

## **An Empirical Study of Academic Staff Performance with and Without Industry Work Experience and their effectiveness in Teaching, Learning and Research in the Faculty of Business Administration: A comparative Analysis Concerning Indian Universities**

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### **Abstract**

The authors present the results of an empirical study carried out in the Indian Universities to compare the performance of the Management faculty with and without industrial experience. The aim of this study is to understand the effectiveness of management faculties in imparting management education with industry experience and without industry experience employed in the higher management institutes in Indian Universities in general, and RTM Nagpur University and Universities in Andhra Pradesh, Telangana regions in particular. The faculty of business administration teach the management students the business management theoretical concepts with insight into the practical aspects of business situations. The real-time challenges are also simulated by the faculty to make them ready to accept and resolve the challenging situations in real industrial settings. The recent Pandemic Covid-19, made the role of business management faculty further critical, with virtual learning and online mode of teaching theory, and application of theory in practice plays a key role. The authors also presented the effectiveness of the faculties with and without industrial experience using competency factors, personal factors, job factors, pandemic related factors, and their effect on faculty performance of both types of faculties. The results indicate positive and significant ( $r=0.292$ ,  $p<0.05$ ;  $0.384$ ,  $p<0.05$ ;  $0.741$ ,  $p<0.05$ ) relationship among the study variable Faculty with and without industrial experience. The paired t-test results, differences of means indicate that the faculty with the industrial experience perform better when compared with faculty with no industrial experience. The multiple regression analysis was also carried out and results are presented. No statistically significant age and differences for both the faculty with and without industrial experience. The predictor variables Role change, Teaching Tools, and motivation predicting the performance of faculty statistically significantly.

**Key Words-** Faculties, Business Administration, Industry experience, paired t-test, performance.

### **Introduction**

Academic staff is educated personnel with minimum prescribed qualification and educational background appointed by the colleges and universities for imparting the domain knowledge and specific skills to the student's fraternity at large and for all those enrolling for a particular degree or program. Almost all the colleges and universities operating in the education sector are employing academic staff for the conduction of various academic programs run by them. This is mainly because imparting knowledge in any domain subject requires delivery of the subject knowledge physically/online by the academic staff. Due to the technical nature of various subjects and also because

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of the vast variety of streams and subjects that exists in the education sector personal delivery of the domain subject becomes necessary.

The faculty of business administration has emerged as a very specific type of subject which is both a science and art and involves practical experiences of different business managers in a wide variety of business situations.

Globalization has resulted in large-scale development of business worldwide and as a result of which the need for more people with specific knowledge of handling complex business processes and situations. This has also resulted in the increased creation of job opportunities for people. This demand for professionals in business administration has led to the development of faculty of business administration worldwide and more so in India.

The faculty of business administration aims at teaching the management students the theoretical concepts relating to business and administration as well as giving them insight into the practical aspects of business situations. The faculty of business administration also aims at making the students face the real-time challenges of the industry and to make them ready to accept and resolve the challenging situations in real industrial settings.

In this endeavor factors like the overall personality of academic staff and other job factors like self-motivation as well as attitude of the academic staff play a vital role in the overall teaching and learning process in the faculty of business administration.

The role of faculty is critical in management education especially when there is a rapid and continuous change in the business environment and the industry is demanding a pool of talented and productive management educated manpower. Further, the management education scenario is undergoing rapid change due to intense competition among management colleges and changing preferences of the student's towards management education. The increased number of management institutes has presented an altogether different view of management education and because of this Management institutes are hiring faculties with and without industry experience based on their potential, worthiness, and affordable level of salary.

Higher education in India, especially the faculty of business administration is facing various challenges like increased accountability of the Universities and academic institutions, responsiveness to the changing market environment, capacity-building of the students, skill development, efficiency, and effectiveness to meet the employer's requirements. The divergent policies from various academic governing bodies whose demands have not only led to a change in the scope, nature, and intensity of academic work, also subjected to academic work, performance and the quality assessment.

The motivating factor for this study is from a higher education perspective especially in the faculty of business administration was the fact that shortcomings exist in current performance management and staff development systems within higher education especially in the faculty of business administration institutions. The pressure from the competition among the business schools across the country appears within institutions on one hand and on the other side the failures of the Business institutions to address the real needs of the students. The pressure from the competition among the business schools across the country has influenced the role of academic staff as well in sustaining their interest and their traditional academic roles on one side and on the other evaluating their diversified roles, the present scenario, accordingly compensating and rewarding them.

The role of faculty is critical in management education especially when it is undergoing rapid change especially in the ongoing Covid -19 and post Covid-19 scenario, wherein the concept of traditional classroom teaching is shifting to online modes of teaching and academic delivery. And therefore delivering the management concept effectively by giving relevant examples and situations from the industry helps improve the effectiveness of the delivery of the management concepts. Management institutes have in the past recruited academic staff forms diverse background which also includes faculties with industry experience as well as from non-industry background, although the statutory bodies and universities in India does not state that any criteria of industry experience for a faculty in the recruitment process, especially in management education.

Therefore, the study aims to evaluate the performance of academic staff involved in the faculty of business administration because of their background and their effectiveness in teaching-learning, research, and overall student development.

## Review of Literature

A number of accrediting bodies have been emphasizing engagement and impact as the goal for academic Programs. For example, this is the driving principle among leading business programs (AACSB, 2016). These goals

require faculty to go beyond classic teaching methods which rely heavily on theory and examples delivered in a traditional lecture format and move the emphasis to link the students with the industry by using applied projects and assignments that focus on addressing real-world problems.

Colin Gasper & John Lipinski stated that many specialties walk a fine line and work to avoid being classified as trade schools. Due to this, several programs come up that are “physics envy” with a focus on reward structure for faculty with the main objective of development theory and article publishing for academics. Therefore, many faculty members opined that universities and their educational programs are not providing the needs of industry.

Clinebell & Clinebell, 2008 reported that balance between academic rigor and relevance to the industry is a challenge. This is complicated by the fact that most faculties do not actively engage with industry and many have no relationship with their field beyond academic exposure.. The 2010 Information System Curriculum Guidelines strongly suggest that faculty acquire practitioner experience, (Burns, 2012) in several other fields of applied discipline, faculty need industry experience.

McCuen (2007) reports that the ACCE (American Council for Construction Education) document No. 103 states that faculties must possess required professional and industrial experience apart from the bright educational background. Glen et al. (2014) state that though higher business education schools teach the functional and theoretical business paradigms through case studies and teachings of the faculty, however, the students are lacking to face the real-world challenges in applying the learned knowledge in the industry.

Techniques have been developed that are designed to simulate the real-world situations. The Flipped classrooms, learning by doing, with an attempt to subject the students to real-world situations to find the solutions to real-world problems need to be encouraged as a community of practice. This helps the students to apply the classroom knowledge in the industry situation. However, the teaching faculty handling similar projects have a limited understanding of the needs of the industry. Further, there are significant variations and differences were observed between practiced professionals and non-practice professionals (Burns, 2012). The study carried out by the National Research Council report severe lacunae in the present curriculum of the universities with the latest know-how missing that is the bench for mark for serving the leading industry.

The absence of faculty teaching the subjects to the needs of the industry to the recent design techniques is the bottleneck to make the students industry-ready (Nasab & Lorenz, 2003). Connections to the industry are vital for a program to remain an industry leader. The professor is responsible for presenting opportunities for experiences, helping students to utilize these experiences, establishing the learning environment, placing boundaries on the learning objectives, sharing necessary information, and facilitating learning. The learner is challenged to cross his/her boundaries what is known (Chapman, McPhee & Proudman, 1995; Itin 1997; Kolb, 1984).

Holcomb, Holmes, and Connelly (2009) demonstrate that students can gain implicit knowledge by observing and experience from others how they are doing things. The student-industry projects, interaction with the industry employees, can enhance the student's theoretical and practical knowledge (Lipinski, et. al. 2013). Therefore industry-University linkages are a must to make students industry-ready. The faculty should possess the latest knowledge of the industry and an understanding of what really the industry needs from the new general of students with new-age learning. The National University of Continuing Education association suggests that the students have a minimum industry exposure while learning the theory through industry-university linkage.

The faculty must get some training on industry orientation programs through industry-university linkage spending some part of his teaching time with the professional practitioners. (Davis, 2012) Warren Bennis and James O'Toole state that during the past several decades, many leading B schools not adopted such practices and most of the practical aspects of the B Schools are inappropriate, not industry-university linked, with a self-defeating model of academic excellence.

Whatever the excellent outcomes and research products we have now are because of industry-university linkage educational practices. To strengthen this mode of practice the B-schools need to avoid circumscribe that is less and less relevant to industry practices. In our view, this is often an excuse for maintaining a dysfunctional (but comfortable) system. All the business schools should with an open mind program various programs through vocational studies, industry-university joint projects with deputing respective B-School students to the industry and B-Schools should be forefront and have the courage to this practice. (Harvard Business Review May 2005 Issue.)

### **Research gap**

The research carried out by several authors is limited to higher education and business management faculties and faculty performances. Several studies reported the results of gender parity, the effectiveness of faculty performance concerning age groups. In a recent study which was very latest Rao et al., 2021 reported the results Objectives and Key Results for Higher Educational Institutions– A Blended Approach as Part of Post Covid-19 Initiatives for Keeping the Institutions Abreast of the Industry Innovations, to create future leaders and build the Nation. Several studies

reported how the performance of faculties affected by the factors like occupational stress, psychological well-being, policies of the higher education management, and Covid-19 pandemic (Prasad, 2020). The authors could not find a single study that reported the faculty performance in management education institutes of the faculties with industrial experience and without industrial experience. The present study carried out the authors if first of its kind presenting the results of faculty performance with the industry work experience and without industry work experience.

### Objectives

- To understand the role played by the faculties of business administration in the teaching and learning process.
- To understand the performance management system of academic staff in the Indian scenario.
- To understand the performance parameters of academic staff in the faculty of business administration.
- To evaluate the performances of faculties with and without industry background on certain important parameters of teaching and learning process.
- To analyses the data and draw conclusions and suggest recruitment policies for academic staff in faculty of business administration.

### Theoretical Framework

Theoretical Framework is based performance management systems model suggested Rao and Prasad and Vaidya (2016), performance and work-life balance study Muralidhar et al., (2020); and the study on Employee Competencies as the Predictors of the Performance Management Systems in IT enabled systems by Mruthyanjaya Rai et. al., (2019). The theoretical Framework presented in Figure 1 indicates the talent flow showing the factors that influence the performance of the faculty with and without industrial experience in Business Management schools of the Indian Universities. The factors studied are competency, pandemic, personal, inherent factors, job oriented factors and alien factors which are out of the control of the faculty.

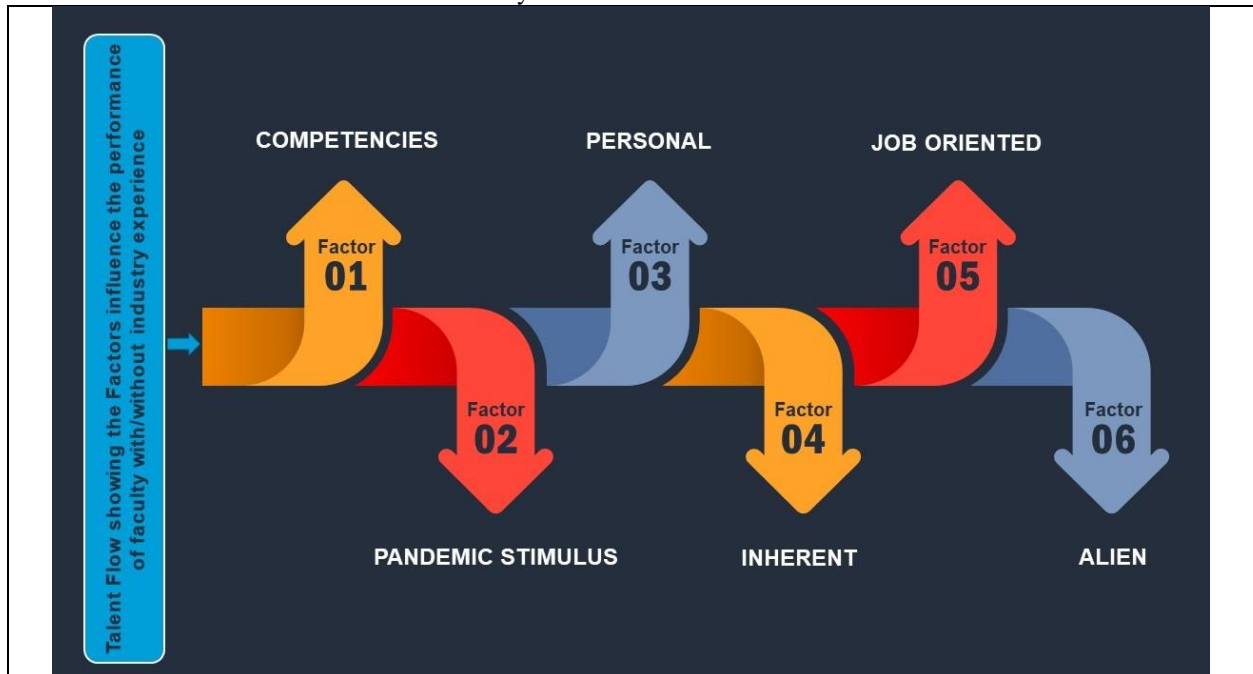


Figure 1. Theoretical framework for the measurement of faculty performance with and without industry work experience concerning Indian Universities

Based on the review of relevant literature and objectives the following hypotheses are framed.

### Hypotheses

- There is a significant difference in the performance and effectiveness of academic staff with and without industry experience in teaching and learning process and research in the faculty of business administration.
- There are statistically significant differences among the study variables that predict the performance of the faculty with industry experience and without industry experience

### **Performance Management System of Academic Staff – an Indian Scenario**

The success of the performance management system depends upon the key performance indicators which are not uniform across different organizations especially in academic institutions offering management courses in the faculty of business administration. The basic performance parameters for academic staff in the faculty of business administration are subject or domain knowledge, academic delivery, ability to present the core concepts, Presentation skills, information about current market or industry trends, and adherence to the academic norms. An ideal academic institution in the faculty of business administration emphasizes that its academic staff performs well on the quality in teaching-learning process, student development in terms of their communication ability, presentation skills and to make them industry-ready. The emphasis is also on contribution to the intellectual capital by way of publications such as research papers, participation in conferences or workshops, faculty development workshops etc. and many ideal academic institutions incentivize and give opportunity for top performers to participate in various intellectual development. However, performance expectations from the academic staff in the faculty of business administration vary from academic institute to institute and from university to university. Some of the academic institutes only emphasize on the teaching-learning process, while some only emphasize the student development and training of students for placements, whereas some institutes emphasize the development of intellectual capital. Also very often the performance of the academic staff is not by institutes objectives, and also there is no linkage between performance and compensation. To win in the present economic scenario, academic organizations must enable the employees to commit to overall organizational vision and mission and goals. The challenge involves how well the management of the academic institute communicates its vision and mission as well as the strategy and makes the academic staff understand how their performance will contribute to results. But the scenario is that much academic staff does not have a clue as to what the strategy of their organization is. There is a gap between the vision of the management of the academic institute and the daily actions accomplished by the academic staff.

### **Performance measurement parameters of Academic Staff in the Faculty of Business Administration**

The Quantitative component of performance appraisals of academic staff enables measurement of visible activities like teaching effectiveness, teaching load, number of research papers or projects mentored, number of articles published in high-value journals etc. Vaidya R.W and Deogaonkar (2018) suggested some performance parameters within the work scope of academic staff to be included for assessment of performance measurement of academic staff in the faculty of business administration.

The suggested parameters help the academic institutions in the faculty of business administration to set their priorities and goals as well as the expectations from the academic staff. The suggested parameters also help the academic staff involved in the faculty of business administration to develop themselves as per the expatiations of the academic institutes as well as for their professional and personal growth. The parameters for performance measurement of the academic staff involved in the faculty of business administration cover the performance criteria like performance parameters and personal factors as well as certain job factors for a near 360-degree assessment of academic staff. The performance parameters have been classified according to the overall expectations of the institutes from a faculty of business administration and due weightage has been allotted to the various performance parameters. The performance of the faculties is measured in terms of their effectiveness in conducting their job roles on the suggested parameters on a five-point scale. For both, the academic staff with and without industry work experience and conclusions whatsoever can be derived.

## **DATA ANALYSIS**

Demographic characteristics of the research study indicated in Table 1.

Table 1 <i>Demographic characteristics (Gender and Age group) of the sample</i>	
<b>Gender</b>	<b>Number</b>
Male	66
Female	34

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Age Group (Years)	
20-30	4
31-40	22
41-50	38
>50	36
Source: Primary data	

*Reliability of the research instrument:* For measuring all the items a five-point Likert-type scale was used, To measure the internal consistency and reliability of the research instrument the reliability statistics Cronbach Alpha, Spearman-Brown Prophecy, and Split Half (odd-even) correlation assessed (Cronbach 1951, Trochim, 2006). The Cronbach Alpha, Split-Half (odd-even), and Spearman-Brown Prophecy values indicated the high internal consistency and reliability of the survey instrument as presented in Table 2. The Shapiro Wilk test statistic value of  $p > 0.05$  for all the study variables indicated that data is normally distributed and further analyses carried out.

Table 2					
<i>Reliability Statistics of the Study variables (N=100)</i>					
Factors	Cronbach's Alpha	Split-Half (odd-even) Correlation	Spearman-Brown Prophecy	Shapiro Wilk Test ( $p$ )	Total Items
Overall sample	0.98	0.96	0.97	>0.05	101
Competency factors <i>With Industry Experience</i>	0.97	0.98	0.99	>0.05	28
Competency factors <i>Without Industry Experience</i>	0.99	0.98	0.99	>0.05	28
Performance factors <i>With Industry Experience</i>	0.97	0.965	0.97	>0.05	15
Performance Factors <i>Without Industry Experience</i>	0.98	0.95	0.97	>0.05	15
Job factors <i>With industry experience</i>	0.95	0.87	0.93	>0.05	5
Job factors <i>Without industry experience</i>	0.92	0.87	0.93	>0.05	5
Pandemic Factors Overall	0.83	0.77	0.87	>0.05	5
Performance overall	0.94	0.89	0.93	>0.05	
Source: Primary data					

### Paired sample T-Test

The data is collected from the same respondents at two different conditions – *Faculty with industry experience and Faculty without industry experience*. Therefore, paired t-test/dependent t-test (repeated measured t-test) was carried out to measure the means taken from the same respondent at two different conditions and assess if there is any statistically significant in the mean differences between paired observations that are different from zero.

Table 3				
<i>Paired Samples Statistics (N=100)</i>				
Factors	Mean	Std. Deviation	Std. Error Mean	

Pair 1	Competency factors with Industrial Experience	3.6233	.78797	.07880
	Competency factors without Industrial Experience	3.2064	.97195	.09719
Pair 2	Personal Factors with Industrial Experience	3.7513	.83078	.08308
	Personal Factors without Industrial Experience	3.4267	1.03131	.10313
Pair 3	Job Factors with Industrial Experience	3.8060	.88874	.08887
	Job Factors without Industrial Experience	3.4900	.98775	.09878

The values in the Paired Samples Correlation (Table 3) indicate that the correlations among each pair of variables *Competency factors*

*With Industrial Experience vs Competency factors Without Industrial Experience; Personal Factors with Industrial Experience vs Personal Factors without Industrial Experience; and Job Factors with Industrial Experience vs Job Factors without Industrial Experience* are positive and significant ( $r=0.292$ ,  $p<0.05$ ;  $0.384$ ,  $p<0.05$ ;  $0.741$ ,  $p<0.05$ ) respectively (Table 4). The correlations are moderate for the first two factors and high correlation for job factors with and without industrial experience.

Pair	Factors	Correlation	Significance
Pair 1	Competency factors With Industrial Experience	.292	.003
	Competency factors Without Industrial Experience		
Pair 2	Personal Factors with Industrial Experience	.384	.000
	Personal Factors without Industrial Experience		
Pair 3	Job Factors with Industrial Experience	.741	.000
	Job Factors without Industrial Experience		

From Table 5, it was observed that for pair 1  $t(99) = 3.941$ ,  $p < 0.0005$ . Due to the means between *Competency factors with Industrial Experience - Competency factors without Industrial Experience* it can be concluded that there was a statistically significant improvement of *Faculty performance with industrial experience* from  $3.2064 \pm 0.78$  to  $3.6233 \pm 0.97$  ( $p < 0.0005$ ); an improvement of  $0.10 \pm 0.10$ . Similarly, for *Personal Factors with Industrial Experience - Personal factors without industrial experience*  $t(99) = 3.101$ , ( $p < 0.0005$ ), from  $3.4267 \pm 0.083$  to  $3.7513 \pm 1.103$  an improvement of  $0.083$  to  $0.10$  for *Personal factors with industrial experience*; for *Job Factors with Industrial Experience - Job Factors without Industrial Experience*  $t(99) = 4.639$ , ( $p < 0.0005$ ) improvement of *Faculty performance with industry experience* (for job factors) from  $3.499 \pm 0.088$  to  $3.806 \pm 0.9887$  with an improvement of  $.08887 \pm 0.09878$ .

	Paired Differences	t	df	Sig.
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		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				(2-tailed)
					Lower	Upper			
Pair 1	Competency factors with Industrial Experience - Competency factors without Industrial Experience	.41682	1.05754	.10575	.20698	.62666	3.941	99	.000
Pair 2	Personal Factors with Industrial Experience - Personal Factors without Industrial Experience	.32463	1.04686	.10469	.11691	.53235	3.101	99	.003
Pair 3	Job Factors with Industrial Experience - Job Factors without Industrial Experience	.31600	.68116	.06812	.18084	.45116	4.639	99	.000

Effect of Sizes: Table 6 presents the results of the effect of sizes a quantitative measure of the magnitude of the present experimental effect. As the sample size is >20, Cohen's D results were interpreted which are >1. The results indicate that the effect size is larger and the relationship between the two study variables is stronger when compared to the *Faculty* with and *Faculty without industry experience*.

From the Paired t-test results and effect of sizes Tables 3-6, we accept the hypothesis There is a statistically significant difference in the performance and effectiveness of academic staff (faculty) with and without industry experience in teaching-learning process and research in the faculty of business administration.

			Standardizer <sup>a</sup>	Point Estimate	95% Confidence Interval	
					Lower	Upper
Pair 1	Competency factors with Industrial Experience - Competency factors without Industrial Experience	Cohen's d	1.05754	.394	.190	.597
		Hedges' correction	1.06157	.393	.189	.594
Pair 2	Personal Factors with Industrial Experience - Personal Factors without Industrial Experience	Cohen's d	1.04686	.310	.109	.510
		Hedges' correction	1.05085	.309	.108	.508
Pair 3	Job Factors with Industrial Experience - Job Factors without Industrial Experience	Cohen's d	.68116	.464	.257	.669
		Hedges' correction	.68376	.462	.256	.667

a. The denominator used in estimating the effect sizes.  
Cohen's d uses the sample standard deviation of the mean difference.  
Hedges' correction uses the sample standard deviation of the mean difference, plus a correction factor.

**Regression Analysis – Faculty with industrial Experience**



To know the cause-effect of the independent variables on dependent variable performance, a separate multiple regression analysis was carried out separately for the *Faculty both with industry experience and without industry experience*. The multiple correlation coefficient, *R*, is the Pearson correlation coefficient between the scores predicted by the regression model and the actual values of the study variable. The *R* value represents the strength of the association among these two variables. This also can indicate the goodness of the model fit with a value that can range from 0 to 1, with higher values indicating a stronger linear association. The value of **0.902** (Table 7) in this example, indicates a strong level of association.

The *R*<sup>2</sup> is equal to **0.813** in Table 7 indicates that the addition of all nine independent variables into a regression model explained **81.3%** (i.e., 0.813 x 100 = 81.3%) variance in the study variable, Performance. The value 1.899 under The Durbin Watson statistic indicates the data is independent of observation and the VIF value > 1.0 indicate there is no multicollinearity.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson	VIF
1	.902 <sup>a</sup>	.813	.794	.37706	1.899	1.094
a. Predictors: (Constant), IEMoreMotivated, Age, Gender, JobFactorsIE, BetterpayforIE, RoleChange, CF_with_IE, SEMoreforIE, TeachingTools						
b. Dependent Variable: Performance						

The significance value in ANOVA (Table 8) is .000 which indicates that  $p < .0005$ , and  $P < .05$  is statistically significant and the introduction of all the predictor variables provides statistically significant model and predicts the dependent variable perfectly than the mean model. The results are  $F(9, 90) = 43.400$ ,  $P < .0005$ ; *F* is *F*-test comparison is made with 9 in (9,99) df, 99 in (9, 99), 43.400 is *F*-value and  $p < .0005$  (Table 8).

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	55.534	9	6.170	43.400	.000 <sup>b</sup>
	Residual	12.796	90	.142		
	Total	68.330	99			
a. Dependent Variable: Performance						
b. Predictors: (Constant), IEMoreMotivated, Age/Years, M/F, JobFactorsIE, BetterpayforIE, RoleChange, CF_with_IE, SEMoreforIE, TeachingTools						

Multiple regression was run to predict the effect of Performance from 9 independent variables ( $n=100$ ). All the assumptions to run the multiple regress are fulfilled before running the test. The assessment of partial regression plots indicates the linearity, and the Durban-Watson statistic >1 indicates the was the independence of residuals and 1.899 and the value of VIF indicates no multicollinearity among the variables. The homoscedasticity was assessed by the visual inspection of the plot with studentized residuals. The Shapiro Wilk Statistic value >0.5 for all the variables indicates that the normality condition was met.

The multiple regression analysis values from ANOVA table Performance,  $F(9, 99) = 43.400$ ,  $p < .0005$ , adjusted  $R^2 = 0.81$  indicate that the dependent variable predicted and the results are statistically significant. Regression coefficients and standard errors are presented in Table 9. Out of nine predictor variables, only the independent variable CFwithIE (Faculty competency factor with industrial experience) is statistically significant and predicting the performance of faculty. The coefficient value of CEwithIE 0.863 is the performance change for one unit change in predictor variable CEwithIE.

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Table 9  
*Regression Coefficients (Faculty with industrial experience)<sup>a</sup>*

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.053	.291		.183	.856	-.525	.632
	CF_with_IE	.863	.063	.818	13.696	.000	.738	.988
	Gender	-.106	.081	-.060	-1.300	.197	-.268	.056
	JobFactorsIE	.101	.059	.109	1.726	.088	-.015	.218
	Age	.038	.046	.039	.825	.412	-.053	.128
	RoleChange	-.047	.059	-.061	-.789	.432	-.165	.071
	TeachingTools	.068	.065	.084	1.051	.296	-.061	.197
	SEMoreforIE	.064	.047	.094	1.373	.173	-.029	.158
	BetterpayforIE	.021	.041	.028	.512	.610	-.061	.103
	IEMoreMotivated	-.049	.049	-.071	-1.006	.317	-.146	.048

a. Dependent Variable: Performance  
b. JobFactorsWithoutIE, Gender, IEMoreMotivated, Age, BetterpayforIE, RoleChange, CF\_without\_iE, SEMoreforIE, TeachingTools

For a unit change in Faculty competency factor with industrial experience 0.247 units of performance will be positively affected, means enhanced. If we consider standardized coefficients the beta value 0.382 presents a change of one standard deviation in the predictor variable Faculty with industrial experience results in a 0.818 standard deviations performance will be positively affected, means enhanced. Further, the Standardized beta values of <0.2 indicate that the faculty with industrial experience is not statistically significant in the overall model on performance. The gender and age differences are not statistically significant in the Competency of the faculty with industrial experience. Regression results for the faculty without industrial experience Similarly, The R<sup>2</sup> is equal to 0.752 in Table 10 explains 77% of the variability of our dependent variable, Performance (compared to the mean model).

Table 10  
*Model Summary for faculty without industrial experience<sup>b</sup>*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.880 <sup>a</sup>	.774	.752	.51410	2.160

a. Predictors: (Constant), JobFactorsWithoutIE, M/F, IEMoreMotivated, Age/Years, BetterpayforIE, RoleChange, CF\_without\_iE, SEMoreforIE, TeachingTools  
b. Dependent Variable: Performance

The significance value in ANOVA Table 11 is .000 which means that  $p < .0005$ , and  $P < .05$  is a statistically significant result. The results are  $F(9, 90) = 34.267$ ,  $P < .0005$ ; Where F-test results in 9 in (9,99) is df, 99 in (9, 99) are the residual degree of freedom, 34.267 is measured F-statistic and  $P < .0005$  (Table 11).

Table 11  
*ANOVA for faculty without industrial experience<sup>a</sup>*

Model	Sum of Squares	df	Mean Square	F	Sig.
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1	Regression	81.510	9	9.057	34.267	.000 <sup>b</sup>
	Residual	23.787	90	.264		
	Total	105.297	99			
a. Dependent Variable: Performance						
b. Predictors: (Constant), JobFactorsWithoutIE, M/F, IEMoreMotivated, Age/Years, BetterpayforIE, RoleChange, CF_without_iE, SEMoreforIE, TeachingTools						

Out of nine predictor variables for the Competency factors without industrial experience, five predictor variables role change (role of management change during Covid-19 Pandemic), Teaching Tools (virtual learnings, MOOCs during Pandemic, motivation (faculty motivation due to industry experience and without industry experience), predicting the performance of faculty statistically significant (Table 12). The coefficient value of 0.232 reflects the change in the study variable performance for one unit change in the predictor variable Role change.

An increase of one unit for role change factor 0.232 units of performance will be positively affected. If we consider standardized coefficients a  $\beta$  0.241 represents a change of one standard deviation in predictor variable role change results in a 0.241 standard deviations performance will be positively affected, and so on. Further, the Standardized beta values of  $>0.2$  for five independent variables predicting performance and are statistically significant. The age and gender differences not statistically significant with the faculty without industrial experience.

Based on the regression results it was concluded that some competency factor items are common to both with industrial experience and without industrial experience, whereas five predictor variables role change (role of management change during Covid-19 Pandemic), Teaching Tools (virtual learnings, MOOCs during Pandemic, motivation (faculty motivation due to industry experience and without industry experience), predicting the performance of faculty statistically significantly. Therefore, we partially accept the hypothesis There are statistically significant differences among the study variables that predict the performance of the faculty with industry experience and without industry experience

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Table 12  
*Regression Coefficients for the faculty without industrial experience*

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.005	.381		.012	.990	-.752	.761
	Gender	-.005	.111	-.002	-.043	.966	-.225	.216
	Age	-.022	.063	-.018	-.345	.731	-.147	.104
	RoleChange	.232	.084	.241	2.772	.007	.066	.398
	TeachingTools	-.218	.088	-.217	-2.473	.015	-.393	-.043
	SEMoreforIE	-.089	.064	-.104	-1.391	.168	-.215	.038
	BetterpayforIE	.054	.057	.057	.953	.343	-.059	.167
	IEMoreMotivated	.136	.064	.160	2.132	.036	.009	.263
	CF_without_iE	.471	.074	.444	6.343	.000	.323	.618
	JobFactorsWithoutIE	.474	.076	.454	6.238	.000	.323	.625
a. Dependent Variable: Performance								
b. JobFactorsWithoutIE, Gender, IEMoreMotivated, Age, BetterpayforIE, RoleChange, CF_without_iE, SEMoreforIE, TeachingTools								

### Conclusions

The study was conducted using a structured undisguised questionnaire with 101 statements to measure the competency factors, personal factors, job factors, pandemic factors, and their effect on faculty performance with industry work experience and without industry work experience. The study received responses from 108 respondents, and 8 respondents' data was dropped because of incomplete answers to some questions. In the presented study with two different groups of faculties, it is natural to receive the bias responses from the respondents who are with industry

experience and without industry experience vice-versa. The authors measured two types of reliability statistics Cronbach alpha and Split-half odd-even statistics. The observed values indicated high reliability and internal consistency of the survey instrument, the questionnaire. A sample size of 100 too good for this study, and from the results it was observed there was no gender and age parities in the outcome. However, paired t-test reveals the variables are correlated positively and significantly between both the groups. The only problem associated with the study is a response rate of the faculty is very slow and it took almost a year to receive 108 responses or so.

### Limitations

The research survey instrument was developed and posted on the google form and sent through emails, provided links on Whatsapp and text messages The only limitation to the study is the geographical area of the responses received are mostly from the colleges of Indian states from Maharashtra, Telangana, and Andhra Pradesh and only a few responses received from other states. However, from the results of the study, it can be observed that the means of respondents are uniformly distributed across the states. To generalize the study similar type of study with a larger number of samples and educational institutes covering a larger geographical area is needed.

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