* 2011; Bland *et al.* 2005
5	Faculty's disinterest in joint research	White *et al.* 2012; Hardré *et al.* 2011
6	Difficulty of attaining research grants	Hardré *et al.* 2011; Stafford 2011; Okiki 2013
7	Inadequate funding for conferences	Hardré *et al.* 2007; Bland *et al.* 2005; Serow and Demry 1999
8	No influence of research on job security	Hardré *et al.* 2011; Chen *et al.* 2006
9	Lack of extrinsic rewards	Hardré *et al.* 2011; Smolentseva 2011; Monroe and Kumar 2011
10	Excessive research requirements for promotion	Hardré *et al.* 2011; Hardré *et al.* 2007; Serow and Demry 1999
11	Lack of research assistants	White *et al.* 2012; Hardré *et al.* 2007; Bland *et al.* 2002; Bland *et al.* 2005
12	Lack of research skills development	Bland *et al.* 2005; Bland *et al.* 2002; Al-Hattami and Al-Ahdal 2015
13	Insufficient library sources	Smolentseva 2011; Angaiz2015
14	Lack of graduate students	White *et al.* 2012; Hardré *et al.* 2007; Bland *et al.* 2002; Bland *et al.* 2005
15	Lack of after promotion motives	Hardré *et al.* 2011; Hu and Gill 2000
16	Lack of networking opportunities	Hardré *et al.* 2011; Bland *et al.* 2002, 2005; Stafford 2011; Hedjazi and Behravan 2011; Angaiz 2015
17	Rigid rules for dispensing research grants	Added by the researcher
18	Lack of research laboratories & equipment	Hedjazi and Behravan 2011; Bland *et al.* 2002; Bland *et al.* 2005; Hardré *et al.* 2007
19	Lack of professional development	Hardré *et al.* 2007; Serow and Demry 1999; Bland *et al.* 2005
20	Heavy family commitments	Sax *et al.* 2002; Hardré *et al.* 2011

(Source: Khalil (2018))

APPENDIX B
Path Analysis: The Direct and Indirect Effects

Effects	Path Coefficient	Standard Error	t-Value	P-Value	Significance*
Direct Effect					
RIA → SN	-0.01	0.08	-0.18	0.429	NS
LEM → SN	0.12	0.10	1.18	0.119	NS
LRR → SN	0.31	0.10	3.01	0.001	S
RIA → HAB	0.05	0.08	0.55	0.291	NS
LEM → HAB	-0.32	0.11	-2.97	0.002	S
LRR → HAB	0.01	0.11	0.05	0.480	NS
RIA → ATT	0.03	0.07	0.33	0.371	NS
LEM → ATT	0.17	0.10	1.85	0.032	S
LRR → ATT	-0.12	0.10	-1.24	0.107	NS
RIA → INT	0.15	0.06	2.47	0.007	S
LEM → INT	0.08	0.08	0.98	0.164	NS
LRR → INT	0.16	0.08	2.04	0.021	S
SN → INT	0.31	0.07	4.42	0.000	S
SN → ATT	0.44	0.08	5.48	0.000	S
HAB → ATT	-0.06	0.07	-0.78	0.782	NS
HAB → INT	0.10	0.06	1.76	0.039	S
ATT → INT	0.53	0.06	8.24	0.000	S
Indirect Effect					
RIA → ATT	-0.01	0.04	-0.18	0.429	NS
RIA → INT	0.01	0.06	0.17	0.433	NS
LEM → ATT	0.05	0.04	1.17	0.121	NS
LEM → INT	0.12	0.07	1.67	0.047	S
LRR → ATT	0.13	0.05	2.60	0.005	S
LRR → INT	0.10	0.07	1.35	0.089	NS
SN → INT	0.21	0.05	4.25	0.000	S
HAB → INT	-0.03	0.04	-0.78	0.782	NS

تأثير التوجه السلوكي والعرف الاجتماعي والتعود البحثي والمعوقات البحثية في النوايا البحثية لأعضاء الهيئة التدريسية

عمر خليل

جامعة الكويت

هدف الدراسة: هدفت هذه الدراسة إلى تحليل تأثير عدد من العوامل الفردية والمؤسسية في النوايا والسلوكيات البحثية لأعضاء الهيئة التدريسية.

منهجية الدراسة: اعتمدت هذه الدراسة أسلوب التقصي في بيئة أكاديمية محددة، هي جامعة الكويت؛ وتم بناء واختبار نموذج للدراسة مبني على نظرية الفعل المسبب؛ لفحص تأثير التوجه السلوكي، والعرف الاجتماعي، والتعود البحثي، والمعوقات البحثية في النوايا البحثية لأعضاء الهيئة التدريسية.

البيانات وعينة الدراسة: جمعت بيانات الدراسة من 261 عضو هيئة تدريس، يعملون في ستة تخصصات علمية بجامعة الكويت، واستخدم أسلوب نمذجة المعادلة الهيكلية التحليلي لاختبار فروض الدراسة.

نتائج الدراسة: أظهر التحليل الكمي للبيانات أن متغيري التوجه السلوكي والعرف الاجتماعي أكثر المتغيرات أهمية في التنبؤ بالنوايا البحثية لأعضاء الهيئة التدريسية، متبوعة بمتغيرات التعود البحثي والمشاركة في الأنشطة المعوقة للبحث وعدم كفاية المحفزات الخارجية ونقص الموارد البحثية. ويفسر نموذج الدراسة 60% من الفروق في النوايا البحثية لأعضاء الهيئة التدريسية.

الخاتمة: تدعم نتائج هذه الدراسة أدبيات نوايا البحث العلمي وسلوكياته ومحدداته، كما تسهم النتائج أيضاً في توجيه السياسات والإستراتيجيات التي تدعم إنتاجية البحوث في الأوساط الأكاديمية.

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