Competency Evaluation for Training Needs Identification of Faculty at Gedu College of Business Studies

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Abstract

Every organization prefers highly productive human resources which are directly revealed through performance and behaviour at work. Competency is the inner characteristics that control performance and behaviour. This study is aimed at analysing the right set of competencies of faculty, followed by evaluation and gap analyses. The evaluation and gap analyses are used for training needs identification followed by recommendations of the right sets of training and development programmes. The data is collected from 46 teachers of GCBS using a self-designed questionnaire following a census survey. SPSS 21 is used for data analysis. The results revealed that the level of GCBS faculty in each factor of behavioural competency is reported above average while the highest mean is reported in communication and interpersonal skills. In functional competency, the highest level is reported for punctuality and time management followed by teaching-learning effectiveness while the above-average score is reported for factors – quality awareness, academic administration, student development and information technology leverage. The level for research and publication, and industry interaction is reported below average.

The College Research Committee is suggested to organize workshop/seminar/webinar on research and publication for different subjects and or specialization of faculty. The college recommended providing access to online research papers from international level publishers. In addition, it is suggested to improve the industry interaction of faculty along with students on a regular interval of time to ensure active participation and involve faculty in consultancy projects.

Keywords: *Competency, competence, functional, behavioural, faculty, training needs identification*

Introduction

In an era of competitive business, opportunities are not only for the higher educational qualifications of the individuals but also for the competitive performers. Every organization prefers high-quality productive human resources. This highly productive human resource is directly related to the performance and behavior at work. Competency is the inner characteristics that control performance and behavior. The concept of competency is directly linked to the fundamental aim of strategic human resource management to obtain and develop highly competent people who will readily achieve their objectives and hence maximize their contribution to the attainment of the goals of the organization. Viitala (2005) delineated that there is a need to find the human factors that are more manageable than intelligence and aptitude to meet with progressive demands of the business. Ngo, Jiang, and Loi (2014) emphasized that the competency-based approach is linked with organizational goals and strategies in a better way in getting more attention. Sanghi (2016) observed that competencies provide organizations with a way to align with the company culture. It is a very useful approach for the development of an individual team and an organization.

In a professional education system, placing the students at the forefront is significant to meet the expectations of the industry as superior performance is one of the biggest challenges for any professional institution. Henceforth, the role of a teacher is pivotal in the development of students and organization, beginning from the selection of students for admission to the placement of aspirants in the industry. During the professional course, the teacher contributes directly by conducting classroom teaching, developing and incorporating the right course curriculum and pedagogy; apart from being a mentor for industrial training and research project for the development of the required competency of the students. Therefore, the competency of the faculty is of high importance for the development of students to meet the industry expectations.This project is aimed at examining the right set of competencies of faculty, followed by evaluation and gap analysis which will help to identify and recommend the need for training the faculty and developmental programmes at the individual level so that they can contribute better in the competency development of students.

Significance of the Study

Behaviours necessary for effective performance vary from business to business and role to role. Many organisations have thus developed competency models to help them identify the essential knowledge, skills, and attributes needed for successful performance in a job that is aligned with the HR strategy. A competency evaluation can be an effective way of communicating to the workforce the values of the senior management and what people should focus on their own behaviour. Over the years many several models have evolved but all of them follow McClelland's lead of determining what directs the superior performance, identifying top performers, and discovering what they do. The two principles of competency development are: 1. Focus on superior performers, and 2. Focus on what they do to perform the given role.

This study is a directive for each faculty to identify the gap between the expected and desirable level of competencies required to have superior performance at work as a faculty of the professional programme. It is the revealing training that needs the identification of faculty. In addition, it is a support for an individual faculty to road map their own development plan apart from organizational level initiatives. Additionally, it might benefit the policymakers to incorporate relevant and topical dimensions in the performance appraisal. In addition, it might be a guide to the HR department to roadmap for promotion policy and criteria. Also, it might improve the quality of the product of the institution by which it can serve better the industry in terms of providing employable candidates to meet the standards of industry expectations.

Literature Review

Kochanski (1996) highlighted that behavioural terms are required to produce desired results by performing or demonstrating competencies. Many definitions of behavioural competency are variations on the following definitions: "A job competency is as an underlying characteristic of a person which results ineffective and /or superior performance in a job" (Klemp, 1980). Variations of the definitions expand on what the characteristics may be. For example, in the much-quoted definition: 'A job competency is an underlying characteristic of a person in that it may be a motive, a trait, a skill, an aspect of one's self-image or social role, or a body of knowledge which he or she uses' (Boyatzis, 1982). Takey and de Carvalho

(2015) referred to competencies as, "ability to mobilize, integrate, and transfer knowledge, skills, and resources to reach or surpass the configured performance in work assignments, adding economic and social value to the organization and the individual" (p. 785).

Kraemer et al. (2011) used competency as a tool for training identification and provided competency-based training to clinical supervisors for better performance at work. Priyadarshini and Dave (2012) remarked competency mapping as an effective methodology to integrate HR functions with key competencies of organizations and valuable resource to assess training needs of the organizations based on a study conducted in an auto component company. Hardison et al. (2014) reported that for effective site safety of construction supervisors depends on the identification and development of required competencies. Butuner and Hacipasaoglu (2016) suggested that competency-based training needs analysis which begins with the identification of the training that must be taken by the employees based on the comparisons of the required features and existing competencies of employees. Sridevi and Keerthana (2017) used competency mapping for finding gaps in the required level of competency and present level of competency and suggested measures to fill the gap. Panda and Mishra (2018) studied the influence of competency management on training needs identification among employees of Essel Mining and Industries Ltd. It is suggested to bridge the gap between employee's competencies and the goals and objectives of the organization. Prabawati, Meirinawati, and Oktariyanda (2018) suggested competency-based training (CBT) as one source of human resource development as it focuses on skills, competencies, and competency standards based on study conducted on public sector organizations. Kansal and Jain (2019) conducted competency mapping on scientists working in the R&D department in the Indian Himalaya-the abode of snow and suggested organizational development based on gap analysis identified for training needs as an effective tool for identifying competencies-based training needs. Chouhan and Srivastava (2020) found a significant and positive correlation of personal and technical competence with the individual performance of HR practitioners in the Indian manufacturing industry. It is suggested to design training programs based on competencies to meet and exceed performance standards.

The plethora of evidence revealed the use of competency evaluation as a tool for training needs identification apart from business and management like training needs of the Portuguese optometrists (Carneiro & Jorge, 2020).

Research Objectives

Based on the aim of this study the following research objectives are proposed:

- To evaluate the present level of competencies of faculty.
- To assess the gap between present levels of competencies with the required level of competencies.
- To recommend suitable training and development programs to match with the requirements.

Proposed Alternate Hypotheses:

The alternative hypotheses of the research were formulated as follows:

H_1: There is a significant difference between gender (Male vs Female) towards functional competency.

H_2: There is a significant difference between gender (Male vs Female) towards behavioral competency.

H_3: There is a significant difference among respondents' age groups (up to 30 years, 31-40 years, 41-50 years, and above 50 years) towards functional competency.

H_4: There is a significant difference among respondents' age groups (up to 30 years, 31-40 years, 41-50 years, and above 50 years) towards behavioral competency.

H_5: There is a significant difference among respondents' qualifications (Graduate, Post Graduate, and Ph.D.) towards functional competency.

H_6: There is a significant difference among respondents' qualifications (Graduate, Post Graduate, and Ph.D.) towards behavioral competency.

Methodology

Data Collection - The data was collected from 46 teachers of GCBS using a self-designed questionnaire following a census survey.

Statistical Software – SPSS 21 and Excel were used for data analyses.

Instrument – The questions from the following sub-variables had been considered in each dimension to calculate their average scores. Functional Competency - The

mean score of the functional competency was calculated based on the questions being asked under eight (8) sub-variables. The eight sub-variables are: Respondents' teaching-learning effectiveness, Research publication and consulting, Student development (coaching, counseling and mentoring), Academic administration (selection, evaluation, and invigilation), Information technology leverage, Industry interaction, Quality awareness, and Punctuality and management. Behavioral Competency - Average score of Behavioral Competency was obtained by asking relevant questions under five (5) sub-variables. These five sub-variables are: Personality, Leadership and team work, Communication and interpersonal skill, Creativity and decision-making skill, and Anger, stress and conflict management. The questions in the Likert scale were rated as; 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree and 5= Strongly Agree.

Data Analysis and Interpretation

Before conducting the investigation based on the aim of the study, the normality of data is checked and the value of kurtosis and skewness is reported less than 1.96 which is an acceptable value of normal distribution in case of a smaller sample size (Field, 2009; Ghasemi & Zahediasl, 2012).

Reliability

Reliability refers to the degree to which the results obtained by measurement and procedure which can be replicated (Rothman et al., 2008; Wong et al., 2012). The Cronbach's Alpha value of above 0.7 in all these sub-variables except that of four sub-variables that is (i) Information technology leverage (.643), (ii) Industry interaction (.641), (iii) Quality awareness (.687) and (iv) Personality (.691) shows internal consistency among the set items under each variable. In the four sub-variables as mentioned above, the Cronbach Alpha value is reaching 0.7. Albeit the minimum threshold limit of Cronbach Alpha is 0.7, a few literatures (Shrout, 1998) supported this level being slightly less than 0.7. The values of Cronbach Alpha for functional competency (.845) and behavioural competency (.941) are above .7 showed good internal consistencies.

Table 1

Reliability Statistics

	Dimension	Cronbach's Alpha	Cronbach's Alpha
1	Teaching learning effectiveness	0.817	
2	Research and publication	0.789	
3	Student development (coaching, counselling and mentoring)	0.774	
4	Academic administration (selection, evaluation and invigilation)	0.752	
5	Information technology leverage	0.643	
6	Industry interaction	0.641	
7	Quality awareness	0.687	
8	Punctuality and time management	0.876	
A. Functional Competency			0.835
1	Personality	0.691	
2	Leadership and team work	0.956	
3	Communication and interpersonal skill	0.897	
4	Creativity and decision-making skill	0.914	
5	Anger, stress and conflict management	0.817	
B. Behavioural Competency			0.947
Total (Functional and Behavioural Competency) (A&B)			0.917

Source: Calculated with the help of SPSS.

Sample Description

Table 2 highlights descriptive statistics of gender, age, specialization and educational qualification of respondents. Out of the total sample of 46, almost 83% constitutes male faculty, and remaining 17% represents females. The ratio of the male is more than that of the female with the obvious reason of more male faculty in the college than that of female counterparts. Besides gender, the highest number of faculty (52%) falls under the age bracket of 31-40 years and the least (4%) being under the age group of below 30 years. From the specialization category, the highest number of faculties are from management (20%) followed by quantitative mathematics and statistics (17%) and the least are from ICT (4%). With regard to educational qualification, 61% of the faculty is post graduates followed by graduates (22%) and PhD (17%).

Table 2

Descriptive Statistics

	Variables	Description	Frequencies (no)	Frequencies (%)
1	Gender	Male	38	82.6
		Female	8	17.4
		Total	46	100.0
2	Age	Below 30 years	2	4.3
		31-40 years	24	52.2
		41-50 years	17	37.0
		Above 51 years	3	6.5
		Total	46	100.0
3	Specialization	Accounting	7	15.2
		Finance	3	6.5
		Economics	3	6.5
		Quantitative math and stats	8	17.4
		Marketing	5	10.9
		Management	9	19.6
		ICT	2	4.3
		Language	6	13.0
		HRM	3	6.5
		Total	46	100.0
4	Educational Qualification	Graduate	10	21.7
		Post graduate	28	60.9
		PhD	8	17.4
		Total	46	100.0

Source: Calculated with the help of SPSS

Descriptive Analysis

Mean and standard deviation is reported in Table 3. The behavioral competency level of the faculty is reported slightly higher (3.88) as compared to the functional competency (3.42). However, the mean value of just 3.42 may not be satisfactory and need to increase in the future. In the behavioral competence, the highest mean is reported by communication and interpersonal skills (4.12) followed by personality (3.71). In case of functional competency, the highest and the least mean is reported by punctuality and time management (4.08) and Industry interaction (2.43) respectively. Kochanski (1996) highlighted that competencies are defined in behavioral terms that are required to produce desired results by performing or

demonstrating those competencies. Hence, the result from the analysis delineates the ability of faculty of GCBS to produce desired results through their behavioral competency.

Table 3

Descriptive Statistics (Mean and Standard Deviation)

Dimensions and Sub Variables	N	Mean	Std Deviation
A. Functional Competency			
Punctuality and time management	46	4.079	.652
Teaching learning effectiveness	46	4.014	.733
Quality awareness	46	3.775	.487
Academic administration	46	3.688	.593
Student Development	46	3.565	.775
Information technology leverage	46	3.231	.782
Research and publication	46	2.565	.970
Industry interactions	46	2.434	.868
B. Behavioural Competency			
Communication and interpersonal skills	46	4.115	.699
Leadership and team work	46	3.934	.729
Creativity and decision-making skills	46	3.869	.721
Anger, stress and conflict management	46	3.847	.736
Personality	46	3.706	.573
C. Behavioural Competency (combined)	46	3.883	.593
D. Functional Competency (combined)	46	3.419	.423

Source: Calculated with the help of SPSS

Test of Difference

Test of difference is conducted to study the significant difference in functional and behavioral competency of faculty with different demographic variables.

Functional Competency and Behavioral Competency based on Gender

An independent samples t-test is conducted to study the significant difference in functional and behavioral with respect to the gender of faculty. The comparative mean score of 3.47 and 3.17 of male and female indicate better functional competency of male faculty as compared to female counterparts (table 4). In addition, the mean value 3.91 of the males shows that the male faculty of GCBS possesses a higher behavioral competency than the female faculty, 3.71.

Table 4
Group Statistics

	Gender	N	Mean	Std Deviation	Std Error Mean
Functional Competency	Male	38	3.471	.391	.063
	Female	8	3.171	.506	.178
Behavioral Competency	Male	38	3.917	.583	.094
	Female	8	3.718	.657	.232

Source: Obtained from SPSS

The result is not statistically significant for both the variables as $p < .05$ (.068 and .395) in both the cases (Table 5). The sample size of just 46 may be one of the reasons for the p-value which is not significant. Besides, the mean value slightly higher than 3 in both cases signify no strong competency level in any of the gender.

Table 5
Independent Samples T-test Results

	Variances	Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	T	df	Sig. (2-tailed)
Functional Competency	Equal variances assumed	1.344	.253	1.869	44	.068
	Equal variances not assumed			1.578	8.851	.150
Behavioral Competency	Equal variances assumed	.229	.634	.859	44	.395
	Equal variances not assumed			.793	9.465	.447

Source: Obtained from SPSS

Based on results of Table 5, both the proposed alternate hypotheses **H1** and **H2** are rejected.

Functional Competency and Behavioral Competency based on Age

One-way ANOVA was conducted to test the difference in functional and behavioural competency with respect to the age group of the faculties. The lowest mean value of 2.72 among the age group of up to 30 years shows poor functional competency among these age brackets. On the flip side, the faculty between the age group of 41-50 years possess the highest functional competency (M = 3.75) among all the age groups. With regard to behavioral competency, the lowest competency has been observed among the age group of up to 30 years (M = 3.50) and the highest being among the age group of above 50 years (M = 4.42). The analysis shows that the level of competency of the faculty at GCBS grows with their respective age. Thus, the analyses also hint that faculty develop their competencies as they grow in their age.

Table 6
Descriptive Statistics

Variables	Age Group	N	Mean	Std Deviation	Std Error
Functional Competency	Up to 30 years	2	2.729	.736	.520
	31-40 years	24	3.293	.339	.069
	41-50 years	17	3.750	.269	.065
	Above 50 years	3	3.013	.096	.055
	Total	46	3.419	.423	.062
Behavioral Competency	Up to 30 years	2	3.500	.618	.437
	31-40 years	24	3.804	.598	.122
	41-50 years	17	3.944	.538	.130
	Above 50 years	3	4.416	.793	.458
	Total	46	3.883	.593	.087

Source: Obtained from SPSS

The results of Table 7 reveal that there are possibilities of significant difference in the functional competency levels among different age groups as $p < .05$ (.000), while there are least possibilities in the case of behavioural competency as $p > .05$ (.283).

Table 7
ANOVA Results

Variables	Age groups	Sum of Squares	Df	Mean Square	F	Sig
Functional Competency	Between Groups	3.685	3	1.228	11.773	.000*
	Within Groups	4.382	42	.104		
	Total	8.067	45			
Behavioral Competency	Between Groups	1.360	3	.453	1.312	.283
	Within Groups	14.512	42	.346		
	Total	15.872	45			

Source: Obtained from SPSS *Significance at 5% level of significance

The multiple comparison table presented in Table 8 shows that there is a significant difference in the mean scores between the age group of up to 30 years with that of 31-40 years and 41-50 years, between 31-40 years with that of 41-50 years and between 41-50 years with that of above 50 years towards functional competency. Thereby, the proposed alternate hypothesis H_3 is partially accepted.

On the other hand, none of the age groups is found significantly different from each other towards behavioral competency, therefore the proposed alternates hypothesis H_4 is rejected and the null hypothesis is accepted.

Table 8
Multiple Comparison Results

Dependent Variable	Age Groups		Mean Difference	Std Error	Sig
Functional Competency	Upton 30 years	31-40 years	-.564*	.237	.022*
		41-50 years	-1.020*	.241	.000*
		Above 50 years	-.284	.294	.340
	31-40 years	Upton 30 years	.564*	.237	.022*
		41-50 years	-.456*	.102	.000*
		Above 50 years	.279	.197	.165
	41-50 years	Upton 30 years	1.020*	.241	.000*
		31-40 years	.456*	.102	.000*

		Above 50 years	.736*	.202	.001*
	Above 50 years	Upton 30 years	.284*	.294	.340*
		31-40 years	-.279	.197	.165
		41-50 years	-.736*	.202	.001*
Behavioral Competency	Upton 30 years	31-40 years	-.304	.432	.485
		41-50 years	-.444	.439	.317
		Above 50 years	-.916	.536	.095
	31-40 years	Upton 30 years	.304	.432	.485
		41-50 years	-.140	.186	.456
		Above 50 years	-.611	.359	.097
	41-50 years	Upton 30 years	.444	.439	.317
		31-40 years	.140	.186	.456
		Above 50 years	-.471	.368	.207
	Above 50 years	Upton 30 years	.916	.536	.095
		31-40 years	.611	.359	.097
		41-50 years	.471	.368	.207

Source: Obtained from SPSS (*Significance at 5% level of significance)

Functional Competency and Behavioral Competency based on Qualification
One-way ANOVA is conducted to find the significant difference between Functional Competency and Behavioral competency based on respondents' qualifications. The descriptive statistics presented in Table 9 highlights the mean scores along with standard deviations and standard error. The mean scores of above 3 support respondents' competencies based on their qualifications. The highest mean score of 3.65 was represented by those respondents who have the highest qualification of Ph.D. On the contrary, the lowest score was reported among the graduates (3.23) followed by the respondents having post-graduate as their qualification (3.42). This portrays that faculty at GCBS having a higher degree of qualification possesses a better level of functional and behavioral competencies.

Table 9
Descriptive Statistics

Variables	Educational Qualification	N	Mean	Std Deviation	Std Error
Functional Competency	Graduate	10	3.229	.359	.113
	Post graduate	28	3.419	.449	.085
	PhD	8	3.656	.300	.106
	Total	46	3.419	.423	.062
Behavioral Competency	Graduate	10	4.131	.670	.211
	Post graduate	28	3.837	.546	.103
	PhD	8	3.734	.644	.228
	Total	46	3.883	.593	.087

Source: Obtained from SPSS

The ANOVA results reveal that there are the least possibilities of significant difference in behavioral and functional competencies with respect to qualification as the p > .05 in both the cases (Table 10).

Table 10
ANOVA Results

		Sum of Squares	Df	Mean Square	F	Sig
Functional Competency	Between Groups	.811	2	.405	2.402	.103
	Within Groups	7.257	43	.169		
	Total	8.067	45			
Behavioral Competency	Between Groups	.852	2	.426	1.220	.305
	Within Groups	15.020	43	.349		
	Total	15.872	45			

Source: Obtained from SPSS

The multiple comparisons (Table 11) reveals that there is a significant difference in the mean values of graduate and PhD in the case of functional competencies but there is no significant difference among any possible pair of qualifications. Therefore, the proposed alternate hypothesis **H₅** is partially accepted.

In the case of behavioral competencies, no significant difference is reported among any possible pair in terms of qualifications (Table 11). Therefore, the proposed alternate hypothesis **H₆** is rejected and the null is accepted.

Table 11
Multiple Comparisons Results

Dependent Variable	Educational Qualification		Mean Difference	Std Error	Sig
Functional Competency	Graduate	Post graduate	-.190	.151	.215
		PhD	-.427*	.194	.034*
	Post graduate	Graduate	.190	.151	.215
		PhD	-.236	.164	.158
	PhD	Graduate	.427*	.194	.034*
		Post graduate	.236	.164	.158
Behavioral Competency	Graduate	Post graduate	.294	.217	.184
		PhD	.396	.280	.164
	Post graduate	Graduate	-.294	.217	.184
		PhD	.102	.236	.667
	PhD	Graduate	-.396	.280	.164
		Post graduate	-.102	.236	.667

(Source: Obtained from SPSS) *Significance at 5% level of significance

Conclusion and Recommendations

This project is aimed at the evaluation of two major competencies of faculty members – functional and behavioural. Behavioural competency is evaluated with five factors – personality, leadership, communication and interpersonal skills, creativity and decision making, and management of anger, stress, and conflict. In each factor of behavioural competency, the level of faculty is above average while communication and interpersonal skills are reported the highest. Other factors of behavioural competencies above-average level and close to satisfaction level. Functional competency was evaluated with eight factors – teaching-learning effectiveness, punctuality and time management, quality awareness, academic administration, student development, information technology leverage, research and publication, and industry interactions. In functional competency, the highest level is reported by punctuality and time management followed by teaching-learning effectiveness. The above-average score is reported for factors such as

quality awareness, academic administration, student development, and information technology leverage. The level for research and publication and industry interaction is reported below average. These two factors of competency are very essential for faculty, especially for professional courses. Research and publication are the backbones for the academic fraternity in terms of updating knowledge by the development of the respective domains. Industry interaction is one of the most essential components for professional programs.

Based on findings from the data analysis, the following recommendations are suggested:

- College research committee is suggested to organize workshop/seminar/webinar for research and publication with respect to subjects or specializations.
- College recommended having access to online research papers from International level publishers like Emerald insight, Inderscience online, Springer, Taylor, and Francis.
- Dean of Research and Industry Linkage is suggested to improve the industry interaction of faculty on a regular interval of time with/without students to ensure active participation and involvement of faculty in consultancy projects.
- There is a requirement of conducting workshops for writing industry consultancy proposals.
- College management is suggested to conduct lecture/workshop for awareness of quality standard of education and academic institution from any national-level accreditation body first then international.
- It is recommended to involve faculty in academic administration based on the requirement and interest of faculty at a regular interval of time, apart from teaching.
- Active involvement of faculty in counselling, mentoring and coaching is suggested in student development activities either on a personal level or at the college level.
- This is suggested to monitor and guide the faculty to use information technology platforms for active learning and sharing knowledge.

- Installation and purchase of essential software to facilitate smooth research and publication process like Turnitin for plagiarism/similarity check, the software required for data analysis, and Mendeley.

Limitation and Future Scope

This study is limited to GCBS only with 46 responses. In the future, it is suggested to incorporate faculties from other colleges of the Royal University of Bhutan with more responses for bettering the scope. Incorporation of topical and relevant competency dimensions at the individual and organization level will create a major picture of faculty competence, particularly technical competency.

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