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Measuring Performance of university Employees: A Hard skill and Soft Skill Analysis.

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Abstract. Any organization's personnel are a key measure of its development. In this present era, this workforce indirectly serves to improve a country's economy, and nations with big industrial empires tap into the labor force of developing countries to fulfil their growing demand for labor. A highly skilled and competent workforce is critical to any organization's success. The goal of this study was to determine the existing demographics and skill levels of the workforce at three distinct institutions in Jamshoro, Sindh. Both quantitative and qualitative approaches were used in the research. The data was analyzed in SPSS-21, and mean values were calculated in order to create skill scale graphs of the present workforce situation. It is feasible to inform the public as well as the government through this study to take stringent steps to address the problem in a timely way, so strengthening the modest Human resources to gain competitive advantage of the workforce. The findings are crucial because they clearly show the deteriorating situation and imply that it is past time for the government to recognize the need to boost the workforce in order to repair a declining economy at the grassroots level.

Key words: Soft skills, Hard skills, Competitive advantage, Universities, Pakistan

1 Introduction

It is now well acknowledged that a country's economic health and progress are entirely dependent on its people resources' skills and knowledge base. In today's highly competitive market, having trained, qualified, and talented workforce is essential for meeting growth difficulties and turning them into opportunities.

The issues are amplified for a country like Pakistan because of the pressing need to reach out to its teeming millions; the unavoidable transfer of labor from agricultural to industrial and service sectors; and the numerous hurdles in implementing programs at the grassroots level (International Labor Organization, 2020). The Pakistani government has developed a variety of programs and programs to empower the workforce, particularly the youth, through different federal and provincial efforts. The work is both difficult and necessary. Today, the world is watching Pakistan with a keen interest that has never been witnessed before.

The adventure Pakistan has begun on in skilling its youth population has enthralled countries all over the world. Partnerships with the rest of the world are the way to make the skills

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development mission a success. Quality and competitiveness in the skills and education arena have been highlighted by countries such as the United Kingdom, Germany, Switzerland, Australia, Singapore, and South Africa (Ahmed et al., 2019). Pakistan may undoubtedly benefit from the experiences learned in these countries.

Pakistan is the world's fifth most populous country, and as a result, it has a significant labour force. Pakistan has an estimated 59.5 million individuals that are able to work, making it the Ninth most accessible workforce in the world. When we consider the percentage of that workforce in national productivity, we see that it is lower than the rest of the globe. Its proportion of GNP is just 33%, compared to 45 percent and 50% for South Asia and developed nations, respectively, which is extremely disappointing and has put a halt to general production and other economic activity.

2 Literature Review

For academics, skilled labor and its position in the market have always been of paramount significance.

2.1 Introduction to Human Capital as a Source of Competitive Advantage

Human capital, according to many academics, is a technique for gaining a competitive advantage. Human resources may be exploited by a business to obtain and retain a competitive advantage over competitors, according to (Luthans and Youssef, 2004). According to research, the majority of top executives believe that having the proper and best human resource is their company's most valuable asset. According to Ferligoj et al. (1997) a sustainable competitive advantage may be created through the use of appropriate human resources rather than the methods used to discover, attract, and keep these individuals. Human resources assist us in achieving a long-term competitive advantage that allows us to outperform our competitors.

According to Lawler (2008), a company's "human capital" is its most valuable asset. In compared to its competitors, a firm with the greatest and most skilled human resources may be extremely profitable and efficient. As a result, businesses must work hard to attract and retain the greatest employees. Human capital must be at the center of the overall company strategy because it is human resources who operate the company's other resources, and if you don't have an efficient human resource, you won't be able to manage your other assets effectively, rendering them useless or preventing them from reaching their full potential (Luthans and Youssef, 2004). Another reason why human resources are so important is the scarcity of competent and efficient workers in the industry.

Another reason why human resources are so important is that there is a limited supply of competent and efficient workers on the market, but demand for such workers is usually high (Van de Werfhorst, 2011). Firms all over the globe go to tremendous lengths to recruit and keep an efficient staff, and they leave no stone unturned in their efforts to retain their intellectual and technical talents and make them immune to rival companies' attempts to recruit them (Nikolowa, 2010). Good human resource acquisition policies may help you find and keep efficient human capital. HR operations must be efficient in order to identify the proper guy for the position, and then that right man must be paid appropriately for his talents so that he does not feel compelled to leave the firm and join another.

2.2 Human Resource Skills

According to a study, a talent is either a specific capacity to accomplish a task or a kind of it, but it is also more than simply ability; it is independence and recognition. They days, production capacities demand more inside talents than exterior abilities, and these are extremely tough to learn, making it impossible to transfer between firms (Najmabadi and Lall, 1995).

According to Standing et al. (1999), we may explore the idea of skills from a variety of angles. Education acquisition is referred to as skill building in economics. If we consider that perspective of skills, then the amount of competence may be determined by one's academic qualification. According to sociology, skills are developed in a society; yet, skill development is more than simply schooling; it also entails possessing those traits that are acknowledged in a community. Similarly, cognitive psychology regards inner skills as an abstract and intangible idea, but it nevertheless identifies them as abilities. Certain talents are also recognized by management sciences as manifestations of effective management procedures, and the skills and management practices are referred to as synonymous. In a different light, skills are the methods by which productivity is assessed and the specific behaviors that contribute to increased production.

Skills are unquestionably important from any angle. The talents distinguish the workers and make them more in demand. Human resources with higher levels of expertise will be more efficient. Management skills make it easier to arrange work duties, just as interpersonal skills make communication across departments easier and more successful. Leadership skills encourage subordinates to complete jobs more quickly, and a competent leader with good leadership skills will motivate staff while also increasing their total productivity. There is a large body of research on human talent topology, and a synopsis of each examined author's skill typologies is provided below.

2.3 Skills Competitiveness

According to a study having a large quantity of skilled labor allows organizations to have less complicated organizational structures, and it also requires firms to have more skilled labor and technical experts, as well as increasing wages for skilled employees as a remuneration for the extra tasks that may be assigned to them due to their skills. These businesses are structured in such a way that these individuals accomplish the tasks for which they are most equipped. Employees are compensated according to market conditions. As a consequence of their research, Katz and Murphy (1992) concluded that differential salaries are caused by differences in the demand for skilled labor. Equality in skills caused by technology is the primary factor. According to Vind (2008), several contemporary trends, such as decentralization and reduction in organizational hierarchy levels, as well as higher level capabilities, are key drivers in the skyrocketing need for skilled workers. According to Hendarman and Tjakraatmadja (2012), talented and highly educated individuals are critical for effectively creating, changing, and sharing information.

2.4 Impressive mission mode of India

According to King (2012), the Indian president was aware that India had a quickly rising economy with poor trained workers. He also stated that the economy must be geared toward a highly trained workforce. They believe that India is a country with a large workforce, and that

they must use that labor to their advantage. The following are three key driving elements that might be cited:

1. Government influence
2. National employment strategy
3. National skill development policy

2.5 Scenario in Pakistan

Pakistan has one of the best workforces in the world, according to the Economic Survey of Pakistan, and it is the greatest because it is exceptionally diligent and devoted. The workforce is divided into four categories: low skilled, semi-skilled, skilled, and highly skilled. Pakistan is a large country that is still in its early phases, making it challenging to give work to all of its citizens. "A 'knowledgeable' workforce, one that is both highly competent in a specific vocation and flexible, is viewed as the most crucial human capital necessary for a country's success," Kazmi (2007) writes. Pakistan's workforce is known for having inadequate skills and being ill-equipped to compete in today's globalized globe. Now is a time of rapid technological transformation. Rapid technological progress today necessitates that people study and relearn abilities throughout their working life in order to keep their talents relevant and effective.

Kazmi (2007) went on to say that Pakistan does not invest nearly as much in human resources development as other countries, which is one of the reasons for the country's slow progress and poor "socioeconomic" growth, as well as its lack of technology and big unskilled labor force. "Pakistan's skilled personnel position in the South Asian area is quite weak. So far, the economy has failed to develop the managers, experts, and skilled labor required to boost production and add value. According to the HDI, Pakistan is ranked 146th out of 186 nations in terms of the living standards of the ordinary Pakistani.

Pakistan's ongoing economic and political turmoil has resulted in a massive increase in unemployment and poverty. Income disparity had been progressively increasing year after year. In the aftermath of the crisis, the shortage of resources for this adequate workforce reached a height (Qaiser Suleman et al., 2021). As a result, one of Pakistan's current major difficulties is developing the skilled labor force required to ensure that the country's economic progress is sustainable and equitable. As Pakistan strives to achieve its goals of economic and social inclusion, using human resources and equipping people with the necessary skills is critical to propelling the economy into a new direction.

2.6 State of Skills

Every study of skill level must be certain of what constitutes the aspects of a given skill, since this decides which skill scale and criteria should be utilized to assess the talent. In the field of economics and labor, the number of years of schooling has historically been used as a metric (Ishikawa and Ryan, 2002; Juhn et al., 1993; Krafft, 2018). According to Van de Werfhorst (2011) there is little question that education has a significant influence on a worker's total fortune. Those with a greater level of education earn more and are more likely to be chosen and favored by employers than those with a lower level of education.

According to Norris et al. (2016), there are certain parts of skill that involve experience and practice, and when we gain a talent, it becomes second nature to us without our active knowledge, and we begin to do it in an automatic manner. That feature has a drawback in that a

person who has learned a talent via practice and experience would fail when faced with a task that is outside of his experience area. As a result, in instances where little additional expertise is necessary, this shortcoming may be considered a primary cause of human mistake.

Skills are defined by the Business Dictionary as an intentional competence to do challenging and non-static job activities simply, efficiently, and successfully, and it may involve the ability to coin new ideas (cognitive abilities), technical skills, and/or interpersonal communication skills (communication skills). According to Labbaf et al. (1996), there is a solid case for improving talents and making them more acceptable to managers.

2.7 Theoretical Framework

The researchers have focused on a few characteristics, such as qualification, experience, and employment, based on existing work. In the present, a labor skill scale has been devised that is based on soft and hard abilities that were assessed utilizing a questionnaire. Soft skills are personal characteristics that improve a person's relationships and work success. Soft skills, in contrast to hard skills, which are concerned with a person's skill set and ability to do a specific task or activity, are interpersonal and widely applicable (Hendarman and Tjakraatmadja, 2012). Motivation, innovation, sense of responsibility, perseverance and tenacity, acumen and problem-solving skills are classified as "soft skills," whereas a candidate's qualification, experience, research, collaboration, number of books authored or projects completed, HR skills, and administrative skills are classified as "hard skills."

2.7.1 Levels of Skills

For both soft and hard skills, a candidate's profile ramified as "Low Skilled," "Semi Skilled," "Skilled," and "Highly Skilled."

Low Skilled Worker

A low-skilled employee is someone who is responsible for simple tasks that need little or no experience and a low degree of certification.

Semi-Skilled Worker

A semiskilled worker is someone who has average experience and qualifications and is allocated to a certain regular job.

Skilled Worker

A talented employee is one who can perform effectively and exhibit autonomous judgement in carrying out his responsibilities responsibly. He has the necessary qualifications and experience to fully comprehend the institutes, trade, craft, or industry in which he works.

Highly Skilled Worker

A highly skilled worker is someone who can work efficiently and manages the work of other highly skilled workers.

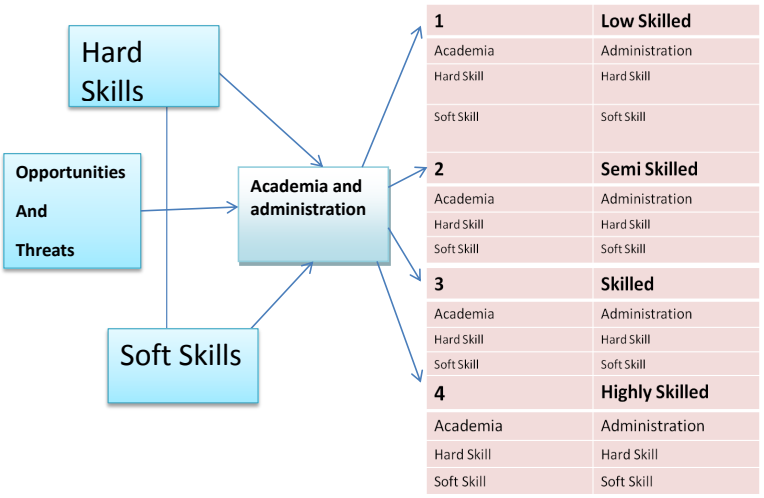

Figure 1: Conceptual framework of the study

3 Methods and Data Collection

This study is being undertaken as an investigation to learn about the demographics of the current labor force, to create a skill scale for the labor force, and to learn about the opportunities and risks to the labor force of three institutions. The data is gathered and saved in MS Excel before being analyzed with SPSS 19. Frequency tests are used to determine the mean value of the questionnaire's variables. "Soft skills are personal characteristics that improve a person's relationships and work success. Soft skills, in contrast to hard skills, which are concerned with a person's skill set and ability to do a specific task or activity, are interpersonal and widely applicable" (Hendarman and Tjakraatmadja, 2012). These skills are evaluated depending on their skill level. The skill level was divided into four groups: "Low Skilled," "Semi-Skilled," "Skilled," and "Highly Skilled."

4 Data Analysis and Result

The research's analysis starts with determining the characteristics of the sample that was chosen for the investigation. The profile of the university lecturers utilized as a study sample is shown in Table 1.

4.1 Demographics of Informants

Table 1 shows the demographics of the respondents. The data covers 172 employees from Jamshoro's higher education institute, including administration and academia. The teachers' profiles are shown below.

The graph 4.1 depicts the academic workforce's hard talents, such as Lecturers and Professors. On the Y axis, many hard skills are mentioned in order to determine the degree of skill.

Table 4.1: Demographics of Informants

	Academia	Administration
Total Labour Force	89	83
Gender		
Male	67.4%	94.0%
Female	32.6%	6.0%
Location		
MUET	34.8%	34.9%
LUMHS	31.5%	36.1%
UoS	33.7%	28.9%
Qualification		
Diploma	0.00%	12.0%
Graduate	56.2%	36.1%
Masters	29.2%	51.8%
PhD	14.6%	0.00%
Length of service		
0-5 years	36.0%	24.1%
6-10 years	39.3%	9.6%
11-15 years	6.7%	44.6%
Over 16 years	18.0%	21.7%

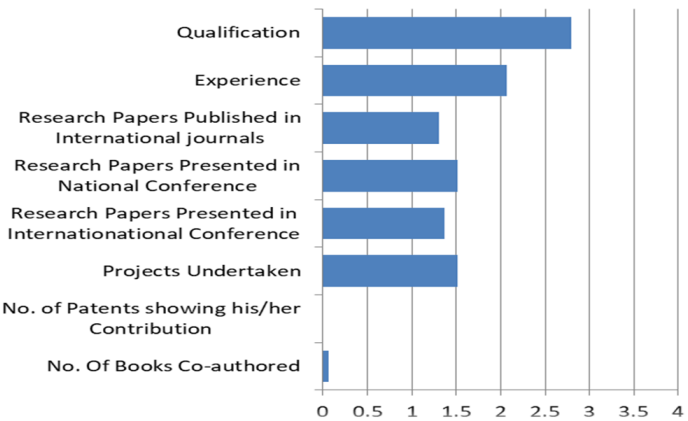

Figure 2: Hard Skills Score of Academia Workforce

On the X axis, each talent is rated on a 4.0 skill scale, with 1.0 indicating low level, 2 indicating semi-skilled, 3 indicating skilled, and 4 indicating highly skilled. Qualification is one of the top valued skills, and most teachers fall into this group, as seen in the graph, followed by experience. We may deduce from that ability scale that proactive talents such as research paper publication and book authorship are not scored higher than 1.5. Education and experience, on the other hand, are trailing behind because they are not proactive. Once instructors have received their education, they do not think about it again and allow themselves to go dormant while their

experience grows through time. Despite having a highly skilled average qualification and a semi-skilled experience level, the workforce lacked participation in national and international research conferences.

Furthermore, the workforce is falling behind in terms of the number of projects completed, aggravating the situation. Aside from that, the graph clearly shows the minimal contribution in several patent categories, as well as the number of books provided as an author or co-author. As can be seen from the above graph of hard skills, academic faculty do not place a high priority on proactive skills such as research papers and journal publishing, among other things. In this scenario, the skill gap is rather big, and employees must be provided incentives so that the gap between proactive and other skills may be bridged. Corrective steps should be made to fully fill the gap, which can be accomplished through skill upgradation.

4.2 Academia Soft Skills

A frequency distribution of the responses was used to analyze the dominance of State of Skills.

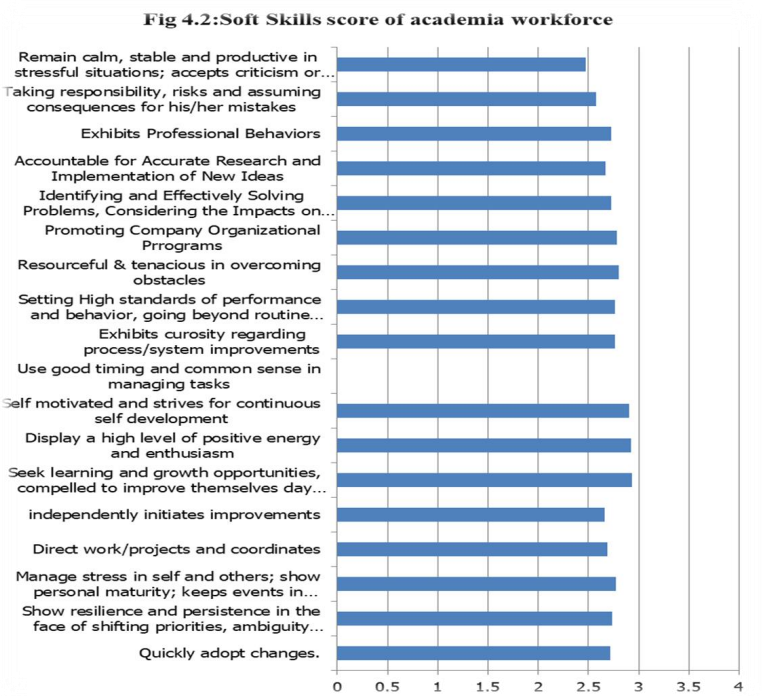

Figure 3: Soft skills score of academia workforce

4.3 Administration Hard Skills

The graph below 4.3 depicts the degree of Basic Administrative skills in administrative employees, with distinct skills on the Y axis and a skill scale of 4.0 on the X axis, with 1.0 indicating

low level, 2 indicating semi-skilled, 3 indicating skilled, and 4 indicating highly competent. There are a variety of talents that are essential for administrative employees to accomplish their jobs more successfully and efficiently. The staff has demonstrated a high level of proficiency with MS Word, implying that they are well-versed in the use of critical word processors. Their overall performance in terms of these administrative abilities has been excellent. There is a skill gap, and skill upgradation is required.

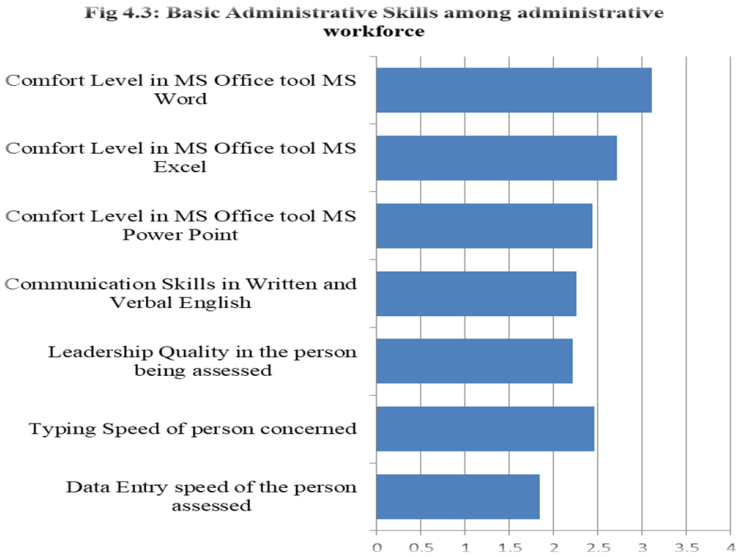

Figure 4: Basic Administrative skills among administrative workforce

HR procedures in administrative employees are on average in various capabilities, as shown in Fig. 4.4. For one skill, Understanding of Local and Global HR Policies, the whole HR skill level is at its maximum. The other abilities are likewise below standard, indicating that HR skills for administrative workers are lacking. A significant lack of skilled, semi-skilled, and highly skilled workers exists.

In the graph 4.5 study, the administrative personnel did better in terms of hard skills. Qualifications and experience are both above average. On the Y axis, we have two talents that are also measured on a scale of 4.0, with 1.0 indicating low level, 2 indicating semi-skilled, 3 indicating skilled, and 4 indicating highly competent. In terms of experience and qualifications, the administrative personnel are semi-skilled.

4.4 Administration Soft Skills

The graph 4.6 below depicts the Soft Skills of the Administration Workforce. The staff is semi-skilled on the skills that are assessed above 2.0, and the majority of the skills fall into the category of semi-skilled i.e., 2.0, which leads to an essential consideration for the development of staff's soft skills. There are 34 skills on which the staff's performance is rated at 2.5, resulting in a skill gap since, once again, there is a significant shortage of skilled and highly skilled workers.

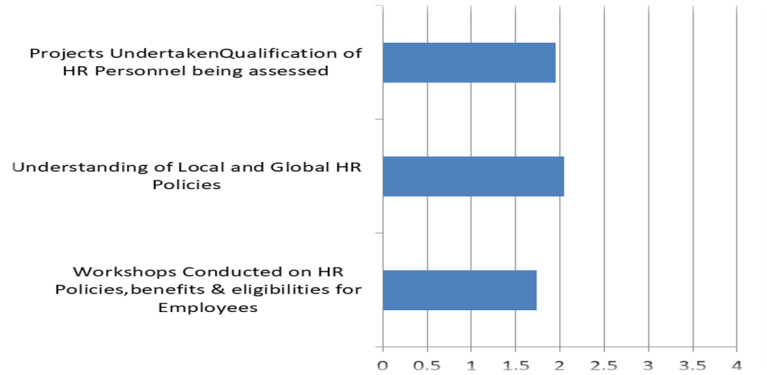

Figure 5: HR skills among administrative workforce

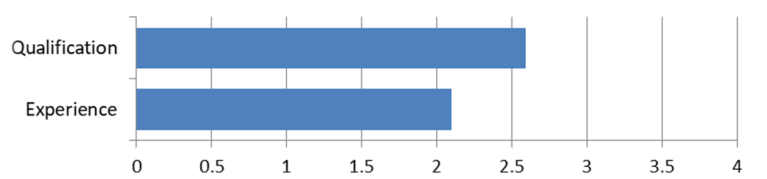

Figure 6: Hard Skills other than HR and Administrative among administrative workforce.

5 Conclusion

The core pillars of the region's competitiveness are weak and unresponsive to international challenges. According to the current study, abilities need to be significantly improved. Organizations must make skill development a top priority. The current study focuses on improving skill levels by detecting skill gaps using a skill scale. It is also critical to enhance human resources, which will obviously provide a competitive edge for one of South Asia's most populous countries. Pakistan is the 6^{th} most populous country and the 9th most populous in terms of available human workforce, but the problem is that only 33% of the labor force participates, and the worst part is that the available workforce is not well-skilled, which is why Pakistan ranks 140^{th} out of 180 countries in the HDI, which is alarming.

The current study provides a skill scale that discovers flaws and focuses on corrective measures that should be performed for improvement. To fully cover the deficit, skill upgradation should be institutionalized. Furthermore, the skill scale accurately captured the current state of the talent gap in academia as well as the administrative staff at all three universities studied. Despite having a highly trained workforce, the majority of them lacked highly competent approaches due to a lack of organizational support and incentives to enhance their desk performance. Every Academia responder was well qualified on average, yet the majority lacked skilled experience. However, the administrative workforce, while less qualified than

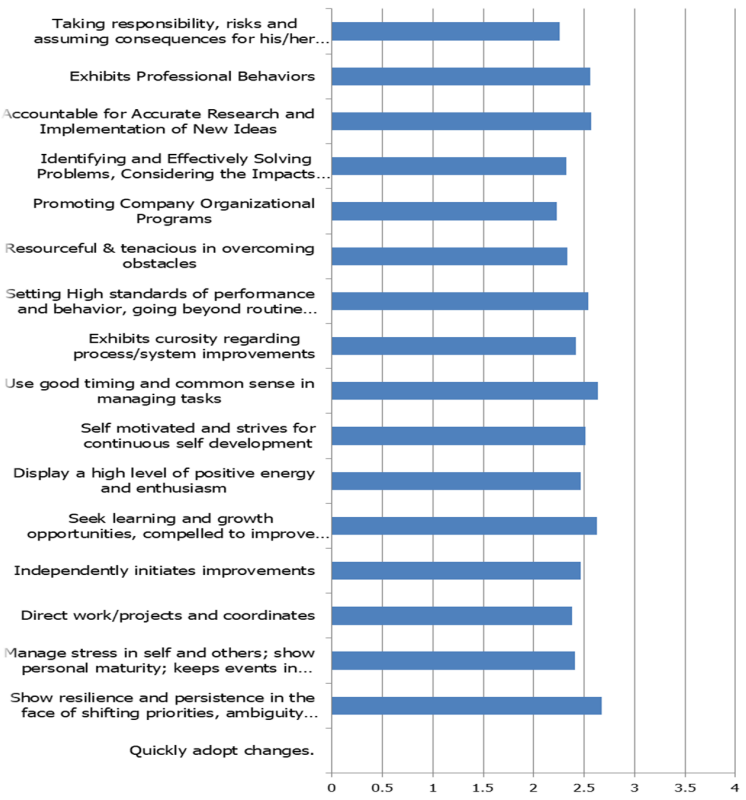

Figure 7: Soft Skills among administrative

the Academic workforce, lacked collaboration and problem-solving techniques to effectively resolve day-to-day issues, contributing to the Human Resource department's deteriorating performance, which is a critical component of an organization's success.

5.1 Recommendation for Government

Prioritizes skill upgradation, which would result in leading overseas employers and senior government officials recommending that they be called to Pakistan to showcase current training/skill standards, investment in training institutes, and workforce recruiting. As a result, remittances and foreign exchange will increase, boosting Pakistan's economy. Skill upgradation would strive to take targeted steps in critical sectors to improve the quality, accessibility, and cost of vocational education and training. To accomplish their joint aim of quick skill development, a strong implementation and operational framework must be established and implemented, which necessitates synergy and more cohesive cooperation between the public and private sectors. Research on skilled labor may be a competitive advantage since it predicts the creation of a more flexible, multiskilled workforce that can change with the times, allowing the country's

economy to flourish profitably even during a disastrous economic period.

5.2 Recommendation for Academia/Administration

As the study undertaken showed a clear gap in the skills of the Academia and Administrative workforce of the three different universities, following suggestions might prove helpful in encouraging the workforce to improve performance at desk. Training before job appointment will help improve skills of the staff. Different incentives (like bonus and quick promotion) should be introduced that would be provided on better performance adding to their willingness to further compete to improve performance. Staff must be given goals to work toward, as well as incentives, and failure to meet these goals should result in the introduction of penalties to discourage inactivity at the desk and in the workplace. Only competent employees should be hired, and any nepotism or favoritism should be reported to the top command, and those employees who prove to be ineffective should be fired to set an example for the whole workforce.

5.3 Recommendation for Further Research

The purpose of this study was to look at the skill level of the labor force at three different institutions. It is proposed that more research be done on:

- Pakistani labor force at the district level.
- Pakistani labor force at the provincial level.
- Pakistan's labor force at the national level.
- Conducting research into various soft-skills and hard-skills characteristics.
- Conducting research in a similar manner, but with more samples and firms.

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