

A photograph of two women in a professional setting. The woman on the right is wearing a black hijab with gold patterns and a matching black shawl with gold paisley designs. She is smiling and gesturing with her right hand. The woman on the left is partially visible, also smiling. The background is a plain, light-colored wall.

UNDERSTANDING ACADEMIC CAREERS

**DEVELOPING STRATEGIES FOR GENDER SENSITIVE
ACADEMIC CAREER DEVELOPMENT FOR THE HIGHER
EDUCATION COMMISSION**

DR DENISE HAWKES AND DR MARYAM RAB
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FOREWORD

The Higher Education Commission (HEC) in Pakistan has invested significant resources into doctoral qualifications for aspiring academics in recent years. Today, the people who first took advantage of these opportunities are beginning to occupy academic roles in Pakistani higher education institutions (HEIs). This report seeks to provide a situational analysis to critically assess the impact of this significant investment.

The findings clearly illustrate the enhanced quality of academic teaching and research in Pakistan – indications of a welcomed return on investment. It is also apparent, however, that the surge of young, well qualified academics into Pakistan's academic community has introduced new challenges and exacerbated some existing areas of concern. The British Council hopes that this situational analysis will contribute to an evidence base for a continued dialogue on how best to develop Pakistan's academic community.

The findings suggest a move from exclusively doctoral investment towards a focus on the whole academic career within Pakistan's higher education (HE) sector. This is an important next step in the continued development of the system. Interventions by the HEC have increased the number of young, PhD-qualified academic staff in public universities. However, a lack of mentoring and CPD opportunities has hindered the development of this new academic intake. The global trend of increasing teaching loads and demand for quality research is amplified in Pakistan due to perennial recruitment and retention issues.

Pronounced gender gaps are evident in academic promotions at all stages of career progression - a trend that is in no way unique to Pakistan, but does reflect an urgent need for more tailored programming to support women in academia to reach their full potential. In Pakistan, women-only universities have been a significant part of this push

for change, but much more will need to be done to address the current gender gap: the gender imbalance in Pakistani academic posts is far more marked than in the UK. This report proposes a set of policy recommendations to address these multi-faceted challenges. It is critical that any resulting policy, programme or partnership activity considers the support needed by HE professionals throughout their academic career, and is tailored to reflect their aspirations as well as the wider cultural and societal context.

This report aims to contribute to the developing conversation on academic careers in Pakistan. In order for this conversation to progress, we will need to engage all HE stakeholders in Pakistan to develop an ecosystem of continuing professional development, peer-to-peer mentoring and guidance on career pathways. Only with this system in place will the HE sector be able to fully respond to the pressing local, regional and national priorities of Pakistan.



Rosemary Hilhorst
Director
British Council Pakistan



Nishat Riaz
Director Education
British Council Pakistan



Dr Arshad Ali
Executive Director
Higher Education
Commission, Pakistan

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1.0

EXECUTIVE SUMMARY

Despite heavy investment by the Higher Education Commission (HEC) in Pakistan academic careers still need to be developed. The HEC intervention has increased the number of young, PhD qualified academic staff in public universities. A lack of mentoring and CPD appears to be threatening the development of these new staff.

The global trend of increasing teaching loads and demand for quality research is amplified in Pakistan due to continuing recruitment and retention issues.

Gender gaps in academic promotions are also a global issue with literature suggesting that university processes, policy environments and mentoring are all considered to be important. In Pakistan, women-only universities have been part of this push for change; there is an opportunity to improve the benefits to Pakistan higher education institutions by tapping into their female workforce to solve the supply and demand issue.

There is a greater gender imbalance in academic posts in Pakistan than in the UK. For academics this gender imbalance increases as you move up the salary scale towards professor in both the UK and

Pakistan: there are a number of female lecturers but very few female professors.

Administrative posts in the UK are occupied predominantly (60 per cent) by women, whereas in Pakistan 61 per cent of corresponding posts are occupied by men. There is, however, greater gender parity for senior posts in both countries.

Pakistan has particular issues in the recruitment and retention (and therefore the quality) of academic staff. In addition, this high turnover has significant cost implications for universities. Literature suggests that continuous professional development (CPD) could help to reduce academic turnover.

The academic literature on academic careers places mentoring and CPD at the heart of developing academic career profiles. The purpose of this study is to explore how to develop mentoring and CPD in public universities in Pakistan by documenting experiences of academic careers.

UK universities have developed mechanisms to support academic careers, which focus on mentoring. These include: formal, informal, peer, group, intra-departmental, inter-departmental and research mentoring.



This situational analysis seeks to map out current academic career profiles in Pakistan. It takes a mixed methods approach: 27 interviews with senior faculty members in a total of 21 public and private universities across Pakistan together with an online survey sent to all academic and administrative staff in the public universities in Pakistan (522 were completed).

From the interviews five key qualitative themes emerged:

- increased awareness to improve the research in Pakistani universities
- women's progress and culture of academia in Pakistan
- barriers and opportunities in women's career pathways
- personal learning
- gender concerns and support strategies.

From the online surveys five key factors were identified:

- demographics of those working in public universities,
- publications and general research profile of Pakistani academics
- web-based academic activity
- career paths in higher education in Pakistan
- gender difference and links to factors such as human capital, social network, processes and financial assets.

Three recommendations are proposed to policymakers as a result of these findings:

1

The ratio of male-female staff in Higher Education Institutions (HEIs) needs to be more even across all pay grades and job roles

2

Strategies should be designed and implemented to improve both the quality of research and the visibility of this research online and within global networks

3

Introduce pre- and in-service programmes of counselling, mentoring and rewards for faculty retention



2.0

INTRODUCTION

The establishment of the Higher Education Commission (HEC) in 2002 modified the University Grants Commission (UGC). The HEC was designed to develop an improved higher education (HE) teaching and research system in Pakistan; a substantial contributor to the success of the HE sector in any country is the quality of its academic staff. The HEC has invested heavily in the academic community, and has to date awarded more than 10,000 scholarships to staff to complete PhD programmes and Post-Doctoral positions, including 6,000 overseas scholarships. From 2004-2014, 3,783 overseas scholarships were awarded – the overwhelming majority of these were for PhD scholarships (3,575) as well as a select number of awards at master's degree level (208). Approximately 4,000 of these overseas scholars have already completed their PhDs and returned to Pakistan to work in the university sector. The scholarships programme is expanding year on year: in 2013-14, HEC offered 436 new scholarship awards (over half of which were overseas placements). (HEC 2014).

In addition to funding PhDs and Post-Doctoral opportunities, the HEC has introduced programmes such as the Foreign Faculty Hiring Programme (FFHP), Short-term Foreign Faculty Hiring Programme (SFHP) and Visiting Scholars Programme (VSP). These programmes have sought to promote the research culture in Pakistan by bringing foreign

professors on short-term and visiting positions to work in a variety of Higher Education Institutions (HEIs). These programmes have brought in over 600 foreign professors, 60 of whom are still working in public sector universities. University enrollment has increased from 276,000 students in 2004 to 1,117,000 by 2014. While the numbers of women and men enrolling are rising at similar rates year on year, there is a persistent gender gap (608,000 men enrolled in 2014 compared to 509,000 women). (HEC 2014).

Despite these efforts, there are still a number of issues facing academics in Pakistan, particularly when it comes to building a successful and productive academic career. The HEC are still facing challenges related to capacity building of staff, professional development training and the skills of faculty staff: only one quarter of Pakistan's 40,000 faculty members hold a PhD. (HEC 2013, p. 2). The HEC strategic vision's dominant discourse concerns "faculty growth and development for the meaningful development in the education sector". This study aims to provide an evidence base for the creation of a career development strategy for academics in Pakistani HEIs. The evidence was gathered from an online survey of all current academic staff in public sector universities that are monitored under the Higher Education Commission (HEC) as well as interviews with a large number of senior academics within the same institutions.

3.0

LITERATURE REVIEW

The literature on academic careers reveals two areas of global interest: the changing nature of academic careers and gender issues. There is abundant literature on both topics; this review will focus on the most pertinent recent studies as well as specific examples from Pakistan. The third area of interest emerging from the literature, which has direct relevance to Pakistan, is the relationship between recruitment and retention of academic staff and a lack of professional development programmes. These professional development programmes, if properly resourced, could play a significant role in addressing gender issues by providing tailored support for women in academia.



GLOBAL CHANGING NATURE OF ACADEMIC CAREERS

Worldwide the growing numbers of students attending HEIs and the increased focus on producing high quality publications have changed the nature of academic careers. Universities are increasingly working with business models to maximise the return of staff effort on research and teaching, encouraging their staff to take on larger teaching roles and demanding an increase in both the quantity and quality of their publications. Scott's appropriately entitled 'death of the don' (2014) highlights the recent changes in an academic career in the UK in the introduction to Bryan Cunningham's edited collection on professional life in UK HE. The collection highlights the change in UK academic careers in light of widening participation, the expansion of HE and the drive towards marketisation. The collection considers how academic careers have evolved in this environment and reflects on: the changing character of HE work (Temple 2014); the consequence of national attempts at measuring research output through mechanisms such as the Research Excellence Framework REF (Brown 2014) and growing interest in the importance and value of teaching roles (Duncan 2014).

This tension between teaching demands and research expectations is not unique to the UK. A similar collection of papers in Teichler and Hohle's (2013) edited collection based



on data from 12 European countries shows similar changes across Europe and similar consequences for the shape of academic careers (changing nature of work (Kwiek and Antonowicz 2013), research focus (Drannan et al 2013) and value of university teaching (Hohle and Teichler 2013)). The global position set out in these UK and European examples is repeated in developed and developing countries all around the world.

The current experience in Pakistan is similar to those presented above for the UK and Europe. Academics in Pakistani universities find themselves taking on more demanding teaching roles to accommodate larger and more demanding student bodies, an issue that is becoming increasingly exacerbated due to a lack of available academics. Many universities face issues filling vacancies for academic staff, which is not the case for the UK and many other European countries. Heavy teaching loads, together with the worry about achieving successful research outputs, create an environment where many academics 'burnout', a phenomenon that is well documented in the academic literature for Pakistan. Khan et al (2014) consider the lack of organised professional development in Pakistani universities to be linked to academic burnout: the policies set at both the university and HEC levels with regard to the measurement of a successful academic career place little emphasis on the need for professional development. They suggest that the professional development systems within universities guided by policy from HEC could improve academic careers for all.

The global trend of increasing teaching loads related to numbers and expectations of students, together with the increasing demands for a large volume of quality research publications, has significantly changed academic careers. In Pakistan, this global trend is amplified by persistent recruitment and retention issues.

GENDER ISSUES IN ACADEMIC CAREERS

Gender gaps in academic careers are not unique to Pakistan; they are a global concern. Louise Morley has highlighted the scale and scope of the gender gap in both recruitment and career progression in both developed and developing countries. In Morley (2015), she argues that the financial aspect of research has disproportionately disadvantaged women and has led to under-representation of women as research leaders. Her recent work has used data collected from British Council Seminars in Hong Kong, Tokyo and Dubai. This consisted of empirical data collected via questionnaires, group and panel discussions and individual presentations during the three seminars. The total of 72 respondents consisted of discussants and participants who represented academia globally.

Morley (2014) uses the same data to consider the key enablers, impediments and distractions for women in academic leadership and knowledge production. She discusses the relative importance of women's desire, dismissing and being disqualified for senior roles in academia which all contribute to a global picture of under-representation of female academics. She has seven key themes. First, women often find promotion to senior roles in HE through very inward facing roles: a director of teaching and learning, for example. Second, most of the world lags significantly behind Norway when it comes to the gender balance of Vice Chancellors – but even here, under a third (32 per cent) of these positions are held by women. Third, the exploitation of work-life balance arrangements in the form of lower pay. Fourth, loss associated with leadership, both in terms of loss of research and teaching time (if successful) and the emotional consequences (if not successful). Fifth, enabling women to succeed was largely considered as a role for mentoring and professional development at a formative stage in their career (although policy contexts, legislative frameworks and effective advocacy were also seen as important). Sixth, the most important constants were considered to be organisational and cultural norms. Finally, academic females were often considered as a third sex: not female and yet not quite male either. Morley's findings are particularly pertinent to Pakistan, where all seven themes are at least partially evident. An added, generational, dimension could be added to this list for the Pakistan context: the 'first in family' phenomenon is amplified and different when the first person to attend an HEI in the family is a woman.



The concept of the glass ceiling is often used in the literature to attempt to explain why women are under-represented globally in academic leadership roles. Recent papers, such as Yousaf and Schmiede (2016), attempt to understand the reason for this glass ceiling effect. In their paper they consider the role of exploitation and harassment of female academics, often with male line managers, as a factor in the glass ceiling on women's academic careers in Germany. The glass ceiling is reimagined as a glass cliff by McKimm et al 2015. They find that these concepts are important in considering the lack of women in medical education senior roles. Many such papers, like McKimm et al 2015, suggest the importance of mentoring in improving the situation and helping to break through the glass ceiling.

The most recent literature by Morley and Crossouard (2015) provides an excellent overview of the issues faced by female academics in Pakistan. They highlight the importance of women-only universities in pushing for change in Pakistan, a way forward which is also being explored in other countries with similar educational and social environments (the establishment of Princess Nourah bint Abdulrahman University in Saudi Arabia, for example). They recommend that in order to monitor and action change the HEC should collect and report statistical data on the proportion of female academics in academic leadership as a starting point to quantify the scale of the problem. Table 1 provides the current data held by HEC for public and private universities on the demography of the academic population in 2014-2015. It compares these numbers for Pakistan with the UK (using data obtained from the Higher Education Statistical Agency (HESA)). Table 1 shows, as confirmed in Figures 1 and 2 below, that while Pakistani and British academics both experience gender bias in academic and administrative roles in HE, there is a more pressing and prevalent issue in Pakistan. This suggests that while the glass ceiling is still present in both systems, the situation in Pakistan is noticeably more restrictive in Pakistan than it is in the UK – a situation which may present more focused development opportunities.



FIGURE 1
PROPORTION OF WOMEN IN ACADEMIC ROLES IN PAKISTAN AND UK 2014-2015

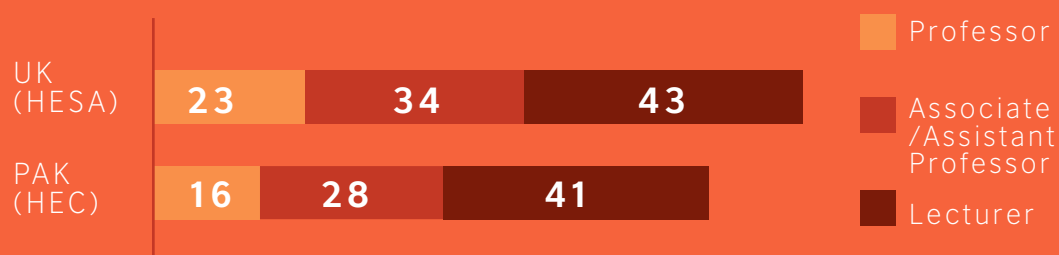
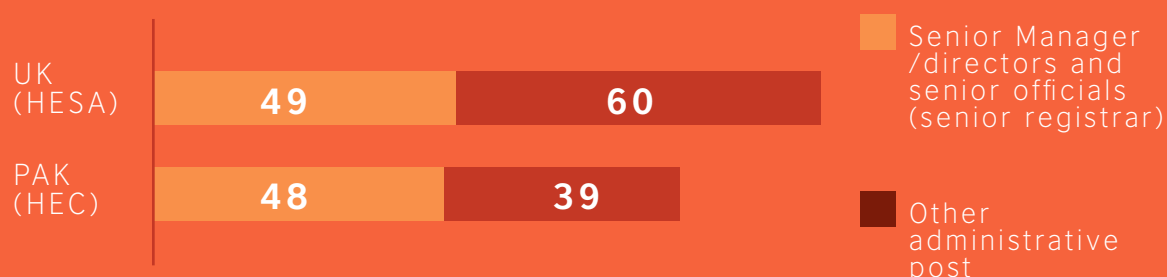


FIGURE 2
PROPORTION OF WOMEN IN ADMINISTRATIVE ROLES IN PAKISTAN AND UK 2014-2015



As a result of a lack of quantitative data, many of the studies considering the gender gap in Pakistani HE focus on small scale qualitative studies. One such example is the work by Maryam Rab. In her work, Rab (2010a, b and c) collects life story data from the previously unheard women professors in Pakistan to explore issues in moving up the university hierarchy. She finds that few women make this journey successfully and suggests there is scope to improve this. She also finds that there is scope for other studies of this type by exploring the perspectives of other core stakeholders.

The clear theme of this global topic is that a gender gap in academic career progression and opportunities is evident across the world. Often mentoring and coaching are suggested as agents for change, as well as government intervention at a national level. In Pakistan, gender imbalance is particularly acute for professors and those in lower administrative posts.

RECRUITMENT AND RETENTION ISSUES

The final theme from the recent literature for Pakistan, which was more specific to the national context, is the recruitment and retention of academic staff. Despite recent HEC initiatives to help promote the quality of academic staff in Pakistani universities, the literature suggests that there is still an issue finding and maintaining sufficient academic staff nationally.

There are various papers focused on understanding the determinants of staff turnover in universities in Pakistan. Khan et al (2014) attempt to build a framework to help reduce this turnover based on existing literature. They place particular importance on the commitment of the academic to their institution. Mubarak et al (2012) also consider faculty retention but they focus on pay satisfaction and opportunities to learn and grow.

A recurrent theme is the correlation between the lack of support for career development and the high turnover rate. Saleem and Amin (2013) consider the need for career development to be reinforced by the development of organisational support. They suggest that the use of human resource career development programmes should become part of university strategic plans. They identify a need for this type of development both for the academic and the institution in which they are located. This is critical in order to change the existing culture and to build on the progress that is being achieved.

A related issue to career development mechanisms is the absence of professional development for teaching in universities in Pakistan. This is considered at length by Aslam et al (2012). In this paper the authors review existing professional development initiatives and suggest that more of these opportunities, and a commitment to continual professional development (CPD), are vital for development of the HE sector in Pakistan. CPD initiatives are an eloquent indicator of an organisation's commitment to continuous quality improvement; more focus on reforming current practices will enable a more inclusive and diverse recruiting culture.

Current HEC policies aimed at increasing the supply of young, qualified academic staff should in time reduce the staff shortages experienced by many institutions. However, the clear message from the literature is that there is a need to develop processes to help support the whole academic career to help reduce turnover.



SUPPORTING ACADEMIC CAREERS THROUGH MENTORING

The literature on supporting academic careers is largely based on more established academic communities in the UK, America and Australia. The main area of interest in this literature is mentoring and how this can be used formally and informally to support academics in their careers. This focus on mentoring within HE in terms of designing support for academic careers builds on a history of scholarship and collegiality, which are often considered to be at the heart of academic communities

The importance of mentoring relationships in preparing graduates for leadership positions cannot be ignored. Holloway (2001) discusses the need for an experienced teacher to provide guidance and support to

novice teachers and facilitate their professional development. This is in line with Danielson's (1999) view that 'mentoring helps novice teachers face their new challenges; through reflective activities and professional conversations, they improve their teaching practices as they assume full responsibility for a class'. It was argued in his research that mentoring advances the professional development of new teachers as well as their mentors.

Mentoring research and practice over the past 15 years has evolved to account for the changing career landscape (Baker, 2014). Mentoring relationships contribute to career growth and enhance the performance of mentees. Researchers have explored the

role of mentors in teaching (Hall & Chandler, 2007), offering insights into the mentor's perspectives (Allen, 2007) and have also revealed the dysfunctional side of mentoring for the mentor and the mentee (Eby, Butts, Durely, and Ragins, 2010; Lunsford, Baker, & Griffin, 2013). Numerous guides are now available to help individuals to become effective mentors (Johnson, 2007; Johnson & Ridley, 2008) and how to improve mentoring behaviors (Shea, 2002).

Boice (1992), Menges and Associates (1999), Caplan (1993), and Sorcinelli (1994) debated the complication and challenges facing the new faculty member. Sorcinelli (1994) described this as follows:

New faculty must unravel the organisational structures and values, expectations for performance and advancement, and the history and traditions of their campus setting,and the ability....to navigate these early years is critical to their success and satisfaction with an academic career. (p. 474).

In a reflection of the challenges and encounters faced by junior academic staff as they establish their career in HE, Mullen and Forbes (2000) posited that through mentoring relationships, new academics can receive assistance with "a) learning

unfamiliar tasks, b) developing their research, c) networking at conferences and within the university, and d) navigating the political issues in the workplace" (p. 44). To achieve an effective and efficient relationship between junior and senior academics, Mullen and Forbes proposed that effective mentoring could be an essential element of the conception of quality experience for the junior member as they engage with their new academic environment.

This study demonstrates to individual faculty associates how mentoring relationships can expedite professional and personal understanding and growth. Harnish and Wild (1994) and Luna and Cullen (1995) discovered that through mentoring relationships, both experienced (senior mentor) and less experienced (junior mentee) academics developed greater awareness of their professional roles and responsibilities, which supported professional growth. Additionally, Chalmers (1992) believed that "mentoring is important to receive at all stages of adult growth" (p. 72), suggesting the mutual benefits of the mentoring relationship to both senior (mentor) and junior academics (mentee).

Wunsch (1994:4) proposed, "The twenty-first century will bring new challenges to HE so that bureaucratic institutions must renew their responsibility to support the developmental needs of staff, students, and faculty and recognize the relationship between personal change and organisational vitality". It was concluded in Wunsch's research that the mentoring for faculty, staff and students is vital for the influential renaissance.

ROLE EXPECTATIONS OF THE MENTEE

Junior academics are responsible for a range of activities with their job roles across teaching, research and service, both in the community and within the institutions. Boice (1992) and Schuster (1990; as cited in Wunsch, 1994) argued that “many new faculty members feel isolated and alone in a challenging new environment, where they are faced with more demands than ever before” (Wunsch 1994 .65). Mullen (2000) also highlighted that “new faculty seems to expect genuine collegiality from co-workers and some are unprepared for the reality of competition and power seeking they find” (p.39). Jackson and Simpson (1994) stated that “research universities present a number of special challenges for new faculty members as many of these institutions have made demands for increasing teaching effectiveness, while traditional demands for research productivity remain unabated” (p. 65). The new faculty member is challenged with many responsibilities so the shared mentor

relationship with senior faculty members could positively affect their career development. Reich (1996) found that “new faculty members were reluctant to make their needs known, fearing they would be judged negatively” (p. 129).

Angela (2011) stated “Operational characteristics for successful mentoring programs of new university faculty include clarity of purpose of the program, methods for matching mentors and protégés (mentee), mentor training, mentor-protégé relationship building, and program effectiveness assessment” (p.1). She provided a four-staged model based on the characteristics and successful outcomes of the programmes. She concluded that the mentoring model helps new academics to develop an emotional support network, make new connections and enhance their job performance.

MENTORING MODELS

Researchers have also run trials on different mentoring models that can support young academics in their career development. A recently developed programme focused on Formative Assessment and Support System for Teachers was tested by the California Department of Education in collaboration with California Commission on Teacher Credentialing (Holloway, 2001). It was perceived that the experienced teachers found this programme beneficial for their own practice development as they were getting engaged with new practices that were ultimately a learning process for experienced teachers as well. A similar programme aimed at finding the specific model for framing discussions on teaching and learning with a view to develop prospective teachers' pedagogical skills was tested by Giebelhaus and Bowman (2000). This study also concluded that the novice academics who were assigned experienced mentors were able to demonstrate more complete and effective planning, more effective classroom instruction, and a higher level of reflection on practice compared to novice academics whose mentors were not experienced. Such mentoring programs suggest a range of possibilities that can be explored to assist young academics develop their potential including: formal mentoring, informal mentoring, peer mentoring, group or consortia mentoring, intra-departmental mentoring, inter-department mentoring, research mentoring.





RELATIONSHIP BETWEEN A MENTOR AND MENTEE

There are various researchers who have defined and described the mentor in literature (Cohen, 1995; Kram, 1985, 1988; Zachray, 2000). The consistent underlying definition of a mentor is a person “who is caring and nurturing to another person, which enables personal and professional growth in a setting typically involving new territory” (p. 20). Mihkelson (1997:4) described a mentor as a “more experienced peer, a ‘new’ generation professional expert, and a leader in a field who is interested in professional dialogue with a less experienced professional”. Both definitions provide identical features of a mentor to enhance the professional development of junior academics (mentee) in this

relationship. Throughout the literature on academic careers it is assumed that the young academic (mentee) is a capable, knowledgeable, qualified applicant who needs professional supervision (a mentor) to understand the difficult situations in which they will need to take decisions and thereby improve their professional development.

A mentoring relationship could take the form of a formal, informal or naturally occurring relationship, all of which could contribute to professional development. The formal or planned relationship exists when both members knowingly prepare for this relationship and plan and reflect throughout the duration of the relationship.

4.0

UK CASE STUDY EXAMPLES OF SUPPORT MECHANISMS FOR ACADEMIC CAREERS

Many of the support mechanisms for academic careers in the UK have been developed with mentoring and coaching at their core. Whilst the demographic structure of the UK HE is very different (there are many more experienced academics and fewer permanent job openings for more junior researchers), we have presented some examples below of the types academic career resource that could be adapted to support the next generation of young Pakistani academics and academic communities.



FORMAL MENTORING: MENTORING AND COACHING SCHEME

Most HEIs in the UK offer mentoring and coaching opportunities to their staff. Such opportunities are often focused on those taking on a new role within the HEI: becoming Director of Research for the first time, for example, or those facing challenges in a current role when trying to enact change. Such opportunities are also offered on request to those people who are considering the next steps in their career path.

The difference between mentoring and coaching often reflects the stage in the career of the person offering support. A mentor is someone more senior than the beneficiary often with experience of the role in question. Within the UK HE system, with a

wealth of older experienced academics, finding an appropriate mentor within an HEI is relatively easy. However, with the current demographic make-up of the Pakistani academic population this may prove more challenging. Linking in with different virtual peer networks may offer a way forward and would allow for global linkages on specialist subjects such as Medicine.

A coach can be an older, more experienced colleague but could also be from a different HEI or even outside academia. Given the demographic make-up of the Pakistani academic population there is more scope for the development of coaching systems to support career development than mentoring.



INFORMAL MENTORING: SENIOR COLLEAGUES AND FORMER PHD SUPERVISORS

Outside the formal mentoring and coaching programmes, many younger academics find senior colleagues who act as an informal mentor within a balanced academic department and HEI. These are usually, but not necessarily, their former PhD supervisor or senior academic from a research project. The benefit of these informal relationships is that they are not limited to a specific issue; however, there can be a perceived lack of mutual benefit – the more senior colleague may not feel enriched by the experience. It may be worth considering how such informal mentoring relationships can be encouraged within Pakistani universities. One possibility is to include such efforts within the expectation of preparing for a senior post (such as professorial appointments).



PEER MENTORING: WOMEN'S WRITING COLLECTIVE

With the lack of experienced, senior academics in many Pakistani universities and growing numbers of junior academics, peer mentoring offers a potential solution tailored to suit this particular demographic. One such example of peer mentoring is the role played by the Women's Writing Collectives in helping female academics to support each other's writing and offers the potential to boost publications of the participants. Such collectives can use writing retreats or simply regular writing sessions, where participants bring something to work on and the group writes together. Such scheduled meetings on a regular basis help to build communities of writers who are able to support each other and encourage their peers to produce new publications.

GROUP OR CONSORTIA MENTORING: FORMAL RESEARCH GROUPS

A more formal and traditional approach to group mentoring within UK HEIs is the development of formal research groups. These are often a collection of academics across a department/faculty/HEI with common interests who form a research centre, which is headed by a senior academic. Such research centres offer opportunities to share research ideas, present work, share peer feedback on drafts before submission to journals and offers to work on joint research grants or bids for research funding. UK HEIs often have many such groupings of academic staff offering each other support through their collective interest in academic fields of study.

The development of formal research groupings within an HEI helps to support PhD students, as their supervision becomes part of a research grouping rather than the responsibility of a single supervisor. These centres also serve as spaces for institutions to host visiting researchers. Overall, research centres develop the research culture of an HEI and promote a sense of collegiality. These are important factors in helping to support academics in what can be a lonely and highly individualised profession. A strategic plan to develop research centres in Pakistani universities has the potential to support the continual development of individual academics as well as the research culture of the institution.

INTRA-DEPARTMENTAL MENTORING: HR APPRAISAL SYSTEMS

HR appraisal systems, if used effectively, can help individual academics to plan their careers in UK HEIs. Prior to an appraisal meeting with their line manager, an academic will reflect on the previous year, including their key achievements and constraints. Following this, they produce an action plan to discuss for the year ahead, setting objectives and planning any CPD needed to achieve this. The subsequent discussion with line managers helps to ensure that academics' plans for the coming year align with, and contribute to, departmental and university objectives. The usefulness of the HR appraisal systems in supporting career planning and development are dependent on the individual's willingness to actively engage with the process. Many early stage academics who do engage with these processes, however, find them to be a useful opportunity to seek careers advice from the person performing the appraisal (often a senior member of academic staff).



INTER-DEPARTMENT MENTORING: CPD COURSES LIKE TEACHING QUALIFICATIONS

Cross-departmental mentoring often happens in university-wide training courses. Within UK HEIs these courses often involve sharing experiences with other participants and seeking solutions. The most common CPD courses are those centred on the development of teaching skills, often working towards recognition with the Higher Education Academy (HEA). The development of teaching skills helps the academic to design courses and programmes of study that support students' learning and have manageable workloads. Other CPD courses common in HEIs are courses for the development of management skills (for those entering senior management roles) or around writing for publications (aimed at early career researchers). Beyond the development of skills which would help develop the career, such training opportunities give the participant access to others across the HEI in similar situations. The development of these shared CPD courses across the HEI could be a fruitful strategic avenue to promote future peer mentoring in Pakistan.

RESEARCH MENTORING: CONFERENCES AND VISITING POSITIONS

Finally, tuning into the research community nationally and globally can help to provide opportunities for research mentoring. In order to access these opportunities it is important for the academic to connect with the wider academic community by joining academic networks at conferences and other meetings. These can then be developed further by exploiting visiting positions to engage with the community in a meaningful way. Research mentoring has scope to help support academic career paths in Pakistan as they are not dependent on a large stock of senior academics as well as helping to improve the quality of research outputs.

5.0

RESEARCH DESIGN

This research reports aims to provide evidence for the British Council to support their goal to increase the number of women in HE (including in administrative positions) by championing an increase in both international collaboration and local opportunities. The key objectives are to:

- increase number of women in HE (including in administrative positions)
- provide opportunities for women's professional development
- increase the number of women researchers and research networks
- increase the opportunities for Pakistani women to access international links and opportunities for collaboration.

In order to achieve these aims and objectives, data was collected to enable a situational analysis of women in HE in Pakistan. The analysis presented aims to map out the current academic career profiles in Pakistani universities.

A mixed methods approach to data collection was used. A thematic analysis of 27 interviews (20 females and seven males) with senior faculty members in private and public HEIs in Pakistan is presented. These interviews were undertaken by the British Council in early 2016. The role of women in HEIs in Pakistan and the gateway to improved research and professional development were the two salient themes of these interviews.

In addition, an online survey was sent to all academic and administrative staff in public HEIs in Pakistan. The survey was completed by 522 faculty members (350 women, 172 men). The questionnaire sought to explore the environment in which academic and administrative staff work, and the role that gender plays within this environment.



METHOD

Surveys and semi-structured interviews were used as research tools to gather information about the potential mentoring relationship and research and academic development with gender equality. The surveys were sent online to participants and interviews were taken mostly at the university campuses (in their respective offices) by the British Council in Pakistan. The surveys were sent to young academics and senior faculty members in public sector universities. The interviews were taken from senior faculty members from a total of 21 public universities and private universities in Pakistan.





PROCEDURE AND ANALYSIS

The in-depth (Johnson, 2002; Kvale & Brinkman, 2009) semi-structured interviews, involving senior faculty members from a total of 21 private and public universities in Pakistan, were conducted by the British Council in Pakistan. These interviews were then transcribed; the transcriptions form the basis of this analysis. We have not changed the language or expression of words as recorded in interviews; the 'Interview quotes' are provided as recorded from participants. The identity of the participants has been kept confidential, and so all quotations are referenced as 'interview quote' without reference to the name of each participant. Thematic analysis is employed as an appropriate method as it helps to identify, describe, analyse and report on the themes and patterns revealed by the selected data set (Braun & Clarke, 2006).

The online survey data was provided in Microsoft Excel, which was used to produce the graphs within this report. The data was subsequently moved into Stata to undertake the descriptive statistical analysis presented here.

6.0

THEMATIC ANALYSIS OF INTERVIEWS

From the analysis of the transcripts of the 27 interviews with senior academic and administrative staff in public and private universities across Pakistan, five qualitative themes emerged: an increased awareness of the need to improve research in Pakistani Universities; women's progress and the culture of academia in Pakistan; barriers and opportunities that occur in women's career pathways; personal learning-way forward and gender concerns and support strategies.



INCREASED AWARENESS TO IMPROVE THE RESEARCH IN PAKISTANI UNIVERSITIES

In the 21st century context, high quality research has become an essential part of the HE portfolio as HEIs look to set themselves apart from their competition to achieve global recognition and attract funding (Bosch & Taylor, 2011). There is a new wave of pressure on Pakistani Higher Education Institutes (HEIs) to become research-oriented, which has resulted in a shift towards 'active research' status from the established, traditional teaching focus. This new research-oriented approach has already been adopted by advanced coun-

tries such as the UK, USA, Australia, Canada and New Zealand, and is being considered by a number of European countries as well (Bosch & Taylor, 2011). Developing countries, including China and India, are also now looking to adopt this 'active research culture' approach, which has increased the sense of urgency within Pakistan to follow suit and thus maintain the global competitiveness of their HEIs.

The participant's interviews clearly demonstrate their collective awareness about the

need to develop the research culture in their HEIs. Indeed, they pinpointed the particular areas of work and academic disciplines where they felt that this shift was most urgently needed:

....out of the top 500 universities of the world we were the only Pakistani university who made that list.....the research which comes out of our natural sciences and biological sciences is truly awesome I would say, our faculty publishes in some of the best journals in the world. Social sciences however is lacking behind. It's not where it should be and we are trying to do something about that too. (Interview Quote)

According to Bland and Ruffin (1992) there are 12 factors that can nurture a culture of research development within HE. These 12 factors are: “clear goals for coordination; research emphasis; distinctive culture; positive group climate; decentralised organisation; participative governance; frequent communication; resources, particularly human resources; group, age, size and diversity; appropriate rewards; recruitment emphasis; and finally leadership with both research skills and management practice.” (Bland and Ruffin, 1992; also cited in Pratt, Margaritis & Coy, 1999, 2006: 3). These characteristics have formed the basis for numerous case study analyses (Zajkowski and Dakin, 1997) to study the development of research culture. In the 1980s, the conversation focused on how organisational culture aligned with academic management (Williams et al., 1993). A persistent stream of academic papers, articles and books were dedicated to this subject (e.g. Schein, 1992;

Williams et al., 1993; Hampden-Turner, 1994; Bate, 1995; Hofstede, 1997; also cited in Pratt, Margaritis & Coy, 1999). Culture was defined in a different context, but the suggested definition for academic research culture is that “culture is the commonly held and relatively stable beliefs, attitudes and values that exist within the organisation” (Williams et al., 1993:14). This literature also placed great importance on the need for an environment where ‘the majority of the people within the organisation share their beliefs and attitudes and values’ (Pratt, Margaritis & Coy, 1999, 2006: 4). Pratt, Margaritis & Coy (1999, 2006: 3) argued that the ‘beliefs and values held by the people’ in HEIs will influence their attitudes and behaviours. From interviewing the participants for this study, it was clear that there was a shared belief in the need for an advanced support and mentoring system to enhance the culture of research and to provide careers’ advice for staff.

The thing missing from our system is guidance and support for boys and girls. In foreign countries there are counsellors for every child - even in schools. The counsellors talk about promotions, achievements and attitudes of the child and career possibilities that would be good for that child.... but in our schools, universities, jobs and situations we have no guidance regarding direction...we are satisfied that we have a job...there are facilities but you don't know about them; you have to dig and find out about the available facilities yourselves. Professionals should be told: “these are the facilities available to you.” (Interview quote)

In Pakistan the HEIs could apply all or some of these characteristics to introduce a strong research culture where members are free to learn, communicate and share their research with each other. Creating new rules and infrastructure could enable academics to improve their performance. The understanding of the research culture hinged on an appreciation of the different levels of research intensity and research emphasis (Bosch & Taylor, 2011). The understanding of research emphasis has generated awareness about the different levels of research intensity; “the United Kingdom’s Research Assessment Exercises include: ‘research-led’, ‘research-driven’, and ‘research-informed’ (stated from most research-intensive to least research-intensive)” (Ball & Butler, 2004:90). It is vital that the Pakistani Higher Education Commission (HEC) ensures that universities have a standard research culture that provides sufficient support to its researchers and staff. To achieve their goal of a ‘dynamic’ HEI system, policies and priorities should be revisited and reinvigorated.

WOMEN’S PROGRESS AND CULTURE OF ACADEMIA IN PAKISTAN

There are many factors that influence the role of women and their participation in academic life in Pakistan. This is one of the emerging themes focused on women's empowerment in academic culture. The Islamic Republic of Pakistan is the sixth most populous country in the world with a population of approximately 207 million as of 2017 (Government of Pakistan 2017a). Pakistan is located in South Asia and is considered to be a rapidly developing country, although it also faces a number of obstacles to realising its full development potential (such as economic, political and security issues). As such, the establishment of an education system that delivers quality education and offers wider opportunities to female staff is still an aspirational target. According to Harry (2012:27) "A small percentage of Pakistani families understand the value in treating their male and female children equally". It is evident from various existing research reports (Klein & Nestvogel, 1992; Mehdi, 2004; Madhani, 2007; and UNICEF 2006) that Pakistan society continues to be heavily male-dominated. Compared with other countries in South Asia, Pakistan is considered to have the 'widest gender gap' and discrimination against women continues to restrict them from equal participation in any field of life (UNICEF 2006). One participant has stated:

We are a male-dominated society, that is true – whether we accept it or not.....but once we look at the hierarchies in Pakistan, we find a marked difference between the number of men and women.....women usually have the burden of families as well so professional women do not commit to longer hours. (Interview quote)

This statement is telling of the continued challenges surrounding women's status in Pakistani culture. Another research study conducted by Malik and Courtney (2011) provided a detailed insight into the 'effects of participation in HE on women's empowerment in Pakistan'. It was argued that through participation in HE, women are more empowered to address discriminatory practices and to pursue better opportunities (Malik & Courtney, 2011). This research used survey and semi-structured interviews to gather information from all faculty members and female students from ten public universities in Pakistan; 1290 students and 290 faculty members participated in research. The research findings clearly demonstrate that promoting gender equality within HE would have a positive influence on Pakistan's academic development.

The United Nations Population Information Network (POPIN) has defined women's empowerment as follows:

Women's empowerment has five components: women's sense of self-worth; their right to have and to determine choices; their right to have access to opportunities and resources; their right to have the power to control their own lives, both within and outside the home; and their ability to influence the direction of social change to create a more just social and economic order, nationally and internationally. (POPIN n.d.)

The women employed by universities in Pakistan who also have family commitments are accustomed to balancing these respective responsibilities.

Our family, social and extended family....matters a lot for us. So it's creating a balance between your work environment and taking care of your work assignment while at the same time taking care of your family and relationships. (Interview quote)

When I was young assistant professor the major challenge was balancing childcare responsibility... then old age care looking after my sick father-in-law - so basically balancing my family and work...now the major challenge is to balance my own work responsibilities in terms of the components of my profile as a dean and professor. (Interview quote)

It is clear that women working in HE are not only managing family and social pressures, but are also performing well in their roles. There are certain persistent stereotypes, however, that are hampering women's progress, such as the cultural assumption that women lack decision-making skills – regardless of their level of education. Weiss (2003) contends that 'one of the main reasons for women's marginalised status in all spheres of Pakistani society is their exclusion from the decision-making process' (also cited in Malik & Courtney, 2010: 7).

My husband, my husband and my husband because he is the only one who has planned everything for meActually he was the person who urged me on by saying "look, I want a very highly educated lady with me who can discuss these

things - so prove yourself". (Interview Quote)

Maybe I would not have studied so hard and then joined an institution if [my husband] had said that "I just wanted you to do a master's degree and start a job" - but he is very happy with all that I have achieved. (Interview Quote)

Basically because my father died when I was young, and I had no 'buzurg' (elder person) in the family, I used to get close to old people like the doctors.....that closeness gave me empowerment and they used to take care of me as if I was one of their own children. (Interview Quote)

The Pakistani Constitution states that all citizens have equal rights by law in Pakistan and there shall not be any discrimination on the basis of gender (Government of Pakistan 2005c). At the same time, however, there are extensive traditional practices that insist that men should occupy leadership roles - whether this is the father, brother, husband or father-in-law. The persistence of these customary structures creates an environment which hinders women's advancement in Pakistani society.

BARRIERS AND OPPORTUNITIES IN WOMEN'S CAREER PATHWAYS

The challenges faced by women in Higher Education Institutes (HEIs) in Pakistan were extensively discussed by participants in this study. It is evident from existing literature that there is a continued marginalisation of the women faculty members in academic environments (Glazer-Raymo, 1999; Hamrick, 1998; Hopkins, 1999; also cited in Gibson, 2006), and “the culture of academia has been described as less than hospitable to women as they attempt to navigate the various aspects of their positions and environments” (Gibson, 2006:1). Gibson (2004) also argued that gender issues affected the mentoring relationship for female faculty members with an identified need to “facilitate the provision of academic mentoring for women faculty- individually, departmentally, and culturally” (Gibson, 2006:1). As described by Rios & Longnion (2002), women faculty members usually view themselves as “outsiders”, feeling constrained by, and secluded from, the existing academic culture.

There are clear signs that higher education is becoming one of the last bastions against the recognition of women's worth; it is salutary to note that business, manufacturing and government organisations are all the

more likely to value and to promote women than educational ones. (Liz Stanley, 1997:5; also cited in Cotterill, Jackson & Letherby, 2007:2)

In order to provide a substantial change in the position of women in Pakistan, wider opportunities and a safe working environment need to be created. Participants reported that there was a particularly urgent need to address the understanding of women's worth in society in northern and rural areas of Pakistan.

The only thing that goes against me as a woman is “I being a woman can't do anything”. Let me share one thing, on my second day at universitythe professor had lunch with me and mentioned that today he shared a story with my wife. I asked him “what story?” ...he told his wife that the university was going to have huge trouble. When his wife asked why, he said that “our new Vice Chancellor is not a ‘HE’ but a ‘SHE’. (Interview quote)

Participants highlighted security issues and the support system (need for mentoring and

advanced facilities) as the core challenges facing their academic progress. The gender gap was also discussed as a concern.

.....women are supposed to be - I don't like to use the word non-aggressive, nobody should be aggressive - but there are certain limits to how they can behave. Discipline problems, for example, if they are in an administrative position as a chair or a dean; it's also more difficult for them (women) to move around in certain ways then it is for men. These are some of the challenges. (Interview Quote)

A few things that we find difficult when dealing with women from an administrative perspective: one is that there are cultural issues, which I have already explained which burdened women.....women often find excuses, which might be legitimate family and social issues. They will not commit themselves to a broader set of responsibilities in the same way that men do. We need some kind of intervention to train and educate them on those matters.....we need to give them training on professional behaviours and attitudes in the work place so that they can see what added responsibilities they could adopt. (Interview Quote)

Maybe there is a difference in family setups in other countries. People are more independent overseas; men and women are equally independent in the USA for instance and in some other countries so they can make

decisions themselves. They don't depend on husbands, brothers and fathers to take their decisions and safety on the street is almost equal for men and women. So that makes things different from Pakistan. (Interview quote)

The existing literature corroborates the views of participants about the gender gap and suggests examples of training that could help them to improve professionalism and promote equality. The most recent literature clearly states that "one intervention that can enhance socialisation, orientation, and career progress of faculty, as well as improve equity for women faculty, is the establishment of mentoring relationships" (Boyle & Boice, 1998; Brennan, 2000; Jackson & Simpson, 1994; Smith, Smith, & Makham, 2000; also cited in Gibson, 2006:2). Catalyst, a leading US research organisation, has worked with numerous businesses and professions to generate wider professional opportunities for women. They conducted research to study the impact of mentoring on women's performance. The results revealed that "women made up 14 per cent of corporate officers in Canada in 2002, and this increased only fractionally, to 14.4 per cent, in 2004"(Catalyst, 2004; also cited in McKeen & Bujaki, 2007).

PERSONAL LEARNING THE WAY FORWARD

Participants suggested the need for facilities that could help them to improve their learning, and understanding in an academic environment. The participants drew on the educational context in developed countries, where the support system allows both senior and junior academics to understand and address concerns. The mentoring relationship between the senior and junior academic should provide a space for mutual learning and professional enrichment that evolves over time. According to Edmondson, (1996; also cited in Ragins, & Kram, 2007:285) “when there is a greater power differential between two people, the likelihood of perceived safety to take learning-related risks could be lower for both people than when the individuals are roughly equal in power.” A peer-to-peer relationship can provide a safe shared space for discussing areas of concern without fears of ‘saying the wrong thing’. The participants stated the need for a mentoring relationship:

Our professional environment should include proper document and message sharing from seniors to juniors – this is a gap for us at the moment. People think that their career is limited to their face-to-face teaching; they don’t know that they have to contribute beyond the classroom. (Interview Quote)

I would love to be attached to the research institute, inspiring research and providing guidance to people because research culture in our country is very dumb. (Interview Quote)

... the decision makers in organisations

are the ones who have career choices. (Interview Quote)

One of the participants suggested formal mentoring as a way to build a strong connection between mentor and protégé. The introduction of “traditional mentoring (one-on-one) between senior faculty members can facilitate a protégé’s advancement, compensations, and job and career satisfaction (e.g., Allen, Eby, Poteet, Lentz, & Lima, 2004; Russell, 2004)” (Ragins, & Kram, 2007: 273). McManus and Russell (2010) have suggested that ‘peer mentoring’ can provide an alternative source of mentoring to the conventional senior/junior mentoring relationship. Eby (1997) also argued that “a variety of hierarchical and lateral relationships, including coworkers, team members and even professional organisations, could fulfill traditional mentoring functions to help people gain and improve skills related to both their jobs and their careers.” (Also cited in Ragins and Kram, 2007:275.) As suggested by Eby (1997) and Higgins and Kram (2001), a peer-to-peer mentoring relationship, or one between people with different job roles, can create a rich learning environment where participants share their experience across multiple disciplines to develop a deeper organisational commitment, improve their career satisfaction and have access to clearer career guidance. While understanding an individual’s specific mentoring needs and development goals is time-consuming and challenging, the resulting relationship is mutually rewarding and beneficial for both mentor and protégé.

GENDER CONCERNS AND SUPPORT STRATEGIES

Gender, whether considered alone or associated with challenges of learning, mentoring or coaching, is the dominant discourse of this research study. Therefore it is not surprising that gender concerns were raised by both male and female participants, particularly around the learning priorities aligned with women in the work place. The existing literature has emphasised the significance of the mentoring relationship irrespective of gender. There are many studies that have reported the advantages enjoyed by those who were mentored over those who were not (Allen, Eby, Poteet, Lentz, & Lima, 2004; Noe, Greenberger & Wang, 2002). This research concluded that a mentoring relationship could have a significant impact on both their career and personal growth (Wanberg et al. 2003). There are many researchers (Burke & McKeen, 1990; Noe 1988; O'Neil, Horton, & Crosby, 1999; Ragins, 1989,

1997a, 1997b, 1999) who have focused on the types of mentoring that benefit women as they progress through their career. While using this relationship in HEIs, women can learn to overcome the challenges they face in the HE system in Pakistan.

A trusted guide, sponsor and interpreter, a mentor is critical to: assist women in decoding the masculine culture in organisations; promote women's successful functioning and advancement in organisations, and to ensure that women feel safe, accepted and comfortable in their surroundings. (Ragins & Kram, 2007: 198)

The study of the role played by gender in Pakistani society operates on multiple levels of complexity. While the Pakistan Constitution expressly prohibits discrimination on the grounds of gender (Government of Pakistan 2005c), in practice women face barriers of access to education, employment and society

more broadly. Pakistan continues to perform poorly in global gender equality measures; ranking 143 out of 144 countries in the 2017 Gender Gap Index (above Yemen) (World Economic Forum, 2017) with a labour participation rate of just 24.3 per cent (UN Gender Inequality Index 2015). The academic structure navigates between the needs of individuals (mentor, protégé, and researcher) and the wider social context. Identifying the right mentor can be difficult if women are reluctant to be mentored by men or vice versa. **It is crucial that time is taken to identify the best match available between mentor and protégé to ensure the experience is mutually enriching.** It is apparent from the interviews that men are eager to develop a mentoring relationship with women due to their belief that women need to better understand their responsibilities. If women enjoy equal opportunities and compensation at the workplace then men are happy to work equally, but they express dissatisfaction when women appear to prioritise family commitments over job responsibilities.

.....when you are managing a workforce which involves men and women and opportunities are equal for both of them then the responsibility level is also equal; the compensation is also equal. From the administrator's point of view you are more likely to give them equal responsibilities. We need interventions to train and educate women on those matters so that when you ask for equality (equality in benefits, compensation and other advantages) you need to take equal responsibilities and pains as well. Women joining professions in great numbers is a relatively recent phenomenon for Pakistan. We need to give them training on professional behaviours and attitudes. (Interview Quote)

Ragins and Verbos (2007) suggested that the conventional approach to mentoring research ignores the mutual nature of the mentoring relationship and “takes a hierarchical and perhaps stereotypically masculine approach to the relationship” (Ragins and Verbos, 2007:92). The relationship can be read from two different perspectives: the ‘masculine model of mentoring’, which emphasises the instrumental perspective about “what the relationship can do”, and the “feminine model of mentoring”, which provides insight into ‘what the relationship can be’ (Ragins & Kram, 2007: 199). This is particularly pertinent in cultural contexts which foreground male qualities – such as Pakistan.

These challenges aside, it is important to discuss the role of gender in mentoring. **In order to maximise the benefit and opportunities of the mentoring relationship, mentoring schemes should be responsive and sensitive to the wider social and cultural context.**

7.0

ANALYSIS OF ONLINE SURVEY DATA

From the analysis of the 522 responses to the online survey, five key factors explored are: demographics of those working in public universities, publications and general research profile of Pakistani academics, web-based academic activity, career paths in HE in Pakistan and gender difference and links to factors such as human capital, social network, processes and financial assets.



DEMOGRAPHICS OF THOSE WORKING IN PUBLIC UNIVERSITIES

Table 2 presents the descriptive statistics for the sample. This data considers some basic socio-economic characteristics (gender, number of children, marital status) together with some basic job experience measures (length of time in HE, qualifications (both academic and teaching), role and experience of supervision).

Considering first the socio-economic characteristics, we see that a larger proportion of the respondents are women, although they are under-represented in the HE sector. The lower average number of children (1.6) is explained by a large proportion of the respondents having no children (27 per cent) and a significant proportion being unmarried (33 per cent). These characteristics suggest a large proportion of the respondents are relatively

young academics. This basic demographic data indicates that the respondents to this survey are more likely to be young and female than the general population.

This relative youthfulness is confirmed by the experience measures. The average of ten years in HE masks the fact that only 24 per cent of the respondents have more than 12 years' experience. Therefore more than half of the sample would be considered as early career researchers and mid-career researchers in the UK. In fact, only 31 per cent have completed a doctorate, 38 per cent have received training to teach and only 15 per cent having supervised a doctorate student.

TABLE 2:
PROPORTION OF UNIVERSITY STAFF BY QUALIFICATION



4% BACHELOR'S



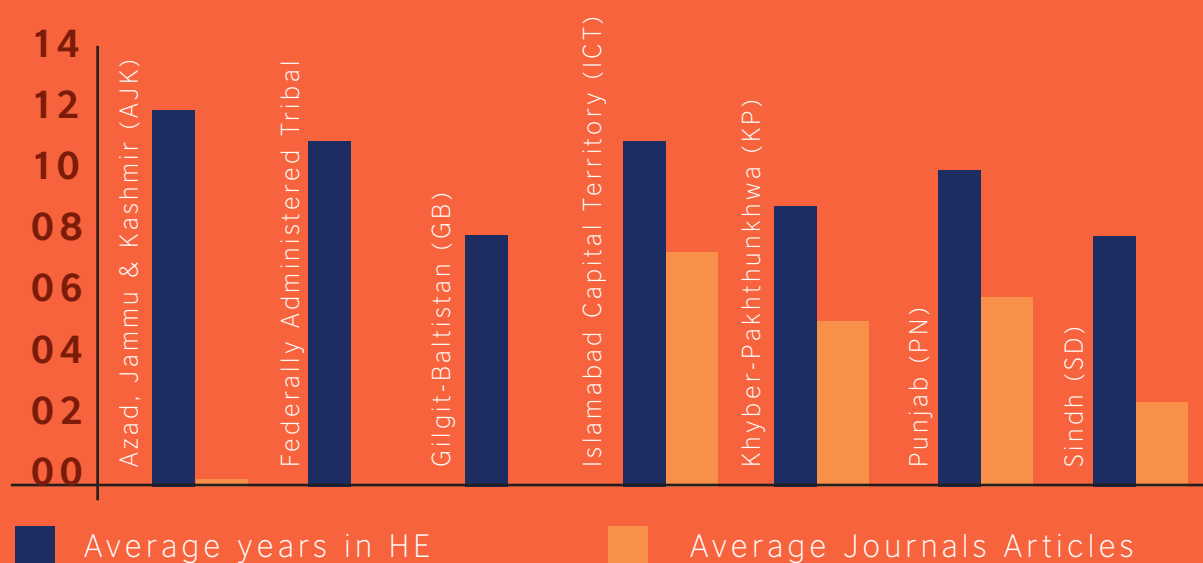
31% MASTERS'S



65% DOCTORATE

Table 3 considers regional differences in years in HE (and publications). The small sample sizes for most of the groups mean that regional differences are not open to much analysis beyond the descriptive statistics presented. The least experienced staff are found in Gilgit-Baltistan (GB) and Sindh (SD) whilst for this sample the most experienced are found in Azad, Jammu & Kashmir (AJK) and Federally Administered Tribal Areas (FATA). (As mentioned, further regional analysis has not been undertaken due to the small sample size available for some regions.)

TABLE 3:
EXPERIENCE AND PUBLICATION DIFFERENCES BY REGION



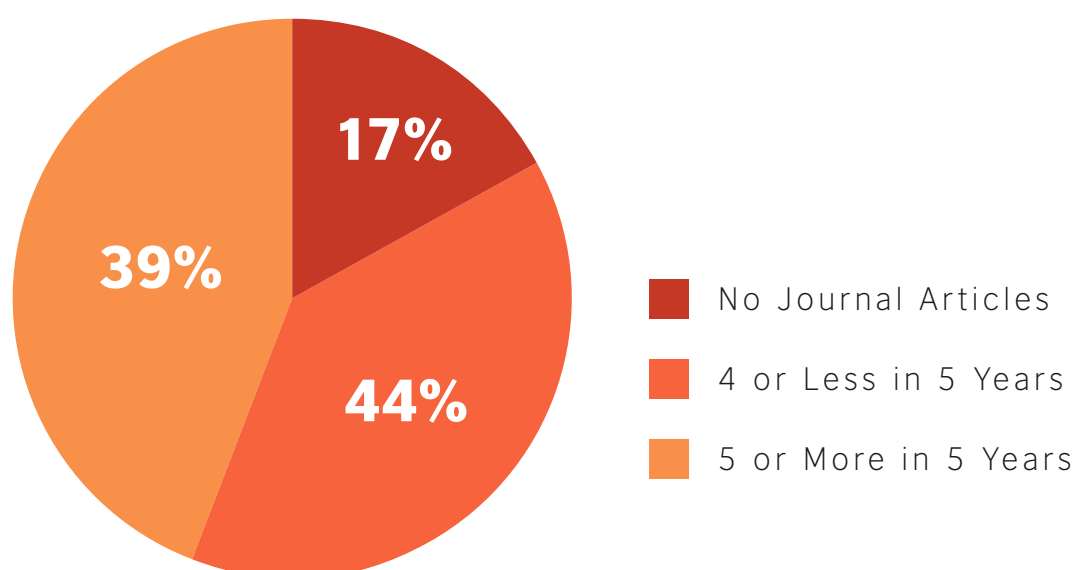
Although the academic community in Pakistan is relatively young when compared with other countries, their potential can be amplified through the development of a network of mentors.

PUBLICATIONS AND GENERAL RESEARCH PROFILE OF PAKISTANI ACADEMICS

Table 4 considers the publication and general research profile of the academic staff. These staff profiles have more in common with some of the UK post-1992 institutions than the more traditional research-focused universities. This general comparison suggests that most academic are very teaching focused (17 per cent not publishing a journal paper at all and more than 50 per cent publish under one journal article a year). In such environments any research is rewarded highly – perhaps even disproportionately so.

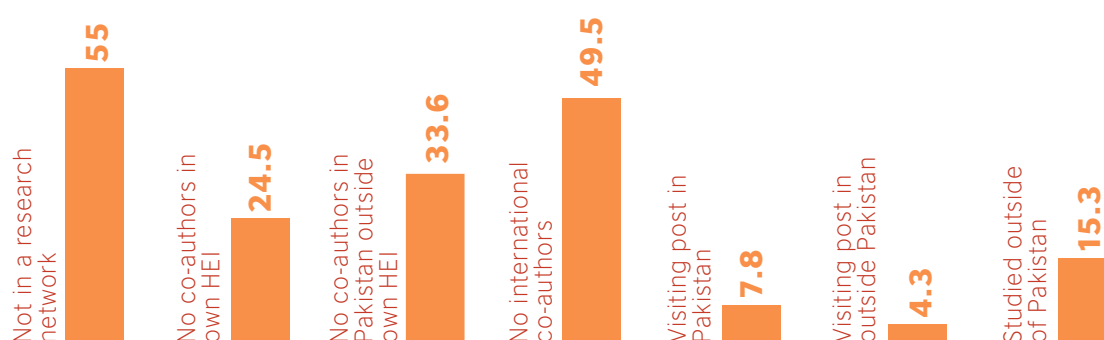
Beyond the low publication rates other measures of general academic research reveal surprisingly low levels of research activity. Over half (55 per cent) of respondents are not linked to a research network, 34 per cent do not have co-authors outside of their own HEI, 82 per cent have never held a research grant and only four per cent have visiting posts outside Pakistan (eight per cent within Pakistan).

TABLE 5
PROPORTION OF UNIVERSITY STAFF BY QUALIFICATION



This data suggests that research in Pakistan is still very much a work in progress, with little evidence of research and engagement with the wider academic community. Table 6 explores the gender differences in these measures. Although on average women engage more with research networks, men are (on average) more successful at publishing. There is little visible difference between the genders in other comparative data, which confirms the conclusions reach by Morley (2014): **women often find themselves in roles that are institution-focused and have to work harder to keep connected with the research community. Unfortunately, their publication rate often suffers as a result.** This outcome needs to be challenged if Pakistan is to become a knowledge-based economy as set out in Vision 2025.

FIGURE 6
ACADEMIC ENGAGEMENT WITH THE WIDER ACADEMIC COMMUNITY



The relatively young and inexperienced academic staff body is largely teaching focused. There is a low quantity of research defined by various measures, journals, research networks and funding streams. This would suggest a need to develop systems to help move research cultures beyond counting journal papers towards developing academic research careers.

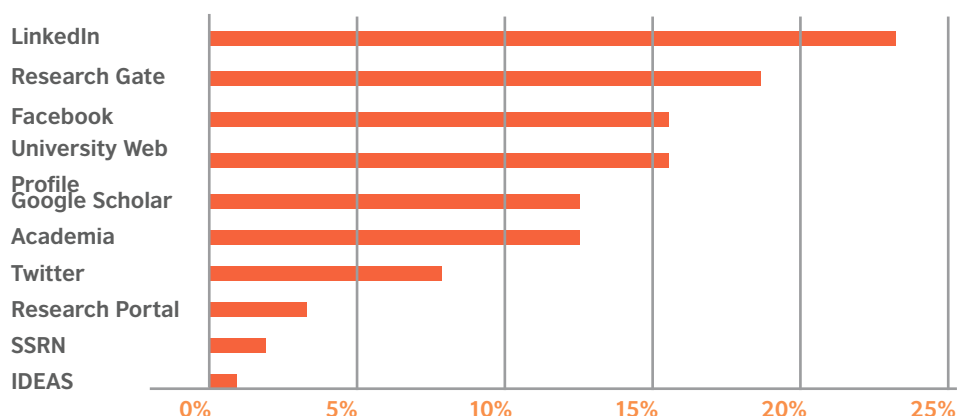
WEB-BASED ACADEMIC ACTIVITY

The online survey asked academics and administrative staff about their web-based presence. With academics encouraged to publish worldwide and to be part of the wider academic community, many academics maintain a web-based presence as a way to promote their research and improve citations. When academics become professors in the UK, they are required to provide citation indexes for their publications, which is easier to accomplish with a Google Scholar or similar online profile. With growing numbers of academics in Pakistan being trained in the UK and USA (where this is an important part of academic life), it will be interesting to see whether this

trend is replicated in Pakistan.

Table 7 reports which standard web-based research networks (used by academics in the UK and US) have been adopted by academics in Pakistan. Note that the proportions in the table are for those who report using at least one web presence. In Figure 7 below we have also corrected these responses for the large proportion of the sample (around three quarters) reporting no web presence at all. Figure 3 shows that even the most popular tool – LinkedIn – is used by under a quarter of academics. In addition, the majority (84 per cent) of those working in public universities state that they do not have a university web profile.

FIGURE 7
WEB PRESENCE OF ACADEMICS IN PUBLIC
UNIVERSITIES IN PAKISTAN



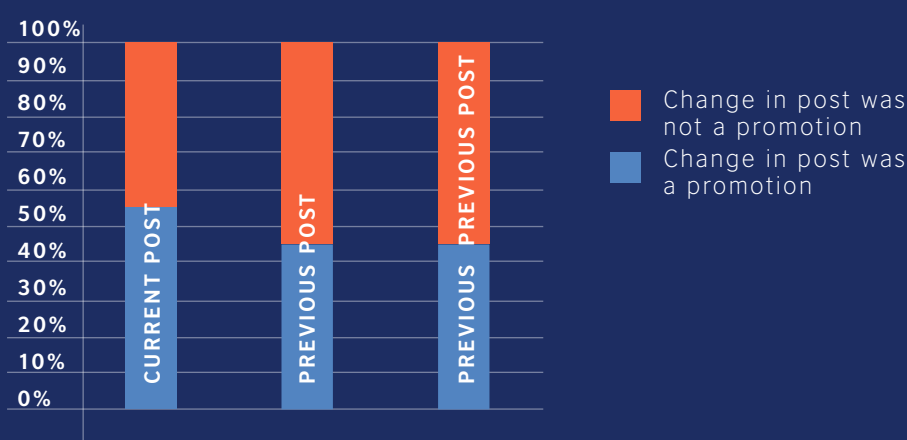
These levels of engagement with the wider academic community are surprisingly low. Academics of all levels will need to be willing to engage significantly more with online research networks if the visibility of research in Pakistani universities is to improve. At the very least universities should be challenged to provide an online profile of all academic and administrative staff on their websites. Mas-Bleda et al (2014) find that effective use of the social web can help to improve citation and visibility of the academic. Therefore the limited evidence of the web-based academic activity currently being undertaken suggests a potentially fruitful avenue for policy development. This could be modeled in the first instance on UK universities, and encourage universities in Pakistan to invest in university websites and their staff profiles. Part of any mentoring programme should include the benefits of interactions with the social web. Aurora, the UK's women-only leadership programme which is now in its fourth year, boasts over 4,000 participants with an impressive Twitter presence and online network attained through the hashtag #LFAurora.

CAREER PATHS IN HIGHER EDUCATION IN PAKISTAN

The interviews highlighted the importance of the husband in career decisions for female academics in Pakistan. In the American literature, Dual-Career families for academics are widely discussed, where the husband and wife both try to build an academic career whilst raising a family. Work in this area suggests successful dual careers often involve periods of time living apart or sustaining a long distance relationship, looking for two vacancies in the same location and, in some cases, taking the decision not to have children (Mason 2013).

The employment history data collected is summarised in Table 8. The average length of time spent in HE is ten years and around half of the respondents have had at least one job change. Approximately 50 per cent of those who had experienced a job change did not receive a promotion. This pattern of job changes without promotion is more usual for married women, which could be the consequence of moving employer to keep a family together; the women moved jobs in order to follow their husband, rather than to pursue their own career development.

FIGURE 8 JOB CHANGE LEAD TO PROMOTION



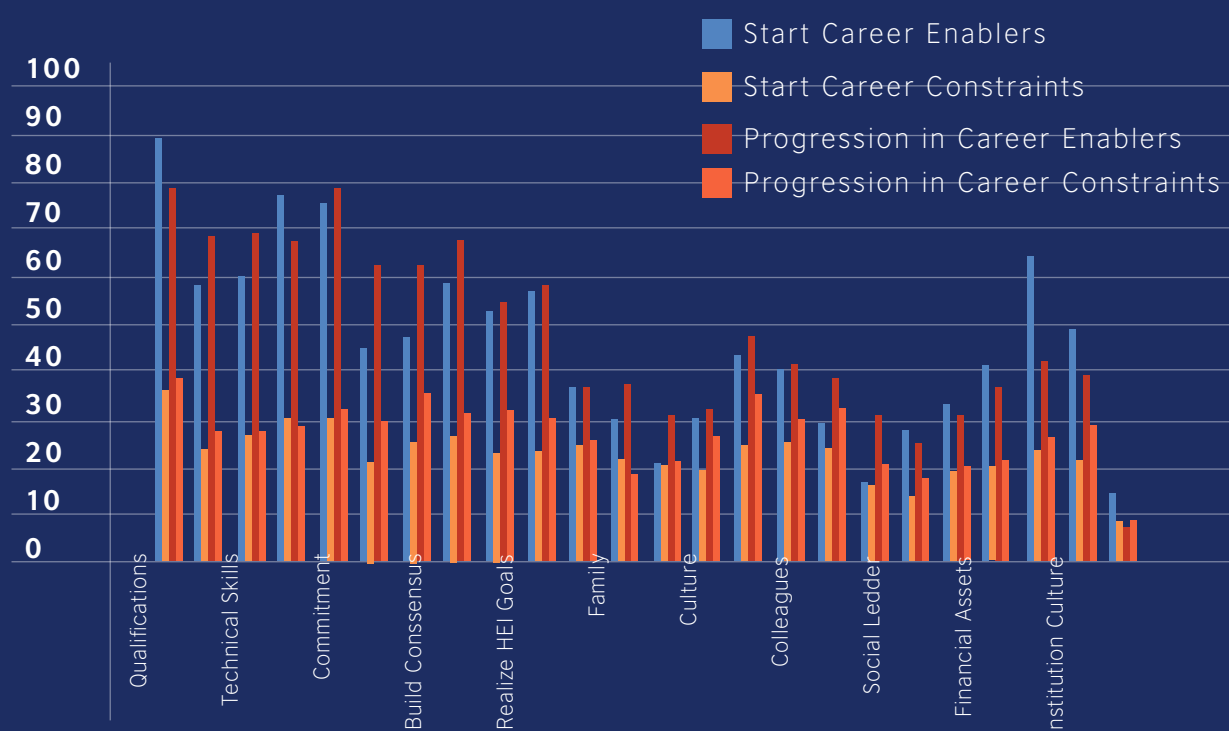
Those in junior academic posts were asked for their views on the constraints and enablers related to starting a career and progressing on a career path in academia in Pakistan. Table 9 considers the human capital, social network, financial assets, processes and macro-economic/social trends that are most highly reported as constraints and enablers in entering an academic career in Pakistan. It is clear from the table that each factor is more strongly to be considered an enabler than a constraint.

Of all the factors, the human capital enablers have the highest scores, particularly where qualifications are concerned. This is a reflection of the HEC policy to improve the proportion of academic staff with a doctorate; clearly the community is aware that a doctorate is an important attainment for those pursuing an HE career in Pakistan. The next two most important enablers are soft skills: confidence and commitment to the job.

The fourth most important enabler is a process (institutional policies). Linked to the highest scoring social network variables colleagues and associates, it is clear there is a strong role for institutions to play in enhancing career opportunities for junior academics.

This process is repeated for career progression in Table 10. Once again enablers are reported more strongly than constraints and human capital enablers are the most important. The importance of the institution is moderated and replaced with more human capital factors around work experience. Indeed, all five of the top factors are human capital enablers: Qualifications, Work Experience, Technical Skills, Confidence, Commitment, and Work with Others. This offers reassurance that junior academics view progression to be much more dependent on their own human capital than other institutional, social network and macro variables.

FIGURE 9
JUNIOR ACADEMIC VIEW OF CONSTRAINTS AND ENABLERS
IN AN ACADEMIC CAREER IN PAKISTAN



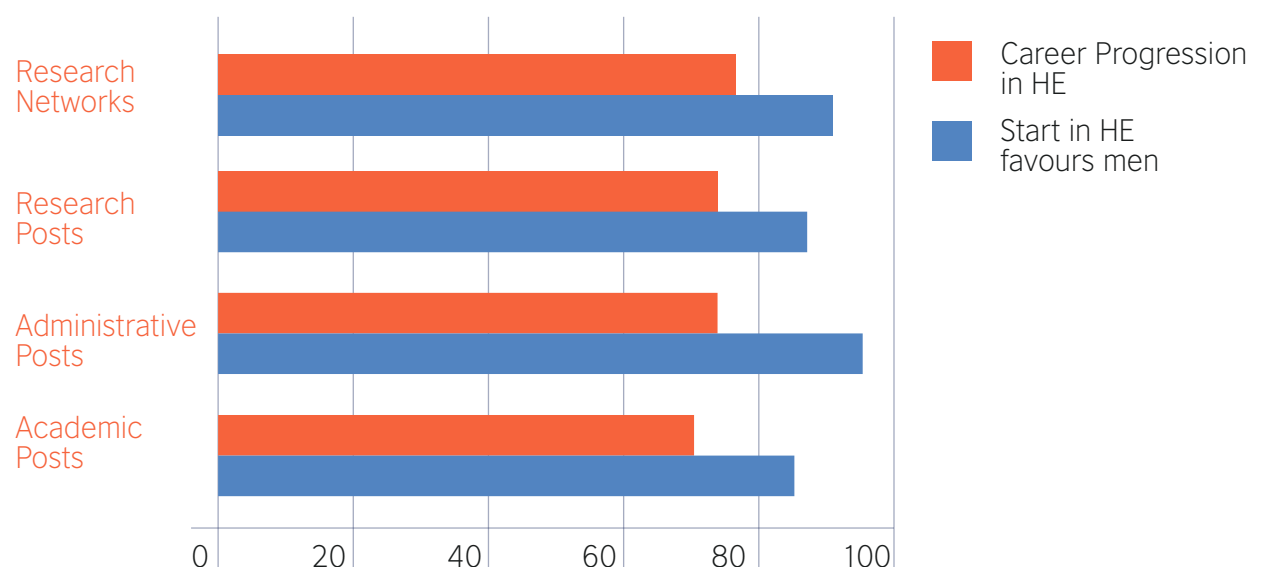
With so many unfilled posts and a large turnover in the labour market it is perhaps unsurprising that junior academics believe that their chances of entering and progressing in academia in Pakistan are heavily influenced by their own human capital. Completion of a doctorate is considered to make the entry to academia and subsequent progression much smoother. The issue is whether this would still be the case if vacancies declined; in HE systems in other countries (such as the UK), having a PhD no longer guarantees an academic post (University of Oxford 2016).

The reliance from participants on their own skills to advance their careers suggest a potential role for developing mentoring schemes and other such programmes to help junior academics in Pakistan manage their careers more successfully. There could be space here to explore a bespoke version of a system change programme (similar to LF Aurora in the UK) for Pakistan.

GENDER DIFFERENCE AND LINKS TO FACTORS SUCH AS HUMAN CAPITAL, SOCIAL NETWORKS, PROCESSES AND FINANCIAL ASSETS

The senior academic and administrative staff members were asked about the gender difference regarding HE careers in Pakistan. Their reflections on gender differences (Figure 10) are closely aligned with the factors considered over the course of this study (human capital, social network, processes, financial assets and macroeconomic/social trends).

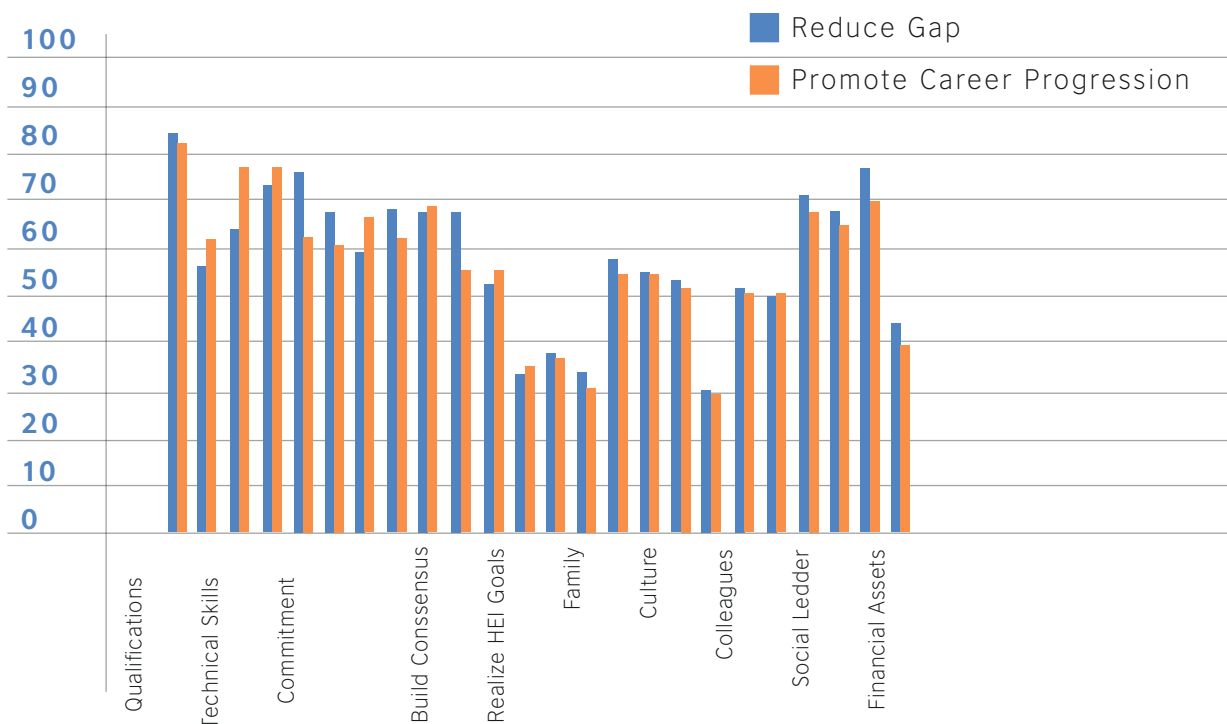
FIGURE 10
SENIOR ACADEMIC AND ADMINISTRATIVE STAFF VIEWS ON GENDER BIAS IN HE (% HIGHLY FAVOURS MEN)



The perceived gender bias in entry to HE and career development is apparent in Table 11. In each case the senior faculties report the degree to which any reported gender bias favours men and whether this bias is highly significant. It is important to note that there are much higher levels of perceived gender bias on entry to HE than in terms of career progression; this is especially true for administrative roles in HE. Regardless of the type of post, there is clear evidence that the perception of gender bias at entry to an institution is very strong and is a maintained concern for career progression.

Table 12 considers the potential factors which explain this perception of pronounced gender bias. Two human capital factors are scoring over 70 per cent that promote the number of women in HE, both in terms of reducing the gender gap and promoting career progression. These are qualifications (suggesting that more PhDs held by women would help to level the playing field) and confidence (suggesting a role for mentoring and CPD to help women develop the confidence to be considered for these roles). The next most important factor is institutional culture. This is strongly associated with the gender gap, suggesting that there is a role for universities to address wider institutional culture issues as well as supporting women empowerment.

FIGURE 11
ENABLERS AND CONSTRAINTS FOR REDUCING THE
GENDER GAP AS SEEN BY SENIOR HEI STAFF



The results presented from the online survey show clear evidence of gender bias in career opportunities in universities in Pakistan. These questions also generated the most discussion in the open text, which suggests that this topic is deeply felt within HE and is the cause of much discontentment. This could be one of the factors associated with high turnover and ultimately with professional and mental exhaustion.



8.0

CONCLUSION AND POLICY RECOMMENDATIONS

CONCLUSION

This report presents a comprehensive situational analysis of the HE labour market in Pakistan. This situational analysis has produced a comprehensive evaluation of academic careers in public universities in Pakistan. The results could be used to develop strategies for academic career development by the Higher Education Commission and provide information for universities looking to develop their staff as a way of reducing turnover and filling vacancies.

The thematic analysis of 27 interviews with senior academics within public and private universities in Pakistan highlighted five qualitative themes:

- increased awareness of the need to improve the research in Pakistani universities
- a general concern about women's progress in HE careers and the role of the culture of academia in Pakistan
- the identification of barriers and

opportunities for women following a career within a public university in Pakistan

- the need for academic staff to actively engage with personal learning as a way of developing their career
- a wide range of gender concerns linked to the development of support strategies to ensure that the highest quality staff are promoted and retained within the HE sector in Pakistan.

The analysis of the online survey of 522 academic and administrative staff employed by public universities within Pakistan provides evidence across six broad areas. The demographic structure of academic and administrative staff within public universities is younger, less experienced and less qualified than within countries such as the UK, which have a more mature HE ecosystem. As a consequence the average Pakistani academic has a relatively low number of publications to their name and less engagement with the global academic community. Surprisingly, given the demographic nature of the HE community,

web-based academic activity is very limited across the sector and leads to lower global visibility of the research work undertaken within Pakistan. Successful career paths in HE for both men and women are considered to be highly dependent on human capital factors, by young academic staff (especially the need to holding a PhD), and are stronger for entry to the industry than in later career progression. Finally, evidence from the senior academic and administrative staff suggests that gender bias plays a significant role in obtaining a post and securing a successful career path.

The evidence of this situational analysis suggests that there is scope for the Higher Education Commission to consider the development of strategies to help support individual academics and the entire academic community to fulfill their potential. Such supports need to take special notice of issues around gender and for more junior academics. The evidence from Pakistan and the growing body of literature in regions with similar

POLICY RECOMMENDATIONS

In light of the results and literature presented we suggest the following policy recommendations as a way to enable the HE sector in Pakistan to mature and flourish.

- **The ratio of male-female staff in Higher Education Institutions (HEIs) needs to be more even across all pay grades and job roles.**

A commitment and plan to improve gender balance at all levels will require top-down actions such as reviewing recruitment processes. This review should include both the make-up of panels and how questions are phrased, while also taking stock of the support available to women applicants ahead of interviews.

- **Strategies should be designed and implemented to improve both the quality of research and the visibility of this research online and within g global networks.**

- **Introduce pre- and in-service programmes of counselling, mentoring and rewards for faculty retention.**

A business case should be developed for advancing women in leadership in Pakistani HEIs, building a coalition of motivated individuals across the sector at both national and regional level. Once this has been successful, support mechanisms, such as a buddy system, personal development frameworks and action learning sets at both organisational and system level.

9.0

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10.0

APPENDICES

APPENDIX 1 INTERVIEW PROTOCOL

1. In your own words, can you tell me about your current post please? Including: what it is, how long you have been in this post and how you decided to apply for it at this institution.
2. Thinking about your **two** previous posts, can you tell me please: what they were, how long you were in post, how you decided to apply for them and why you decided to move on? If this involved a change in institution/department what motivated this change?
3. What is your view of the research culture of your current institution? How has this environment supported your own research profile?
4. What are the two biggest challenges that you have faced during your career?
5. What sort of interventions do you think would be helpful to encourage you in your career and to allow your work to progress?
6. Can you name the three most important people whom you have discussed your career choices with? How are they known to you and why are they one of the three people you have named?
7. Did you actively choose your career? Do you feel that you were forced into it? What do you find the most interesting part of your work to be? What is the least interesting part of your work? How could the more positive parts of your work be enhanced?
8. Is there anything else about yourself or your career that you would like to share with me?
9. Finally, reflecting on your own career and those you know, do you think gender plays an important role in the careers of academics in Pakistan? Do you think this is any different from the impact in other countries?

APPENDIX 2

ONLINE QUESTIONNAIRE

Age (in completed years):

Gender (Circle the correct answer.): (a) Female (b) Male (c) Other

Nationality:

Marital Status (Circle the correct answer.): (a) Single (b) Married (c) Widowed (d) Divorced
(e) Living with partner but not legally married

Number of children:

Highest educational attainment: (a) Bachelor's degree (b) Master's degree (c) Doctoral degree

Title of highest degree attained:

Location of study where highest degree attained:

Have you completed any training to teach? (Circle the correct answer.): (a) Yes (b) No

Number of training to teach you have completed:

Names of certificate/diploma/degree in teaching you have completed in the preceding five years:

Do you have a mentor or life coach? (Circle the correct answer.): (a) Yes (b) No

How would you categorise yourself? (Circle the correct answer and if applicable, choose more than one answer)

(a) Senior academic (b) Non-senior academic (c) Senior administrator (d) Non-senior administrator (e) Senior researcher (f) Non-senior researcher

Period of your work experience (in completed years):

Period you have been part of Higher Education Institutions (in months):

Do you currently teach or supervise college or university students? (Circle the correct answer.): (a) Yes (b) No

If 'Yes', for which degree do you teach or supervise college or university students? (Circle the correct answer and if applicable, choose more than one answer.):

(a) Bachelor's degree (b) Master's degree (c) Doctoral degree

If 'No', have you previously taught or supervised college or university students? (Circle the correct answer.): (a) Yes (b) No

If 'Yes', for which degree did you teach or supervise students college or university students? (Circle the correct answer and if applicable, choose more than one answer.):

(a) Bachelor's degree (b) Master's degree (c) Doctoral degree

Are you currently part of at least one formal research network? (Circle the correct answer.): (a) Yes (b) No

Name of formal network(s) you are currently a part of:

Have you previously been part of at least one formal research network? (Circle the correct answer.): (a) Yes (b) No

Number of formal research networks you have been previously part of:

Name of formal research networks you have been previously part of to date;

How many of the following have you published in the last five years? (Circle the correct answer.):

Journal articles

Book chapters

Books (edited collections)

Whole books

Working papers

Any Other? Specify: _____

How many of the following publications have you co-authored in the last five years? (Circle the correct answer.):

Journal articles

Book chapters

Books (edited collections)

Whole books

Working papers

Any Other? Specify: _____

	Journal articles	Book chapters	Books (edited collections)	Whole Books	Working papers
Author in own institution					
Author at another institution in Pakistan					
Author at another institution based in a foreign country					
Any Other? Specify: _____					

Have you ever held funding for a research project? (Circle the correct answer.):

(a) Yes (b) No

If 'Yes', in the table below, please specify the number research projects funded as per funding source.

Own institution	
Book chapters Higher Education Commission of Pakistan	
Any Other? Specify: _____	
Any Other? Specify: _____	

Engagement with wider academic community

Are you a member of a professional organisation, such as the Royal Economics Society?
(Circle the correct answer.): (a) Yes (b) No

If 'Yes', please specify the professional organisation:

Do you hold a visiting position at another university? (Circle the correct answer.)
(a) No
(b) Yes, in Pakistan
(c) Yes, outside of Pakistan

Do you have an online presence with your research work? (Circle the correct answer.): (a) Yes (b) No

If 'Yes', do you have:	Yes	No
Personal departmental/university web page		
Google scholar profile		
Research Gate profile		
Research Portal profile		
IDEAS account		
SSRN account		
Academia profile		
Linked In account		
Professional Twitter Account		

Respondent's career path

Please provide the following details regarding your recent five positions, starting with your current position.

	Position 1 (Current)	Position 2	Position 3	Position 4	Position 5
Organisation name					
Department name					
Position name					
Duration (Specify in months.)					
How would you categorise a move to this position? (Codes: Demotion=0, Neither Promotion nor demotion=2, Promotion=3, Don't know=4)					

Please specify the advantages, if any, your recent five positions led to, starting with your current position.

	Yes	No
Improved remuneration		
Improved benefits		
Improved job security		
Improved skill/knowledge		
Improved confidence		
Improved commitment to your job		
Improved work environment		
Improved standing in society		
Any other improvement? Please specify:		

Please specify the disadvantages, if any, your recent five positions led to, starting with your current position

	Yes	No
Lower remuneration		
Lower benefits		
Lower job security		
No improvement in skill/knowledge		
Reduced confidence		
Reduced commitment to your job		
Deterioration in work environment		
Deterioration in standing in society		
Any other improvement? Please specify:		

Starting your career in the higher education institutions
Enabling factors

Specify, to which degree, if any, was human capital important in starting your career in the higher education institutions.

	Not at all important	Very low importance	Low importance	Neutral	Moderately important	Very Important	Extremely important
My educational qualification							
My work experience							
My technical knowhow							
My confidence							
My commitment to my work							

	Not at all important	Very low importance	Low importance	Neutral	Moderately important	Very Important	Extremely important
My ability to gain the active support of other people so they are fully engaged and motivated to contribute effectively							
My ability to find common ground and build relationships and connections to support organisational objectives							
My ability to work with others towards common goals							
My ability to hold myself and others responsible for delivering goals in line with the shared purpose of my organisation							
My ability to spot opportunities, plan appropriately and create innovative solutions that recognise ambiguity and deliver business benefit							

Specify, to which degree, if any, was social capital important in starting your career in the higher education institutions.

	Not at all important	Very low importance	Low importance	Neutral	Moderately important	Very Important	Extremely important
Links with family							
Links with close friends							
Links with people who share your culture							
Links with people who share your ethnicity							
Links with friends							
Links with colleagues							
Links with associates							
Links with people further up the social ladder							
Links with people lower down the social order							

Specify, to which degree, if any, was access to financial capital important in starting your career in the higher education institutions.

	Not at all important	Very low importance	Low importance	Neutral	Moderately important	Very Important	Extremely important
Access to financial assets							

Specify, to which degree, if any, were the following processes important in starting your career in the higher education institutions

	Not at all important	Very low importance	Low importance	Neutral	Moderately important	Very Important	Extremely important
Laws							
Government policies							
Institutional policies							
Institutional culture							

If applicable, please specify:

- (a) Which laws, government policies, institutional policies, and/or aspects of institutional culture assisted you in starting your career in higher education institutions?
- (b) How the respective laws, government policies, institutional policies, and/or aspects of institutional culture assisted you in starting your career in higher education institutions.

Did any larger economic and/or social trends assist you in starting your career higher education institutions? Circle the correct answer.

- (a) Yes
- (b) No

If 'Yes', please specify:

- (a) Which economic and/or social trends assisted you in starting your career higher education institutions?
- (b) How the respective economic and/or social trends assisted you in starting your career higher education institutions.

Please specify:

- (a) Any interventions you believe have assisted you in starting your career in the higher education institutions.
- (b) Any evidence that support the efficacy of these interventions.

Constraints

Specify, to which degree, if any, was the lack of human capital significant in constraining the start of your career in higher education institutions.

	Not at all important	Very low importance	Low importance	Neutral	Moderately important	Very Important	Extremely important
My educational qualification							
My work experience							
My technical knowhow							
My confidence							
My commitment to my work							
My ability to gain the active support of other people so they are fully engaged and motivated to contribute effectively							
My ability to find common ground and build relationships and connections to support organisational objectives							
My ability to work with others towards common goals							
My ability to hold myself and others responsible for delivering goals in line with the shared purpose of my organisation							
My ability to spot opportunities, plan appropriately and create innovative solutions that recognise ambiguity and deliver business benefit							

Specify, to which degree, if any, was the lack of social capital significant in constraining the start of your career in higher education institutions.

	Not at all important	Very low importance	Low importance	Neutral	Moderately important	Very Important	Extremely important
Links with family							
Links with close friends							
Links with people who share your culture							
Links with people who share your ethnicity							
Links with friends							
Links with colleagues							
Links with associates							
Links with people further up the social ladder							
Links with people lower down the social order							

Specify, to which degree, if any, was the lack of access to financial capital significant in constraining the start of your career in higher education institutions.

	Not at all important	Very low importance	Low importance	Neutral	Moderately important	Very Important	Extremely important
Access to financial assets							

Specify, to which degree, if any, have the following processes constrained you in starting your career in the higher education institutions.

	Not at all important	Very low importance	Low importance	Neutral	Moderately important	Very Important	Extremely important
Laws							
Government policies							
Institutional policies							
Institutional culture							

If applicable, please specify:

- (a) Which laws, government policies, institutional policies, and/or aspects of institutional culture constrained you in starting your career in higher education institutions?
- (b) How the respective laws, government policies, institutional policies, and/or aspects of institutional culture constrained you in starting your career in higher education institutions.

Please specify any larger economic and/or social trends constrained you in starting your career in the higher education institutions. Circle the correct answer.

- (a) Yes (b) No

If 'Yes', please specify:

- (a) Which economic and/or social trends constrained you in starting your career in the higher education institutions?
- How the respective economic and/or social trends constrained you in starting your career in the higher education institutions.

Please specify:

- (a) Any interventions you believe have addressed the constraints on your ability to start your career in the higher education institutions.
- (b) Any evidence that support the efficacy of these interventions.

Your career progress in the higher education institutions

Enabling factors

Specify, to which degree, if any, was human capital important in your career progression in the higher education institutions.

	Not at all important	Very low importance	Low importance	Neutral	Moderately important	Very Important	Extremely important
My educational qualification							
My work experience							
My technical knowhow							
My confidence							
My commitment to my work							
My ability to gain the active support of other people so they are fully engaged and motivated to contribute effectively							
My ability to find common ground and build relationships and connections to support organisational objectives							
My ability to work with others towards common goals							
My ability to hold myself and others responsible for delivering goals in line with the shared purpose of my organisation							
My ability to spot opportunities, plan appropriately and create innovative solutions that recognise ambiguity and deliver business benefit							

Specify, to which degree, if any, was social capital important in your career progression in the higher education institutions.

	Not at all important	Very low importance	Low importance	Neutral	Moderately important	Very Important	Extremely important
Links with family							
Links with close friends							
Links with people who share your culture							
Links with people who share your ethnicity							
Links with friends							
Links with colleagues							
Links with associates							
Links with people further up the social ladder							
Links with people lower down the social order							

Specify, to which degree, if any, was access to financial capital important in starting your career in the higher education institutions.

	Not at all important	Very low importance	Low importance	Neutral	Moderately important	Very Important	Extremely important
Access to financial assets							

Specify, to which degree, if any, were the following processes important in starting your career in the higher education institutions

	Not at all important	Very low importance	Low importance	Neutral	Moderately important	Very Important	Extremely important
Laws							
Government policies							
Institutional policies							
Institutional culture							

If applicable, please specify:

(c) Which laws, government policies, institutional policies, and/or aspects of institutional culture assisted you in your career progression in higher education institutions?

(d) How the respective laws, government policies, institutional policies, and/or aspects of institutional culture assisted you in in your career progression in higher education institutions.

Did any larger economic and/or social trends assist you in your career progression in higher education institutions? Circle the correct answer.

(b) Yes

(b) No

If 'Yes', please specify:

(c) Which economic and/or social trends assisted you in your career progression in higher education institutions?

(d) How the respective economic and/or social trends assisted you in your career progression in higher education institutions.

Please specify:

(c) Any interventions you believe have assisted you in your career progression in the higher education institutions.

(d) Any evidence that support the efficacy of these interventions.

Constraints

Specify, to which degree, if any, was the lack of human capital significant in constraining the start of your career in higher education institutions.

	Not at all important	Very low importance	Low importance	Neutral	Moderately important	Very Important	Extremely important
My educational qualification							
My work experience							
My technical knowhow							
My confidence							
My commitment to my work							
My ability to gain the active support of other people so they are fully engaged and motivated to contribute effectively							
My ability to find common ground and build relationships and connections to support organisational objectives							
My ability to work with others towards common goals							
My ability to hold myself and others responsible for delivering goals in line with the shared purpose of my organisation							
My ability to spot opportunities, plan appropriately and create innovative solutions that recognise ambiguity and deliver business benefit							

Specify, to which degree, if any, was the lack of social capital significant in constraining the start of your career in higher education institutions.

	Not at all important	Very low importance	Low importance	Neutral	Moderately important	Very Important	Extremely important
Links with family							
Links with close friends							
Links with people who share your culture							
Links with people who share your ethnicity							
Links with friends							
Links with colleagues							
Links with associates							
Links with people further up the social ladder							
Links with people lower down the social order							

Specify, to which degree, if any, was the lack of access to financial capital significant in constraining the start of your career in higher education institutions.

	Not at all important	Very low importance	Low importance	Neutral	Moderately important	Very Important	Extremely important
Access to financial assets							

Specify, to which degree, if any, have the following processes constrained you in starting your career in the higher education institutions.

	Not at all important	Very low importance	Low importance	Neutral	Moderately important	Very Important	Extremely important
Laws							
Government policies							
Institutional policies							
Institutional culture							

If applicable, please specify:

(c) Which laws, government policies, institutional policies, and/or aspects of institutional culture assisted you in your career progression in higher education institutions?

(d) How the respective laws, government policies, institutional policies, and/or aspects of institutional culture assisted you in in your career progression in higher education institutions.

Did any larger economic and/or social trends assist you in your career progression in higher education institutions? Circle the correct answer.

(b) Yes

(b) No

If 'Yes', please specify:

(c) Which economic and/or social trends assisted you in your career progression in higher education institutions?

(d) How the respective economic and/or social trends assisted you in your career progression in higher education institutions.

Please specify:

(c) Any interventions you believe have assisted you in your career progression in the higher education institutions.

(d) Any evidence that support the efficacy of these interventions.

Presence of women in the higher education institutions

Do you believe there is a difference between the number of male and female academics in the higher education institutions? Circle the correct answer.

- (a) Yes (b) No

If 'Yes', how would you describe the difference in the number of male and female academics in the higher education institutions? Circle the correct answer.

- (a) More males (b) More females

How significant do you believe is the difference in the number of male and female academics in higher education institutions? Circle the correct answer.

- (a) Very low (b) Low (c) Neither low nor high (d) High (e) Very high

Do you believe there is a difference between the number of male and female administrators in the higher education institutions? Circle the correct answer.

- (a) Yes (b) No

If 'Yes', how would you describe the difference in the number of male and female administrators in the higher education institutions? Circle the correct answer.

- (a) More males (b) More females

How significant do you believe is the difference in the number of male and female administrators in higher education institutions? Circle the correct answer.

- (a) Very low (b) Low (c) Neither low nor high (d) High (e) Very high

Do you believe there is a difference between the number of males and female researchers in higher education institutions? Circle the correct answer.

- (a) Yes (b) No

If 'Yes', how would you describe the difference in the number of male and female researchers in higher education institutions? Circle the correct answer.

- (a) More males (b) More females

How significant do you believe is the difference in the number of male and female researchers in the higher education institutions? Circle the correct answer.

- (a) Very low (b) Low (c) Neither low nor high (d) High (e) Very high

Do you believe there is a difference between the number of male and female researchers from higher education institutions in research networks? Circle the correct answer.

- (a) Yes (b) No

If 'Yes', how would you describe the difference in the number of male and female researchers from higher education institutions in research networks? Circle the correct answer.

- (a) More males (b) More females

How significant do you believe is the difference in the number of male and female researchers from higher education institutions in research networks? Circle the correct answer.

- (a) Very low (b) Low (c) Neither low nor high (d) High (e) Very high

Specify, to which degree, if any, is enhancement in human capital important to increasing the number of women in higher education institutions

	Not at all important	Very low importance	Low importance	Neutral	Moderately important	Very Important	Extremely important
Educational qualification							
Technical knowhow							
Confidence Commitment to my work							
Ability to gain the active support of other people so they are fully engaged and motivated to contribute effectively							
Ability to find common ground and build relationships and connections to support organisational objectives							
Ability to work with others towards common goals							
Ability to hold myself and others responsible for delivering goals in line with the shared purpose of my organisation							
Ability to spot opportunities, plan appropriately and create innovative solutions that recognise ambiguity and deliver business benefit							

Specify, to which degree, if any, is enhancement in social capital important to increasing the number of women in higher education institutions.

	Not at all important	Very low importance	Low importance	Neutral	Moderately important	Very Important	Extremely important
Links with family							
Links with close friends							
Links with people who share your culture							
Links with people who share your ethnicity							
Links with friends							
Links with colleagues							
Links with associates							
Links with people further up the social ladder							
Links with people lower down the social order							

Specify, to which degree, if any, was the lack of access to financial capital significant in constraining the start of your career in higher education institutions.

	Not at all important	Very low importance	Low importance	Neutral	Moderately important	Very Important	Extremely important
Access to financial assets							

Specify, to which degree, if any, have the following processes constrained you in starting your career in the higher education institutions.

	Not at all important	Very low importance	Low importance	Neutral	Moderately important	Very Important	Extremely important
Laws							
Government policies							
Institutional policies							
Institutional culture							

If applicable, please specify:

- (a) Which laws, government policies, institutional policies, and/or aspects of institutional culture constrain the number of women in higher education institutions?
- (b) How the respective laws, government policies, institutional policies, and/or aspects of institutional culture constrain the number of women in the higher education institutions.

If applicable, please specify:

- (a) Which laws, government policies, institutional policies, and/or aspects of institutional culture enhance the number of women in higher education institutions?
- (b) How the respective laws, government policies, institutional policies, and/or aspects of institutional culture enhance the number of women in the higher education institutions.

Have any larger economic and/or social trends constrained the number of women in higher education institutions? Circle the correct answer.

- (a) Yes (b) No

If 'Yes', please specify:

- (a) Which economic and/or social trends constrain the number of women in the higher education institutions?
- (e) How the respective economic and/or social trends constrain the number of women in the higher education institutions.

Have any larger economic and/or social trends enhanced the number of women in higher education institutions? Circle the correct answer.

- (b) Yes (b) No

If 'Yes', please specify:

- (b) Which economic and/or social trends enhance the number of women in the higher education institutions?
(f) How the respective economic and/or social trends enhance the number of women in the higher education institutions.

Please specify:

- (e) Any interventions you believe have addressed the constraints on number of women in the higher education institutions.
(f) Any evidence that support the efficacy of these interventions.

Presence of women in the higher education institutions

Do you believe male and female academics have equal prospects for career progression in higher education institutions? Circle the correct answer.

- (d) Yes (b) No

If 'Yes', how would you describe the difference in prospects for career progression male and female academics have in higher education institutions? Circle the correct answer.

- (b) Males have greater prospects
(c) Females have greater prospects

How significant do you believe is the difference in the prospects for career progression male and female academics have in higher education institutions? Circle the correct answer.

- (b) Very low (b) Low (c) Neither low nor high (d) High (e) Very high

Do you believe male and female administrators have equal prospects for career progression in higher education institutions? Circle the correct answer.

- (e) Yes (b) No

If 'Yes', how would you describe the difference in prospects for career progression male and female administrators have in higher education institutions? Circle the correct answer.

- (d) Males have greater prospects
(e) Females have greater prospects

How significant do you believe is the difference in the prospects for career progression male and female administrators have in higher education institutions? Circle the correct answer.

- (a) Very low (b) Low (c) Neither low nor high (d) High (e) Very high

Do you believe male and female researchers have equal prospects for career progression in higher education institutions? Circle the correct answer.

- (a) Yes (b) No

If 'Yes', how would you describe the difference prospects for career progression male and female researchers have in higher education institutions? Circle the correct answer.

- (a) More males (b) More females

If 'Yes', how would you describe the difference in prospects for career progression male and female researchers have in higher education institutions? Circle the correct answer.

- (a) Males have greater prospects
(b) Females have greater prospects

How significant do you believe is the difference in the prospects for career progression male and female researchers have in higher education institutions? Circle the correct answer.

- (b) Very low (b) Low (c) Neither low nor high (d) High (e) Very high

Do you believe there is a difference in the prospects of male and female researchers from higher education institutions to become part of research networks? Circle the correct answer.

- (a) Yes (b) No

If 'Yes', how would you describe the difference in the prospects of male and female researchers from higher education institutions to become part of research networks? Circle the correct answer.

- (c) Males have greater prospects
(d) Females have greater prospects

How significant do you believe is the difference in the prospects of male and female researchers from higher education institutions to become part of research networks? Circle the correct answer.

- (a) Very low (b) Low (c) Neither low nor high (d) High (e) Very high

Specify, to which degree, if any, is enhancement in human capital important to increasing women's prospects for career progression in higher education institutions.

	Not at all important	Very low importance	Low importance	Neutral	Moderately important	Very Important	Extremely important
Educational qualification							
Technical knowhow							
Confidence Commitment to my work							
Ability to gain the active support of other people so they are fully engaged and motivated to contribute effectively							
Ability to find common ground and build relationships and connections to support organisational objectives							
Ability to work with others towards common goals							
Ability to hold myself and others responsible for delivering goals in line with the shared purpose of my organisation							
Ability to spot opportunities, plan appropriately and create innovative solutions that recognise ambiguity and deliver business benefit							

Specify, to which degree, if any, is enhancement in social capital important to increasing the number of women in higher education institutions.

	Not at all important	Very low importance	Low importance	Neutral	Moderately important	Very Important	Extremely important
Links with family							
Links with close friends							
Links with people who share your culture							
Links with people who share your ethnicity							
Links with friends							
Links with colleagues							
Links with associates							
Links with people further up the social ladder							
Links with people lower down the social order							

Specify, to which degree, if any, was the lack of access to financial capital significant in constraining the start of your career in higher education institutions.

	Not at all important	Very low importance	Low importance	Neutral	Moderately important	Very Important	Extremely important
Access to financial assets							

Specify, to which degree, if any, have the following processes constrained you in starting your career in the higher education institutions.

	Not at all important	Very low importance	Low importance	Neutral	Moderately important	Very Important	Extremely important
Laws							
Government policies							
Institutional policies							
Institutional culture							

If applicable, please specify:

(c) Which laws, government policies, institutional policies, and/or aspects of institutional culture constrain women's prospects for career progression in higher education institutions?

(d) How the respective laws, government policies, institutional policies, and/or aspects of institutional culture constrain women's prospects for career progression in higher education institutions.

If applicable, please specify:

(c) Which laws, government policies, institutional policies, and/or aspects of institutional culture enhance women's prospects for career progression in higher education institutions?

(d) How the respective laws, government policies, institutional policies, and/or aspects of institutional culture enhance women's prospects for career progression in higher education institutions.

Have any larger economic and/or social trends constrained women's prospects for career progression in higher education institutions? Circle the correct answer.

(a) Yes

(b) No

If 'Yes', please specify:

(a) Which economic and/or social trends constrain women's prospects for career progression in higher education institutions?

(a) How the respective economic and/or social trends constrain women's prospects for career progression in higher education institutions.

Please specify:

(g) Any interventions you believe have addressed the constraints on women's prospects for career progression in higher education institutions.

(h) Any evidence that support the efficacy of these interventions.

APPENDIX 3

ANNEX OF TABLES

TABLE 1
GENDER DISTRIBUTION ACROSS
HIGHER EDUCATION IN PAKISTAN
AND THE UK

	Numbers of						% of Female/Male by Role			
	Pakistan HEC			UK HESA			Pakistan HEC		UK HESA	
2014-2015	female	male	all	female	male	all	female	male	female	male
Academic roles	11476	23108	34584	53120	79740	132860	33	67	40	60
Professor	473	2420	2893	3690	12185	15875	16	84	23	77
Associate/Assistant	4236	10847	15083	1815	3600	5415	28	72	34	66
Professor	6767	9841	16608	47615	63955	111570	41	59	43	57
Lecturer										
Administrative Roles	1786	2759	4545	70470	48465	118935	39	61	59	41
Senior	143	158	301	4850	4980	9830	48	52	49	51
Manager/directors and senior officials (senior registrar)										
Other administrative post	1643	2601	4244	65620	43485	109105	39	61	60	40

TABLE 2
DESCRIPTIVE STATISTICS – SAMPLE CHARACTERISTICS'

Variable	Mean	Std Dev	Sample Size
Number of Children	1.6	1.29	297
Years in Higher Education	10.0	8.94	
Variable	Proportion (%)	Sample Size	
Female	59.0	383	
Married	67.3	385	
Children			
0	26.6	79	
1	19.9	59	
2	30.6	91	
3-6	22.9	68	
Degree			
Bachelor's	4.4	17	
Master's	64.6	248	
Doctorate	31.0	119	
Country of Qualification			
Pakistan	84.7	325	
Pakistan and Other	2.3	9 (3 in UK)	
Other	13.0	50 (21 in UK)	
Trained to teach	37.4	142	
Number of teaching courses			
0	6.1	9	
1	30.6	45	
2	27.9	41	
3-30	35.4	52	
Role			
Senior Academic	42.1	174	
Non Senior Academic	33.8	140	
Senior Administrator	15.9	66	
Non-Senior Administrator	8.2	34	
Years in HE			
Early Career (0-5)	33.6	125	
Mid Career (6-12)	42.2	157	
Late Career (12 +)	24.2	90	
Supervisor	87.0	384	
Bachelor's degree	69.0	265	
Master's degree	59.9	230	
Doctoral degree	15.4	59	

TABLE 3
DESCRIPTIVE STATISTICS – SAMPLE CHARACTERISTICS’
BY AREA

	Azad, Jammu & Kashmir (AJK)			Federally Administered Tribal Areas (FATA)		
Variable	Mean		Sample Size	Mean	Std Dev	Sample Size
Years in Higher Education	12.0		11	11.0	0.00	1
Journal Articles	0.3	Std	4	0.0	0.00	0
	Gilgit-Baltistan (GB)			Islamabad Capital Territory (ICT)		
Variable	Mean	Std Dev	Sample Size	Mean	Std Dev	Sample Size
Years in Higher Education	8.0	0.00	1	10.6	10.44	
Journal Articles	0.0	0.00	0	7.5	17.47	18
	Khyber-Pakhtunkhwa (KP)			Punjab (PN)		
Variable	Mean	Std Dev	Sample Size	Mean	Std Dev	Sample Size
Years in Higher Education	9.2	6.74	48	10.3	9.49	246
Journal Articles	5.3	6.99	31	6.0	14.54	134
	Sindh (SD)					
Variable	Mean	Std Dev	Sample Size			
Years in Higher Education	8.3	7.07	44			
Journal Articles	2.6	2.48	20			
	Percentage			Sample Size		
AJK	2.87%			11		
FATA	0.26%			1		
GB	0.26%			1		
ICT	4.70%			18		
KP	12.79%			49		
PN	67.36%			258		
Sindh	11.75%			45		

TABLE 4
PUBLICATIONS AND ACADEMIC RESEARCH PROFILES

Variable	Mean	Std Dev	Sample Size
Number of Publications	7.0	18.35	228
Number of Book Chapters	0.6	2.98	107
Number of Edited Books	0.2	0.71	91
Number of Books	0.5	0.97	105
Working Paper	3.0	6.21	144
Journal Articles	5.6	12.9	205
Coauthored Book Chapters	0.3	0.92	87
Coauthored Edited Books	0.2	0.78	80
Coauthored Books	0.2	0.51	83
Coauthored Working Paper	1.7	3.54	111
Coauthored Journal Articles	6.0	20.21	177
Number of coauthors in own institution	3.1	5.47	149
Number of coauthors in other institutions in Pakistan	2.5	7.83	109
Number of coauthors outside Pakistan	0.2	1.77	54
Number of Research Funds from own institution	11.5	73.5	46
Number of Research Funds from HEC	0.8	0.60	69
Number of Research Funds from other	0.9	1.32	40



TABLE 5
PUBLICATIONS AND ACADEMIC RESEARCH
PROFILES CONT.

Variable	Proportion (%)	Std Dev
Member of a Research Network	45.0	369
Up to one network	54.5	209
Two or three networks	35.4	209
Four or more networks	10.1	209
Publications		
No Journal Articles	17.1	228
4 or less in 5 years	44.3	228
5 or more in 5 years	38.6	228
No Book Chapters	78.5	107
No Edited Books	92.3	91
No Books	74.3	105
No Working Papers	33.3	144
1-2 Working Papers	38.9	144
Co-authors		
No co-authored Journal Articles	19.5	205
1 co-authored Journal Article	21.0	205
2-4 co-authored Journal Articles	27.3	205
No co-authored book chapters	86.2	87
No co-authored edited books	95.0	76
No co-authored books	89.2	83
No co-authored working papers	50.1	111
1-2 co-authored working papers	30.6	111
No co-authors in own HEI	25.4	177
1-2 co-authors in own HEI	23.9	177
No co-authors in Pakistan outside own HEI	33.6	149
1-2 co-authors in Pakistan outside own HEI	29.2	149
No international co-authors	49.5	109
1-2 international co-authors	24.8	109
Research funds		
Had funds	18.4	364
Received funds from own HEI	43.5	46
Received from HEC	72.5	69
Received only one from HEC	65.2	69
Received from other source	50.0	40
Received only one from HEC	32.5	40
Visiting post		
In Pakistan	7.8	368
Outside Pakistan	4.3	368

TABLE 6
DESCRIPTIVE STATISTICS – SAMPLE CHARACTERISTICS’
BY AREA

Variable	Women			Men		
	Mean	Std Dev	Sample Size	Mean	Std Dev	Sample Size
Number of research networks member of Journal Articles	2.2	5.03	114	1.7	1.50	91
Number of coauthors in other institutions in Pakistan	4.1	7.49	111	7.03	16.8	91
Number of coauthors outside Pakistan	2.3	8.87	54	1.9	2.58	54
Number of Research Funds from HEC	0.5	2.60	25	0	0	29
Number of Research Funds from other	0.8	0.53	40	0.9	0.71	28
	0.8	1.47	21	1.0	1.15	19

TABLE 7
WEB-BASED ACADEMIC ACTIVITY

Variable (Web Presence)	Proportion (%)	Std Dev
University Web Profile	57.5	113
Google Scholar	50.5	103
Research Gate	62.9	124
Research Portal	16.1	87
IDEAS	6.0	83
SSRN	9.8	82
Academia	49.5	105
Linkedin	74.1	131
Twitter	37.1	89
Facebook	64.4	101

TABLE 8
DETAILS OF EMPLOYMENT HISTORY

Variable (Web Presence)	Proportion (%)	Std Dev
Change in post was a promotion		
Current post	54.7	362
Previous post	45.5	235
Previous Previous Post	45.2	168

TABLE 9
CONSTRAINTS AND ENABLERS IN STARTING A
CAREER IN HIGHER EDUCATION IN PAKISTAN

JUNIOR FACULTY VIEW START CAREER IN HE	PROPORTION (%) HIGHLY IMPORTANT	
	Enablers	Constraints
Human Capital Factors		
Qualifications	88.6	36.3
Work Experience	57.5	24.1
Technical Skills	59.7	26.6
Confidence	76.2	30.0
Commitment	74.4	29.4
Motivate Team	44.8	20.7
Build Consensus	47.4	25.0
Work with Others	58.1	26.1
Realise HEI Goals	52.6	22.7
Seek opportunities for HEI	56.4	23.0
Social Network Factors		
Family	36.5	24.7
Close Friends	29.6	21.6
Culture	21.2	20.5
Friends	30.4	19.1
Colleagues	43.4	24.4
Associates	40.2	25.2
Social Ladder	29.1	24.1
Social Order	17.0	16.1
Financial Assets	27.7	14.1
Processes		
Laws	33.0	18.9
Government Policies	41.2	20.2
Institution Policies	63.8	23.1
Institution Culture	48.3	21.6
Macro Economic/Social Trends	14.3	8.6

TABLE 10
CONSTRAINTS AND ENABLERS TO CAREER PROGRESSION IN HIGHER EDUCATION IN PAKISTAN

JUNIOR FACULTY VIEW CAREER PROGRESSION IN HE	PROPORTION (%) HIGHLY IMPORTANT	
	Enablers	Constraints
Human Capital Factors		
Qualifications	78.3	38.5
Work Experience	68.1	27.5
Technical Skills	68.6	27.2
Confidence	67.4	28.4
Commitment	77.9	32.1
Motivate Team	61.6	29.6
Build Consensus	62.1	35.8
Work with Others	67.4	30.9
Realise HEI Goals	54.1	32.1
Seek opportunities for HEI	57.7	29.6
Social Network Factors		
Family	36.8	25.6
Close Friends	37.5	18.3
Culture	31.0	21.0
Friends	32.2	25.9
Colleagues	47.1	35.8
Associates	41.2	29.6
Social Ladder	38.4	32.1
Social Order	30.6	21.0
Financial Assets	25.0	17.4
Processes		
Laws	30.6	20.2
Government Policies	36.5	21.4
Institution Policies	41.9	26.2
Institution Culture	39.1	28.6
Macro Economic/Social Trends	7.6	9.3

TABLE 11 PERCEIVED GENDER BIAS IN HIGHER EDUCATION IN PAKISTAN

SENIOR FACULTY VIEW PERCEIVED GENDER GAP	DIFFERENCE IN HE PROPORTION (VIEW IF EXISTS, FAVOURS MALES, HIGHLY/VERY HIGHLY SIGNIFICANT)	CAREER PROGRESSION
Academic Posts	74.7, 85.5, 39.3	67.2, 70.6, 36.0
Administrative Posts	89.3, 95.5, 58.7	38.4, 75.3, 44.0
Research Posts	78.6, 87.4, 47.8	56.6, 73.7, 38.6
Research Networks	80.4, 91.4, 51.1	60.2, 77.5, 38.8

TABLE 12 GENDER BIAS IN HIGHER EDUCATION IN PAKISTAN

Factors to Promote the Number of Women in HE	Enablers	Constraints
Human Capital Factors		
Qualifications	82.4	79.2
Work Experience	54.6	60.0
Technical Skills	62.0	74.4
Confidence	70.9	74.8
Commitment	74.3	60.0
Motivate Team	65.7	59.2
Build Consensus	57.8	64.0
Work with Others	65.7	60.0
Realise HEI Goals	65.5	66.4
Seek opportunities for HEI	65.9	53.2
Social Network Factors		
Family	50.4	53.2
Close Friends	32.1	33.6
Culture	36.5	35.2
Friends	33.3	29.6
Colleagues	56.0	52.8
Associates	53.3	52.8
Social Ladder	51.5	50.0
Social Order	28.9	28.2
Financial Assets	49.6	49.2
Processes		
Laws	48.2	48.8
Government Policies	69.3	65.1
Institution Policies	65.9	62.7
Institution Culture	74.5	68.3
		K2
Macro Economic/Social Trends	42.4	37.9

CREDITS

BRITISH COUNCIL:

Dr Maryam Rab – Director – Research, Evaluation and Monitoring Unit

Catherine Sinclair-Jones – Research and Policy Analyst, Research, Evaluation and Monitoring Unit

Sharmeen Peshimam - Head of Content – Marketing and Communications

Wajeeha Abbasi – Manager Brand and Design – Marketing and Communications

Designed by Sana Naeem

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