



## Entrepreneurial Competence in Pakistani HEIs: Exploring Pedagogical Practices Using the EntreComp Framework

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### *Abstract*

HEIs play a vital role in promoting social, economic and political development through entrepreneurial education and activities. This study specifically using Entre Comp framework, explored the entrepreneurial pedagogical practices of HEIs faculty members about their competence to foster creativity, risk-taking, and problem-solving skills among their students. The research was positivist in paradigm and used the survey design for data collection from 385 faculty members teaching in HEIs of Rawalpindi and Islamabad. A self-administered questionnaire was used, and results were analyzed using SPSS, indicating variations in entrepreneurial practices. The faculty members have shown strong engagement in collaborative learning, goal-setting, and integrating technology. However, areas such as interdisciplinary initiatives, networking with experts, multidisciplinary activities and financial literacy require more emphasis. The study reveals that, although faculty members are enthusiastic to innovate and embrace entrepreneurial teaching methods, the practice of converting theory into action is still a problem. Training programs, resource availability, and institutional support is recommended for faculty members to acquire entrepreneurial competencies toward achieving the sustainable development and economic growth.

**Keywords:** *Entrepreneurial Competence, Higher Education Institution, pedagogical practices, faculty members*

## Introduction

Higher Education Institutions (HEIs) perform a multifaceted role in social, economic and political development of any country (Ankrah & Al-Tabbaa, 2015). HEIs are recognized as one of the important places of promoting entrepreneurialism through providing the entrepreneurial education, opportunities and mentoring to the students for their start-ups (Tanveer et al., 2020). In order to achieve the sustainable development goals 2030, entrepreneurship shares a significant role to transmute the socio-economic and ecological challenges (Apostolopoulos et al., 2018). Similarly, entrepreneurship is necessary for converting survival to thrive in one's life (Obschonka et al., 2016); endorsing innovative competencies for promotion of lifelong learning skills. The teachers therefore, are required to be familiarize with and adapt the innovative entrepreneurial teaching-learning practices (Dalet et al., 2016) to develop creativity, risk-taking and dealing uncertain situations capabilities, and making solutions to the real-life problems (Moreselli, 2019). Furthermore, teachers need to get entrepreneurial training to develop their knowledge and skills to better guide their students in future prospects (Khanam, 2018). Here, Higher Education Commission (HEC) certainly becomes important in promoting the teaching-learning training programs, resources and financial benefits for the teachers (Ahmad et al., 2019).

Conferring to the need of entrepreneurship in Pakistan reported by World Bank (2021), only 40% human capital is utilizing in Pakistan contributing low economic conditions; therefore, suggesting to unlock the entrepreneurial potential of young people. Correspondingly, Khalil (2020) and Campos et al., (2017) emphasized on the importance of teaching and developing of the entrepreneurial competencies. It is evidently found in the literature that entrepreneurship and related activities remained part of business and commerce engineering and disciplines only (Barba-Sanchez & Atienza-Sahuquilli, 2018; Arias et al, 2018). However, teachers still lacking in exhibiting theoretical entrepreneurial knowledge into transforming ideas into practice (Musteen et al., 2018). Therefore, this study aims to explore the entrepreneurial pedagogical practices of the faculty members in HEIs they utilized in their teaching-learning practices to foster entrepreneurial competence among students.

## Research Questions

1. What are the self-reported Entrepreneurial Competences of HEIs Faculty members?
2. What are Entrepreneurial opportunities do higher education institutions provide to their faculty members to develop their Entrepreneurial Competence?

## Literature Review

Higher Education Institutions are providing human assets to the social economic growth through fostering entrepreneurial activities (Cunningham et al., 2019) facilitating students for start-up activities (Tanveer et al., 2020) that is important for future growth and employment (Mirani & Yusof, 2016). Competence-based education is found as a paradigm shift in educational system to modify educational policies, practices and teaching-learning methodologies (Sturgis & Casey, 2018). Competence is discussed as skill, value, knowledge

and attitude (Chiru et al., 2012). Entrepreneurial competence is defined as an individual ability of risk-taking, self-efficacy to action-oriented teaching and learning practices (Sanchez, 2013). Thus, entrepreneurial competence is discovering solutions to the socio-economic variations and problems and applying them to administer change (Hunjet et al., 2015). Competencies can be acquired through teaching-learning process (Mitchelmore & Rowley, 2010) to predict future activities in institutions, organization or business set up (Kyndt & Baert, 2015). Entrepreneurial competencies can be learned through equipping the teachers to adapt innovative pedagogical practices (Schott et al., 2015).

Pakistani economy is ranked on 125<sup>th</sup> position out of 140<sup>th</sup> on GCI (Global Competitiveness Index, 2018) documenting in the National Education Policy Framework that Pakistan needs to acquire job market entrepreneurial skillset (National Education Policy Framework, 2018). Correspondingly, it is reported that Higher Education Institutions are going through deficit of linkages with academia, governance and management, lack of resources to produce skilled youth in job market (Employer Survey, 2013). The EntreComp framework (Bacigalupo et al., 2016) defined the entrepreneurial competence as a process to foster individual growth by taking active part in venture creation for bringing the social, cultural, and economic change. Entrepreneurial activities include developing certain skills, mindset, and seizing opportunities (Virtanen & Tynjala, 2019; Lans et al., 2014; EC, 2006). Entrepreneurship is turning creative ideas into innovative activity or venture (Ward, 2004) by bringing new thing or change in existing things adding innovation into product (Drucker, 2006; Okpara, 2007). Teachers are the institutional leaders to initiate entrepreneurial activities within or outside of the classroom across the discipline (Bagheri & Pihie, 2009) contributing future entrepreneurial actions strategically (McMullen & Shepherd, 2006). Setbacks are part of entrepreneurial activities (Van Gelderen et al., 2015); therefore, entrepreneurial motivation and perseverance encourage the students to achieve their goals (Wilson, 2008). Baron (2004) identified "Belief in one's ability to muster and implement necessary resources, skills, and competencies to attain levels of achievement" (p.4). Therefore, emphasis should be given to the multidisciplinary teaching-learning practices to better deal with social, economic and environmental challenges (Parry & Metzger, 2023). However, faculty in social sciences are not well-acquainted with utilizing human and capital resources (Goldstein et al., 2013) to generate new business and employment opportunities (Cazurra, 2020); Consequently, emphasizing on entrepreneurial initiatives to start new business and ventures (Anders, 2015) entrepreneurial research and commercialization through patent, and licensing procedures (Grimaldi et al., 2011). Moreover, educational institutions need to pay attention towards developing financial literacy among students and teachers both to expand entrepreneurial revenue generation (Holik & Mulyeni, 2019; Forte, 2014) and competence of taking risks to deal with uncertain situations during entrepreneurial activities (Mahmood et al., 2021). Furthermore, the teachers must emphasize on getting practical experiences through interacting with other experts of field, and professional development (Hagg & Garielsson, 2020).

This study employed EntreComp framework (Bacigalupo et al., 2016) including three major competencies sub-dividing into fifteen competencies to change individual mindset by turning ideas and opportunities into creative activities. Any educational formal or informal

setup can adapt the framework in order to bring change in their existing curricula, or teaching and learning practices (Bacigalupo et al., 2016) for initiating any entrepreneurial activity, its execution, evaluation and value to the society (Lillevali & Taks, 2017).

**Methodology**

**Research Design of the study**

This study used positivist paradigm using survey method design to gather the data about the perceptions of faculty members and their pedagogical practices based on EntreComp framework. Self-administered survey questionnaire was used to collect self-reported pedagogical practices of 385 faculty members teaching in HEC recognized HEIs of Rawalpindi and Islamabad employing simple random sampling technique. The calculated Cronbach Alpha scored .956 after pilot testing of the instrument; that shows reliable and valid internal consistency of the tool (Cooper & Schindler, 2006).

**Data Analysis**

This study used five-point likert scale to collect the data. Further data was analyzed using SPSS to measure mean score to explore the self-reported entrepreneurial pedagogical practices of faculty members in HEIs of Rawalpindi/Islamabad. Mean score is analyzed to find the difference and variation between dataset. Data is analyzed under the major three categories that further divided into fifteen sub-categories.

**Table 1**

*Ideas & Opportunities*

Major Competence	Sub-competences	Items	Mean	S. D
Ideas & Opportunities	Spotting Opportunities	I take advantage of opportunities that arise	3.91	1.047
		I try to know needs and requirements exists in my teaching-learning environment	4.30	.692
		I adjust my planned approach when new opportunities arise	4.07	.810
	Creativity	I try to find ways to do things quickly	4.14	.896
		I try to respond creatively to opportunities	4.13	.825
		I explain my ideas in a clear and coherent manner to my peers and students	4.30	.747
		I prepare activities where students could express creativity and innovation	4.07	.861

		I try to organize project-based activities	3.74	.909
	<b>Vision</b>	I try to develop vision in my students to turn their ideas into action	4.17	.721
		I try to enable my students to think ahead for their future	4.27	.728
		I try to facilitate my students to translate their vision in practical way	4.06	.805
	<b>Valuing Ideas</b>	I ask my colleagues what they think about my teaching approach	3.62	1.023
		I changed my mind if others disagree with me	3.55	.982
		I try to arrange informal discussions in class for place of debate	3.99	.800
	<b>Ethical &amp; Sustainable Thinking</b>	I am able to bring value to the society	4.19	.791
		I am able to think ahead the impact of my teaching-learning decisions on society	4.09	.806
		I am able to reflect on sustainable long-term social goals	4.15	.784
		I am able to reflect on sustainable long-term cultural goals	4.13	.810
		I am able to reflect on sustainable long-term economic goals	4.21	.792

The high mean scores shown in the above table indicates that majority participants are eager to meet the institutional requirements in teaching and learning. They are able to communicate their ideas with peers and students; further developing vision among students for future prospects by arranging informal discussions and debates. It is also specifying that faculty members can reflect on attaining sustainable economic goals. However, lowest mean scores in the above table indicate that HEIs do not provide opportunities to the faculty members; therefore, faculty members do not utilize project-base activities in teaching and learning. They do not change their ideas even others disagree with it; and cannot foresee the impact of their teaching-learning

decisions on the society; nor yet facilitating their students to turn their visionary ideas into practice.

**Table 2**

**Resources**

<i>Major Competence</i>	<i>Sub-competences</i>	<i>Items</i>	<i>Mean</i>	<i>S. D</i>
<b>Resource</b>	<b>Self-efficacy</b>	<i>I take decisions independently</i>	4.15	.823
		<i>I take responsibility for my own actions</i>	4.33	.727
		<i>I rely heavily on what I can do myself</i>	4.36	.715
		<i>I am able to assess a situation quickly</i>	4.13	.753
		<i>I first try to solve problems by myself</i>	4.37	.648
		<i>I admit my mistakes spontaneously</i>	4.21	.814
	<b>Motivation &amp; Perseverance</b>	<i>I work with clear goals</i>	4.32	.740
		<i>If I start an assignment, I finish it, even if I am tired of it</i>	4.27	.782
		<i>Even if there is distraction, I keep on working in a concentrated way</i>	4.05	.913
	<b>Financial &amp; Economic Literacy</b>	<i>I monitor my budget constantly when I am working on something</i>	4.03	.835
		<i>Before I invest money, I examine other possibilities</i>	4.07	.884
		<i>I know how I can keep the costs under control</i>	4.00	.859
	<b>Mobilizing Resource</b>	<i>I work for local industry outside Higher Education Institutions</i>	2.97	1.461
		<i>I provide consultancies to other organizations</i>	2.82	1.369
		<i>I make sure that I am aware of technological developments in teaching-learning</i>	3.93	.910
		<i>I visit exhibitions (Entrepreneurial) in my field</i>	3.42	1.050
	<b>Mobilizing others</b>	<i>I help others by referring them to people I know</i>	3.99	.897
		<i>I adjust my arguments to the person I am talking to</i>	3.96	.825
		<i>I am able to make people enthusiastic for my ideas</i>	3.93	.864
		<i>I try to organize group work-based activities for my students (cooperative learning)</i>	3.99	.820
<i>I try to organize multidisciplinary projects with my colleagues</i>		3.62	.986	

The highest mean scores shown in the above table indicates that most of the faculty members work with clear goals and try to resolve their teaching and learning problems themselves. They

are aware of investing money after exploring different opportunities, utilizing technological resources, mobilizing students through cooperative learning, arranging group activities and engaging field experts in their pedagogical practices. However, it is indicated in the results that faculty members need to be more decisive and focused while working and managing the financial budget. It is evident that faculty members do not organize multidisciplinary activities; nor provide consultancy services to any organization or work with any industry within or outside their institutions.

**Table 3**

*Into action*

Major competence	Sub-competence	Items	Mean	S. D
Into action	<i>Taking Initiative</i>	I like taking initiatives	3.92	.933
		I take action without seeking information	2.91	1.331
		I do things that are risky	3.33	1.124
		I can adapt to unforeseen changes	3.81	.803
	<i>Planning &amp; Management</i>	I am able to set long-term goals	3.88	.787
		I am able to set short-term goals	3.99	.773
		If a situation changes, I adjust my plans	4.05	.787
	<i>Coping with Uncertainty, Risks &amp; Ambiguity</i>	I think of unusual solutions for encountered problems during teaching-learning	3.93	.792
		I try to obtain necessary results during my teaching-learning process	3.99	.729
		I teach my students to deal with risks entailed by being enterprising	3.84	.847
	<i>Working with Others</i>	I approach other people spontaneously on numerous occasions	3.70	.828
		I utilize mentoring (going to students' seats and giving them advice for their work)	3.96	.870

		I like to learn new teaching-learning strategies	4.18	.809
		I like meeting new people	4.07	.856
		I know whom I can talk when need help	4.12	.831
	<b>Learning through Experience</b>	I like to attend training and courses in order to do teaching-learning process in progressive way	4.19	.775
		If I cannot figure out certain problems myself, I ask others opinion	4.09	.823
		I try to develop my contacts with others in professional field	4.11	.848
		I learn by cooperating with others	4.28	.726

The highest mean scores in the above table indicate that faculty members in HEIs are eager to take initiative to learn new pedagogical strategies to bring modification in their teaching-learning practices as per requirement to achieve targeted goals. The faculty members are learning through collaborating with their colleagues and experts of the fields. However, lowest mean scores indicate that faculty members in HEIs preferably do not take opinion of others in difficult and stuck situation. However, many of them need consents to take initiative for planning teaching and learning activities, long-term teaching-learning goals, learning and networking with the experts.

### Discussion of the results/Conclusions/Recommendations

It is evidently found in the first category “*ideas & opportunities*” that faculty members are competent in arranging informal debates, discussions, and communicating visionary ideas with their peers and students for fostering a collaborative environment. The faculty members are competent in reflecting on sustainable economic goals by incorporating sustainability into their teaching, faculty members contribute to creating awareness among students about the importance of balancing economic growth with environmental and social responsibilities. However, it is also revealed that there are few serious gaps in education system at HEIs; lack of entrepreneurial opportunities to the faculty members, lack in theory-practice connection, transforming ideas into activity by foreseeing the impact of teaching-learning practices on society, economy, culture and community, conservative mind of faculty for not promoting innovative pedagogical techniques. The findings supported by the study conducted by Heinonen and Poikkijoki (2007) that it is important for HEIs to design innovative curriculum, networking opportunities, global entrepreneurial trends to bring sustainability. Entrepreneurship

is all about creating opportunities, think creatively, and taking risks to plan activities to bring solutions to the problems (European Commission, 2020).

The findings of second category “*Resources*” underscore that faculty members in HEIs are able to navigate their teaching and learning issues effectively as they have set clear and structured goals. They are aware of exploring financial opportunities and resources. They engage their students in cooperative learning activities to foster certain entrepreneurial competencies. They take initiative to involve experts to familiarize their students with real-life experiences. However, it is found that faculty in HEIs are lacking in employing resources, budgeting, taxation, and financial decisions. They do not have had opportunities of multidisciplinary activities to collaborate with cross disciplinary experts, consultancy services resulting as lack of working within or outside institutions, limiting potential for knowledge sharing experiences, exposure to the industry, and looking new avenues for their entrepreneurial professional growth. Entrepreneurship is an important source of reducing unemployment for economic development (Balasubramanian, 2012); however, predicament is this that faculty do not have awareness of financial management (Kovacs et al., 2013). Therefore, faculty members in HEIs should be engaged in entrepreneurial activities that foster academic culture of intellect by applying skill-based knowledge and consultancy centers in institutions (Rubens et al., 2009).

The findings of third category “*Into action*” highlights that faculty members in HEIs are competent and willing to adopt innovative pedagogical practices. They are eager to exchange their expertise and learning with others to learn through others experiences. However, it is also found that they sometimes become dependent on others opinion and approvals before taking any initiative. Faculty is lacking in planning long-term teaching-learning goals, networking with experts, coping strategies to deal with uncertainties, learning latest entrepreneurial knowledge, skills, and trends through multidisciplinary collaboration. Findings are aligned with the literature, Hsanefendic, et al., (2017) emphasized that higher education institutions should promote entrepreneurship, research and commercialization through networking, industry-academia linkages to transform the pedagogical practices. Multidisciplinary entrepreneurial teaching and learning activities, courses, and training programs should be used across disciplines (O’Keeffe, 2003).

## Conclusions

The study draws few conclusions;

It is concluded that faculty in HEIs assigned structured tasks and projects to the students that limit their creativity; therefore, lacking in innovative teaching-learning practices. The faculty members are eager, inquisitive and motivated for entrepreneurial activities. however, few social, cultural, academic, and administrative challenges hinder their perseverance for start-ups and entrepreneurial activity. Furthermore, it is concluded that faculty members are lacking in guiding their students about funding resources, marketing strategies, and market analysis to generate revenues. Faculty in HEIs are convinced to get engaged in multidisciplinary activities;

however, culture of shared knowledge and practices is lacking in our institutions that is needed for creating value in society.

### Recommendations

- HEIs may arrange training workshops for the faculty members for designing entrepreneurial teaching and learning activities and adapt global educational trends.
- Mentoring programs may provide to the faculty members to develop certain entrepreneurial skills to transform ideas into practical activities.
- By creating an environment that fosters collaboration, autonomy, and strategic thinking, HEIs can empower their faculty to achieve excellence in teaching and learning.
- HEIs may arrange events, symposium or dialogue meetings to share their best pedagogical practices to acquaint the knowledge and skills of multidisciplinary faculty members.

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