



TALENT DEVELOPMENT AS A TOOL TO ACHIEVE COMPETITIVE ADVANTAGE THROUGH ORGANIZATIONAL CULTURE: A MODERATION AND MEDIATED MODEL TO PROVE THE RELATION

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Abstract

The principal motivation behind this investigation was to examine the strategic impact of talent development in achieving a sustainable competitive advantage for higher educational institutions in Karachi, Pakistan. The study also aimed to assess the mediating influence of interpersonal and organizational constraints, along with organizational culture as a key moderating variable, in the relationship between talent development and institutional competitiveness. Data was collected through comprehensive surveys from a sample of 300 teaching and non-teaching staff across prestigious private universities in Karachi. Robust analytical techniques, including Structural Equation Modelling (SEM) via Smart PLS, were employed to validate the research framework and test the hypotheses.

The findings revealed that competitive advantage was strongly linked to talent development initiatives and further amplified by a positive organizational culture. Additionally, the study identified intrapersonal drivers (such as motivation, skill enhancement) and external organizational factors (including leadership support, resource allocation) as critical mediators, reinforcing the connection between talent development and institutional success. These insights emphasize the need for targeted HR policies, continuous professional development, and a collaborative work environment to enhance competitiveness in Pakistan's rapidly evolving higher education landscape.

Keywords: Talent Development, Intrapersonal catalysts, Environmental catalysts, Competitive advantage

Introduction

The higher education industry has developed exceptionally in a few decades; "The war for talent" has become significantly important in the context of developing challenges among foundations and nations. Universities globally are competing for both students and funding. This competition becomes severe with economic opportunity that's swelling and the pool of available qualified people shrinking, together. (Chambers et al., 1998). Like other industries, most higher education institutions, gradually developing themselves into global actors, whether they are private or public (Naidoo, 2006). Diversity, inclusion, and internationalization of the higher education industry have led this "war for talent" to new levels, specifically in recruiting for faculty and academic leadership positions. In the era of globalization, college leaders are required to be productive for advancement in their colleges and to empower their associations to confront difficulties and to support themselves in these situations. Understanding the new and key job of staff in the monetary field, presently, the educational leaders must be solid and steady to address the difficulties of the 21st century (Mir et al., 2019). To deal with these challenges, universities in England and Australia have become autonomous in operating in an increasingly deregulated market environment (Pellert, 2007).



Human capital is considered the most crucial asset among all assets of any organization. The most significant concerns of top management/ leaders relate to human capital. It has been observed that in the long run, the organizations that have the best people win. At present, academics (subject and teaching experts) are required to have a new range of competencies (Potgieter et al., 2011). Capacity building and innovation have now become the tools of getting a competitive advantage, because they help in growing the growth potential through “knowledge acceleration”. The detail of advanced education as an extravagance in the greater part of Asian nations has turned into a test for government organizers and chairmen of advanced education establishments due to different reasons like to offer superb training with a non-enough arranged staff, because of their capabilities, in numerous nations personnel do not fulfil the regularly rising needs of advanced education students.(Lee, 2014). Personnel don't concentrate on expanding their pragmatic aptitude and scholastic capabilities. The expanding number of enrolments in Asian nations is another reason because Higher Education Institutes (HEIs) centre around gathering the basic scholarly prerequisites as opposed to concentrating on the improvement of the quality of instruction and staff development. (Altbach, 2003; Asian Development Bank, 2010; Mir et al., 2022).

To address these issues, various Asian HEIs have taken and are taking exercises like extended focus on accountability and quality assurance systems, phenomenal weight on staff teaching performance and research yields (Hallinger, 2010); presently workforce is expected to assume its critical role in replacing traditional learning with intelligent creative learning. In this setting, HEIs built up proficient improvement software engineers to advance powerful teaching and research. As indicated by research discoveries, these expert advancement software engineers are helping to defeat various boundaries HEIs are confronting (Asian Development Bank, 2011). Be that as it may, the achievement rate of these expert advancement projects has been considered differently by HEIs.

Because of the details of advanced education as an extravagance, the employees have turned out to be over-burdened with various instructing obligations, as they need to teach more classes constantly, they are associated with various non-academic issues identified with student life, or potentially formative issues. Most of the employees didn't get 'enough' or 'extra' time for such close-to-home or aptitude advancement software engineers, so these developers have been taken by personnel as an extravagance (Mir, Amin, Omar, & Khan, 2022).

Staff pay structures in numerous Asian nations are not great; compensation structures are fixed or depend on the number of teaching hours employees complete every semester or in each term or quarter. As expert advancement software engineers are not attached to any kind of remuneration or motivator structures, from a fiscal point of view, personnel think about expert improvement conversely of real encouraging exercises, so they don't effortlessly get roused to go to these expert improvement developers. In Asia, these staff proficient advancement software engineers aren't subsidized, underfunded, and are working on lean optional spending plans. In most cases, staff need to do self-financing for picking up improved local and abroad self or expert advancement opportunities, having no entrance or restricted access to web and PC sick education among senior employees, including another reason of non- investment of employees in expert advancement (World Bank, 2009). Geo-affordable and geopolitical reasons and contrasts likewise pose challenges for expert advancement projects to create coordinated and integrated gauges and prepare open doors for all directors, personnel, staff members, and students. No acknowledgment and reward for inventive research, instructing and learning, and the thought of proficient improvement as a long-term rather than transient system are considered as impetus in (Mir et al., 2023) in staff non-cooperation and disappointment of expert advancement programs (Chapman, 2009).

Since 2002, Higher Education Commission, Pakistan has considered the significance of training upgrade in Pakistan, to fulfil the global guidelines; alongside its accreditation body job, higher education commission of Pakistan (HEC) is additionally running different formative undertakings that are for staff advancement, with the goal that great administration can be guaranteed in colleges, explicitly in government colleges. Meaning to upgrade the quality principles of instructing in all colleges, the Advanced Education Commission of Pakistan has thought about the need to establish a structure for raising the instructing standards.



Following its vision referenced in the medium-term advancement system, "The Higher Education Commission will encourage Institutions of Higher Learning to fill in as Engines of Growth for the Socioeconomic Development of Pakistan". HEC has made various changes under which the limit of working staff of advanced education organizations has been considered as one of the most significant and real errands. Workforce improvement is the premier vital point of Advanced Education Commission, Pakistan. Under HEC Vision 2025, HEC is giving due importance to the development of HEIs' faculty for the growth of higher education in the country. Since its establishment, HEC is focused on the development of HEIs by improving the intellectual calibre of the faculty. HEC has realized that the knowledgeable and highly skilled faculty is the need of demand. HEC aims to increase the number of faculty in HEIs with the highest academic qualifications so that self-reliant problem-solving faculty can be developed.

As an appropriate structure ability, the executives are encouraging colleges to change their HR framework into vital decisions. Presently, to achieve vital outcomes for HEIs, procuring gifted individuals, yet representative maintenance, training, and improvement of worker capacities has become the worry for associations. Organizations in advanced education can genuinely benefit from the accomplishments that the board has had on associations within different enterprises. Regardless of the idea of wanting to be diverse from the business world, institutions must realize that growing talent from inside can be of impressive advantage, particularly given the current economic atmosphere, progressively aggressive competition for human capital, and the continuous need to be responsible to its constituents.

Take a gander at any organization's vital plan or the statement of purpose of any human resources office in higher education. No doubt, workers will be seen as significant resources altogether for the school or college to make enduring progress. Most establishments in the present economy can sickly afford to lose a senior official or a high-potential executive without an appropriate substitution, given the huge costs associated with employing a competitor from outside the organization (Clunies, 2007; Mir, Khan, & Abbas, 2020). Schools and colleges, presently like never before, need to guarantee the perfect individual is serving in a suitable position (Heuer, 2003). Showing this sort of reliability in capacity offers sureness to both internal and outside accomplices (Marsh, 2008). Schools and universities recognize the test to build capacity from inside to meet the approaching Human capital is considered by most to be the driver of compelling affiliations. While most may perceive this, a couple of establishments in cutting-edge training have developed formal programming to help existing capacity (Lynch, 2007).

This study provides critical insights to support Higher Education Institutions (HEIs) in effectively implementing talent development practices in compliance with Higher Education Commission (HEC) guidelines. The findings enable institutional leaders and policymakers to strategically align talent development with organizational culture to enhance competitive advantage, while helping HR professionals identify optimal interventions and address implementation constraints. By establishing best practices for program design and cultural alignment, the research strengthens institutional capacity - particularly for newer HEIs developing talent management systems - and contributes to system-wide improvement across Pakistan's higher education sector. Furthermore, it equips Training and Organizational Development (T&OD) specialists with evidence-based frameworks to understand the talent-competitiveness relationship, ultimately supporting sustainable institutional growth through strategic human capital development.

Literature Review

In today's competitive environment, every organization realizes that the employees they have, and their talents and skills are the most significant factor for their organizational success. Talent insufficiency is and could become a threat to the continuity of business success. (Chambers et al. 1998). Talent is the most important strategic resource; organizations have to meet the demand that ease competitiveness in today's business environment. To attract and retain talented employees is a rising trend; now organizations are investing, dealing with the issues concerned strategically, and tactfully (Lyon & Marler, 2011).

In an individual, limiting ability is known as "something excellent that specific individuals have". (Garavan et al., 2012). Like capital, character, and skill (Dries, 2008). Also, in the setting of association, creators portrayed ability as "people who could be a wellspring of significant worth expansion that could help authoritative exhibition. (Tansley et al., 2007; Goffee & Jones, 2009). Stahl et al. (2007) depicted it as "ability



comprises of those people who could make distinction in hierarchical execution through their prompt work commitments in the long run or by making a mockery of their most astounding potential levels. Redford (2005) expressed ability as the consolidated total of representative potential when they are taking care of business. Talent is considered as highly performing employees who have contributed considerably in organizational progress and organizational future development. These are the employees who have characteristics, ability, skill, mastery, experiences and potential for the development, so they become capable enough to increase organizational production, in this way they add value to the organization ((Mir, Khan, & Abbas, 2020)

Similarly, John 2018 talent as the people who have leadership qualities and superior behaviour, that play an important role within the organization, Scaringella considered human capital talent as valuable, distinctive and important organizational resource. McCartney and Worman (2013); Bhatnagar (2017), Mir, Jariko, Channa, and Mushtaq (2023) argues that talent refers to those employees of the organization who have concerned skills, decision making, proper attitude, required knowledge and experiences, these are the people who have desire to be grown, have thirst for learning and are committed to the organization.

Talent management identifies such people in the organization who work at excellence in their work tasks and have excellent performance records, based on their performance these people get support from organization to make them capable to accomplish exceptional tasks and achieve results. Meanwhile, organizations capture and showcase their unique differential work to others, so that other employees can admire and follow them (Scullion & Collings, 2011). Talented people are considered as intellectual and creative individuals; they have an inborn quality of learning naturally and skilfully. Talent is a vital factor and considered key to success for organizations in both the long and short run (Chuai, 2017). It is suggested that talent management is a strategic issue in organizations nowadays (Mir, Amin, Omar, & Khan, 2022).

Organizations must be capable enough to distinguish the people who are creating value for the organization to achieve competitive advantages. Additionally, talent management is not only about finding the best people but also putting them at the right place with the right types of equipment and giving them the environment that can enhance their effectiveness (Uren & Jackson, 2012; Mir, Khan, & Abbas, 2020). Talent management provides numerous benefits to organizations, like it enhances employee engagement, increasing employee retention, increasing productivity, and culture of excellence (Ballesteros & Inmaculada, 2010). Talent based theory considers talent as the premier source for organizational success, according to this theory among other organizational resources; talent is the only resource that could help organizations to gain and maintain competitive advantage. So, organizations should put special emphasis on attracting, recruiting, and retaining the talented workforce. Organizations must focus on generating such systems and arrangements in their structures that facilitate through coordination and cooperation among the talented workers. (Wright et al, 2009). Talent management is the process of executing the integrated systems, processes and strategies generated with the goal of increased workplace productivity. It works by development of enhanced processes for attraction, development and retention and utilization of people who possess the needed capabilities, skill sets, and other characteristics to fulfil the current and strategic organizational needs of future (Mudoli, 2008; Mir et al., 2023).

Talent management is known as a most widely used strategy in both academia and industry, it has been used in many, and different forms from informal to the highly structured form having a clear objective of retaining talent for sustainability, thriving, and the provision of financial benefits to its stakeholders (Estep, 1998). Several human resource management and human resource development functions relate to talent management, such as HR planning, recruitment and selection, training and development, compensation etc. (Heinen & O'Neill, 2004). As compared to the last half decade, organizations are now expanding more efforts, energy and resources on talent related initiatives. (Human Capital Institute, 2008). In this scenario managers are required to develop plans or strategies for talent acquisition, talent engagement and retention, focusing on organizational internal and external factors. (Ghalambor, 2018) The significance of the human asset office as a key accomplice in central decisions and planning has been recognized. Associations are getting globalized and aggressive as time passes, comparatively, the need for worker improvement and ability upgrade is expanding and has been thinking about as a basic factor for organizational achievement. That is the reason fruitful associations consistently take a stab at having a productive and powerful training and development



program (Pfeffer, 1998). For progress, an incredible framework is expected to enlist, hold, create, and convey hierarchical ability. Along these lines is the way a change in perspective was acquired, the learning and advancement capacity of associations as ability improvement (Pfeffer, 1998).

Organizations need continuous success, excellence, and best performance, so they always try to identify, deploy, and retain their talent in an efficient way that is known as talent development (Iles & Zhang, 2013). When an organization develops the talent of its employees, it develops its organizational talent pool to fulfil its future competence needs. Every organization desire to excel in what they do, for continuous success and excellence. Organizations seek to identify, retain, and deploy the talent they have most efficiently, which is called talent development (Iles et al., 2010; Saad & Mohammad, 2021). Ability improvement was observed in the writing to be a region that ought to be given more consideration because of the different points of view that exist. A model was found by Thunnissen et al. (2013), where they show that skilled representatives ought to be given extraordinary treatment for the reasons of quickened development. Meyers et al. (2013) contend that TM should concentrate on experience-put together advancement with respect to work learning as one of the main impetuses of the improvement procedure in a savvy way.

Development is an important role played by talent management. The development of employees throughout their entire tenure shows organizational commitment. This commitment arouses employee engagement to a level not no other organizational rewards or offerings can accelerate. This commitment towards development could be a foundation of organizational culture. Employees always request, welcome, accept, and appreciate the developmental activities like education, training, and mentoring. Employees always welcome developmental opportunities for personal and professional development. An organization can enhance employees' engagement through the following ways:

- 1) By offering job-specific or personality-generic training.
- 2) By offering and providing coaching and mentoring.
- 3) By providing opportunities for formal education through partnerships with universities, tuition reimbursement options and online credits.
- 4) By joining professional associations and attending conferences.

In an ideal business world, considering solid competition, establishments should develop their talented employees to empower them to become profitable more rapidly. Consequently, the ability advancement procedure should be implemented within enrolment growth and be viewed as an effective portion for establishments to advance the skills of their highly skilled staff. Talent development is viewed as a basic asset of differentiation and sustainable competitive bit of leeway. It is deliberately significant for an institution's success. For example, the improvement of the ability to work within higher training organizations additionally helps with holding capable representatives, which in turn helps with expanding college rankings and benefits. College rankings are aligned with the ability of high-performing workers, and these talented individuals contribute fundamentally to a college's reputation by selecting new students, directing proficient instruction, leading innovative research, and securing research funding.

The HEIs that have been cognizant about ability advancement have seen huge improvement in their employees' execution just as their business sustainability. Talent development (TD), in higher education (HE), as different businesses, underpins human asset arranging, progression planning, and in general performance (Dhanabhakya & Kokilambal, 2014). Advanced education has the ability in both scholastic and authoritative staff. There is a need to improve the human asset, the executives' capacities, and systems for anticipated outcomes (Wu et al., 2016). A manageable and solid ability advancement framework (Gandz, 2006) can spur scholastics naturally and extrinsically to profit TD. When the authoritative needs and achievement criteria are known, ability distinguishing proof methodology is concurred, and the ability advancement framework is incorporated, the following basic inquiry is how to approach building up the scholastic ability i.e., what are the TD techniques that are helpful for HEIs' setting to create ability for the present and future scholarly initiative needs. (Stewart & Rigg, 2011).

The learning and advancement work for the scholastic human asset has constantly settled independently/uniquely in contrast to the improvement capacity of unified or managerial staff, for the obvious reason of the distinction part of their expected set of responsibilities and significant significance. Be that as it



may, with the expanding rivalry in the HE business and the implantation of "war for talent, the scholarly human asset the executives and improvement has begun to turn out to be increasingly forceful; however moderately exceptionally new yet "ability development" intercessions are beginning to rise in the HE hierarchical settings too (Tyagi et al., 2017). The ability improvement practices are chosen deliberately. HEIs regularly adjust a blend of strategies with adequate adaptability. The HEIs are information concentrated associations; they rely on authority learning and abilities to keep on achieving their targets (Stewart & Rigg, 2011), which collaborate their ability with positions.

These are the formative strategies that are accessible to both administrators and scholarly staff of advanced education establishments that centred on worker improvement. Notwithstanding, the associations are quick to create ability as a vital quality and a wellspring of future intensity and need to introduce altered ability improvement interventions. The TD mediations are characterized as "any occasion that is intentionally attempted to help, incite, or help learning" (Stewart & Rigg, 2011). The TD mediations, "Away from work, incorporate formal instruction (clarified above), including focuses and college. There is an extent of conceivable TD mediations that are sent as "through work" advancement; however, the interventions that are pertinent to advanced education scholastics improvement are: Coaching (Mabey & Thomson, 2001; Iordanou et al., 2015) Action learning (Mabey & Thomson, 2001; Pedler et al., 2005), Mentoring (Mabey & Thomson, 2001; Shagrir, 2017), and E-learning (Hou et al., 2009)

Organizational talent development is impossible unless it develops talent at the individual employee level. As (Gallardo-Gallardo and González-Cruz, 2013), they both should be discussed together as they support each other. Keeping this view in mind, both individual and organizational needs should be understood in conjunction. TD is a process of learning and practicing. This process is catalysed by two important factors: intrapersonal and environmental factors (Gagne, 2000). These elements can multiply the improvement procedure, yet they additionally can limit the advancement on the off chance that they are not set up intentionally. Relational impetus is associated with individual incorporation

The associations that take cognizant endeavours to hold and build up their ability, embrace a progressively deliberate approach to deal with production, such conditions and learning opportunities to fit the organizational ability needs (Garavan et al., 2012). Natural components impact altogether, and they are most significant too as it's not just effects on ability improvement, it impacts on the impacts of relational impetus. If a worker learns and obtains new aptitudes, yet he/she doesn't get any advantages (inborn or outward). It could demotivate the representative and could adversely effect on worker's eagerness to proceed with the advancement endeavours. Gandz (2006) portrays it as an ability improvement connection. The TD work, Gandz (2006) proposes, isn't an individual and separate action it exceedingly depends on and should be effectively coordinated with the Human asset the board capacities.

Hierarchical culture and its parts, for example, values, presumptions, convictions, and images, affect an association's sustainable upper hand and can be a wellspring of this intensity. As per Sadri and Lees, individuals originate from various foundations and social legacies, which show themselves in a vast variety of ways. The ensuing overwhelming arrangement of standards, which give rise to the hierarchical culture, will control how works are practiced within an association. In a circumstance where the hierarchical culture is certain and solid, it will be a critical wellspring of reasonable upper hand. Hierarchical culture comprises of organization's social and profound fields, these fields are comprised of various material and non-material, unmistakable and masked, cognizant and unconscious procedures and wonders. Every one of these components relates choose the heading of reasoning, belief system, values, critical thinking approaches, and standards of conduct of the organization's workforce and are fit for driving the association towards progress (Solomanidina, 2007).

Every single type of association has its way of life, and on the off chance, that they need to change themselves; the only practical way is the difference in cultural (Eisenberg and Riley, 2010). In the mission of accomplishing the upper hand, however, drawn in representatives, generally associations face the difficulties of interfacing the workforce with one-of-a-kind qualities, culture, interests, and needs (White, 2008). As portrayed by Lather et al., (2010), distinctive hierarchical culture influences in creating and moulding individuals' Values, frames of mind, inspiration, execution, and commitment to the association. The best



associations concentrate on the future, so they gauge what dispositions, abilities, and conduct will be required from their skilled workers in the future. This future point of view needs associations to make such great conditions for workers. As de Chernatony and Cottam (2008), authoritative culture is a very powerful catalyst of representative conduct. The authoritative culture stands out as one of the parts that are imperative to supporting execution, upper hand, and a valid justification for being an incredible association. A steady culture of hierarchical learning can build up moral conditions, which thus can create individuals in the association with mutual conviction, trust and group coordination for basic achievement. Kotler and Keller (2006) characterize the upper hand as an organization's capacity to perform in at least one different way that contenders can't or won't coordinate.

A social chief supports the procuring and improvement of individuals with the essential aptitude and abilities expected to take care of business. Grandz (2006) states that employing the perfect individuals can sling an organization into the sort of money related achievement that makes a buzz, which draws in more star entertainers. A pioneer can make a culture that recognizes his association as an extraordinary work environment for. Basically, a pioneer makes a culture of duty, through the portion of authoritative assets, prizes, and advancements that energize focused conduct. The most ideal approach to urge the upper hand is to consistently urge people to improve new points of interest. The distinction among progress and disappointment can rely upon the degree and reason, the worth made via life of the association. If a pioneer is steady in his conduct of focusing on working productivity and urging subordinates to be inventive, the association increases ease advantage over adversaries. Thompson, Strickland, and Gamble (2005) affirms that organizations procure solid market positions due to the ease points of interest they have accomplished over their adversaries and their steady capacity to undervalue their rivals. **Pioneers who model and worth work and change pioneers who equalize the enthusiasm** of all partners address the job in keeping up a hierarchical culture that empowers learning and upper hand.

The significant elements of the present economy are expanding globalization, the constant advancements in the fields of data and correspondence innovations, increase in the assortment of items/administrations, clients inclining to satisfy their desires and tastes of their decisions client desire. All these are the most significant elements in the present economy. Firms utilize distinctive understood or expressed methodologies while contending to increase upper hand in the intense condition, while viewing for every item, administrations, and markets, a few firms are effective in accomplishing the upper hand while others get disappointment (Walker, 2009). It is one of the significant and essential inquiries in the field of key administration that why do a few firms in a similar industry perform better when compared with others? (Hoodlum et al., 2006; Teece et al., 2007; Mujtaba & Mubarik, 2021).

Porter (1996) argues that a competitive strategy comprises unique, value-driven activities. To achieve success and a sustainable advantage over rivals, organizations must identify and implement distinct activities that create exceptional value. In today's rapidly evolving business environment, marked by constant change and intense competition, employee engagement and commitment are critical to organizational success. When employees align their personal goals with organizational objectives and perform their roles with dedication, they contribute to the development of valuable, rare, and non-substitutable capabilities. Moreover, engaged employees enable organizations to respond swiftly and effectively to external disruptions, ensuring adaptability in dynamic markets.

Ability, fascination, and maintenance are a portion of the difficulties associations, especially advanced education foundations, is confronting (Van De Brink, Fruytier, & Thunnisen, 2013). In this information period, quick learning and representative capacities and abilities have turned out to be the basic technique for progress. (Mellahi and Collings, 2010). Maintainable upper hand speaks to a company's accomplishment in constantly taking advantage of focused lucky breaks for improving execution, shielding itself against adversaries' aggressive moves, as well as raising boundaries to the disintegration of its predominant upper hand (Piccoli and Ives 2005).

Hypotheses

H₁: Talent development has an insignificant impact on organizational competitive advantage.

H₂: Talent Development has an impact with a competitive advantage through the mediation of



organizational culture

H₃: Internal catalysts moderate the relation between talent development and competitive organizational advantage

H₄: Environmental catalyst moderates the relation between talent development and organizational competitive advantage.

H₅: Organizational culture has a significant impact on organizational competitive advantage.

Methodology

Method of Data Collection

This examination utilized quantitative methodology; the post-positivist methodology was utilized by concluding the speculation from the literature. Exploratory research was utilized to gather bits of knowledge on how TM was implemented at various colleges in Karachi. This methodology was embraced as exploratory research will, in general, location vulnerabilities and issues on which practically no past research has been done (Brown, 2006).

Ghauri and Gronghaug (2005) described that in simple random sampling, every case of the population gets an equal chance of inclusion in the sample. Zikmund (2002) explained that random sampling can be used by taking the sampling frame first by the researcher and then by using a random number generation computer program so a sample can be picked from the sample frame. Shabbir (2016) in his research: Improving Professional Development System through Quality Assurance Practices in the Universities of Pakistan “used both quantitative and qualitative approaches and used random and purposive sampling.

Random sampling was used to gather secondary data; 45 privately owned higher education institutions of Karachi were selected as the population. CIPD (2007) “Talent consists on those individuals in the organizations who could produce a difference in organizational performance with their immediate performance or in the longer term by demonstrating their potential”. Teaching and non-teaching staff were taken as the population and were considered suitable because they manage the daily operations of the organization and are the main recipients of talent management initiatives. All questionnaires were circulated to the participants (teaching and non-teaching staff) with instructions from the researcher.

Post positivists acknowledge that hypotheses, foundations, information, and estimations of the specialist can impact what is observed. They accept that human information is put together not based on unchallengeable, strong establishments, but rather upon human guesses.

Quantitative research, every now and again, uses deductive reasoning, wherein researchers start with theories and a short time later assemble data which can be used to test if observational confirmation to help that hypothesis. Quantitative procedures stress target estimations and the quantifiable, logical, or numerical examination of data accumulated through studies, surveys, and ponders, or by controlling earlier genuine data using computational frameworks. Quantitative research revolves around get-together numerical data and summing it up transversely over social occasions of people or to explain a particular phenomenon.

The random sampling technique was used for data collection after constructing the sampling frame of the population.

Sample size

Forty-five (45) private universities of Karachi were taken as a sample. Data was collected from 300 respondents, as they will be representative of the overall population. Human capital is considered as the most important driver of success for any organization. The data was collected from the teaching and non-teaching staff members of private universities located in Karachi.

Instrument of data collection

The data was collected through a structured, adopted questionnaire from the teaching and non-teaching staff members of higher education institutions in Karachi. The questionnaire consisted of 17 statements. Pilot study testing was conducted before the distribution of the questionnaire. Quantitative information was taken from teaching and non-teaching faculty with the help of questionnaires from their respective universities about the talent development system on a five-point (Strongly Disagree = 1, Disagree = 2, neither agree nor disagree = 3, Agree = 4, Strongly Agree = 5) Likert scale. The Likert scale is designed to examine how strongly subjects agree or disagree with statements on a 5-point scale.

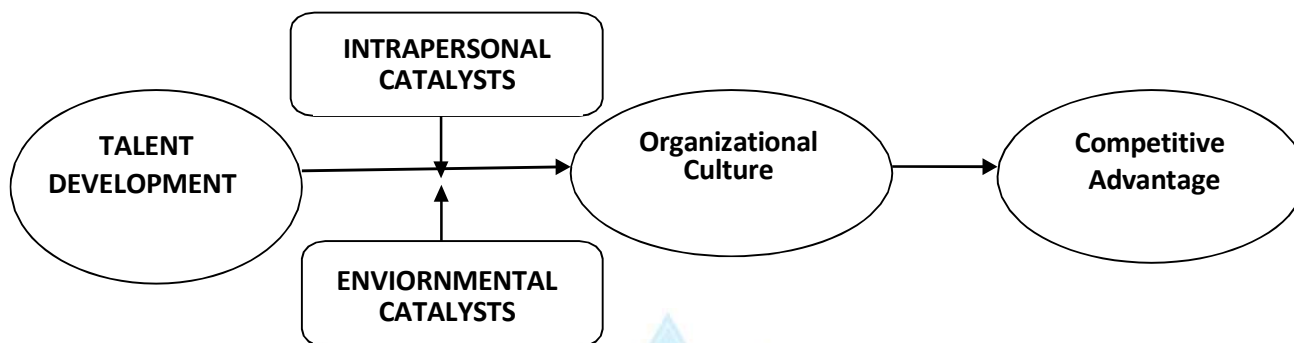


Reliability and validity test

To ensure the reliability of the response and credibility of the respondent, they were requested to provide their name, designation. While developing the statements, it was due care was taken that statements should be clear, unbiased, and easily understandable for the respondent. To answer the statement, the respondents were provided with a scale. Chornbach alpha test was applied to check the reliability of the gathered data.

Figure 1

Theoretical Framework



The above model is designed based on literature reviewed from the paper titled “The Choreography of Talent Development in Higher Education.” The first part of the model (IV talent development, Moderating variable: intrapersonal and environmental catalysts, and mediating variable: organizational culture has been taken from the base paper. The latter part (DV: competitive advantage) has been taken from Faria Rabbi (2015) “Talent management as a source of competitive advantage”. The claim is supported by human capital theory.

Human capital theory suggests that people are as important as other sources involved in the production of goods and services, and proper investments in human capital can result in improved performance of the individual, group, organization, and country level. (Encyclopedia of management theory). As supported by several researchers, competitive advantage has been used as a theory extension in the research model. Faria (2015) and Wu, Nurhadi, & Zahro (2016) emphasized the link between talent development and competitive advantage. Faria (2015) in her research “Talent management as a source of competitive advantage” used competitive advantage as a DV: whereas talent attraction, talent retention, and talent development have been taken as sub-variables of talent management.

Statistical Technique

Basic Equation Modelling was the factual procedure that was utilized for investigation. In his book (Research strategy in business) portrayed Structural Equation Modelling (SEM) is portrayed as a quantitative research system that can likewise consolidate subjective strategies. SEM is utilized to demonstrate the causal connections between factors. The connections that appeared in SEM speak to the speculations of the scientists. Ordinarily, these connections cannot be factually tested for directionality. Structural condition demonstrating (SEM), as an idea, is a mix of measurable strategies, for example, exploratory factor analysis and different methods. The reason for SEM is to look at many connections between the Independent Variable (IV) and at least one Dependent Variable (DV).

Mumtaz (2018) in research “the link between training satisfaction, work engagement, and turnover intention” used a structural equation model (SEM). The gathered information was dissected by utilizing Cronbach's alpha, rho-An, and composite unwavering quality, and Average fluctuation separated (AVE) was utilized to check the dependability and legitimacy of information. Right off the bat, information was obtained from the information clearing, in which Outliers, Normality, Missing Values, and unengaged reactions were investigated with the goal that the conceivable mistakes were eliminated. Also, to test the quality criteria of information wherein composite dependability, focalized legitimacy, and the segregate legitimacy were



investigated with the goal that information featured the legitimacy and unwavering quality criteria. In conclusion, the Structural condition (SEM) by utilizing Smart PLS was used to test the hypothesis.

Results and Analysis

Table 1

Composite Reliability and Validity

Variable	Cronbach's α	rho_A	Composite Reliability	AVE
Competitive Advantage	0.782	0.809	0.853	0.543
Environmental Catalyst	0.826	0.832	0.896	0.742
Intrapersonal Catalyst	0.908	1.140	0.953	0.910
Organizational Culture	0.807	0.845	0.866	0.569
Talent Development	0.735	0.794	0.823	0.540

The above table demonstrates the estimations of unwavering quality and legitimacy. Like Cronbach's alpha, rho-A and composite unwavering quality demonstrate the aftereffects of dependability with the distinctive computation modes. As recommended by George and Mallery (2003), the general guidelines of Cronbach's alpha: > .9 – Excellent, .8 – Good, > .7 – Acceptable, > .6 – Questionable, > .5 – Poor, and < .5 – Unacceptable" (p. 231). As recommended by (Hair et al., 2017) in deciding inside consistency unwavering quality for estimation models, composite dependability estimations of more than 0.9 are regarded not alluring because this specifies "they are estimating a similar wonder and are subsequently probably not going to be a substantial proportion of the development". The development estimations of the dependability according to Chrobach's alpha is 0.7, and we can see that every one of the builds is getting the limit estimations of the dependability, and we can say the information has internal consistency and fit for the test. As recommended by (Chin, 1998; Höck and Ringle, 2006: 15) the analyst may consider a development to show inward consistency merged legitimacy. On the off chance that the normal fluctuation removed (AVE) is in any event .50. Additionally, the estimations of AVE are demonstrating the joint legitimacy of the information, which suggests that the markers of an inert variable are precisely clarifying the development, and the adequate estimation of AVE is 0.5 or more. Every one of the builds of the above table demonstrates the qualities more noteworthy than the threshold values and considered the data has convergent validity.

Figure 2

PLS Algorithm

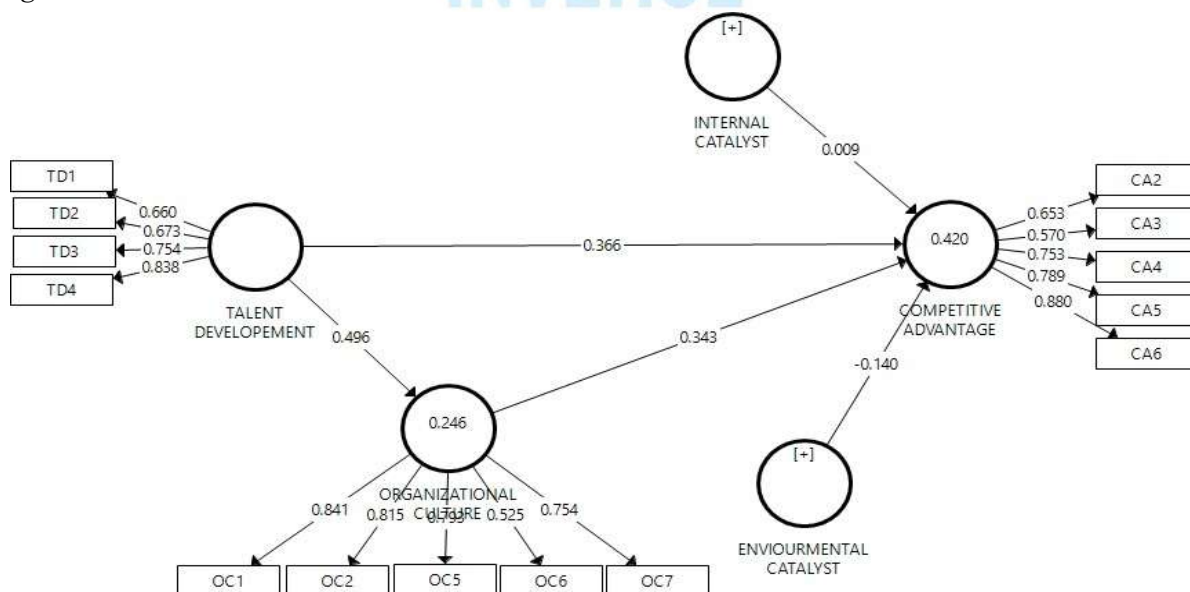


Figure 2 shows the model variables along with indicators and their percentage of explanation. The figure shows that CA2 (65%), CA3 (57%), CA4 (75%), CA5 (78%), and CA6 (80%) accurately predict the



values of competitive advantage. The figure shows that OC1 (84%), OC2 (81%), OC5 (59%), OC6 (52%), and OC7 (75%) accurately predict the values of organizational culture. The figure shows that TD1 (60%), TD2 (67%), TD3 (75%), and TD4 (83%) accurately predict the values of talent development. The above figure also shows that as a latent variable, talent development TD (49%) accurately predicts the value of organizational culture (OC). Moreover, the figure shows that TD development accurately predicts the value of competitive advantage (CA). Organizational culture OC (34%) accurately predicts the value of competitive advantage CA. Environmental catalysts EC (90%) and intrapersonal catalysts IC (- 14%) accurately predict the value of competitive advantage.

Table 2

Discriminant Validity (Fornell-Larcker Criterion)

Variable	Competitive Advantage	Environmental Catalyst	Intrapersonal Catalyst	Organizational Culture	Talent Development
Competitive Advantage	0.737	-	-	-	-
Environmental Catalyst	-0.223	0.862	-	-	-
Intrapersonal Catalyst	-0.048	0.427	0.954	-	-
Organizational Culture	0.537	-0.086	0.011	0.754	-
Talent Development	0.558	-0.155	-0.001	0.496	0.735

The table above presents the results of the Fornell-Larcker criterion, which assesses discriminant validity. As Fornell and Larcker (1981) established, discriminant validity is confirmed when the square root of the average variance extracted (AVE) - represented by the diagonal values in the table - exceeds all corresponding off-diagonal correlation coefficients. The results demonstrate that all constructs meet this threshold: competitive advantage (0.737), environmental catalysts (0.862), intrapersonal catalysts (0.954), organizational culture (0.754), and talent development (0.735). Therefore, we can conclude that discriminant validity is established for all variables according to the Fornell-Larcker criterion.

Table 3

Discriminant Validity (Heterotrait-Monotrait Ratio, HTMT)

Variable	Competitive Advantage	Environmental Catalyst	Intrapersonal Catalyst	Organizational Culture
Environmental Catalyst	0.294	-	-	-
Intrapersonal Catalyst	0.068	0.472	-	-
Organizational Culture	0.634	0.135	0.056	-
Talent Development	0.669	0.188	0.116	0.556

The table presents the Heterotrait-Monotrait Ratio (HTMT) values assessing discriminant validity among constructs. Following Henseler et al.'s (2015) recommendation, the HTMT criterion evaluates the average correlations between indicators across different constructs, with values below 0.85 (and preferably under 0.90) indicating acceptable discriminant validity. The analysis reveals all HTMT ratios fall significantly below the threshold: environmental catalysts-competitive advantage (0.294), intrapersonal catalysts-competitive advantage (0.068), organizational culture-competitive advantage (0.634), talent development-competitive advantage (0.669), environmental-intrapersonal catalysts (0.472), environmental catalysts-organizational culture (0.135), environmental catalysts-talent development (0.188), intrapersonal catalysts-organizational culture (0.056), intrapersonal catalysts-talent development (0.116), and organizational culture-talent development (0.556). Since all values are substantially below the 0.85 benchmark, we conclude that the measurement model demonstrates satisfactory discriminant validity according to the HTMT criterion.

Table 4

R Square and Adjusted R Square

Variable	R ²	Adjusted R ²
Competitive Advantage	0.420	0.398
Organizational Culture	0.246	0.239



The coefficients R , R^2 , and adjusted R^2 assess model quality by measuring the proportion of variance in the dependent variable explained by the independent variables. As Moore et al. (2013) established, R -squared (also called the coefficient of determination) represents the percentage of variance in the dependent variable accounted for by the independent variable. The following guidelines interpret the strength of relationships based on R -squared values (using absolute values): $R^2 < 0.3$: Very weak or negligible effect size, $0.3 \leq R^2 < 0.5$: Weak or small effect size, $0.5 \leq R^2 < 0.7$: Moderate effect size, and $R^2 \geq 0.7$: Strong effect size

The results presented in the table show an R^2 of 0.420 and adjusted R^2 of 0.398 for competitive advantage. This indicates that 42% of the variance in competitive advantage is explained by the independent, moderating, and mediating variables, suggesting a moderate effect size. The adjusted R^2 value of 0.398 confirms a small to moderate effect. For organizational culture, the R^2 value is 0.246 (adjusted $R^2 = 0.239$), indicating that approximately 24% of the variance is explained by talent development as the independent variable. Both values suggest a small effect size for organizational culture in the model.

Table 5

Bootstrapping Results for Hypothesis Testing

Path	Original Sample (O)	Sample Mean	Standard Deviation (STDEV)	t-value	p-value
Environmental Catalyst → Competitive Advantage	-0.114	-0.127	0.081	1.398	0.163
Intrapersonal Catalyst → Competitive Advantage	-0.050	-0.039	0.095	0.524	0.601
Moderating Effect (EC)	-0.202	-0.217	0.084	2.408	0.016
Moderating Effect (IC)	-0.013	-0.009	0.086	0.149	0.882
Organizational Culture → Competitive Advantage	0.330	0.323	0.092	3.608	0.000
Talent Development → Competitive Advantage	0.351	0.351	0.083	4.204	0.000
Talent Development → Organizational Culture	0.496	0.510	0.056	8.923	0.000

As suggested by (Efron, 1982), In particular, the bootstrap can be used to find approximate standard errors. The bootstrap is a versatile method for estimating the sampling distribution of parameter estimates.

If t value is $+ > 1.96$ and p value is < 0.05

If t value is $+ < 1.96$ and p value is > 0.05

While calculating the moderating effect of environmental catalysts on competitive advantage, the results show t value =2.408 and p value is 0.016, which means that environmental catalysts moderate the relationship between talent development and competitive advantage. While calculating the moderating effect of intrapersonal catalysts on competitive advantage, the results show the t value =0.149 and p value is 0.882, which shows that intrapersonal catalysts don't moderate the relationship between talent development and competitive advantage. While calculating the effect of talent development on competitive advantage, the results show t value =4.204 and p value is 0,000 shows that there is a direct relationship between talent development and competitive advantage. While calculating the effect of talent development on organizational culture, the result shows t value = 8.923 and p value is 0,000, which shows that there is a strong relationship between organizational culture and talent development.

Hypothesis assessment summary

Table 6

Hypothesis Assessment Summary

Hypothesis	Statement	Outcome
H ₁	Talent development has a significant impact on competitive advantage.	Supported
H ₂	Environmental catalysts moderate the relationship between talent development and competitive advantage.	Supported
H ₃	Intrapersonal catalysts do not moderate the relationship between talent development and competitive advantage.	Not Supported
H ₄	Organizational culture has a significant impact on competitive advantage.	Supported



Discussions

In this study, the role of talent development is discussed for getting competitive advantage for higher education institutions. Intrapersonal and environmental factors are also discussed, which play an important role in making the organization competitive. The role of organizational culture is also discussed in detail. The finding shows that talent development plays a pivotal role in an organization for achieving competitive advantage.

As Fahdia (2018) considered talent development as a crucial component for academic staff development. Based on the existing literature review and results of the study, a framework is presented that can help talent development and human resource practitioners to take the needed initiatives and to develop a strong system of talent management that could increase the talent development opportunities for faculty and non-teaching staff in higher education institutions.

Organizational culture plays an important role in promoting and developing talent. Successful practices of talent development also help in enhancing and retaining the prevailing culture. As Fahdia (2018) described by developing leadership skills of academic staff, organizational competitive advantage, and practicing organizational culture can be retained. The results of the study showed a strong relationship between talent development and organizational culture.

Intrapersonal and environmental constraints are also the factors that are considered important by researchers, as Garavan (2012) considered intrapersonal and environmental organizational factors, catalysts for organizational success and failures. The results of the under-sight study proposed that environmental catalysts impact on organizational talent development, so as on the competitive advantage of the organization; intrapersonal catalysts have no significant impact, but they can be considered as important.

Conclusion and Recommendations

It could be concluded that undoubtedly, human resources are the only resource that could bring a competitive advantage for higher education institutions. Developing and managing talent strategically is the need of time; higher education institutions must focus on the design, development, and implementation of such strategies and systems that could help HEIs in capturing the benefits of their human resources. The trend of talent management and development is comparatively new for higher education institutions, some HEIs are transiting their human resource management and human resource development functions, HEIs top management is still unaware that how managing and developing talented effectively, efficiently, mid-level management and HR management are realizing the true importance of talent management and development. In higher education institutions, teaching and nonteaching staff both collectively produce exceptional results/performance for their organization. These resources as a whole must be developed continuously; HEIs should design talent development programs so that organizational success can be prolonged. Talent development isn't implemented as an organizational process, so it's not contributing enough to value creation and value addition for the universities.

- On the basis of the study, it can be recommended that higher education institutions must focus on developing their academic and non-academic staff simultaneously. Higher education institutions must focus on developing a conducive culture and environment for talent development for a sustainable competitive advantage. HEI must keep an eye on the individual and organizational level needs of their talent that directly relate to their KPIs.
- For sustainable competitive advantage and successful talent development, management should make sure that all HR functions must be fully integrated, organization should take due care while HR planning, recruiting and selecting the required talent, performance management and compensation must work in close connection, so the impacts of intrapersonal and environmental factors could be reduced.
- Additionally, HEIs must develop customized TD programs that specifically focus on employees, whose talent development could generate a competitive advantage.
- It is highly recommended that all stakeholders of the process be on the same page while planning and executing the talent development interventions and initiatives.
- The human resource department must have a clear understanding of the aims and objectives of talent



development; it must be clear about which approach it should play its due part in the planning and execution of the talent development process. Talent development strategies must be specifically aligned with the goals and objectives, vision, and mission of the organization.

- All stakeholders of the process must have a clear understanding of their role and duties in the talent development process. Employees, the HR department, and all tiers of management must be committed to the aim of organizational success. All stakeholders of the process must be connected; there shouldn't be any communication or coordination gaps.
- All existing policies of the organization and the HR department must support the talent development interventions.
- The need for talent development and gaps/flaws must be identified and addressed on time.
- HR should guide and encourage their employees about the talent development initiatives taken by the organization. HR should develop teaching and non-teaching staff simultaneously by providing customized opportunities for career and talent development. Employees with scarce skills and capabilities must be dealt with intelligently; all steps must be taken for their retention in the organization.

Policy Implications

Organizational policy makers should develop such policies that could expedite talent management and development processes within the HEIs. Policies that could strengthen and sustain the development of talent in the HEIs. Incentive policy must be developed and executed so that employees can be motivated. Policy makers should strive to develop such policies that could enable HEIs to fulfil the requirements of regulatory bodies. Organizational policies must be devised in a way that they can help the management in developing and executing the best combination of intrapersonal and environmental factors with the culture of HEIs.

Future Research:

Future research can be focused on the strategic implications of talent development interventions and initiatives. Future research can focus on the strategic identification of core talent and their customized development. Future research could be done on untapped areas of integration of talent development with organizational culture. Future research can be done on identifying and mitigating the impact of individual and organizational constraints.

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