Bridging the Skill Gap: Correlating Affective Competencies with Innovation and Technology Preparedness Among Software Professionals

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Abstract - **This research focuses on examining the relationship between innovation and technology readiness skills and the affective competencies of IT/ITeS professionals. This research also explores the impact of affective competencies in the work environment. The study highlights how affective competencies like appreciation, motivation, attitudes, and values shape workplace interactions and influence professional success rather than focusing on secondary emotional competencies. A logical connection has been created empirically between affective competencies and their significance in interpersonal relationships, addressing emotional attributes such as feelings, motivation, appreciation, values, and attitudes. This research study is a section of a survey of 457 IT/ITeS professionals, aiming to explore the skills gap analysis on Bloom's paradigms on cognitive, affective, and psychomotor competencies. This article specifically focused on the impact of affective competencies across various IT/ITeS job roles, like Software / Web developers IT/ITeS job roles. The findings reveal a growing realization in the industry: affective competencies are not optional. They are foundational to thriving in dynamic, tech-driven work environments and fostering effective collaboration with teams and clients in the IT/ITeS sector.**

Keywords: **Affective Competencies, IT/Ites Sector, Work Environment, Interpersonal Communication, Skillset Gap Analysis**

I. INTRODUCTION

As per the India Brand Equity Foundation data in August 2021, the IT Industry contributes more than 8% to the GDP of a rapidly growing nation like India (India Brand Equity Foundation, 2021). The development in this industry is tightly coupled with the creative spirit of the professionals working in the industry (Kianie & Jafari, 2015). India's IT industry has more than four million direct and twelve million indirect employees (Chlaihawi, 2024). Further, the growth of the IT industry entirely depends on the abilities of the professionals working for it. There are various job roles in the IT industry; software developers are one of the major categories of professionals working in the IT industry (Baggyalakshmi et al., 2024). The software developers are the key part of the entire production team (Hemat, 2018). Dr. Benjamin Bloom promoted higher forms of thinking in education and proposed Bloom's Taxonomy along with his committee in 1956. This taxonomy concentrated on the design of the educational teaching-learning process models. The three main domains that the committee suggested for the teaching-learning educational activities include Cognitive, which focuses on the mental skills (Knowledge); Affective, which focuses on the emotional areas (attitude / self-growth in feelings); and psychomotor, which includes the manual and physical skill set. The affective domain comprises what we manage emotionally: feelings, appreciation, motivations, values, and attitudes (Lenberg et al., 2015). Every employee possesses skills that bring them the potential to flourish in the workplace. One of the most important subsets of affective competency is interpersonal skills, which are primarily preferred when communicating with fellow workers in a workplace environment. These skills act as a bridge that includes communicating, connecting, and building relationships in professional environments. For instance, they can help resolve coworker conflicts or support resilience when working under tight deadlines. Overall, interpersonal skills can significantly influence workplace dynamics. A positive attitude leaves a favorable impression on employers and team members and fosters a cohesive team environment. Building and maintaining a strong rapport with colleagues is a key trait of

a successful professional. This article is designed as follows: Section 1 defines the significance of the study on affective competencies among software professionals and their ratio. Section 2 discusses the state of the art of affective and interpersonal skills in the workplace. Section 3 describes the research design and the samples considered for the research objective of the primary survey. Finally, section 4 brings the conclusive statements based on the research findings.

II. LITERATURE REVIEW

Affective skills of software professionals have been studied by a very limited number of researchers. Gogoll et al., (2021) analyzed the relationships between the Codes of Ethics in software development professionals and their value-based approach towards their usefulness from a normative perspective. Gerami et al., (2015) reviewed the approach of behavioral software engineering (BSE) by studying the behavior of developers, teams, and organizations and enumerated 250 research papers pertaining to this subject in a broader context. Further, Cruz et al., (2015) also reviewed that personality in software development relates more to individual psychological attributes than social behavior. A systematic review has been done by (Salleh et al., 2009; Bhandarkar et al., 2025; Bhandarkar et al., 2025) about the life skill set as given by the World Health Organization, defined as a life skill is "the ability for adaptive and positive behavior in which the individual can effectively deal with the challenges of daily life." This overview can be easily mapped to team-based workplace skills such as decision-making, creative thinking, critical thinking, problem-solving, interpersonal relationship management, self-awareness, and effective communication. Capretz & Ahmed, (2010) mapped and analyzed software professionals' psychological behaviors, including extroversion vs. Introversion individuals, sensing, intuition skills, the ratio between thinking and feeling, and judging vs. perceiving, to the main stages of the software development life cycle. The research study conducted by (Wang & Li, 2009) investigated the effectiveness of pair programming among pairs of students by deploying the Five-Factor model as the measurement framework. Acuna et al., (2009) investigated the relationships between the software development teams' tonality, task characteristics, team processes, satisfaction, and product quality of (Acuña & Juristo, 2004) explained the association between Team lead personality and its impact on the success of the project & team. Gorla & Lam, (2004) illustrated how the core team members' practical interpersonal skills influence the team's overall performance. Acuña & Juristo, (2004) have proposed two procedures: a procedure to evaluate the capacity of members in a development team and a process to assign human resources to take up roles depending on the capabilities expected by the roles. Peslak, (2006) examined the link between personality and the issues of the IT team with its performance. Gallivan, (2004) examined the adaptation skills of IT Professionals to technological change regarding Gender and Personal Attributes.

Soomro et al., (2016) reviewed the research on assessing the team members' personality traits and the significance of the software development working atmosphere. Yilmaz et al., (2017) indicated that effective team structures support teams with higher emotional agreeableness, extroversion, stability, and conscientiousness personality traits, influencing software development performance. Mellblom et al., (2019) examined the relationship between the Five-Factor Model personality traits and burnout among software development teams. Akarsu & Yilmaz, (2020) have explored context-specific interactive assessment among agile dev-ops teams. Arias-Pérez et al., (2021) explained that Emotional Capability (EC) will be a crucial bridge between IT skills and innovation. Doungsa-ard & Chaiwon, (2020) have explained the connections between software professionals' personality traits and their team positions concerning their performances. Petre et al., (2020) analyzed the impact of the social and behavioral relationships of Software professionals with their diverse range of stakeholders, viz. colleagues, clients, resource providers, and many more, on their performance. Blackwell et al., (2019) reviewed research on the Psychology of Programming (PP) during the past five decades. Akdur, (2023) investigated the Software Engineering skill gaps among the 628 software developers who finished their degree in Turkey and are working in 13 different countries. The investigation revealed that academia and industry need to focus on skills development: academia needs to frame the curriculum to adhere to the industrial requirements, and the industry should come forward to provide practical experiences to students to make them understand the industrial requirements. Setor et al., (2018) illustrated the ever-evolving need to upgrade hard and soft skills in the IT profession. They also examined the impacts of skills in the development process. Garousi et al., (2020) investigated the relationship between developers' Software Engineering skills and development productivity (Kumaran et al., 2023; Kumaran et al., 2023). Kappelman et al., (2016) investigated the need for continuous upgradation of skills towards achieving better productivity and career growth by Software professionals. Besker et al., (2018) explored the negative impact of Technical Debt (TD) using wasted development duration. This work also examined the advantages of tracking and communicating the amount of wasted time from developers' and managers' angles. Olsson et al., (2021) investigated the relationship between technical debt and the affective competencies of software professionals. An extensive empirical study on several methods to explore the relationship between organizational citizenship behavior (OCB), employee well-being (EWB), and task performance (TP) among library staff is elaborated in (Krathwohl et al., 1973). The conclusive statements emphasize that perceptions of fairness in the workplace significantly influence organizational citizenship behavior.

III. RESEARCH DESIGN

The article presents a survey conducted with over four hundred employees, encompassing several IT/ITeS job roles like Software Developers, Web Developers, and other

professionals in the IT/ITeS sectors. The respondents are all working employees, and the dataset showed variations based on Tier city location, age, and work experience. The

basic parameters covering the above through the primary survey sample are given in Table I.

TABLE I PERSONAL PROFILE

SOURCE: PRIMARY SURVEY

Items	Frequency	Percentage	Cumulative %
Gender			
Male	215	47.0	47.0
Female	242	53.0	100.0
Total	**457**	**100.0**	
Age Group			
20-25	87	19.0	19.0
25-30	142	31.1	50.1
30-40	166	36.3	86.4
Above 40	62	13.6	100.0
Total	**457**	**100.0**	
Marital Status			
Married	263	57.5	57.5
Unmarried	172	37.6	95.2
Married and separated	22	4.8	100.0
Total	457	100.0	

The sample group of 457 respondents in Table I is categorized as 457 frequencies. The following Fig. 1, 2, and 3 represent the categories of personal demographics such as gender, age, and marital status.

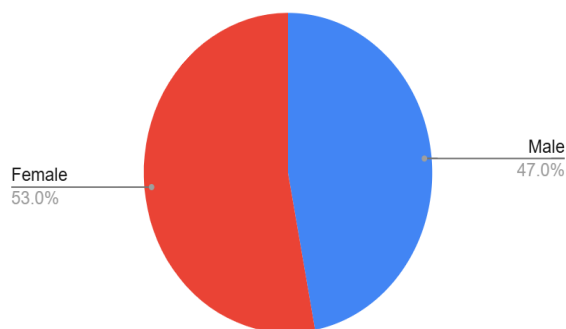Fig. 1 Gender of Respondents
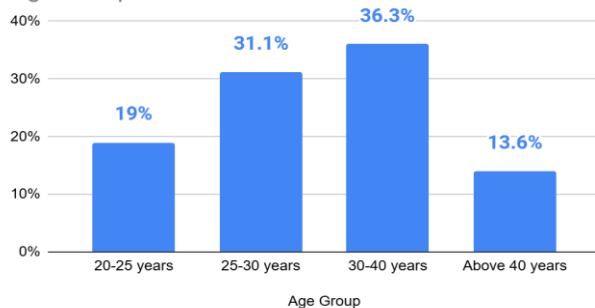
Fig. 2 Age group of Respondents
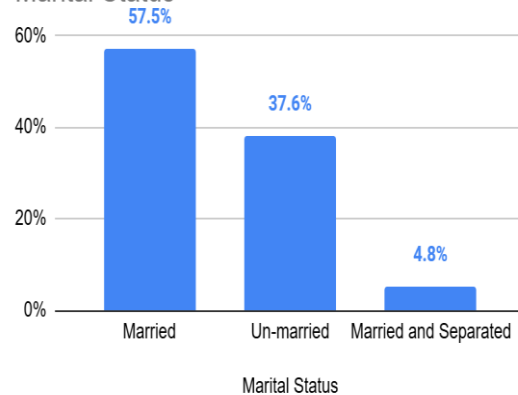
Fig. 3 Marital Status of Respondents

Table II illustrates the educational profile of the respondents, such as UG and PG degrees, and the place of education.

From the above fig 3 and tables, I and II, it is inferred that most respondents are female and have a good undergraduate and postgraduate education. In contrast, almost 60 percent have completed doctoral degrees. Table III explains the employment profiles of the respondents.

TABLE II EDUCATIONAL PROFILE OF THE RESPONDENTS

SOURCE: PRIMARY SURVEY

| Items	Frequency	Percentage	Cumulative %
Category of Graduation (UG)			
UG Science Degree	234	51.2	51.2
UG Professional Degree	223	48.8	100.0
Total	**457**	**100.0**	
Category of Graduation (PG)			
PG Science	65	14.2	14.2
PG professional	8	1.8	16.0
MCA	135	29.5	45.5
MBA	62	13.6	59.1
No PG	187	40.9	100.0
Total	**457**	**100.0**	
City / Place of Graduation			
Tier 1	121	26.5	26.5
Tier 2	136	29.8	56.2
Tier 3	92	20.1	76.4
Rural	108	23.6	100.0
Total	**457**	**100.0**	

TABLE III EMPLOYMENT PROFILE OF THE RESPONDENTS

SOURCE: PRIMARY SURVEY

Items	Frequency	Percentage	Cumulative %
Category of Designation			
Software Developer	169	37.0	37.0
Web Developer	146	31.9	68.9
Other Sectors of IT/ITes	142	31.1	100.0
Total	**457**	**100.0**	
Working City			
Tier 1	183	40.0	40.0
Tier 2	151	33.0	73.1
Tier 3	114	24.9	98.0
Foreign	9	2.0	100.0
Total	**457**	**100.0**	
Years of experience			
0-2	116	25.4	25.4
2-5	128	28.0	53.4
5-10	160	35.0	88.4
Above 10	53	11.6	100.0
Total	**457**	**100.0**	

Table III shows that the respondents represent a mixed cluster of job roles: 32 percent belong to web developers, 37 percent are software developers, and 31 percent work in other IT/IT roles. Concerning the working experience in years, a maximum of 35 percent of respondents have 5-10 years of experience; the next 28 percent of respondents have 2-5 years of experience, 25 percent of respondents have a maximum of two years of experience, and only 12 percent respondents are having 10+ years of experience. Further, the majority, 40 percent, are working in Tier 1 cities, 33 percent are working in Tier 2 cities, 25 percent are working in Tier 1 cities, and just 2 percent are working in foreign countries.

Table IV illustrates respondents' working status and work schedule.

Working status and Working schedule of life partner along with the leisure time spending are presented in the above table IV which states that, for 34 percent of the respondents, the life partners are working as IT/ITeS Professionals, 20 percent occupy other common professions, 10 percent are not working and 37 percent are not married, 28 percent of the life partners have mostly everyday working schedule, 25 percent have mostly different working schedule, 10 percent not working and 37 percent are not married. Regarding leisure time, 38 percent spend less than 3 hours daily, 32 percent spend more than 3 hours daily, 13 percent spend no time, and 18 percent spend without family. Findings from the survey indicate that 53 percent of respondents have working spouses, and 70 percent spend their leisure time with family.

TABLE IV FAMILY PROFILE

SOURCE: PRIMARY SURVEY

Items	Frequency	Percentage	Cumulative %
Working Status of Life-partner			
IT/ITeS Professional	154	33.7	33.7
Other Profession	89	19.5	53.2
Not working	47	10.3	63.5
Unmarried	167	36.5	100.0
Total	457	100.0	
Working schedule of Life-partner			
Mostly Common	126	27.6	27.6
Mostly Different	114	24.9	52.5
Not working	49	10.7	63.2
Unmarried	168	36.8	100.0
Total	457	100.0	
Leisure Time Spending			
Less than 3 hours daily	173	37.9	37.9
More than 3 hours daily	146	31.9	69.8
No time to spend daily	57	12.5	82.3
Staying without family	81	17.7	100.0
Total	457	100.0	

TABLE V LEARNING NEW CONCEPTS

SOURCE: PRIMARY SURVEY

Items	Frequency	Percentage	Cumulative %
Learning New Concepts			
Once every 3 months	72	15.8	15.8
Once every 6 months	97	21.2	37.0
Whenever new concepts are introduced	103	22.5	59.5
Whenever it was required for the project	185	40.5	100.0
Total	457	100.0	

Learning New Concepts is practiced either out of necessity or by compulsion. According to the survey in Table V, it is evident that about 16% of the respondents are learning one new concept every three months, whereas 22% of them will complete the same once in a 6-month interval. Among the remaining 23% of respondents, they learn very quickly, and 40% will learn only upon requirement. From this, it is understandable that about 37% of the respondents are regular learners.

TABLE VI INFLUENCES OF AFFECTIVE COMPETENCY IN THE CONTEXT OF WEB DEVELOPER ROLE

SOURCE: PRIMARY SURVEY

tems	Frequency	%	Cumulative %	Mean	SD
Consider a situation: your client has very little knowledge about the project. As a developer, how can you get the client's requirements?					
Giving an oral explanation	32	7.0	7.0	2.11	.548
Showing a visual presentation related to the project	366	80.1	87.1		
Giving a demo of some previous projects	47	10.3	97.4		
Without collecting the client's requirements, I will do it in my style	12	2.6	100.0		
Total	**457**	**100.0**			
Your client's requirement is an unrealistic task. As a developer, how can you face this situation?					
Before starting the project, try to convince the client to change the requirements	126	27.6	27.6	2.37	.899
After project completion, convince the client to accept the design	46	10.1	37.6		
Consult with an expert and start to develop	278	60.8	98.5		
You won't take the project	7	1.5	100.0		
Total	**457**	**100.0**			
Your team members are not satisfied with your project design; they are giving some suggestions. What would you do?					
Strongly disagree, I won't change my design	13	2.8	2.8	2.50	.582
Neutral, first, I will analyse if it is correct, then I will change my design	197	43.1	46.0		

I agree, whether correct or not; I accept and incorporate whatever they say. Because it is a team spirit	247	54.0	100.0		
Total	**457**	**100.0**			
What would you do if your client demands the project before the due date?					
Politely try to convince the client	246	53.8	53.8	1.93	.998
Aggressively argue with the client	12	2.6	56.5		
Try to complete within the client's deadline	194	42.5	98.9		
Hand over the incomplete project to the client	5	1.1	100.0		
Total	**457**	**100.0**			
Suppose two of your teammates are not keeping up with you. What would you do?					
Spread gossip about them	9	2.0	2.0	2.48	.614
Tolerating and working with them	231	50.5	52.5		
Request to change the team	203	44.4	96.9		
Quit the job	14	3.1	100.0		
Total	**457**	**100.0**			
After the completion of the project, the client wants to change the entire requirement. How do you handle this situation as a developer?					
Convince the client and hand over the already completed project	17	3.7	3.7	2.45	.627
Asking for time and changing the design as per the requirements at no cost	221	48.4	52.1		
Asking for time and changing the design as per the requirements and demand doubles the cost/charge	210	46.0	98.0		
Will not deliver the product to the client	9	2.0	100.0		
Total	**457**	**100.0**			
As a developer, you cannot complete it within the given time. How would you face your client?					
Politely ask for extra time from the client	410	89.7	89.7	1.29	.770
Skip the client meeting repeatedly	6	1.3	91.0		
Ask one of my team members to handle the client	23	5.0	96.1		
Ask the client to meet your superior	18	3.9	100.0		
Total	**457**	**100.0**			
If you are a Team Leader, one of the members is not cooperating with your team. What would you do?					
Demote the member	7	1.5	1.5	3.80	.603
Fire the member	6	1.3	2.8		
Exchange the member with another team	25	5.5	8.3		
Give advice and command them to work with others as a team	419	91.7	100.0		
Total	**457**	**100.0**			
What would you do if you were a trainee and your Team Leader made a mistake in a presentation?					
Criticize his/her mistake to someone else	6	1.3	1.3	3.74	.678
Point out the mistake to him/her directly in that meeting itself	21	4.6	5.9		
Ignore it and do my work	21	4.6	10.5		
Write an email to inform them/their mistake	409	89.5	100.0		
Total	**457**	**100.0**			
Do financial or personal issues often cause you stress or reduce your focus at work?					
Yes	179	39.2	39.2	1.65	.547
No	278	60.8	100.0		
Total	**457**	**100.0**			
Do you worry that your boss does not appreciate you even if you are good at work?					
Yes	174	38.1	38.1	1.66	.544
No	283	61.9	100.0		
Total	**457**	**100.0**			
Do you feel that your working style and work-life balance contribute to problems in your personal life?					
Occasionally	192	42.0	42.0	1.92	.864
Frequently	119	26.0	68.1		
Never	146	31.9	100.0		
Total	**457**	**100.0**			

Table VI Extensively Discusses the Following:

Understanding Client Requirements: Under this category among 457 respondents, the statement showing visual presentation related to the project ranks first with 80 percent score, giving demo of some previous projects (10%), giving some oral explanation (7%), and without collecting client's requirements, I will do in my style (3%). The standard deviation value under this category is 0.548, and the mean score is 2.11 out of four.

Measuring the non-tangible factors of the requirement: Under this category, the statement, consult with expert and start to develop ranks first with 61 percent score, before to start project, try to convince the client to change requirements (28%), after project completion, persuade the client to accept the design (10%), and You won't take the project (2%). The standard deviation value under this category is 0.899, and the mean score is 2.37 out of four.

Implementing team recommendations to enhance Project Design: Under this category, the statement strongly agrees with the statement, and whether it is correct or not, I accept and incorporate whatever they say. Because it is a team spirit, it ranks first with a 54 percent score. Neutral, first, I will analyse if it is correct, then only I will change my design (43%), and Strongly Disagree, I won't change my design (3%). The standard deviation value under this category is 0.998, and the mean score is 1.93 out of four.

Ahead of Timeline, completing requirements of the clients: Under this category, the statement, politely try to convince the client ranks first with 54 percent score, try to complete within the client's demand date (43%), aggressively argue with the client (3%), and Handover the incomplete project to the client is just one percent. The standard deviation value under this category is 0.614, and the mean score is 2.48 out of four.

Coping up with the team mates: Under this category, the statement, Tolerating and working with them, ranks first with a 51 percent score, Request to change the team (44%), Quit the job (3%), and Spread gossip about them (2%). The mean score under this category is 2.48 with a standard deviation of 0.614.

Revise the entire set of requirements after deployment: Under this category, the statement, Asking for time and change the design as per the requirements with free of cost ranks first with 48 percent score, Asking for time and change the design as per the requirements and demand double the cost/charge (46%), Convince the client and handover already completed project (4%), and Will not deliver the product to the client (2%). The standard deviation under this category is 0.627, and the mean score is 2.45 out of four.

Addressing client when project completion delayed: Under this category, the statement, politely ask extra time from client ranks first with 90 percent score, ask someone of my team member to handle the client (5%), Ask the client to meet your superior (4%), and skip the client meeting repeatedly (1%). The standard deviation under this category is 0.770, and the mean score is 1.29 out of four.

Coping with team members: Under this category, the statement, give an advice and command them to work with others as a team ranks first with 92 percent score, Exchange the member to another team (6%), Depromote the member (2%), and Fire the member (1%). The standard deviation under this category is 0.603, and the mean score is 3.80 out of four.

Team Leader approach while trainee did mistake while presenting: Under this category, the statement, write an email to inform their mistake ranks first with 90 percent score, ignore it and do my work (11%), Point out the error to him/her directly in that meeting itself (6%), and criticize their mistake to someone else (1%). The standard deviation under this category is 0.678, and the mean score is 3.74 out of four.

Frequent distractions or stress at work due to personal issues: Out of the total respondents, 39 percent favoured and 61 percent not favoured experiencing stress or concentration loss frequently at work due to personal issues or financial problems. The standard deviation value under this category is 0.547, and the mean score is 1.65 out of two.

Seeking Appreciation from the Team Lead: Out of the total respondents, 38 percent favoured and 62 percent did not favour the expectation of appreciation from the boss. The standard deviation value under this category is 0.544, and the mean score is 1.66 out of two.

Work-life dynamics are causing challenges in personal life: Out of the total respondents, 42 percent agree that working pattern / work-life is the common cause of personal life problems, 26 percent felt the same frequently, and 32 percent never have the feeling of connecting working life with personal life problems. The standard deviation value under this category is 0.864, and the mean score is 1.92 out of three.

TABLE VII SCALE STATISTICS AND RELIABILITY STATISTICS FOR AFFECTIVE COMPETENCY

Statements	Scale Statistics if the item is deleted				Descriptive Statistics		t
	Scale Mean	Scale Variance	r	Cronbach's Alpha	Mean	SD	
Consider a situation: your client has very little knowledge about the project. As a developer, how can you get the client's requirements?	25.79	30.718	.555	.897	2.11	.548	82.11
Your client's requirement is an unrealistic task. As a developer, how can you face this situation?	25.53	26.925	.714	.889	2.37	.899	56.32
Your team members are not satisfied with your project design; they are giving some suggestions. What would you do?	25.40	28.941	.817	.886	2.50	.582	91.93
What would you do if your client demands the project before the due date?	25.96	25.878	.740	.889	1.93	.998	41.44
If two of your teammates are not keeping up with you. What would you do?	25.42	28.634	.818	.885	2.48	.614	86.28
After the completion of the project, the client wants to change the entire requirement. How do you handle this situation as a developer?	25.45	28.809	.771	.887	2.45	.627	83.59
As a developer, you cannot complete it within the given time. How would you face your client?	26.61	30.432	.396	.906	1.29	.770	35.85
If you are a Team Leader, one of the members is not cooperating with your team. What would you do?	24.10	31.556	.364	.905	3.80	.603	134.49
What would you do if you were a trainee and your Team Leader made a mistake in a presentation?	24.16	31.820	.276	.910	3.74	.678	118.00
Do financial or personal issues often cause you stress or reduce your focus at work?	26.25	29.653	.746	.890	1.65	.547	64.43
Do you worry that your boss does not appreciate you even if you are good at work?	26.24	29.879	.709	.891	1.66	.544	65.23
Do you feel that your working style and work-life balance contribute to problems in your personal life?	25.97	26.631	.787	.884	1.92	.864	47.60
Reliability Statistics							
Cronbach's Alpha	**.902**						
N of Items	12						

In Table VII, the combined value of Cronbach's Alpha of the 12 statements is 0.902. This combined Cronbach's Alpha value of more than 0.8 proves high reliability for further analysis. The t value is high for the parameter, resolving conflicts with clients when not completing the project within the timeframe (134.49) and managing non-cooperative project team members (118). At the same time, it is low for the statement meeting the demands of the client for the project before the due date (41.44). The correlation is high for the parameter maintaining interpersonal dynamics and collaboration within the team (.818) and accommodating the suggestions of the team members regarding the unsatisfactory project design (.817). At the same time, it is low for the parameter Team Leader's managerial skills on the mistakes of the presentation by the trainees (.276). The mean is higher for the parameters managing non-cooperative project team members (3.80) and Team Leader's managerial skills on the mistakes of the presentation by the trainees (3.74), and is lower for Resolving conflicts with clients when not completing the project within the timeframe (1.29). Therefore, as per Fig. 4, it is inferred that Affective Competency is interlinked with resolving client disputes when not completing the project within the timeframe and managing non-cooperative project team members.

TABLE VIII FACTOR ANALYSIS FOR AFFECTIVE COMPETENCY

SOURCE: DERIVED

Rotated Component Matrix			
Statements	Components		
	Professional Competency	Team Competency	Client Competency
Experiencing stress or concentration loss frequently at work due to personal issues or financial problems	**.871**	-.048	.179
Work pattern or job requirements negatively affecting personal life	**.869**	.013	.228
Expecting appreciation from the boss	**.821**	.005	.153
Completing project requirements and client requests with rigid deadlines	**.820**	.015	.237
Accepting feedback from team fellows on unaccomplished project requirements	**.790**	.423	.095
Managing unrealistic requirements or demands of the client	**.777**	.246	.070
Maintaining interpersonal dynamics and collaboration within the team	**.727**	.271	.373
Accommodating drastic or complete requirement changes once after the project completion	**.698**	.216	.369
Managing non-cooperative project team members	.134	**.944**	.059
Team Leader's managerial skills in correcting the mistakes of the presentation by the trainees	.082	**.939**	-.022
Resolving conflicts with clients when the project is not completed within the timeframe	.236	-.173	**.865**
Preciously gathering the project's requirements from the clients	.263	.205	**.847**
% of Variance	**43.77**	**18.399**	**16.014**
Cumulative %	**43.77**	**62.169**	**78.183**
% to total	**55.98**	**23.53**	**20.48**

Professional Competency: The table VIII depicts the eight statements available in the first component of the rotated factor analysis such as Experiencing stress or concentration loss frequently at work due to personal issues or financial problems (.871), Work pattern or job requirements negatively affecting personal life (.869), Expecting the appreciation from the boss (.821), Completing project requirements and client requests with rigid deadlines (.820), Accepting feedback from team fellows on a un-accomplished project requirements (.790), Managing unrealistic requirements or demands of the client (.777), Maintaining interpersonal dynamics and collaboration within the team (.727), and Accommodating drastic or complete requirement changes once after the project completion (.698). This factor has a variance of 43.77, accounting for 55.98 percent of the total.

Team Competency: The second component of the rotated factor analysis consists of two statements, such as Managing non-cooperative project team members (.944), and the Team Leader's managerial skills regarding the mistakes of the presentation by the trainees (.939). This factor has a variance of 18.399, which forms 23.53 percent of the total.

Client Competency: The third component of the rotated factor analysis consists of two statements: Resolving conflicts with clients when not completing the project within the timeframe (.865), and precisely gathering the project's requirements from the clients (.847). This factor has a variance of 16.014, which forms 20.48 percent of the total.
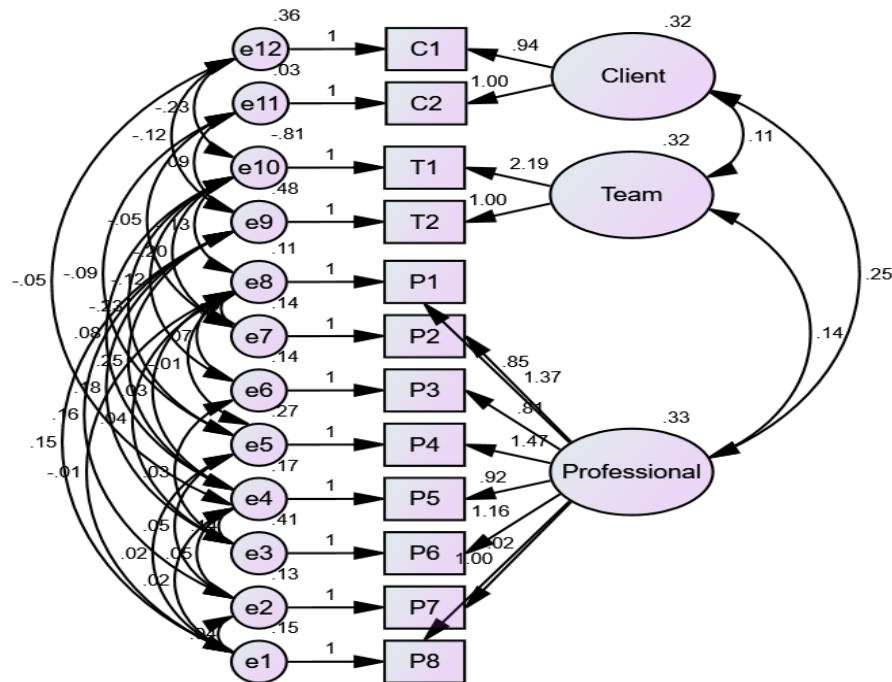
Fig. 4 Structural Equation Modelling for Affective Competency

TABLE IX MODEL FIT SUMMARY OF STRUCTURAL EQUATION MODELLING

SOURCE: DERIVED

Goodness of fit measures	Estimates	Cutoff values
Chi Square	68.225	
Degrees of freedom	23	
Probability level (p-value)	.000	< 0.05
CMIN/DF (F ratio)	2.966	< 3
Comparative Fit Index (CFI)	0.992	> 0.90
GFI	0.977	> 0.90
AGFI	0.921	> 0.90
Root Mean Square of Approximation (RMSEA)	0.066	< 0.08

The model showed a strong fit based on several key statistical parameters. The model is statistically significant as the Chi-Square value is 68.225 with 23 degrees of freedom, and the p-value is 0.000, well below the usual cutoff of 0.05. The F-ratio is at 2.966, within the acceptable range (below 3). This shows that the model performs well. Several other fit indicators also support this. The Comparative Fit Index (CFI) is 0.992, and the Goodness of Fit Index (GFI) is 0.977, above the ideal benchmark of 0.90. The Adjusted Goodness of Fit Index (AGFI) is 0.921, again above the standard. Finally, the Root Mean Square Error of Approximation (RMSEA) is 0.066, within the acceptable range of below 0.08. Altogether, these numbers suggest the model is not only statistically sound but also fits the data well. Hence, it is inferred that this model fits well in the light of affective competency. The same is briefly given in Table IX.

TABLE X: REGRESSION WEIGHTS FOR AFFECTIVE COMPETENCY

SOURCE: DERIVED

Items			Estimate	S.E.	C.R.	P
P8	<---	Professional	1.000			
P7	<---	Professional	1.017	.036	28.251	***
P6	<---	Professional	1.162	.063	18.583	***
P5	<---	Professional	.918	.041	22.232	***
P4	<---	Professional	1.469	.062	23.702	***
P3	<---	Professional	.811	.040	20.199	***
P2	<---	Professional	1.369	.056	24.262	***
P1	<---	Professional	.851	.042	20.200	***
T2	<---	Team	1.000			
T1	<---	Team	2.192	.272	8.071	***
C2	<---	Client	1.000			
C1	<---	Client	.941	.070	13.450	***

Adherence to the unstandardized maximum likelihood method, Table X explains the output of AMOS of the structural path estimates. The Critical Ratio (CR), the estimate divided by its standard error, has been considered to check whether each path is statistically meaningful. A CR value above 1.96 means the result is significant at the 5% level (p ≤ 0.05). In this study, all the CR values are well above 1.96, which shows that each path is statistically significant. The p-values for the three paths are marked with three asterisks (***), which means the significance is even stronger, i.e., less than 0.001. All the connections in the model are statistically valid and highly reliable. This implies that the analysed model fits the data and supports the tested relationships. Since the p-values are less than 0.05, about the Standardized Regression Weights, all the statements considered for deciding the Regression Equation for Affective Competency are statistically significant and indicate the model's fitness.

IV. CONCLUSION

The study's outcomes delve into the intricate correlation between technology/innovation readiness skills and the affective competencies among software technocrats in the workplace atmosphere. Through a comprehensive survey and subsequent statistical analysis, the findings highlight the crucial role that affective competencies play in shaping professionals' ability to adapt to and embrace technological advancements. These competencies enhance individual preparedness for technological changes and contribute significantly to fostering a collaborative work environment by strengthening interpersonal dynamics. Affective Competency attributes like motivation, feelings, values, appreciation, and attitudes influence how professionals engage with their teams and clients. These competencies facilitate effective communication, mutual understanding, and emotional intelligence, thereby creating a supportive environment for innovation and technological growth. Ultimately, the article underscores the importance of nurturing affective competencies to enhance personal and organizational success in the ever-evolving IT sector.

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