

## **MANAGING CAREERS OF ACADEMICS IN HIGHER EDUCATION INSTITUTIONS: A MODERATED MEDIATION MODEL**

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### **ABSTRACT**

This research examines the role of input and process-based approaches in enhancing faculty members' commitment to their research careers in the context of higher education. Specifically, we investigate the mediating effect of research self-efficacy on the relationship between professional research network and commitment to research career, as well as the moderating effect of career aspiration. Our findings reveal a direct positive link between professional research network and commitment to research career. Moreover, research self-efficacy is found to mediate the relationship between professional research network and commitment to research career. We also find that career aspiration didn't moderate the relationship between research self-efficacy and commitment to research career. Our study contributes to the literature by providing a more comprehensive understanding of how professional research networks may enhance research self-efficacy, leading to greater commitment to research careers among faculty members in higher education institutions. Additionally, our research sheds light on the important role of career aspiration as a key factor in shaping the relationship between research self-efficacy and commitment to research career.

**Key words:** career commitment, professional research network, research self-efficacy, career aspiration.

## INTRODUCTION

In today's dynamic landscape, developing and retaining employees who are unequivocally career committed has emerged as a paramount challenge for contemporary organizations. As Vandenberghe & Ok, (2013) posited, constructing a career-committed workforce is not merely an organizational preference but a strategic imperative due to its undeniable influence on a spectrum of organizational and individual outcomes. Substantiating this, past research has illuminated the positive association of career commitment with metrics like objective and subjective career success (Ballout, 2009), career investment (Fu, 2011), and job satisfaction (Goulet & Singh, 2002). Notably, such committed employees not only find personal career satisfaction but also display loyalty, with a higher likelihood to remain steadfast to their companies (Poon, 2004).

In the Higher Education Institutions (HEIs) context, the complexity of the situation deepens. Th HEIs find themselves in a very competitive landscape, realizing that their existence largely depends on a dedication to investment in human resources (O'Meara, 2015). Furthermore, the trend towards casualization and precarious employment in the academic sector demands an expanded view to accommodate the ambitions of those dedicated to research and teaching in these settings (Etmanski, 2019). The profession of academia stands out for its stringent requirements, such as prolonged postgraduate studies, setting it apart from other career paths. Moreover, the unique qualities of the academic field—significant internal motivation, willingness to accept lower pay for greater independence and flexibility, and a natural inclination towards science (Roach and Sauemann, 2010)—need a more focused strategy on career commitment paradigms.

Defining the term, career commitment encapsulates the “strength of one’s motivation to work in a chosen career role” (Hall 1971, p. 59). A distinguishing facet of this concept is its transcendence beyond mere occupational roles or organizational boundaries, often

encompassing broader professional communities such as the scientific community (Blau 1985). With managerialism casting an ever-lengthening shadow over HEIs, it is imperative for decision-makers and human resource management (HRM) professionals to assimilate and adapt to these academic peculiarities. A compendium of past research accentuates the positive trajectory between career commitment and a suite of work-related outcomes (Goulet and Singh 2002, Ballout 2009, Areyee and Tan 1992), underscoring the pivotal role of career commitment management in organizational strategy.

While previous investigations have endeavored to untangle the myriad organizational and individual variables influencing career commitment (Lin, 2020; Zhu et al., 2021), our literature review unveils a pressing lacuna. Specifically, the intricate dance between networking and career commitment beckons deeper inquiry. A contingent of scholars has probed this link, hypothesizing potential mediating or moderating influences (Son & Kim, 2021). Further, our exploration spotlights the scant attention paid to psychological constructs like research self-efficacy (RSE) in this context, especially given the nonlinear dynamics between RSE and its repercussions (Livingi et al., 2021).

To address this research gap, this paper analyses whether professional research network (PRN) can influence individuals' career commitment. Furthermore, on the basis of social network theory and social cognitive career theory; this work also examines the potential mediating role of RSE and moderating role of career aspiration. This approach is particularly pertinent in light of outcomes by Mantai & Marrone (2023), who revealed that the evolving nature of academic careers, increasingly akin to professional trajectories in their complexity, diversity, and competitiveness. Their study on academic job highlights the importance of mobility, qualifications, and achievements for career progression from early researchers to professors, emphasizing the need to understand and navigate academic career prerequisites. By

delving into these dynamics, our research contributes to the ongoing discourse on career management within modern organizations and HEIs.

Our research offers three key contributions. First, by exploring factors affecting career commitment, we respond to the call for research on building a career-committed workforce in modern organizations (Arora & Rangnekar, 2016; Van der Heijden et al., 2022). Specifically, the oversight of career aspirations (CA) is crucial for all organizations, given its predictive power over diverse job-related results (Van der Heijden et al., 2022). Additionally, a profound understanding of personal elements empowers HRM experts to tailor their organizational tactics and guidelines. Recent research on career management shows that employees being proactive in managing their own careers and organisational strategies should meet individual career development demands (Guo et al. 2021). Secondly, our study aims to enrich the understanding of career management by demonstrating how integrating multiple theoretical frameworks, such as Social Cognitive Career Theory (SCCT) and social network theory, can provide a nuanced view of career commitment within the HE context. By integrating together the insights from these theories, our research underscores the complex interplay between an individual's professional networks and their cognitive processes, including self-efficacy and outcome expectations, in shaping their dedication to their career. The alignment of our examination of career aspirations (CA) with SCCT emphasizes the significant role of personal cognitive factors in influencing career outcomes. This integration clarifies how career commitment is developed and offers HRM professionals insights into essential cognitive processes. This knowledge allows HRM experts to more effectively craft and apply strategies that bolster career commitment in the academic context.

## LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Blau (1985) emphasized that certain professions, like scientists, attorneys, and physicians, inherently possess a more profound dedication to their respective fields. This could be attributed to the inherent collaborative nature of such professions. A pivotal component of guiding doctoral students is to introduce them to the mentor's professional network (Curtin et al., 2016). Throughout their academic journey, especially during doctoral programs and subsequent phases, scholars participate in an array of conferences, seminars, and other collaborative gatherings. Novice researchers are often counseled to capitalize on these networking avenues to bolster their professional trajectory (Stenken and Zajicek, 2009). The essence of networking revolves around forging, nurturing, and leveraging informal ties to enrich one's professional endeavors (Forret and Dougherty, 2004). In this study, we postulate that a Professional Research Network (PRN) augments career commitment due to several reasons: Active participants in professional circles or with their peers tend to manifest heightened career commitment, primarily because they gain recognition and value within their professional community (Cheung & Liu, 2017). In an intra-organizational context, immersing oneself in professional networking can pave the way for forging impactful relationships, enhancing visibility to opportunities, thereby amplifying career commitment sentiments. If we perceive networking as a pillar of supportive associations, individuals engrossed in these connections often gain insights or 'privileged information.' This could instill a sense of empowerment within the organization (Forret and Dougherty, 2004). Moreover, they also experience augmented social backing in their roles, fulfilling several personal aspirations, such as validation of career objectives (Ragins, 1997), which could resonate positively with their career allegiance. Historical data suggests that organizational affiliates with a supportive professional environment often enjoy enhanced job contentment, career progression, and commendations within their entities (Fagenson, 1989). Prior investigations indicate that

professional networking invariably has a constructive effect on career-centric notions, including career evolution, contentment, and accomplishments (Wolff and Moser, 2009, Ismail and Rasdi, 2007). Considering the aforementioned rationale, we propose the following hypothesis.

***Hypothesis 1: Professional research network has positive impact on career commitment***

### **Professional research network and research self-efficacy**

According to Aldrich et al. (1987), networking involves building relationships and garnering resources. Different scholars describe this phenomenon as expanding one's circle of trusted acquaintances (Dubini and Aldrich, 1991). In this study, we suggest that a Professional Research Network (PRN) significantly boosts Research Self-Efficacy (RSE) for several reasons: Our exploration is grounded on the idea of professional networking as a mechanism to cultivate relationships with the intent of acquiring supplementary resources, expertise, and skills (Coviello and Munro, 1995). Essentially, networking enables individuals to tap into resources and chances that might otherwise remain inaccessible (Aldrich and Reese, 1993). Thus, a broad PRN can pave the way for heightened engagement in research pursuits, potentially catalyzing a surge in RSE. Academics boasting expansive PRNs are more prone to engage in substantial discussions and stand a better chance to seek support or counsel related to research. Such interactions play a pivotal role in amassing triumphant experiences, which are quintessential for nurturing self-efficacy (Bandura, 1986). Consequently, PRNs act as catalysts, aiding educators in amplifying their RSE. Individuals possessing extensive PRNs can indulge in more intimate engagements and receive affirmative feedback from their academic counterparts. Such enriching interactions potentially bolster an academician's RSE. Given the deeper familiarity within networks, members are often more inclined to exchange knowledge and insights. Such an environment potentially fosters a congenial organizational ambiance,

wherein educators willingly share and hone their expertise collectively. Such a climate is propitious for the augmentation of research self-efficacy. Drawing upon these insights, we infer that educators endowed with expansive PRNs are predisposed to exhibit elevated RSE levels. Therefore, we frame the subsequent hypothesis:

***Hypothesis 2: Professional research network has a significant effect research self-efficacy***

### **Research self-efficacy and career commitment**

In this study, we postulate that employees with higher RSE tend to demonstrate a deeper allegiance to their career. This hypothesis stems from several rationales: At its core, self-efficacy serves as a pivotal motivational determinant influencing positive inclinations and actions concerning career-oriented outcomes like career selection, career progression (Hackett & Betz, 1995), and the formulation of career objectives (Abele & Spurk, 2009). This can be attributed to the essence of self-efficacy, which is grounded in an individual's conviction in their competence to efficaciously execute specific behaviors. As a result, a pronounced self-efficacy can encompass a myriad of behavioral facets associated with the aptitude to handle adversity, regulate stress, and respond to setbacks; thereby influencing effort invested in accomplishments and the magnitude of career dedication (Berry & West, 1993). A subsequent rationale is rooted in the observation that members within organizations typically display devotion to undertakings they deem within their capability to execute successfully (Busch, Fallan, & Pettersen, 1998). In essence, self-efficacy can foster inherent enthusiasm, inspire the establishment of ambitious objectives, and bolster the sustenance of commitment to realizing career milestones. Another perspective emerges from the recognition that an individual's exertion towards their career is often dictated by their self-efficacy levels (Bandura & Schunk, 1981). Translating this to our focus, when academic professionals possess heightened RSE,

their allegiance to their research-centric vocation is likely to be more profound. Echoing Bandura's (1977) sentiment, an individual endowed with a robust sense of self-assurance is predisposed to navigate their career trajectory successfully. Hence, within the academic realm, RSE emerges as a pivotal influencer steering career-related decisions and outcomes for educators. Given the aforementioned premises, we advance the subsequent hypothesis:

***Hypothesis 3: Research self-efficacy positively affects career commitment***

### **The mediating effect of research self-efficacy**

In this work, we are postulating that RSE mediates the PRN-career commitment link. Firstly, we expect engagement in PRNs to build faculty member's RSE. In accordance with social cognitive theory, four processes may affect self-efficacy perceptions: enactive mastery, modelling, persuasion, and arousal (Bandura, 2001). PRNs might be positive for all four of these efficacy improving processes. For instance, PRNs may provide opportunities for individuals to involve in vicarious learning about research activities from their colleagues (role models). Moreover, academic staff with wider PRNs may have more opportunities to improve their research skills through group discussions and positive feedback from peers. Hence, it might be expected that these could have equipped them with greater confidence in their own research skill and decrease their anxiety about their research capabilities, reflecting the physiological processes of RSE improvement. Second, we expect RSE to be related to career commitment. Faculty members with higher RSE will perceive themselves to have the skills and capabilities required to be notable scholar. These favourable perceptions may motivate them to be more committed to their research career. Social cognitive theory assumes that self-efficacy predicts willingness to approach new and more challenging situations related to the domain tapped by the self-efficacy concept (Bandura, 2001). Consequently, faculty members with higher RSE are more likely to be loyal to the career



of being a good researcher. These two links taken together explain how RSE is the mechanism through which PRNs influences career commitment.

A theoretical support for this hypothesis might be obtained from the input-process-outcomes model of Hackman & Oldham, (1976). The model gives more insight into how PRN may affect career commitment via the mediation of psychological states. Thereby, in the first stage (input), having large PRNs expected to enhance psychological states (process) in the second stage. Outcomes (outputs) are reached in the third stage, in terms of positive career-related outcomes. Accordingly, in this work we assume that PRNs (input) will be positively influence with individuals' RSE (process), which, in turn, encourages career commitment (output). Based on above arguments, we offer the following hypothesis:

***Hypothesis 4: Research self-efficacy mediates the relationship between professional research network and career commitment***

### **The moderating effect of career aspiration**

Gray & O'Brien (2007) describe CA as the depth of commitment one possesses toward a chosen career path. This intrinsic motivation towards career success can shape an individual's principles, cultural norms, and convictions, as stated by Ramly, Ismail, & Uli (2009). In our study, we posit that career aspiration acts as a linchpin, magnifying the relationship between RSE and career commitment. There are several reasons for this hypothesis. Firstly, based on Gray and O'Brien's research, employees with heightened CA not only actively pursue leadership opportunities and advancements but are also the preferred choices for mentoring and training newcomers. Such individuals are naturally inclined to be more committed to their chosen professions, indicating that CA acts as a barometer for job-related motivations and attitudes. Secondly, CA is conceptualized as a goal-driven catalyst that steers an individual's

actions related to their career (Lent et al., 1994). In the realm of academia, should a faculty member have high career aspirations, RSE could further boost their dedication to the profession. However, low CA could mean lessened career commitment, irrespective of RSE strength. Thirdly, studies have shown that employees whose aspirations align with their work environments express higher job satisfaction and unwavering loyalty to their organizations. This is corroborated by research on the P-O fit congruency model, such as the one conducted by Verquer et al. (2003). Fourth, CA is integral to one's professional trajectory. Derr (1986) delineated various career aspirations like striving for autonomy (Getting Free), aiming for prestige (Getting Ahead), seeking stability (Getting Secure), craving recognition (Getting High), and pursuing a balance (Getting Balanced). Aspirations like working for a renowned firm (akin to the 'Getting High' concept) underscore the profound impact of CA on exertion and dedication towards achieving career objectives, as highlighted by Greenhaus et al. (2010). In essence, an individual's CA, mirroring their career expectations, lays the foundation for potential career success. Within our study's context, academicians with robust CA and RSE are predicted to exhibit unwavering dedication to their research roles. These premises culminate in our fifth hypothesis.

***Hypothesis 5: The career aspiration moderates the relationship between RSE and career commitment.***

### **Moderated mediation**

Apart from our belief that RSE influence career dedication through RSE, we also surmise that career aspirations could significantly influence this connection. By merging social network and social cognitive career theories, evidence suggests that the mediation strength between PRNs and career commitment via RSE is influenced by career aspiration levels. Essentially, the interaction of faculty members with their research networks, their RSE, and dedication to their

profession may be contingent upon their aspiration intensity. Given these insights, we proposed a moderated mediation model to investigate RSE's mediation role and career aspiration's moderating effect in the association between PRNs and career commitment, as illustrated in Fig 1. Specifically, as career aspiration intensifies, the mediation effect becomes stronger. A hypothesis was developed to explore this association.

***Hypothesis 6: Career aspiration moderates the indirect relationship between research network and career commitment.***

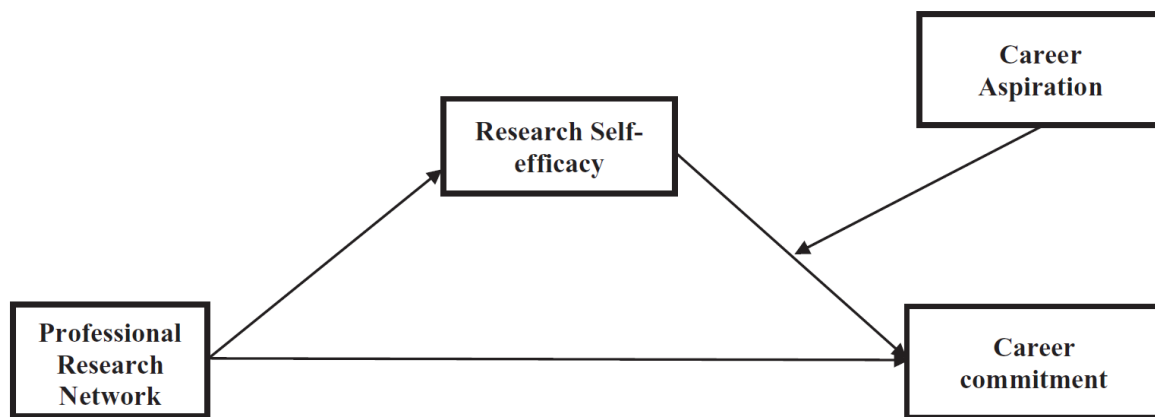


FIGURE 1 Research model.

## METHODOLOGY

### Population of the study

The study specifically targeted non-STEM faculty members within HEIs in Kazakhstan. The chosen demographic reflects an interest in understanding the dynamics of career commitment among academics outside the realms of STEM. This focus sheds light on a group that may experience challenges and motivations related to their career paths, particularly in the context of research and academic contributions. The choice to concentrate on non-STEM faculty members might have been influenced by our aim to explore aspects such as professional

networks, research self-efficacy, and career aspirations within a potentially less researched segment of the academic community.

### **Sampling technique**

We have used a non-probability sampling technique by distributing over 500 surveys to faculty members across nine prominent Kazakh universities. This method enables us to target a specific subset of the population that is relevant to the research objectives. The selection of non-STEM faculty members from a mix of public and private universities suggests a deliberate effort to capture a broad and diverse set of perspectives within the specified criteria, enhancing the relevance and applicability of the study's findings within the context of Kazakh HEIs.

### **Data collection**

The data collection process combined online questionnaires and paper-based surveys, indicating a flexible approach to maximize participation among the targeted population. Out of over 500 distributed surveys, 245 were retrieved, and 211 were deemed suitable for analysis after excluding responses with missing or invalid details. This rigorous selection process ensures the reliability of the data analysed. The survey instrument included measures for professional research networks, research self-efficacy, career aspiration, and career commitment, utilizing scales from previously validated instruments. The inclusion of a translation/back-translation process for the scales underscores the thoroughness and consideration for linguistic accuracy. In our study, ethical considerations involved obtaining informed consent from participants, ensuring anonymity and confidentiality of responses, and allowing participants the right to withdraw from the study at any time.

### **Data details**

Of the respondents, females represented 64% while males made up 36%. The age distribution was as follows: 4% were 20-24 years old, 14% between 25-29 years, 25% from 30-39 years, 49% from 40-49 years, and a mere 8% were above 50 years. Regarding educational qualifications, 58% of the participants held a PhD degree. Most respondents held non-managerial roles, and their work experience ranged from under a year to over two decades.

## Measures

Measures for each variable were used from previously validated instruments. Items were rated on a five-point scale ranging from (1) = strongly disagree, (2) disagree, (3) neutral (4) agree and (5) strongly agree. For the scales that were translated for our work (professional research network(s), research self-efficacy, career aspiration and career commitment) translation/back-translation procedures were used to ensure the quality of the translation.

*Professional research network(s):* The six-item scale of research network was adopted from the work of Bland *et al.*, (2005). The sample item included: “I have a well-developed network of colleagues with whom I discuss research projects and education within my academic department (faculty)”. The value of Cronbach’s  $\alpha$  for the scale was 0.87.

*Research self-efficacy:* In this paper, the RSE of faculty members was measured using nine-item scale developed by Holden and his colleagues (1999). Each item begins with the phrase “How confident are you that you can...?”. The Cronbach’s  $\alpha$  was 0.88. The sample item included: “...effectively present your study and its implications?”

*Career commitment:* This construct was measured by five-items, which were all derived from Bauer & Green (1994). The sample item included: “I am committed to a research career” and Cronbach’s  $\alpha$  coefficient for this scale in the present research was 0.82.

*Career aspiration:* We used the ten-item scale from O'Brien (1992) to measure career aspiration. An example item is "I hope to become a leader in my career field". The Cronbach's  $\alpha$  for these items was 0.83.

## ANALYSIS

For our study, we utilized the PLS-SEM path modeling technique through the SmartPLS 4 software to assess the proposed model. This method, which is multivariate and non-parametric, is employed for evaluating path models with hidden variables (referenced from Hair et al., 2017). It mirrors conventional regression methodologies and is regarded as a potent analytical tool for this reason. We opted for the PLS path modeling for several rationales. For one, it enables researchers to concurrently ascertain the relations between indicators and their associated latent constructs (the outer model) and the relations between different constructs (the inner model). Moreover, eminent scholars, such as Hair et al. (2017), have emphasized the efficacy of PLS-SEM for intricate investigations, especially when a study encompasses both mediation and moderation analyses.

### Measurement model evaluation

We began by evaluating the measurement model. Table 1 presents the outcomes of this examination. The outer loading values notably surpassed the 0.70 benchmark. Likewise, the composite reliability (CR) figures were significantly above the 0.70 standard. The average variance extracted (AVE) surpassed 0.50, signifying the attainment of convergent validity. Following that, we scrutinized the measurement model for discriminant validity using the HTMT criteria. Table 2 reveals that HTMT values were beneath the 0.85 benchmark, confirming the establishment of discriminant validity.

**TABLE 1** Descriptive statistics, correlations, scale reliabilities, validity and reliability.

Variables	Internal consistency	Mean	Std. deviation	1	2	3	4	AVE	CR
Career aspiration	0.88	4.63	0.89	1.00				0.61	0.88
Career commitment	0.73	4.37	0.62	0.51	1.00			0.73	0.83
PRNs	0.61	3.91	0.79	0.32	0.54	1.00		0.60	0.89
RSE	0.77	4.81	0.71	0.36	0.56	0.23	1.00	0.77	0.90

\* $p < .05$ ;

**TABLE 2** Discriminant validity.

	Career aspiration	Career commitment	PRNs	RSE
Career aspiration				
Career commitment	0.823			
PRNs	0.419	0.522		
RSE	0.525	0.638	0.524	

### Structural model evaluation

The subsequent phase in PLS-SEM involves analyzing the structural model. In this study, we used a bootstrap resampling method, drawing from 5,000 samples and incorporating 300 instances, to determine the significance of the path coefficients, as recommended by Hair et al., 2017. The  $R^2$  value measures the model's predictive precision, indicating the percentage of variance in the dependent variables that can be attributed to the independent variables within the model. In our findings, the independent variable, PRNs, accounted for 40.1% of the variance in CC. Path coefficients, on the other hand, highlight the variability in the dependent variable due to each independent variable. Table 3 reveals that PRNs significantly and positively influence CC, thereby validating our initial hypothesis. Furthermore, the positive and significant relationships between PRNs and RSE and between RSE and CC support our second and third hypotheses, respectively.

TABLE 3 Hypotheses testing and bootstrapping.

	Path coefficients	T-statistics	p values
PRNs → CC	.16	2.91	.000
PRNs → RSE	.50	10.49	.000
RSE → CC	.19	2.16	.000
CA × RSE → CC	.04	1.14	.080

### Mediation analysis

To examine the mediating role of RSE in the connection between PRNs and CC, this study evaluated the significance of the indirect effect using the bootstrapping feature in SmartPLS 4. Bootstrapping does not assume any specific distribution shape for variables or the statistical sampling distribution. The data in Table 4 indicates a significant indirect effect of PRNs on CC via RSE (Beta = 0.107, T value = 4.559). As stated by Hair et al. (2017), if both the indirect and direct effects are significant and align in the same direction, it signifies complementary mediation. Hence, in this study, RSE serves as a complementary mediator.

TABLE 4 Mediation analysis.

	Direct effect	T-values	Significance	Indirect effect	T-values	Significance	Type of mediation
PRNs → CC	0.16	2.91	Yes	0.09	2.03	Yes	Complementary mediation

### Moderated mediation

To test the moderated mediation relationships (hypothesis 5 and 6), we planned to follow the approach suggested by Hayes (2013). However, contrary to our initial expectations CA did not moderate the path from RSE to faculty members' career commitment. Namely, Table 3, the RSE and CA interaction was not statistically significant for career commitment ( $\beta = 1.14$ ,  $p < 0.08$ ). Therefore, we didn't run a moderated mediation analysis to test conditional indirect effect (Fig 2).



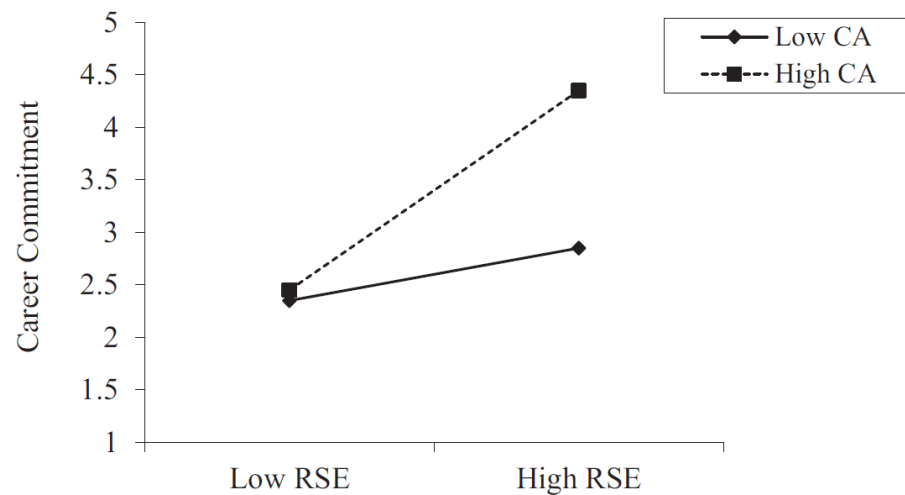


FIGURE 2 The moderating effect of CA on the relationship between RSE and CRC.

## DISCUSSION & CONCLUSION

In the current study, we developed and tested a model where we have examined whether PRN predicts career commitment via mediating role of RSE and moderating role of CA. In sum, all hypotheses except moderation and moderated mediation were supported by the empirical data. As it was expected, PRN was positively associated with RSE which in turn influences career commitment. Within our prediction, RSE mediated the link between PRN and career commitment. It is notable that our moderating and moderated mediation hypotheses were not confirmed. A possible explanation could lie in the unique context of the Kazakhstani academic environment, where career progression may be less transparent or more constrained by external factors than in more established academic settings. Thus, even with high RSE and CA, the perceived or actual barriers to career advancement could dampen the effect of these factors on CC. Another plausible logical explanation could relate to the evolving nature of academia itself, where traditional markers of career success and commitment are being reevaluated in light of shifts towards more collaborative, interdisciplinary, and non-linear career paths. In such a landscape, the straightforward enhancement effect of CA on the RSE-CC relationship might be mitigated by a broader range of considerations and values held by academics. This

discrepancy opens new avenues for understanding the dynamics at play and calls for a deeper exploration into the nuanced relationships among these variables. In this vein, our study further highlights the importance of studying psychological constructs beyond self-efficacy and aspiration, such as career resilience, adaptability, and identity, in understanding career commitment. Exploring how these dimensions interact with PRNs and RSE could uncover additional pathways through which commitment to an academic career is fostered or hindered. Moreover, investigating the role of implicit theories of ability (i.e., fixed vs. growth mindsets) could provide insights into how academics perceive their career challenges and opportunities.

### **Theoretical implications**

This manuscript offers several contributions to the field of career management. First, our work adds to the career management literature by highlighting the importance of integrating social cognitive career and social network theories to predict career commitment in a single model setting. To put it differently, relying on aforementioned theories, we have examined individual factors that interactively influence career commitment. Moreover, we provide a theoretical framework for managing career development in HEIs.

Second, the results have improved our understanding of how individual factors may jointly influence career commitment beliefs. Our findings are consistent with past research that has shown that certain individual factors can influence employees' career commitment. More specifically, we have revealed that professional research networks provide faculty members with a plethora of opportunities to be more committed to their career. A third important contribution of this work is to uncover individuals' RSE as the key mechanism underlying the PRNs and career commitment path. This reflects an emerging view of people as the drivers of career growth and an increasing number of scholars have started to examine how various individual factors may directly or indirectly influence employees' career commitment (Son &

Kim, 2021). To our knowledge, no studies have examined the indirect effect of PRNs on career commitment via RSE concept. This research deepens our understanding of RSE as a mediating mechanism that links PRNs and career commitment. Moreover, we have revealed that RSE could lead individuals to be more committed to their career, which adds to the literature on the positive outcomes of RSE (Hemmings & Kay, 2010). Fourth, in this paper, we aimed to contribute to the literature by considering CA as a moderator in the link between RSE and career commitment. Contrary to our assumptions, it has been found that CA did not the positive effect of RSE on career commitment. Hence, we must conclude that the specific nature of those effects remains to be elucidated. Finally, our study extends career management research into a new context. In the institutional backdrop of post-Soviet Kazakhstan, we empirically examined PRNs, RSE, and career commitment. This context is unique as personal networking holds considerable importance, attributed to its underdeveloped institutional infrastructure and subpar societal frameworks and mechanisms (Michailova & Worm, 2003)

### **Practical implications**

The present study has found that PRN has directly and indirectly related to career commitment. More specifically, PRN has positive impact on career commitment via RSE path. Namely, our findings supported the mediating effect of RSE within this link. These results have vital practical implications for HRM and counselling in HEIs. Firstly, faculty members who have large professional research networks are more likely to stay in the research career. Therefore, HRM practitioners in HEIs should regularly organize professional networking activities like seminars, workshops, master classes and other social events to facilitate the establishment of personal relationships among faculty members which further may provide a basis for their career commitment. Second, to enhance career commitment among academic staff, HRM practitioners in HEIs need to develop professional networking events in a way that faculty members can opportunity to enhance their RSE beliefs. Particularly, these professional events

may include such things as designing and/or conducting research projects, critical reviews of the literature, making presentations at regional or national conferences, modelling of proper scientific attitudes and behaviours, mentoring or coaching sessions etc. In sum, these professional networking activities can provide academic staff of HEIs with the various opportunities to improve their RSE which further may lead to improvement of career commitment. Thirdly, there are also practical implications for recruiters and human resource professionals. Recruiters may benefit from being aware of quality and size of PRNs of potential candidates for academic positions in the HEIs. Particularly, active and wide professional networks may indicate that this candidate is more likely to be committed to his/her career of being scholar.

### **Limitations**

Our study, while offering valuable insights into the dynamics between PRNs and CC within the context of Kazakhstani HEIs, acknowledges certain limitations that warrant attention. One of the pivotal aspects of our research pertains to its limited generalizability. The findings derived from Kazakhstani HEIs might not directly transpose to other geographical or institutional settings due to distinct cultural, economic, and educational frameworks. Recognizing this constraint, we urge future scholars to replicate and validate our study across various contexts. Such endeavors would not only affirm the robustness of our findings but also potentially unveil nuanced dynamics specific to different environments, thereby broadening the applicability and understanding of PRNs' impact on CC.

In addressing concerns related to common method bias, our study acknowledges the inherent limitations of relying predominantly on self-reported data. Despite the implementation of methodological safeguards such as ensuring anonymity and emphasizing the importance of honest responses, the potential for bias cannot be entirely eliminated. Future research could

benefit from incorporating a mixed-methods approach, integrating qualitative interviews or observational data with quantitative analyses. This diversification in data collection could provide a more holistic view of the phenomena under study and mitigate the effects of common method bias, offering a richer, more nuanced understanding of the interactions between PRNs and CC. The cross-sectional design of our research, while facilitating the exploration of relationships between PRNs and CC at a specific point in time, constrains our ability to infer causality or sequence. This limitation highlights the need for longitudinal studies or experimental designs in future research. Such approaches would enable the examination of these relationships over time, offering insights into how PRNs influence CC across different stages of an individual's career trajectory and how this influence may evolve or change in response to various factors.

### **Future research directions**

Our focus on PRNs and research self-efficacy as predictors of CC, though significant, leaves room for the exploration of other career-centric aspects. Future studies could expand the scope to include variables such as career optimism, career self-efficacy, and career motivation. Investigating these additional dimensions would not only enrich the conceptual model but also provide a more comprehensive understanding of the factors that contribute to career commitment in academic settings. By delving into these aspects, research can offer deeper insights into the complex interplay of personal, professional, and contextual factors shaping career paths in academia.

## REFERENCES:

Abele, A.E. and Spurk, D., (2009). The longitudinal impact of self-efficacy and career goals on objective and subjective career success. *Journal of Vocational Behavior*, 74(1), 53-62.  
<https://doi.org/10.1016/j.jvb.2008.10.005>.

Aldrich, H.E., Rosen, B. and Woodward, B., (1987). The impact of social networks on business foundings and profit: a longitudinal study. *Frontiers of entrepreneurship research*, 154-168.

Aldrich, H., Birley, S., Dubini, P., Greve, A., Johannisson, B., Reese, P.R. and Sakano, T., (1991, April). The generic entrepreneur. In Insights from a multinational research project. *In Babson Conference on Entrepreneurship*.

Aldrich, H.E. and Reese, P.R., (1993). Does networking pay off? A panel study of entrepreneurs in the research triangle. *Frontiers of entrepreneurship research*, 325-339.

Arora, R. and Rangnekar, S. (2016). The Interactive Effects of Conscientiousness and Agreeableness on Career Commitment. *Journal of Employment Counselling*, 53(1), 14-29.  
<https://doi.org/10.1002/joec.12025>.

Aryee, S. and Tan, K. (1992). Antecedents and outcomes of career commitment. *Journal of Vocational Behavior*, 40(3), 288-305. [https://doi.org/10.1016/0001-8791\(92\)90052-2](https://doi.org/10.1016/0001-8791(92)90052-2)

Babin, B. and Zikmund, W. (2015). *Essentials of marketing research* (4th ed). Nelson Education.

Ballout, H. (2009). Career commitment and career success: moderating role of self-efficacy. *Career Development International*, 14(7), 655-670. <https://doi.org/10.1108/1362043091100>

Bandura, A., (1977). Self-efficacy: toward a unifying theory of behavioral change. *Psychological review*, 84(2), 191-200.

Bandura, A. and Schunk, D.H., 1981. Cultivating competence, self-efficacy, and intrinsic interest through proximal self-motivation. *Journal of personality and social psychology*, 41(3), 586-596.

Bauer, T. and Green, S. (1994). Effect of newcomer involvement in work-related activities: A longitudinal study of socialization. *Journal of Applied Psychology*, 79(2), 211-223. <https://doi.org/10.1037/0021-9010.79.2.211>

Berry, J. M., & West, R. L. (1993). Cognitive self-efficacy in relation to personal mastery and goal setting across the life span. *International journal of behavioral development*, 16(2), 351-379. <https://doi.org/10.1177/016502549301600213>

Bland, C., Center, B., Finstad, D., Risbey, K. and Staples, J. (2005). A Theoretical, Practical, Predictive Model of Faculty and Department Research Productivity. *Academic Medicine*, 80(3), 225-237.

Blau, G. (1985). The measurement and prediction of career commitment. *Journal of Occupational Psychology*, 58(4), 277-288. <https://doi.org/10.1111/j.2044-8325.1985.tb00201.x>

Busch, T., Fallan, L. and Pettersen, A., (1998). Disciplinary differences in job satisfaction, self-efficacy, goal commitment and organisational commitment among faculty employees in Norwegian colleges: An empirical assessment of indicators of performance. *Quality in Higher Education*, 4(2), 137-157. <https://doi.org/10.1080/1353832980040204>

Cheung, C. K., & Liu, E. S. C. (2017). Enhancing the contribution of volunteering to career commitment with friendship among university students. *Career Development International*. Vol. 22 (7), 754-771. <https://doi.org/10.1108/CDI-12-2016-0236>

Coviello, N.E. and Munro, H.J., 1995. Growing the entrepreneurial firm. *European journal of marketing*. 29(7), 49-61. <https://doi.org/10.1108/0309056951009500>.

Curtin, N., Malley, J. and Stewart, A. (2016). Mentoring the Next Generation of Faculty: Supporting Academic Career Aspirations among Doctoral Students. *Research in Higher Education*, 57(6), 714-738. <https://doi.org/10.1007/s11162-015-9403-x..>

- Dawis, R. (1980). Personnel Assessment from the Perspective of the Theory of Work Adjustment. *Public Personnel Management*, 9(4), 268-273. <https://doi.org/10.1177/0091026>
- Derr, C. (1986). Five definitions of career success: implications for relationships. *Applied Psychology*, 35(3), 415-435. <https://doi.org/10.1111/j.1464-0597.1986.tb00940.x>
- Etmanski, B. 2019. The Prospective Shift Away from Academic Career Aspirations. *Higher Education* 77 (2): 343–58. doi:10.1007/s10734-018-0278-6
- Fagenson, E. A. (1989). The mentor advantage: perceived career/job experiences of protégés versus non-protégés. *Journal of Organizational Behavior*, 10(4), 309-320. <https://doi.org/10.1002/job.4030100403>
- Forret, M. L., & Dougherty, T. W. (2004). Networking behaviors and career outcomes: differences for men and women?. *Journal of Organizational Behavior*, 25(3), 419-437. <https://doi.org/10.1002/job.253>
- Goulet, L. and Singh, P. (2002). Career Commitment: A Re-examination and an Extension. *Journal of Vocational Behavior*, 61(1), 73-91. <https://doi.org/10.1006/jvbe.2001.1844>
- Gray, M. and O'Brien, K. (2007). Advancing the Assessment of Women's Career Choices: The Career Aspiration Scale. *Journal of Career Assessment*, 15(3), 317-337. <https://doi.org/10.1177/1069072707301211>
- Greenhaus, J., Callanan, G. and Godshalk, V. (2010). Career management. Los Angeles: Sage.
- Gregor, M. and O'Brien, K. (2015). The Changing Face of Psychology. *The Counseling Psychologist*, 43(8), 1090-1113. <https://doi.org/10.1177/0011000015608949>
- Guo, W., Wang, L., & Wang, N. (2021). Research on the impact of career management fit on career success. *Asia Pacific Journal of Human Resources*, 59(2), 279-304.
- Hackett, G. and Betz, N.E., (1995). Self-efficacy and career choice and development. In Self-efficacy, adaptation, and adjustment. 249-280. Springer, Boston, MA.



Hall, D. (1971). A theoretical model of career sub identity development in organizational settings. *Organizational Behaviour and Human Performance*, 6(1), 50-76. [https://doi.org/10.1016/0030-5073\(71\)90005-5](https://doi.org/10.1016/0030-5073(71)90005-5)

Holden, G., Barker, K., Meenaghan, T. and Rosenberg, G. (1999). Research Self-Efficacy: A new possibility for educational outcomes assessment. *Journal of Social Work Education*, 35(3), 463-476. <https://doi.org/10.1080/10437797.1999.10778982>

Imail, M. and Rasdi, R. (2007). Impact of networking on career development: Experience of high-flying women academics in Malaysia. *Human Resource Development International*, 10(2), 153-168. <https://doi.org/10.1080/13678860701347131>

Judge, T., Cable, D., Boudreau, J. and Bretz, R. (1995). An empirical investigation of the predictors of executive career success. *Personnel Psychology*, 48(3), 485-519.

<https://doi.org/10.1111/j.1744-6570.1995.tb01767.x>

Korff, J., Biemann, T. and Voelpel, S.C. (2017), “Human resource management systems and work attitudes: the mediating role of future time perspective”, *Journal of Organizational Behavior*, Vol. 38 No. 1, pp. 45-67

Lent, R., Brown, S. and Hackett, G. (1994). Toward a Unifying Social Cognitive Theory of Career and Academic Interest, Choice, and Performance. *Journal of Vocational Behavior*, 45(1), 79-122. <https://doi.org/10.1006/jvbe.1994.1027>

Livinti, R., Gunnesch-Luca, G., & Iliescu, D. (2021). Research self-efficacy: A meta-analysis. *Educational Psychologist*, 56(3), 215-242. <https://doi.org/10.1080/00461520.2021>

Lucas, Christopher J., and John W. Murry. (2011) *New Faculty: a Practical Guide for Academic Beginners*. Basingstoke: Palgrave Macmillan.

Mantai, L., & Marrone, M. (2023). Academic career progression from early career researcher to professor: what can we learn from job ads. *Studies in higher education*, 48(6), 797-812. <https://doi.org/10.1080/03075079.2023.2167974>

Michailova, S., & Worm, V. (2003). Personal Networking in Russia and China: Blat and Guanxi. *European Management Journal*, 21(4), 509-519. [https://doi.org/10.1016/S0263-2373\(03\)00077-x](https://doi.org/10.1016/S0263-2373(03)00077-x)

Nunnally, J. (1978). Psychometric theory. 2nd Ed. New York: McGraw-Hill Book.

O'Brien, K. (1992). Career aspiration scale. *Unpublished manuscript, University of Maryland at College Park*.

O'Meara, K. (2015). Half-way out: How requiring outside offers to raise salaries influences faculty retention and organizational commitment. *Research in Higher Education*, 56(3), 279-298. <https://doi.org/10.1007/s11162-014-9341-z>

Ragins, B. R. (1997). Diversified mentoring relationships in organizations: A power perspective. *Academy of Management Review*, 22(2), 482-521. <https://doi.org/10.5465/amr>

Ramly, E., Ismail, M. and Uli, J. (2009). Antecedents of career aspiration of R&D professionals in Malaysian public organizations. *European Journal of Scientific Research*, 26(1), 66-79.

Roach, M. and Sauermann, H. (2010). A taste for science? PhD scientists' academic orientation and self-selection into research careers in industry. *Research Policy*, 39(3), 422-434. <https://doi.org/10.1016/j.respol.2010.01.004>

Roach, M., & Sauermann, H. (2017). The declining interest in an academic career. *PLoS One*, 12(9), e0184130.

Son, S., & Kim, D. Y. (2021). Organizational career growth and career commitment: Moderated mediation model of work engagement and role modelling. *The International Journal of Human Resource Management*, 1-24. <https://doi.org/10.1008/09585192.2019-1657165>.

Stenken, J. and Zajicek, A. (2009). The importance of asking, mentoring and building networks for academic career success - a personal and social science perspective. *Analytical and Bioanalytical Chemistry*, 396(2), 541-546. <https://doi.org/10.1007/s00216-009-3275-x>

Vandenberghe, C. and Basak Ok, A. (2013). Career commitment, proactive personality, and work outcomes: a cross-lagged study. *Career Development International*, 18(7), 652-672. <https://doi.org/10.1108/CDI-02-2013-0013>

Van der Heijden, B. I., Davies, E. M., Van der Linden, D., Bozionelos, N., & De Vos, A. (2022). The relationship between career commitment and career success among university staff: The mediating role of employability. *European Management Review*, 19(4), 564-580. <https://doi.org/10.1111/emre.12503>

Van der Heijden, B. I., Veld, M., & Heres, L. (2022). Does age matter? Examining career commitment as a moderator in the relationship between age-related HR/D practices and subjective career success for younger versus older academic staff. *Human Resource Development Quarterly*, 33(4), 405-425. <https://doi.org/10.1002/hrdq.21463>

Verquer, M., Beehr, T. and Wagner, S. (2003). A meta-analysis of relations between person–organization fit and work attitudes. *Journal of Vocational Behavior*, 63(3), 473-489. [https://doi.org/10.1016/S0001-8791\(02\)00036-2](https://doi.org/10.1016/S0001-8791(02)00036-2)

Wang, J. and Staver, J. (2001). Examining relationships between factors of science education and student career aspiration. *The Journal of Educational Research*, 94(5), 312-319. <https://doi.org/10.1080/00220670109598767>

Wolff, H. and Moser, K. (2009). Effects of networking on career success: A longitudinal study. *Journal of Applied Psychology*, 94(1), 196-206. <https://doi:10.1037/a0013350>

Zhu, D., Kim, P. B., Milne, S., & Park, I. J. (2021). A meta-analysis of the antecedents of career commitment. *Journal of Career Assessment*, 29(3), 502-524. <https://doi.org/10.1177/1069072720956983>