



Effectiveness of CRM (Customer Relationship Management) in Higher Educational Institutions by Addressing Faculty Problems: The Case Study of MUET

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Abstract: This research is based on the recognition and evaluation of problems of faculty members in HEI (Higher Education Institution). This research is helpful to overcome the faculty problems through CRM (Customer Relationship Management). CRM has seemed to be a fast and quick requirement in HEIs, which is useful and make easiness for faculty members, to facilitate them and make them satisfied in their career. Various Universities in HEI are getting returns from CRM like: increases their customer satisfaction level, activate the flow of information, digitalize the systems of departments, helps to make quick decisions and are strengthened to increase their plans in the each corner of university. CRM is a strategy which professionally developed the skills of the faculty members and CRM develops the institutions as well (Adrian and Pennie, 2005). For the identification and evaluation of the faculty problems Qualitative research method is used by considering the CRM three factors: People (Faculty members), Process (Digital system) and Technology (MOODLE) in HEI. Therefore by giving training to the faculty members, the institutions effectively utilize the current technology, by using the software like MOODLE specially for teachers and students connections, to make the digital system all around the university for immediate flow of information and for making decisions which help the students and other stakeholders of university to accomplish their day-to-day activities.

Keywords: HEIs, CRM, Faculty Members (people), Process and Technology.

1. Introduction

Customer relationship management (CRM) is a technique through which the networks with customers are managed. Higher Education is increasingly receptive to CRM practices and technologies across domains including student administration, institutional advancement and service operations (Mario *et al.*, 2012). Higher education institutions with the help of customer relationship management (CRM) to become competitive, reduce cost and perform better services for the students. (Khalid *et al.*, 2011). Through the implementation and adaption of innovative and efficient management process of customer relation management (CRM) Higher Education Institutions (HEI) tried to become successful (Jhangir *et al.*, 2001). In the Customer Relationship Management (CRM) project implementation, the universities can use its core resources (professors, students and, marketing and information systems staff) (Raghuram *et al.*, 2007). In student services, it helps students interact with universities through several media of communication. CRM solutions boost interaction between HEIs and student services places (Soedijati and Pratminingsih, 2011).

In HEIs, stakeholders are demanding to more focus on the earlier and improved quality of flow of information in this competitive era (Ryals and Knox, 2001). The technology component of CRM develops the strong relationship among the universities through transformed strategies, so the universities can communicate in better manner (Corner *et al.*, 2005). The stakeholders (students, faculty, administration and alumni) are not efficiently connected to each other in MUET and there is gap in flow of information among them. In developing countries, CRM is showing its successful practices in HEIs.

2. Literature Review

This paper is all about the quality education at the HEIs. CRM is defined: CRM is the system software, process and the strategy to manage and to develop the interaction with the customers, such as current and prospective students, alumni, faculty and staff; and current and prospective donors.”

The report also stated that “In Higher Education Institutions (HEIs), Second most rapidly changing core system area is the CRM systems.”(2014-2015 State of CRM Use in Higher Education Report AACRAO).

2.1. Benefits of Modern Technology (CRM Component)

Through the technology (Information System, ICT, CMS and MOODLE) HEIs can go through the effective education system. The technology is the main component of CRM, through which skilled human resources (faculty), can be produced and which will be helpful for the progress of the university as well as for the society. Technology will surely bring changes in the universities of Pakistan, for the improvement of the educational system.

Digital system increasing the connectivity of HEIs, by means of effective learning environment. In this sense Technology is much more strategic than using informal systems in educational institutions. HEIs using much more technological tools to support their students in educational practices. Institutions are interested to adopt a new technology but there is a lack of human resources and financial resources. Latest technology and its implementation is the need of teaching learning process in higher education. An established process of CRM can help to carry out fully online programs. Various elements of communication can be automatic and can speed up response time. New digital technologies make HEIs more predictable and they find new ways to communicate. Students in the HEIs wants to use new digitalized system for their departments. However, with increasing customer touch points, new challenges arise around with consistency.

Higher Education Institutions (HEIs) better realizes the significance of interactions with its customers (students, faculty members, alumni, donors, and staff members) and their strategic operations.

Hence the CRM in Education institution can rapidly and efficiently manage staff, faculty, administration and student information and later result in major progress in employees productivity, daily operations of departments and their collaboration and daily working processes.

2.2. CRM for Higher Education

CRM success is primarily a function of its three components: People and Process and enabling Technology. An educational institution gives more importance and creates better relationships with their customers (students, alumni, faculty members and staff members).

CRM provides a novel conceptual and structural framework for guiding various activities of institutions in Higher Education to attract and keep their customers.

Following are different ways through which all the customers of Higher Educational Institutions (HEIs) can get benefits by means of innovative access towards information and services:

- CRM provides the innovative web enable device, through which the customers (Students, alumni, faculty members, and staff members) access and keep informed in their campuses.
- The communication and instructional computing systems are faultlessly combined with Administrative systems.
- The higher education institutions are more interested to give best services to their customers. CRM have the ability to use its processes and tools to bring the whole institutions together around its customers.

2.3. Activities of Faculty and Administration Managed by CRM

With the help of CRM, institutions performing variety of their tasks and also authorize their faculty members to make quicker decisions.

- Information of faculty and department becomes digitalize and managed by CRM.
- Allow the faculty with current mobile features, to make them connected with students.
- With the CRM, Faculty management can updated their profiles, which will be included in the institutions database and will be easily accessible and informative for the customer in current and future times in all around the world.

2.4. Faculty CRM for HEIs

CRM connects the faculty with students any time to get information about coursework. The Faculty CRM is very helpful to manage the students by giving them online class information which is effective to guide the students and easily accessible for students as well as for the advisors. Faculty members can create the list of students for the schedules of meetings and help the students according to their registered course work.

Due to this internet portal component, the faculty members and advisors efficiently works and reduce the distance as well as time.

CRM is facing the issues which including human element, specially the stakeholders. Therefore the CRM is considered as the fruitful developing mechanism which fulfills the stakeholders desires. (Chreptaviciene, 2007). Furthermore, a solid need likewise exists with a specific end goal to demonstrate that how individuals carry on in distinctive areas with a specific concentrate on creating nations, while actualizing and working CRM framework (Chen and Popovich, 2003).

Subsequently, keeping in view the above mentioned gap in literary works, specific part of the examination displayed here is to uncover the real universe of CRM and increase a healthier understanding for a CRM venture achievement assessment, by bringing an enlightening methodology with a concentrate on the creating nation of Pakistan.

In Pakistan, the most important and competitive component of CRM is MOODLE(Technology), which is used in ISRA UNIVERSITY, ALLAMA IQBAL OPEN UNIVERSITY and IQRA UNIVERSITY.

It is also found that in MEHRAN UNIVERSITY few departments are getting advantage from MOODLE software like: Computer Science, MUISTD, Electronics and Telecommunication department.

Uses of MOODLE are:

- Outlining of Course
- Process of Evaluation
- Discussion media
- One plate form for learning
- Data up to date Always up to date
- Used anywhere, anytime from any device
- Support mostly in teaching learning process

The technology software, MOODLE is used for building of course work in HEIs. The administration give advices to their faculty members for uploading the course outlines and related material with the course to help their students in advance before starting of semester. This advance uploading of course becomes very effective for the quality of course content. (Sanchez and Hueros, 2010).

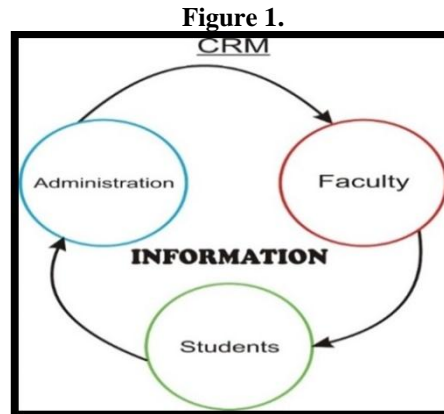
The content developer is the person who manage the MOODLE and upload all the recommended course outlines with related notes and material. The moodle is handled by the authorized person, who can do the adjustments and addition while uploading the relevant material of the course. The authorized person is said as administer. The performance of the students in class also evaluated by means of moodle. The administer upload the assignment topics with submission method and with last date for the students in the start of the semester (Carolina and Helena, 2012). This plate forum produce easy learning and make strong communication among students and the teachers, the discussion takes place and students ask questions about the topic from teachers as well as with their group fellows in their moodle software. (<http://moodle.org/Mar2012>).

2.5. CRM Adoption in Higher Education

Now a days the students have complained about the services provided to them in their educational institutions. Students expectation are increasing from HEIs to be competitive and successful in their educational fields. Therefore it is important for the HEIs to satisfy their stakeholder by continuous improvement in their services. The facilities for the faculty members in HEIs is needed to improve the role of faculty members to fulfills the requirements of students in their academic sessions and can satisfy them. The students have many options in this competitive era, so the higher education institutions, wants a strong relationship with their stake holders. It is possible when HEIs invest in the CRM (People, Process and Technology) to attract, retain and satisfy the stake holders (Mosad, 2006).

3. Problem Statement: (Gap)

Now a days the advanced systems provide less value to the faculty members in HEIs, which is showing complete disconnection between students and instructional programs in many institutions of HEIs. This disconnect is often mirrored in the gap between administrative and academic computing. In this regard, of the new learning environment, faculty members and students are closely connected, dynamically distributing the resources and plans to facilitate student learning. The CRM is said to be the better connection and the bridge to overcome the gap between students and faculty members.



4. Research Objectives

1. To identify MUET Faculty problems related to transferring the knowledge effectively (information).
2. To analyze MUET faculty problems regarding the CRM in terms of People (Faculty members), Process (Digital system) and Technology (MOODLE).

Hypothesis: 1

Faculty of MUET have information system working ineffectively.

Hypothesis: 2

For effective work of Technology, trained faculty is needed for MUET.

5. Test for the Validity of Data

The test used for the validity of data is, CRONBACKS ALPHA test, is showing 0.780 value, which concludes that data is reliable and valid for the analysis purpose.

Table 1.

Cronbach's Alpha	No. of Items
.780	93

Table 2.

Goodness-of-Fit Tests ^{a,b}			
	Value	df	Sig.
Likelihood Ratio	61.178	17	.000
Pearson Chi-Square	58.277	17	.000
a. Model: Multinomial			
b. Design: Constant + gender + age + designation			

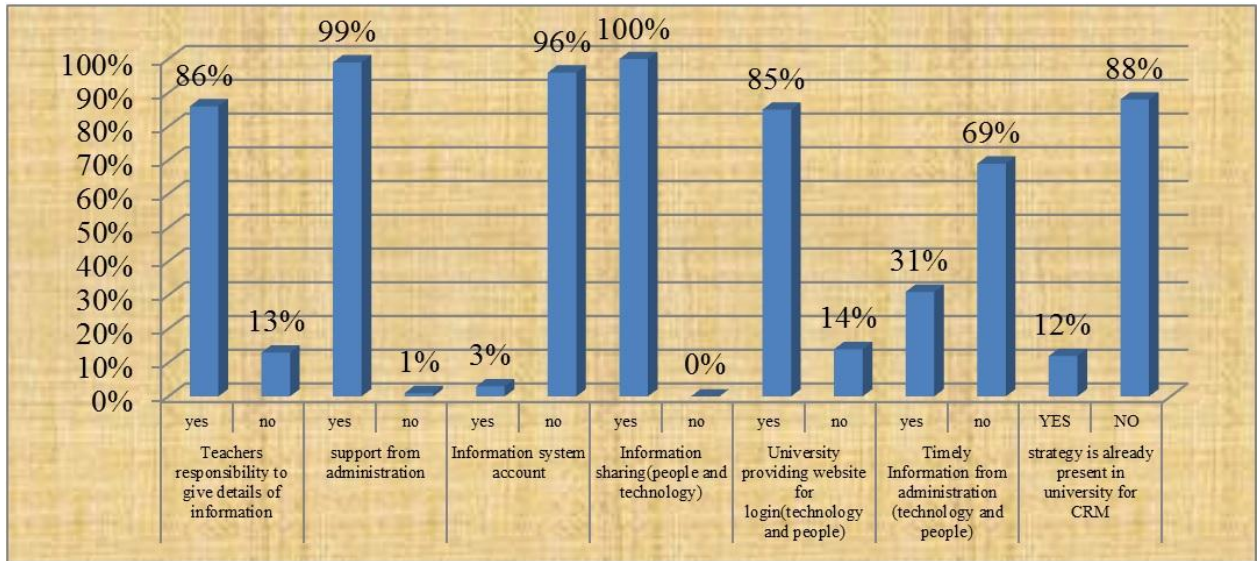
The test determine whether sample data are consistent with a hypothesized distribution. This test is applied when there is one categorical variable from a population. Likelihood ratio used to measure the diagnostic accuracy which is 61%. The values also showing that there is significant relationship between categorical variables. Chi square test determining the fit between observed and expected frequencies.

Table 3.

Cell Counts and Residuals ^{a,b}										
gender	age	Designation	Observed		Expected		Residual	Standardized Residual	Adjusted Residual	Deviance
			Count	%	Count	%				
male	20-29	Lecturer	10	12.3%	8.417	10.4%	1.583	.576	.827	1.857
		assistant professor	0	0.0%	3.399	4.2%	-3.399	-1.884	-2.243	.000
		associate professor	0	0.0%	1.295	1.6%	-1.295	-1.147	-1.292	.000
	30-39	Lecturer	20	24.7%	15.899	19.6%	4.101	1.147	1.739	3.030
		assistant professor	1	1.2%	6.421	7.9%	-5.421	-2.229	-2.871	-1.928
		associate professor	1	1.2%	2.446	3.0%	-1.446	-.939	-1.155	-1.337
	40-49	Lecturer	3	3.7%	7.482	9.2%	-4.482	-1.720	-2.452	-2.342
		assistant professor	10	12.3%	3.021	3.7%	6.979	4.092	4.831	4.893
		associate professor	2	2.5%	1.151	1.4%	.849	.797	.889	1.487
	50-59	Lecturer	3	3.7%	6.079	7.5%	-3.079	-1.298	-1.836	-2.058
		assistant professor	6	7.4%	2.455	3.0%	3.545	2.298	2.679	3.275
		associate professor	3	3.7%	.935	1.2%	2.065	2.148	2.360	2.645
female	20-29	Lecturer	8	9.9%	3.139	3.9%	4.861	2.799	3.280	3.869
		assistant professor	0	0.0%	1.267	1.6%	-1.267	-1.135	-1.226	.000
		associate professor	0	0.0%	.483	0.6%	-.483	-.697	-.731	.000
	30-39	Lecturer	7	8.6%	5.928	7.3%	1.072	.457	.574	1.525
		assistant professor	3	3.7%	2.394	3.0%	.606	.397	.447	1.163
		associate professor	2	2.5%	.912	1.1%	1.088	1.146	1.243	1.772
	40-49	Lecturer	0	0.0%	2.790	3.4%	-2.790	-1.700	-1.977	.000
		assistant professor	1	1.2%	1.127	1.4%	-.127	-.120	-.129	-.488
		associate professor	0	0.0%	.429	0.5%	-.429	-.657	-.687	.000
	50-59	Lecturer	1	1.2%	2.267	2.8%	-1.267	-.853	-.981	-1.279
		assistant professor	0	0.0%	.915	1.1%	-.915	-.962	-1.028	.000
		associate professor	0	0.0%	.349	0.4%	-.349	-.592	-.615	.000
a. Model: Multinomial										
b. Design: Constant + gender + age + designation										

6. Three Components of CRM: People, Process and Technology

Figure 2.



According to research objectives, in Yes, No responses by faculty members, by considering the factors of CRM, the graph shows that the faculty members (respondents as people) are agree to share the information with the shareholders, and they need support from administration. The respondents replied that they have no CRM strategy (process) and they have no official information system accounts (Technology).

Figure 3.

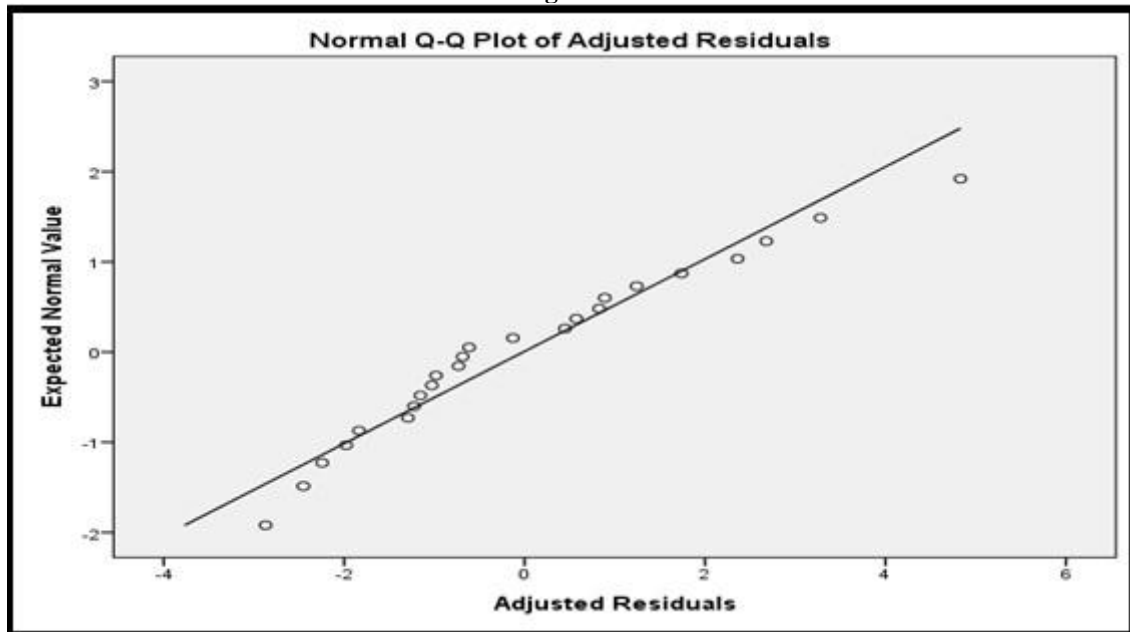


Table 4.

Parameter Estimates ^{c,d}						
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Parameter	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Constant	-1.053 ^a					
[gender = 1.00]	.986	.250	3.949	.000	.497	1.476
[gender = 2.00]	0 ^b	.	.	.	.	.
[age = 1.00]	.325	.364	.894	.371	-.388	1.039
[age = 2.00]	.961	.326	2.948	.003	.322	1.601
[age = 3.00]	.208	.373	.556	.578	-.524	.939
[age = 4.00]	0 ^b	.	.	.	.	.
[designation = 1.00]	1.872	.380	4.929	.000	1.128	2.616
[designation = 2.00]	.965	.415	2.323	.020	.151	1.779
[designation = 3.00]	0 ^b	.	.	.	.	.
a. Constants are not parameters under the multinomial assumption. Therefore, their standard errors are not calculated.						
b. This parameter is set to zero because it is redundant.						
c. Model: Multinomial						
d. Design: Constant + gender + age + designation						
The parameters are (gender, age & designation). The gender (male) category is showing the value .000 which is significance and <0.05. In the age category which is 30-39 showing the significance value 0.003<0.05. The designation category showing the (1.lecturers and 2.associate professors) which are significance .000 and 0.020<0.05.						

Table 5.

Correlations of Parameter Estimates ^{a,b,c}						
	[gender= 1.00]	[age= 1.00]	[age= 2.00]	[age= 3.00]	[designation = 1.00]	[designation = 2.00]
[gender = 1.00]	1	.000	.000	.000	.000	.000
[age = 1.00]	.000	1	.648	.566	.000	.000
[age = 2.00]	.000	.648	1	.632	.000	.000
[age = 3.00]	.000	.566	.632	1	.000	.000
[designation = 1.00]	.000	.000	.000	.000	1	.792
[designation = 2.00]	.000	.000	.000	.000	.792	1
a. Model: Multinomial						
b. Design: Constant + gender + age + designation						
c. Constants and redundant parameters are not displayed.						

The parameters are (gender, age & designation). It is showing that there is correlation among the three parameters age, gender and designation as the value of 1 is in the table. It is showing that the age categories are correlated as the values are 0.648,0.566,0.632. The designation 1. and 2. Parameters are showing the values 0.792 which are co-related.

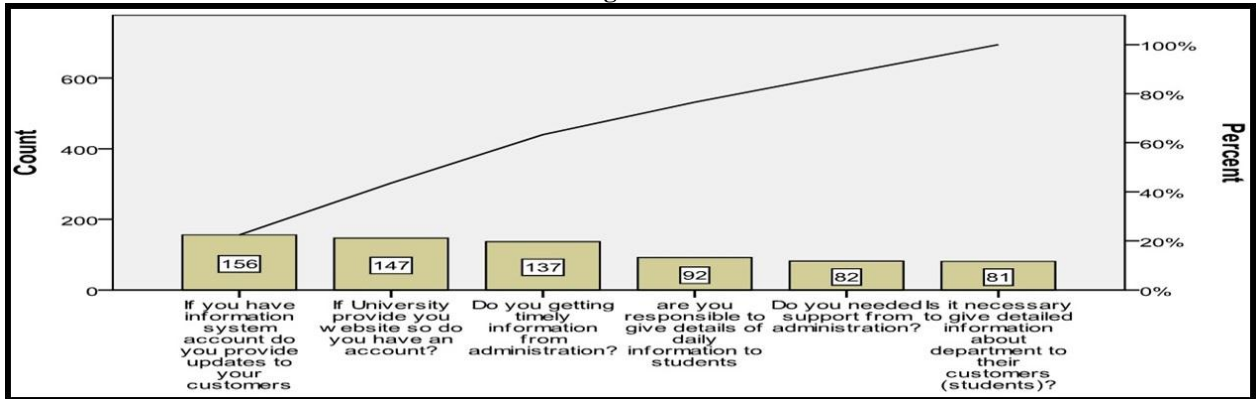
7. Pareto Test For Recognizing Problems to be Sort Out

7.1. Objective 1 (Lack of Communication)

This test is used to find the problem which is to be solved at first, the other problems will automatically solved. The objective 1 is showing the communication gap where the information from administration is not reached properly towards faculty and the faculty members are facing problems related to transfer of information towards the students. In this regard, the faculty members do not have official e.mail accounts from the university where they can update their data and remain in contact with administration and students.

It is clear from the graph, that if the faculty members have official e.mail accounts, they can remain in contact with the administration and the students any time & automatically other problems will be sortout.

Figure 4.

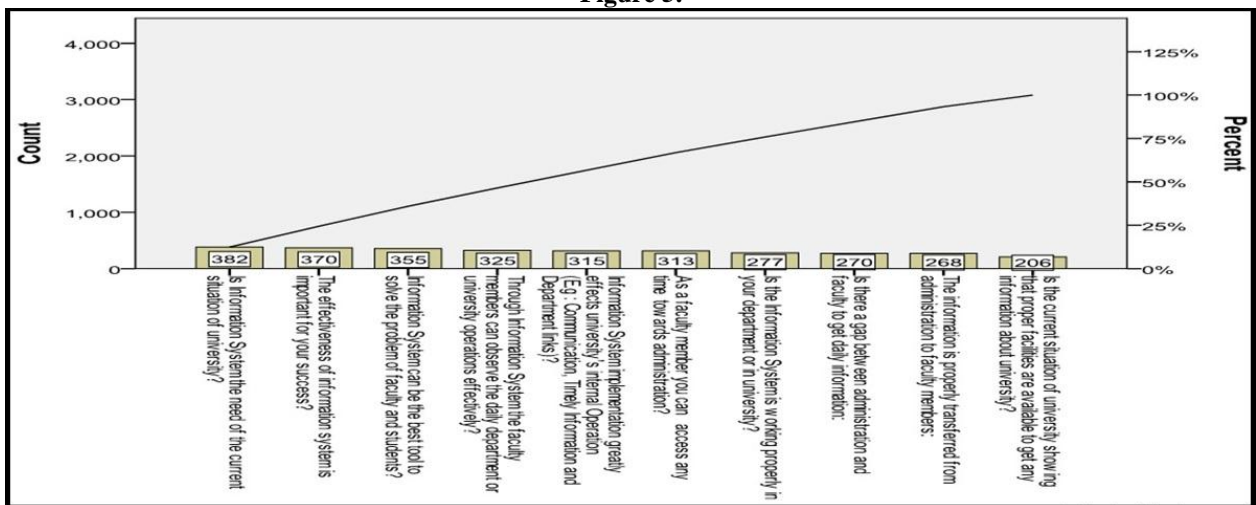


7.2. Objective 2

7.2.1. Problems Regarding CRM: (People, Process & Technology)

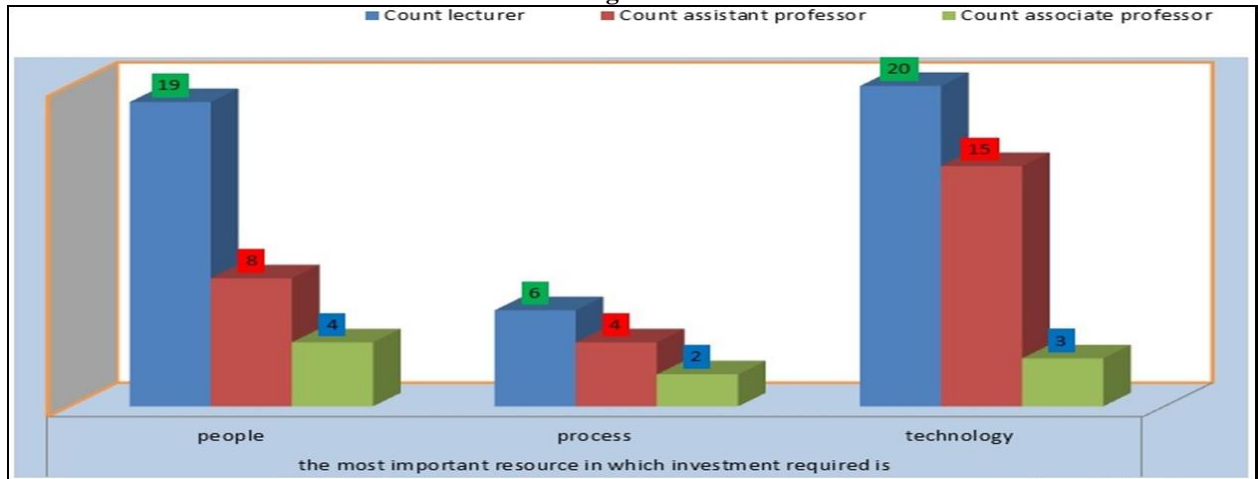
Technology should be based on how well the institutions better utilize it for students and institutions (Daradouis, 2010). One of the most effective ways to change culture within the organization and to keep motivated is to continually provide training of employees (Yazdani et al., 2015). The countries should not only adopt changes but they should competitive in innovative ways by means of tools, policies, structure, and strategies in this Globalized arena. In the same way, education sector can utilize the innovative and well-designed methods especially the Higher Education Institutions (HEI) by using the CRM (Mehboob et al., 2012). In CRM, By focusing the technology component, which is information system, it must be effective for the edcational institutions, as it is the need of HEI to become successful and competative, the other problems will automatically sort out.

Figure 5.



7.2.2. Most Important Resource According to Faculty Members

Figure 6.

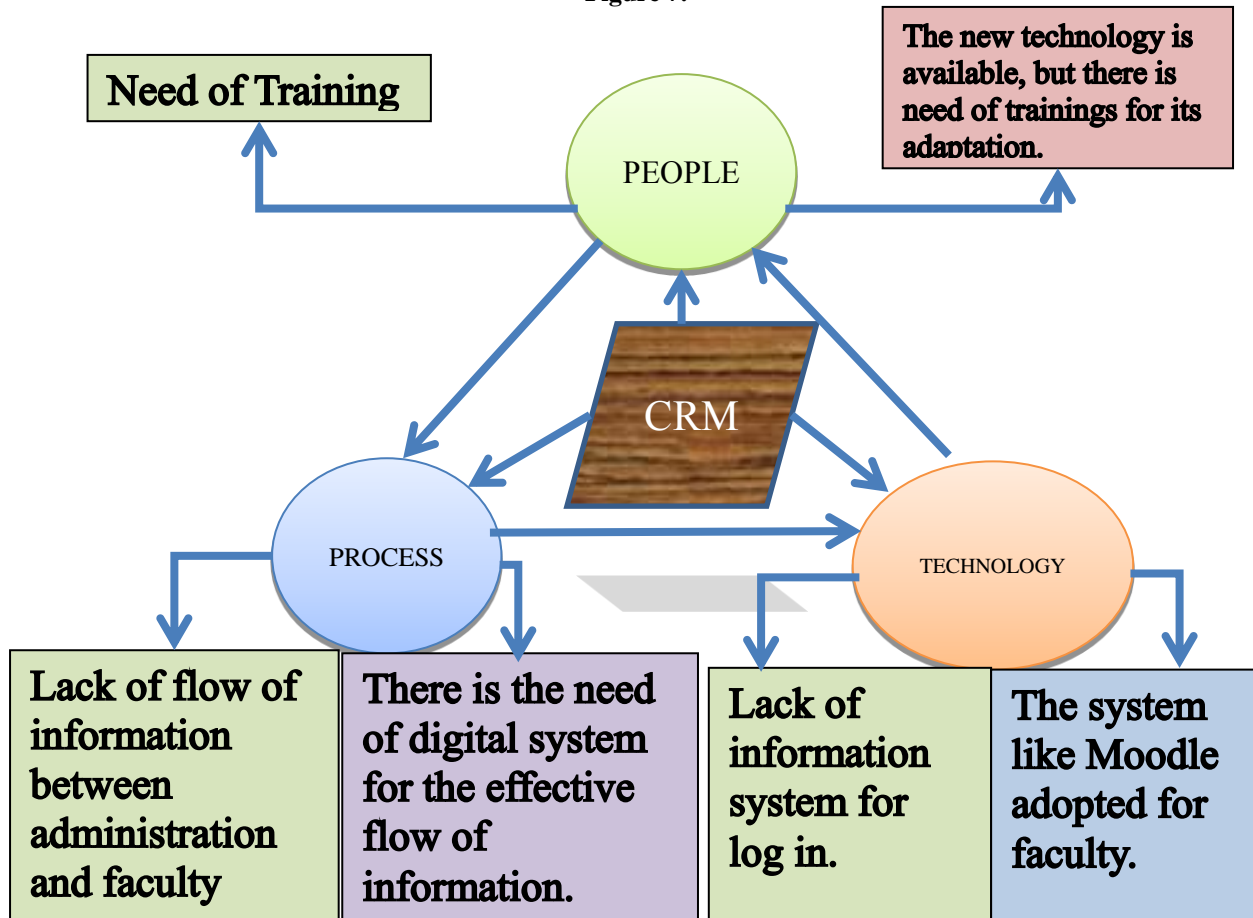


The response from the respondents (lecturer, assistant professor and associate professor) of the university is highlighted in the graph showing that Technology is the main factor of CRM in which investment is necessary to be more competitive in the modern world.

7.2.3. The Faculty Problems and Its Resolutions

The framework is recommended after the analysis and findings of the research, which can be very helpful to resolve the problems of faculty members by looking at the three factors of CRM (people, process and Technology) and presenting the solutions where the problem arises.

Figure 7.



It is found that the categories (people, process and technology) are the significant factors to be studied for the identification of the problems of faculty members at MUET. At HEI, technology factor of

CRM has a power to radically alter the nature of teaching and learning process. Efficient and effective use of technology helps HEI to increase students and faculty ratio and increase the competition as well. The Administration has to carefully plan about the better use and development of which the range of technology in their departments.

It is basically the bridge that connects the whole university for the competition and increasing the ranking of universities.

8. Key Findings of the Study

The article is based on to conquest in contradiction of faculty members the problems (lack of communication, lack of training, lack of e.mail account) by the effective and technical utilization of CRM as it is giving its solution by digitalizing the technological system, by giving training to faculty members, to focus on faculty members to activate their current e.mail accounts at HEIs (MUET). By focusing on the Technology, it is only the source which can effectively transform the teaching/learning procedures. The university administration has to plan carefully for the introduction, trainings and expansions of technology in the campuses of HEIs. By considering the process (strategy), in HEIs, there are many departments and very difficult to control all the activities at a time, therefor by CRM many task can be managed and enables the faculty members to make quick and up-to-date decisions which is better for the institutions.

In HEIs the information from Teachers (faculty members) in the departments can be digitalized and managed by means of CRM and becomes very helpful for the students as well as alumni. In this way the HEIs can satisfy the needs of current students, maintain good relationship with the alumni which is necessary for the universities to become competitive worldwide.

9. Limitations and Future Research

- Only one university (MUET) is under research.
- If more universities reached, so it will be more beneficial for future research.
- The findings and results are only taken by faculty members.
- In future research, the responses of administration and students can be included get comparative evidences from them.

10. Recommendations

By the findings and literature review, following recommendations and suggestions needed to provide the facilities to faculty members of MUET.

1. Old technology should be replaced with new technology.
2. Faculty should be trained for the utilization of modern technology.
3. For the modern Technology use, only faculty should not be consider but administration as well as students must be focused and Information culture should be adopted in university.
4. There should be student, teachers interaction forums (MOODLE) in the university for proper interaction between students and teachers.

11. Conclusion

- This research paper is discussed on the three main components of CRM (People, Process and Technology) by considering the case study of MUET (Mehran university of Engineering & Technology) in which faculty members problems are highlighted.
- The research results found the gap of information within university, which is not effectively transferred towards students.
- It is found that the technology implementation is not the resolution.
- It is concluded that it is better to adopt the new technology instead of technology implementation.
- For this the faculty should be trained and with the help of top management the culture of technology adopted.

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