EVALUATING PERCEPTION OF COMMERCE DEGREE COLLEGE COURSE INSTRUCTORS TOWARDS ICT USING CBAM-STAGES OF CONCERN FRAMEWORK

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Abstract

This paper attempts to gain an insight into the perception of commerce degree college course instructors towards integrating ICT in their respective curriculum. To understand their perception CBAM-Stages of Concern framework is adopted since it is a rigorously tested and validated tool to measure perception towards implementation of technology/ innovation in an education quantitatively. The data was collected by administering a questionnaire based on CBAM-Stages of Concern (SoC) consisting of 35 items ranging from 7 stages of concern. The data was analysed based on the percentile score method as suggested in the SoCQ manual. The results show that a whopping 72% of the respondents belong to Stage 0, that is, they are aware about the ICT enabled teaching-learning tools and process but they are least involved in it. The study suggests that there is a need to have effective training programmes to disseminate the use of ICT tools among the course instructors of Commerce degree colleges. Besides further study encompassing various angles are required to design the effective interventional strategies.

Introduction and Theoretical Framework

In past few years, Information and Communication (ICT) has expanded its reach in every imaginable field. All this has become possible due to rapid advancement in computer hardware and software developments, their corresponding market availability at reasonable prices and their easy accessibility to a large chunk of population. ICT has also proved to be boon in disguise as it has given a much-required boost to the working of every sector it has entered in terms of low operational costs, increased efficiency and accuracy and easy scalability and adaptability.

The positive impact of integrating ICT in education is also a no hidden fact. Several research studies (Moursund, 2005, Yusuf, 2000) have highlighted this positive aspect of integrating ICT in academic curriculum. The most common benefits include better learner engagement, better retention due to use of interactive elements/ tools and many more. However, this integration comes at a cost especially the cost of implementation in an educational organization. Besides selecting an appropriate mix of ICT tools considering the nature of courses offered or requirements of learners is also equally important.

Higher education sector is one of the prominent and fastest growing sectors in India. Institutions like NAAC, AICTE, etc. strive to maintain the quality norms among institutions working in the higher education sector. With a view to enhance quality of teaching in HEIs, implementation of ICT based tools in teaching-learning process is highly emphasized by National Assessment and Accreditation Council (NAAC) among all accredited Higher Education Institutions (HEIs) in India. The revised Assessment and Accreditation (A&A) framework of National Assessment and Accreditation Council (NAAC) launched in July 2017 has also emphasized on use of ICT enabled tools in teaching-learning process by incorporating various modes like smart classroom, Learning Management System (LMS), etc.

This sudden shift of focus from traditional blackboard teaching to ICT enabled teaching has certainly opened up several avenues for positive developments in quality of course content delivery. However, the course instructors are still an integral part of course content delivery. In implementation of any new change, the most important yet ignored factor is the human element since they are the facilitators for effective implementation. Every human has different sets of attitude, belief and perception that ultimately affects the implementation process of any change or innovation. Hence it is of prime importance to understand their take on this new policy development in the area of higher education.

In this research, an attempt has been made to assess the perception among course instructors of Commerce degree colleges (affiliated to the University of Mumbai) of Navi Mumbai in towards integrating ICT enabled teaching-learning tools in their pedagogy.

Objectives of the study

The following objectives have been the guiding points of this research:

1. To assess the perception of course instructors of Commerce degree colleges (affiliated to the University of Mumbai) of Navi Mumbai in towards integrating ICT enabled teaching-learning tools in their pedagogy.
2. To provide recommendations based on the findings of the study.

Research design

Data used

The study has incorporated both primary as well as secondary data.Primary data has been collected with the help of well-structured questionnaire. Secondary data has been used to finalize the research framework. Secondary data has been sourced from various journal articles and authentic websites.

Questionnaire and sampling

A questionnaire was used as a data collection tool. The questionnaire was sourced from CBAM – Stages of Concern component. The questionnaire was administered to 100 faculty members teaching in various Commerce degree colleges (affiliated to the University of Mumbai) in Navi Mumbai area.

Concerns Based Adoption Model (CBAM)

The study is specifically based on the Concerns Based Adoption Model (CBAM). There are many methods which are used to measure the change in response to technological innovation. However they have been found short in their inclusiveness and the used instruments, as they have not been found suitable to cover wider aspects*(Matar, 2015)*.Then came another model attempting to measure the response to implementation of an innovation or change – the Concerns Based Adoption Model (CBAM). This model is based on 3 diagnostics dimensions viz., Stages of Concern (SoC), Levels of Use (LoU) and Innovation Configurations (IC). The three diagnostic dimensions of the Concerns-Based Adoption Model (CBAM) provide tools and techniques that enable leaders to gauge staff concerns and program use in order to give each person the necessary supports to ensure success*(sedl.org, 2019)*.
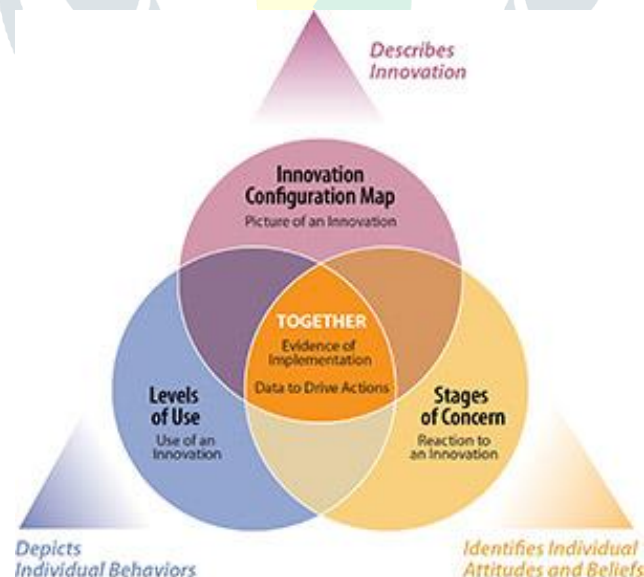.

Figure 1: CBAM 3 Diagnostic Dimensions [SEDL]

The three components of CBAM's diagnostic dimensions can be elaborated below (sourced directly from SEDL website):

- **Stages of Concern:** The Stages of Concern process, which includes a questionnaire, interview, and open-ended statements, enables leaders to identify staff members' attitudes and beliefs toward a new program or initiative. With this knowledge, leaders can take actions to address individuals' specific concerns.

- **Levels of Use:** The Levels of Use interview tool helps determine how well staffs, both individually and collectively, are using a program. Levels range from non-use to advanced use. When combined with the Innovation Configuration and first-hand observations, this information can help staff effectively implement a new program.
- **Innovation Configurations:** An Innovation Configuration Map provides a clear picture of what constitutes high-quality implementation. It serves as an exemplar to guide and focus staff efforts.

Since the purpose of the study is to assess the perception of course instructors, the study is going to utilise only the first diagnostic dimension of the model, i.e. Stages of Concern (SoC). As per the model, there are seven Stages of Concern ranging from 0 to 6 *(refer table 1).*

Table 1: Seven SoC in CBAM (Matar, 2015)

SELF	Stage 0: Unconcerned (Awareness)	The person shows slight concern about his involvement with the innovation.
	Stage 1: Informational	The person shows an overall awareness towards the innovation and has more curiosity to learn additional details about it. In this stage, the person is more relaxed about himself in relation to the innovation. Any interest is considered objective and in practical aspects of the innovation, such as its general characteristics, effects, and requirements for use.
	Stage 2: Personal	The person is unclear about the demands of the innovation and his capability to meet those demands and to define his role with the innovation. He is mainly analyzing and defining the relationship to the reward structure of the organization, in order to determine his role in decision making, and considering possible encounters with current structures or personal commitment. Other concerns in this stage can also involve the economic or status inferences of the program for the user and his colleagues.
TASK	Stage 3: Management	The person focuses on the procedures and tasks of using the innovation and the superlative use of information and resources. Moreover, there are considerations for Issues related to efficacy, organizing, managing, and scheduling.
IMPACT	Stage 4: Consequence	The person focuses on the innovation's effect on students in his direct domain of influence. Reflections include the significance of the innovation for students; the assessment of student outcomes, including performance and abilities; and the changes needed to advance student outcomes.
	Stage 5: Collaboration	The person focuses on organizing and collaborating with others concerning use of the innovation.
	Stage 6: Refocusing	The person focuses on exploring ways to gain more widespread benefits from the use of the innovation, with the opportunity of making major changes to it or replacing it with more powerful alternatives.

The Stages of Concern was developed as part of the Concerns-Based Adoption Model in the 1970s and 1980s by a team of researchers at the Research and Development Centre for Teacher Education, the University of Texas at Austin. Since its development, researchers have tested CBAM for reliability and validity; in 2006, it was updated to ensure its reliability *(sedl.org, 2019).*

Data Analysis and Interpretation

The data for SoC is collected by a 35 item questionnaire and the same has been used for this study as suggested in the manual. The raw score of each respondent was converted into percentile scores as suggested in the manual to understand the relative importance that every respondent has towards the seven Stages of Concern. After computing percentile scores for each stage of concern, the highest peak percentile score was identified along with the corresponding SoC for each respondent*(refer table 2).* A percentage analysis was done to find the highest peak percentile score for the entire data to identify the SoC that includes the highest percentage of respondents *(refer table 3).*The results show that most of the respondents (72%) belong to Stage 0 (Unconcerned/Awareness) i.e. highest number of respondents are aware about the ICT enabled teaching-learning tools but show least involvement in its implementation. The second highest SoC, with a measly 13% respondent is Stage 3 (Management Concern) which indicates that course instructors are using ICT tools in the routine manner just because they were instructed to use. Again it

shows a lack of motivation to inculcate the ICT tools in pedagogy. The third highest SoC (8%) is Stage 1 (Informational concern) which indicates the desire of the course instructors to have more knowledge regarding integration of ICT enabled tools so that they can make an informed decision. The fourth highest SoC (4%) is Stage 2 (Personal concern) indicate that course instructors are concerned as to what extent it is going to add value to them or their personal growth. Stage 6 (Refocusing) is the highest peak score SoC for mere 3% of respondents indicating very few course instructors are actually thinking of further exploring the potential of integrating ICT enabled tools in pedagogy. The Stage 5 (Collaboration) (0%) is not the peak score SoC for any respondent.

Table 2: Highest Percentile Score of each respondent and its corresponding Stage of Concern
Source: Field Study

Resp.	Percentile Score	Corres. SoC	Resp.	Percentile Score	Corres. SoC	Resp.	Percentile Score	Corres. SoC
1	97	PS_0	35	88	PS_1	69	99	PS_0
2	99	PS_0	36	69	PS_0	70	94	PS_0
3	87	PS_0	37	75	PS_0	71	98	PS_0
4	87	PS_0	38	97	PS_0	72	94	PS_2
5	99	PS_0	39	99	PS_0	73	97	PS_0
6	87	PS_0	40	99	PS_0	74	91	PS_0
7	99	PS_0	41	99	PS_0	75	96	PS_0
8	97	PS_0	42	88	PS_3	76	94	PS_0
9	97	PS_0	43	87	PS_2	77	92	PS_3
10	99	PS_0	44	88	PS_1	78	75	PS_0
11	98	PS_0	45	72	PS_1	79	99	PS_0
12	77	PS_3	46	97	PS_0	80	95	PS_3
13	85	PS_3	47	97	PS_0	81	92	PS_3
14	99	PS_0	48	96	PS_0	82	99	PS_0
15	99	PS_0	49	81	PS_0	83	97	PS_0
16	99	PS_0	50	99	PS_0	84	99	PS_0
17	99	PS_0	51	92	PS_3	85	99	PS_0
18	91	PS_0	52	92	PS_6	86	77	PS_3
19	91	PS_1	53	99	PS_0	87	99	PS_0
20	84	PS_6	54	91	PS_0	88	90	PS_1
21	75	PS_1	55	94	PS_0	89	99	PS_0
22	91	PS_0	56	94	PS_3	90	99	PS_0
23	69	PS_0	57	81	PS_0	91	91	PS_0
24	94	PS_0	58	99	PS_0	92	91	PS_0
25	96	PS_0	59	99	PS_0	93	94	PS_0
26	91	PS_0	60	96	PS_0	94	98	PS_0
27	99	PS_0	61	81	PS_0	95	94	PS_3
28	87	PS_6	62	89	PS_2	96	98	PS_0
29	91	PS_0	63	85	PS_3	97	85	PS_2
30	99	PS_0	64	80	PS_1	98	99	PS_0
31	97	PS_0	65	99	PS_0	99	99	PS_0
32	90	PS_3	66	99	PS_0	100	99	PS_0
33	85	PS_3	67	99	PS_0			
34	93	PS_1	68	99	PS_0			

Table 3: Highest Stage of Concern
Source: Field Study

Stages of Concern	Frequency	Percentage (%)
Stage 0	72	72.00
Stage 1	8	8.00
Stage 2	4	4.00
Stage 3	13	13.00
Stage 4	0	0.00
Stage 5	0	0.00
Stage 6	3	3.00
Total	100	100.00

Recommendation and scope for further study

Since the highest number of respondents have come under Stage 0 (awareness), there is a strong need to create appropriate training programmes with an intent to motivate the faculty to use the tools effectively in classrooms. It is also recommended to address the personal and management concerns to further improve the perception of course instructors towards integrating ICT enable tools in teaching-learning process. To refine the analysis and give even precise recommendations, further study is also required to understand the factors that affect adversely to their involvement with ICT. Understanding impact of demographic variables on the perception of course instructors will also give an interesting dimension to the study. It will also be interesting to examine whether the perception is only among course instructors in Commerce degree colleges or it is common across all disciplines.

Conclusion

Overall, the perception of course instructors in Commerce degree colleges is mostly negative which is evident from their SoC profiles. This shift is matter of great concern as the human element which is supposed to act as a facilitator of this new policy change seem to be reluctant or disoriented towards this shift. Effective and precise interventional strategies need to be devised to ensure that this perception is changed into positive outlook because without the change in the perception of course instructors, it is impossible to ensure effective integration of ICT enabled teaching-learning in higher education scenario.

Limitations of the Study

1. Sample size of 100 respondents is assumed to be sufficient for conducting the research.
2. The study is restricted to course instructors of commerce degree colleges (affiliated to University of Mumbai) in Navi Mumbai only.

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