Journal of System Management (JSM)
Online ISSN: 2538-1571, Print ISSN: 2322-2301
Doi: 10.30495/jsm.2022.1944405.1569
8(1), 2022, pp. 111-126

Received: 07/11/2021
Accepted: 10/04/2022

RESEARCH ARTICLE **Open Access**

Designing a People Capability Maturity Model among Faculty Members (Case Study: Islamic Azad University of Fars Province)

Maryam Mahdavi [1], Nader Sheikh al-Islami [2*], Narges Hassan Moradi [3], Narges Shukri [4]

Abstract

People capability maturity model (PCMM) is a framework to help develop the level of maturity and improve the field of human resources of organizations. The present study is conducted with the aim of designing and validating an indigenous PCMM for managers among faculty members of the Islamic Azad University of Fars Province. First, the initial indicators are extracted through literature review, then the interview questions are designed and approved by 3 experts. After that, semi-structured interviews are conducted with 17 faculty members who, in addition to having executive records over 5 years, also are assistant professors and above. The sampling method is purposeful snowball. Data analysis is done based on Strauss and Corbin grounded theory model in 6 paradigms of causal conditions, main phenomenon, intervening conditions, context, strategies and consequences. The results of data analysis obtained during 3 open, axial and selective coding processes lead to the extraction of 29 indicators and 98 components. Then, using the obtained variables, a questionnaire is designed and distributed among faculty members, and data are collected and indicators are ranked using confirmatory factor analysis, based on which an indigenous model is presented. Validity and fitting of the model is measured through structural equations using PLS software. The results of validation show that the model has a high validity. According to the discussions and conclusions, one of the research suggestions in increasing the maturity and capability of faculty members can be holding perpetual training courses for managers, which should be implemented by teachers who have a brilliant record in human resource management.

Key words: People Capability Maturity Model (PCMM), Management of Faculty Members, Indigenous Model, Islamic Azad University

Introduction

Today, the success of any organization depends on the proper allocation and use of tools, equipment, money, raw materials and human resources in its programs, and this will be possible if organizations can have individual and collective management skills, abilities and characteristics in line with organizational goals (Samimi, 2018). Universities are also an organization that has human resources, such as staff, students, and faculty members and attention to their empowerment causes their growth and promotion. The most important role of higher education is in training specialized personnel. Among the centers of higher education, Islamic Azad University with the aim of promoting the level of knowledge and culture of society, providing the specialized human resources needed by the country, using all teachers and professors in higher education,

[1.] Department of Educational Administration, North Tehran Branch, Islamic Azad University, Tehran, Iran
[2, 3.] Department of Management, North Tehran Branch, Islamic Azad University, Tehran, Iran
* (Correspond Author : n_sheikholeslami@iau-tnb.ac.ir)
[4.] Department of Public Management, Central Tehran Branch, Islamic Azad University, Tehran, Iran

creating a suitable environment for all-round activity of people in development, and the promotion of knowledge and research in the country and the expansion of higher education has been created in a way that can meet the society's thirst for knowledge (Abbospour, 2019). In universities, faculty members are one of the main components in the structure of the higher education system and the efficiency of the structure of the higher education system is achieved in the light of their capability and effectiveness as the main human resources in this structure; efforts to improve and enhance the status of faculty members will promote higher education, as one of the effective structures in the social, economic and cultural development of the country (Mohagheghzade, 2019). Azad University of Fars Province, as one of the vast and prominent provinces of the country, like other universities is no exception to this rule and following the reduction in the employment of new members and resources available for higher education, seeks to create and develop faculty members' growth programs. Although most of the faculty members of Fars Province Azad University are especially capable in their field of specialization, according to the evaluation documents of faculty members by the education department of this province, some of them have limited knowledge of learning theories and new teaching methods. Also, according to the fifth meeting of the Research Center of the National Program and Budget Organization, some issues such as financial instability and fluctuations in the work environment in Islamic Azad universities have reduced the motivation of some members and their lack of participation and coordination in most issues related to the university due to the limited number of students and the concentration of payments by the central organization. Abbospour (2019) believes that the lack of effective communication between faculty members and evaluation of the incomplete performance of some managers has been an obstacle to the effectiveness of these members. According to Faraskhah's speech at the Iran Population and Scientific Development Meeting (2019), the lack of optimal use of techniques and up-to-date technology by faculty members has prevented the continuous improvement and updating of their knowledge. Therefore, considering the mentioned challenges, increasing the capability and adapting to new conditions and interest in acquiring new specialties in faculty members in the Islamic Azad University of Fars Province seems necessary. This is because the incompetence of faculty members, as the most important people contributing to the education of young people and the specialized forces of society, has a significant impact on reducing the economy, cultural poverty and anonymity of individuals in society, as well as the lack of development of national and transnational social relations (Abbospour, 2019). In this regard, creating a regular and integrated approach to matters related to faculty members is the use of the model of people capability maturity model (PCMM) by managers. The main purpose of PCMM is to improve the capability of employees. . In general, the people capability maturity model is designed to achieve 4 goals in the development of an organization's workforce. 1- Developing individual capabilities and focusing on the skills needed by individuals to perform the activities of organizational units according to the human resource competencies. 2- Build workgroups and culture. 3- Motivation and management. 4- Forming and supplying workforce (Curtis and hafely, 2010). So far, many models have been proposed for people maturity, including Phillips model, Organizational excellence model, 34000 model and PCMM. Advantages of using this model compared to other models of human resources are its integrated nature and emphasis on the necessary actions of managers in the organization to increase the capability and achieve higher levels of maturity as well as the high efficiency of human resources (Jinglee, 2016). According to Vakaslahti (2018), for calculating and measuring the quantitative and qualitative criteria of the PCMM framework

nationally and internationally, more research and case studies should be conducted. Therefore, the need for an indigenous and regional model for faculty members for modern education, management and evaluation seems to be very important (Ferasatkhah, 2019). This is because according to the research records, existing capability maturity models are mainly originated from the literature and research from other countries and have been presented in fields other than universities. Also, the lack of an indigenous model specific to the Islamic Azad University of Fars Province to increase the maturity and capability of faculty members made the researcher to use a combined quantitative-qualitative method to design and validate the indigenous PCMM among faculty members of Fars Province Universities. In line with this issue, the research seeks to meet the following objectives:

- Identify the components and indicators of people capability maturity (PCM) among faculty members
- Prioritize the components and indicators of people capability maturity (PCM) among faculty members
- Provide an indigenous PCMM among faculty members
- Validate the indigenous PCMM among faculty members

Literature Review

Of the people maturity models, PCMM was first introduced in 1995 and directed human resource improvement programs at companies such as Boeing, Ericsson, Lockheed Martin, Novo Nordisk, and the Pentagon. This model is a blueprint for the design and implementation of human resource processes that continuously improve the human resource capabilities of the organization and is a framework to help organizations to develop the level of maturity and human resources. PCMM includes five evolutionary levels and each evolutionary level includes 22 process areas that consist of several goals and meeting these goals means establishing one of the important components of employees' capability. Each process context is described in terms of the actions that play a role in meeting the goals of that context. These measures describe the infrastructure and activities that have the greatest contribution to the effective implementation and institutionalization of the process. At level one, there are usually problems with retaining talented people, and even at this level, there is inconsistency in the actions of employees and the organization. At maturity level 2, which is called the managed level, the emphasis is on the manager paying attention to unit staff issues, such as support and coordinating committees, resource provision, performance management, skills development, and decision-making for rewards. The results of Shams Zare (2017) and Baradaran (2021) have shown that the priority for managers is to improve and mature the second level employees, i.e. the managed level, where the responsibility of employees towards their work is increased. At maturity level 3, the organization implements a framework in the area of expertise that forms the basis of the workforce structure at all levels of the organization. Each area of expertise is a component of a work structure, and the link between specialized processes describes how these structural components interact. This level includes participatory culture, workgroup development, competency-based procedures, career path, manpower planning, competency development, and competency analysis Curtis and Hefely (2010). The overall results of the research of Tortken (2014), Mosakhani (2020), Mohagheghzadeh (2019) and Titov (2016) showed that the human resource management system has provided applications and facilities that facilitate and support further performance of the main process areas in the second and third levels. However, Shekari (2013) does not consider the use of this model to be effective in the second and third levels. Evolutionary level 4 allows management to make more accurate predictions about future performance and make better decisions about the capability balance of employees involved or issues related to process

performance. In other words, this level includes organizational capability management, capable workgroups, competency integration, statistical performance management, competency-based assets, and internship. Finally, at level 5 (optimization), which includes continuous human resource innovation, continuous capability improvement, and being in line with organizational performance, the whole organization's attention is focused on continuous improvement. These improvements are made in the capability of individuals and workgroups, the performance of specialized processes, and the activities and affairs of employees. According to Suriga (2019) research, each evolutionary level of PCMM creates a unique change in the culture of the organization by equipping the organization with more serious measures to attract, nurture, organize and retain forces. However, Jing Li (2016) believed that in order for activities to be continuous, they need to be limited and systematic, and this in itself is an obstacle to change. In any case, the main goal of PCMM is to improve the capability of employees (Curtis and Hefely, 2010).

So far, many models have been proposed for people maturity, including Phillips model, Organizational excellence model, 34000 model and PCMM. Advantages of using this model compared to other models of human resources are its integrated nature and emphasis on the necessary actions of managers in the organization to increase the capability and achieve higher levels of maturity as well as the high efficiency of human resources (Amirkhani, 2016). Overall results of Kamalanabehan (2017) have shown that the newly developed people capability maturity scale (PCMS) is a reliable and credible scale for measuring the variables of organizational maturity, employee maturity, especially in the service industry. Also, because this model is based on the best practices in various fields, such as staff management, knowledge management and organizational development, it can be a good guide for organizations to improve management processes and improve the work environment (Raei dehaghi, 2019).

Method

In order to answer the questions raised in the introduction, the mixed exploratory method has been used. In this regard, qualitative data is first collected and then, based on the findings of qualitative data, quantitative data is collected and quantitative method is performed. The research method is also divided into two stages.

Qualitative part: to answer the first question in the qualitative part, the grounded theory is used, which is a kind of qualitative method. The reason for the use of grounded theory based on Strauss and Corbin (2019) model is that there is no hypothesis and theory is developed based on data. In this study, after analyzing the content of research literature and articles on the PCMM, interview questions are designed in a semi-structured manner based on the Curtis model (2002), and then validated by three faculty member experts (2 faculty members of human resource management, and 1 faculty member with managerial and executive positions). As the information required by the researcher in the form of questions is arranged in such a way that the interviewee responds in line with the researcher's goals, the interview time was such that the interviewee could freely share his/her opinion with the researcher. In the qualitative section, 17 interviews were conducted with faculty members, i.e. people with executive management backgrounds of 5 years and more, as well as assistant professors or higher academic rank, but the twelfth interview did not provide a new concept of data. However, to further ensure the adequacy of the sample size and achieve theoretical saturation, 5 more interviews were conducted and research literature was used and data were collected. Sampling was also done using purposeful snowball technique. Then, the data analysis was performed simultaneously with their collection based on the grounded theory technique with open, axial and selective coding processes.

Open coding is part of the data analysis process that deals with data fragmentation, naming, conceptualization, and categorization (Strauss and Corbin, 2019, p123). At this stage, the words that had the most semantic load were extracted and the process of removing duplicate codes and merging common concepts took place. In the axial coding stage, the categories created in the previous step were expanded based on 6 causal paradigms, the main phenomenon, the context, the intervener, the strategy and the consequence of the grounded theory model. Finally, in the selective coding stage, the axial categories are systematically linked to other categories and presented in the form of a framework. Findings and results were reviewed by 4 people (2 experts in the list of interviewees, 1 faculty member and 1 statistical analyst) and after some changes, the dimensions were validated and placed.

In the quantitative part, a researcher-made questionnaire was first prepared using 98 components and 29 indicators obtained in the qualitative stage (grounded theory), and was experimentally distributed among 21 people in the statistical sample. Components were reduced to 92 and indicators to 26. The statistical population of the study included all faculty members of the Islamic Azad University of Fars Province, which according to the latest statistics are 1668 people (N = 1668). Based on Cochran's formula, 350 samples were selected using relative stratified random sampling. Due to the use of factor analysis method, to ensure the sample size, the Kaiser-Mir-Olkin (KMO) sampling adequacy test was performed. Then, a questionnaire was distributed among the selected sample from the statistical population of faculty members and data were collected. To analyze the data and answer the second question, the quantitative method of factor analysis and structural equations in Smart PLS software was used and an indigenous model was presented. Finally, to answer the fourth research question, model fitting was used using the same software to validate the model.

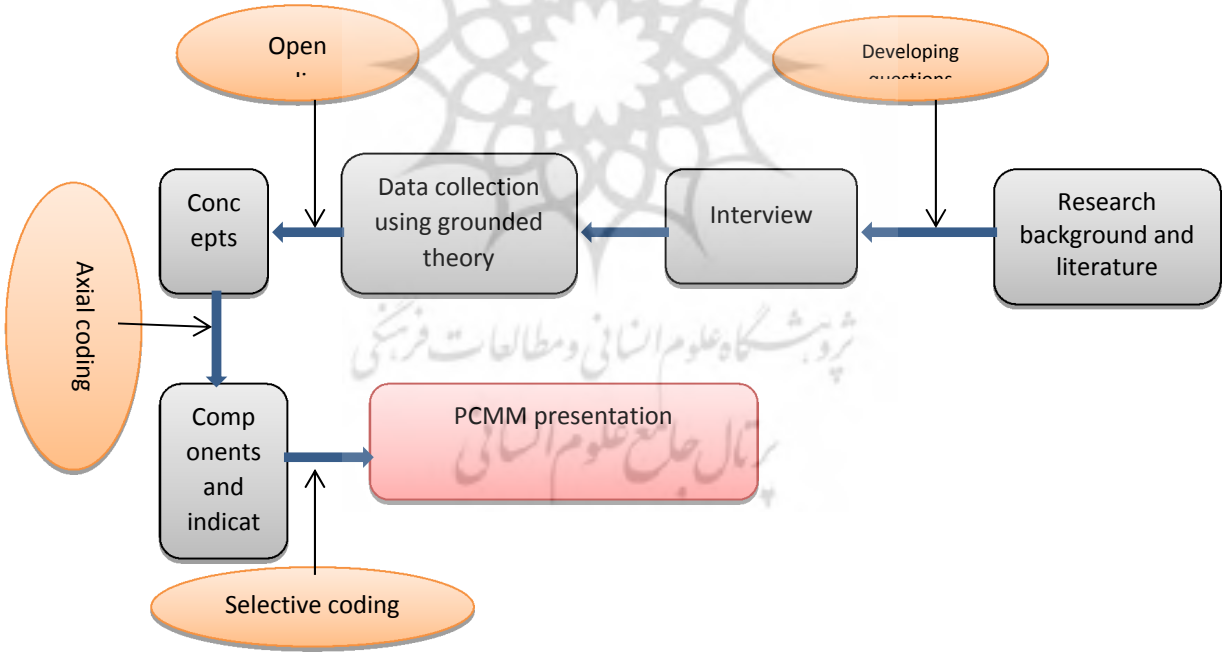

Figure 1. Methodology of qualitative section

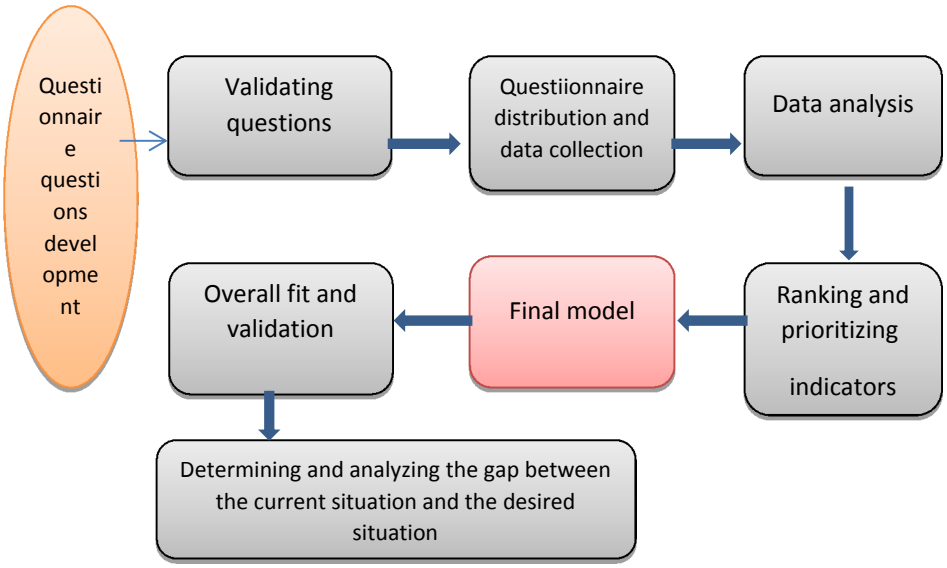

Figure 2. Methodology of quantitative section

Findings

Qualitative section (grounded theory): In this section, using three types of qualitative techniques of open coding, axial coding and selective coding, categories and components are extracted and then placed based on the Strauss and Corbin (2016) model. The Strauss model has 5 paradigms of causal conditions, contextual conditions, intervening conditions, strategies, and consequences, which revolve around the paradigm of the main phenomenon. In open coding, after line-by-line analysis, data were divided, labeled, conceptualized and categorized. Finally, 274 labeled concepts were extracted. In axial coding, the resulting concepts were grouped and then each group was subdivided into more abstract terms, i.e. category. At this stage, 98 components were identified. In selective coding, after studying the general and specific characteristics of the analytical notes of each category, the number of dimensions of 29 categories and their placement were obtained.

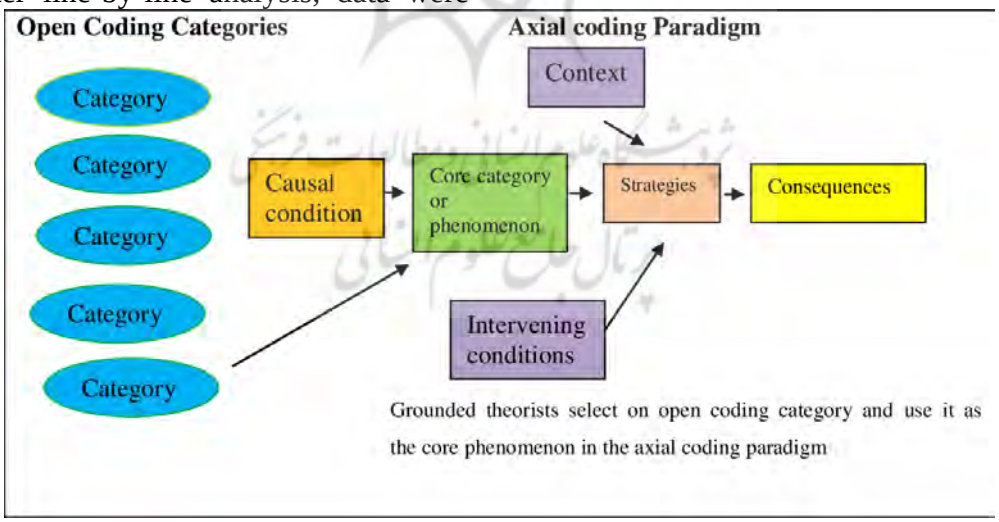

Figure 3. Strauss and Carbin paradigm model (Cresswell, 2012)

Causal conditions are factors that affect faculty members capability maturity.

Table 1.
Causal Conditions

Paradigm	Indicator (category)	Component (dimension)
Causal conditions	Environmental factors	Economic factors Technology Competitors Socio-cultural factors Socio-political considerations Demographics
	Organizational factors	University programs University payment ability Board of Directors and Central Organization Leadership Styles Organizational atmosphere and culture
	Occupational factors	Ability and expertise The amount of effort Work conditions
	Individual factors	Attitude Motivation Job satisfaction Job fit with people's personality

Intervening conditions: The occurrence of these factors strengthens or neutralizes management factors in managers. These situations often arise from unexpected and accidental situations that need to be addressed through interaction.

Table 2.
Intervening Conditions

Paradigm	Indicator (category)	Component (dimension)
Intervening conditions	Communications and its disruptive factors	Formal communication Informal communication Filtering (information manipulation) Selective perception Lack of alignment of informal network goals with the organization
	Management style	Art management Scientific management Financial management Branch management (decentralized)
	Participation and working groups	Organizing meetings Collective decision and agreement Participation of members in the work
	Ethical Leadership	Trust between members and managers Having justice Having courage Collective interests take precedence over personal interests Preservation of values Respect to members Fixed-vote manager Work commitments of managers
	Application of total quality management	Creating a competitive advantage Raising the quality level of members' performance

Contextual conditions: These are general and broad conditions that affect the development or limitation of the phenomenon.

Table 3.
Contextual Conditions

Paradigm	Indicator (category)	Component (dimension)
Contextual conditions	Allocation of resources and facilities	Use of appropriate technology and computer Equipment Space and physical conditions of the environment Internet and access to databases
	Time	Managing working hours Enough time for research
	Information and knowledge management	Collecting and maintaining specialized information Proper distribution and transfer of knowledge and information Preparation of information
	Order	Establishing order

Strategies: are strategic interactions of intentional actions that are performed by managers and faculty members to solve a problem and a phenomenon is formed by their occurence.

Table 4.
Strategies

Paradigm	Indicator (category)	Component (dimension)
Strategies	Planning	Educational performance Research performance Executive performance Cultural performance Decision making budgeting
	Organizing	Division of labor between forces and number of forces Organizing based on the type of activity Organizing based on expertise and skills Analysis of specialties
	Coordination and communication	Coordination between members Coordination between members and managers Coordination between the executive directors of the departments Coordination with the central organization Cooperation of members System discipline
	Monitoring and performance evaluation	Performance evaluation Monitoring based on feedback Monitoring on the basis of individual correction
	Delegation of authority	Assigning responsibility to other members
	Human resources management	Faculty member development In-service training Recruitment and supply of manpower

Paradigm	Indicator (category)	Component (dimension)
		Payment system Career advancement
	Statistical performance management	Measuring the performance ability of members Performance analysis and results

Consequences: are the results of doing or not doing a certain action in response to a problem or to maintain a position taken by managers and faculty members.

Table 5.
Consequences

Paradigm	Indicator (category)	Component (dimension)
Consequences	Make and implement changes	Make changes over time
	Promotion of faculty members	Qualification and promotion Position and post
	Continuous improvement of members' abilities	Growth of skill level Growth of expertise Increase the ability for specialized processes Competency analysis and development Ready to make changes
	Improve innovation	Presenting practical and useful plans and articles in the community Take innovative measures Create continuous innovation in employees Creativity in affairs
	Motivate	Raising work ethic
	Increasing the value and development of human resources	Job improvement Respect for members

Quantitative part: In this stage, to answer the second question of the research, after preparing a questionnaire using the components and indicators of the previous stage and confirming its validity and reliability, the number of components was changed to 92 components and 26 indicators. After data collection, using statistical method of factor analysis in accordance with the structural equation technique in PLS software, the coefficients of components and their significance have been studied based on t-statistic in order to find the ranking of the main indicators based on 6 paradigms of Strauss and Corbin model. The results of the table include three coefficients of "path coefficient", "Z value" and "coefficient of determination", which were obtained with the help of these three statistics.

Table 6.
Results of research structural model

Paradigm	Indicator based on priority	Beta coefficient	T-statistics	R^2 coefficient
Causal conditions	Organizational factors	0.58	7.03	0.34
	Occupational factors	0.53	5.34	0.28
	Environmental factors	0.52	5.89	0.27
	Individual factors	0.52	4.51	0.20
Intervening conditions	Communications	0.55	6.65	0.30
	Participation	0.52	4.73	0.27
	Management style	0.51	5.84	0.26

Paradigm	Indicator based on priority	Beta coefficient	T-statistics	R^2 coefficient
	Ethical leadership	0.49	5.37	0.24
	Total Quality Management	0.25	3.38	0.12
Contextual condition	Data management	0.59	6.59	0.35
	Resource allocation	0.54	5.20	0.29
	Order and discipline	0.59	6.59	0.35
Main phenomenon	People capability maturity	0.54	5.20	0.29
Strategies	Planning	0.49	5.21	0.24
	Human resources management	0.66	8.49	0.44
	Organizing	0.67	7.07	0.45
	Coordination and communication	0.56	4.76	0.31
	Control and monitoring	0.56	6.57	0.31
	Delegation and authority	0.54	4.84	0.30
	Statistical performance management	0.51	3.73	0.26
Consequences	Motivation	0.59	7.03	0.34
	Improving innovation	0.58	6.43	0.34
	Increasing value and development	0.49	4.15	0.26
	Changes	0.48	4.62	0.23
	Continuous improvement	0.42	4.27	0.18
	Promotion of faculty members	0.37	3.69	0.14

The results of beta coefficient have shown that in the paradigm of causal conditions, the indicators of organizational factors, job factors, environmental factors and individual factors have priority. In the paradigm of intervening conditions, the indicators of communication, participation, management style, ethical leadership and management of total quality are of priority, respectively. In the contextual paradigm, the indicators of information management, resource allocation, and discipline take precedence, respectively. In the paradigm of strategies, the order of priority of the indicators is as follows: planning, human resource management, organization, coordination and communication, control and supervision, delegation and authority, statistical performance management. Finally, in the consequences paradigm, the order of prioritization of indicators in the software was determined as follows: motivation, improving innovation, increasing value and development, change, continuous improvement, promotion of faculty members. Ultimately, the main model presented by the researcher to answer the third question of the research is shown below.

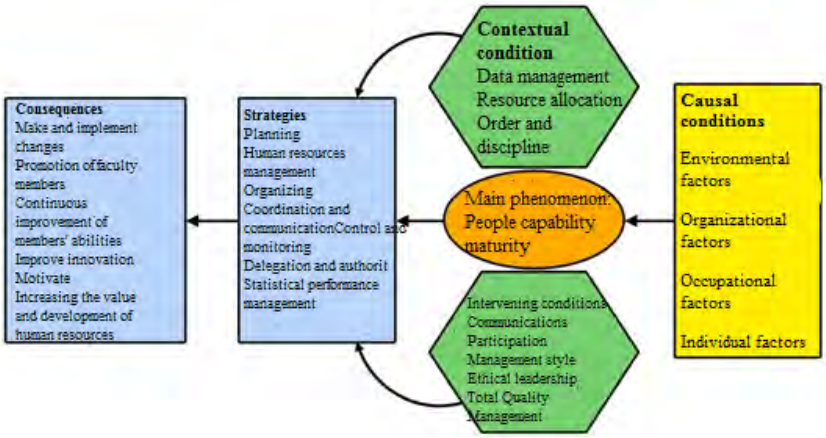

Figure 4: Reseach model

To answer the last question of the research and validate the model in structural equations, the goodness of fit (GOF) model was used. Shared values indicate the mean of the common values of each structure, and R^2 is the mean value of the endogenous structures of the model.

Table 7.
Goodness of fit of the model

Constructs	Mean common values of each construct	R^2 coefficient
Environmental factors	0.51	0.27
Organizational factors	0.48	0.34
Occupational factors	0.56	0.28
Individual factors	0.62	0.20
Communications	0.43	0.30
Participation	0.52	0.26
Management style	0.58	0.27
Ethical leadership	0.47	0.24
Total Quality Management	1	0.12
Data management	0.49	0.29
Resource allocation	0.76	0.35
Order and discipline	1	0.24
People capability maturity	0.73	0.44
Planning	0.44	0.45
Human resources management	0.49	0.31
Organizing	0.67	0.45
Coordination and communication	0.54	0.30
Control and monitoring	0.70	0.26
Delegation and authority	1	0.13
Statistical performance management	0.55	0.31
Motivation	0.80	0.24
Improving innovation	0.68	0.23
Increasing value and development	0.78	0.14
Changes	0.50	0.18

Constructs	Mean common values of each construct	R^2 coefficient
Continuous improvement	0.55	0.24
Promotion of faculty members	0.34	0.61
GOF	0.37	

Based on the judgment (2017, 97) that the three values of 0.10, 0.25 and 0.36 have been introduced as weak, medium and strong values for the model, the overall fit for the main research model is 0.37, which indicates a strong fit of the model.

Conclusion and Suggestion

The aim of this study was to design a PCMM among faculty members of Azad universities in Fars province. After reviewing the theoretical literature, it was found that there is no model that explains this phenomenon in Azad universities. This caused the researcher to extract a qualitative model appropriate to the conditions of Azad universities of Fars province and then prioritize them. After prioritization, the results showed that the causal conditions that cause the concept of PCM in faculty members are composed of 4 categories of organizational, occupational, environmental and individual factors, respectively. According to the first and eighth interviewees, organizational factors such as goals and programs appropriate to the current financial situation of the Azad University led to the fact that the central organization and the board made new decisions to pay adequate salaries and bonuses to faculty members, as well as strictures in payment of research and training, recruitment and promotion of members. However, factors such as the level of expertise and skills of members as well as the amount of effort that members have in using their talents to perform their job duties despite the unfavorable working environment and lack of necessary technologies to better access information for research led to the design of a model to help managers better manage members and optimize faculty members' progress. Despite competitors such as public universities and Payame Noor, etc. and knowing that Azad university is financially independent and the government does not pay for the university, some environmental factors such as economic inflation and members' concerns about insufficient salaries, on the one hand, and reducing the number of students, on the other hand, have caused discussions on faculty member maturity. Individual factors such as the attitude of members to the organization, their motivation and job satisfaction, especially if there is a correlation between the job and personality of members, emphasize the causal conditions for designing such a model. These results are in line with the research of Samimi (2018) and Mohsenzadeh (2013). Contextual conditions are general and broad conditions that affect the development or limitation of the phenomenon. In the present study, the indicators of knowledge management, allocation of resources and facilities, time and order are considered as priority of contextual conditions. One of the interviewers says: "If we have enough space and up-to-date computers to access different databases and it is fair for all these conditions, the work efficiency of members will increase and managers should take this issue more seriously and also create enough time for research members to conduct research." Gathering up-to-date and appropriate knowledge and information and its timely distribution among members is useful and effective, while establishing order, arrival and departure times for faculty members or separating research from training by setting time are effective in the progress of members' work. Therefore, managers should pay attention to the above points in their work. This is in line with the research of Shams Zare (2017) and Raei Dehaghi (2019). Intervening conditions are conditions that strengthen or neutralize management factors in managers. In this study,

conditions such as communication and its disruptive factors, creating partnerships and working groups, management style, ethical leadership and the application of total quality management on managerial factors have been identified. According to one interviewee, "staff believe that informal communications are more credible and trustworthy than formal announcements issued through a manager or senior manager." Given the above, managers must align the goals of informal networks with the goals of the organization. On the other hand, the recipients percieve messages in the communication process based on their needs, experience, background, and other personal characteristics (selective perception). Having intimate and polite communication with the choice of effective words is very effective in the relationship between managers and faculty members. According to the studies of Kamalanabhan (2017), the formation of effective meetings and decision-making and collective agreement by managers in creating the participation of faculty members are other important issues that managers should take advantage. Decentralized management, transformational management, and financial management are among the management styles found in this study, and it is undeniable that even a manager should have a managerial skill (emphasizing the statements of the 11th interviewee). According to the study of Baradaran (2021), which is in line with the results of the researcher, the existence of ethical leadership in managers is a very effective and helpful factor. The existence of justice, honesty, courage and respect for members as well as the work commitments of managers and ultimately the preservation of values and the preference of collective interests over personal interests are very effective and efficient in the management of executives. Also, considering the satisfaction of students and faculty members as organizational customers such as the university should be at the top of the list of managers. This issue has also been emphasized in the researches of Mosakhani (2020) and Mohagheghzadeh (2019). In this research, strategic methods show how managers and faculty members manage situations in the face of problems. These strategic interactions are intentional actions taken by managers and faculty members to solve problems and are used in order of priority, such as planning, human resource management, organizing, coordinating and communicating, monitoring and evaluating performance, delegating authority and statistical management or measuring performance. Using new teaching methods and teaching aids, as well as the teacher's interest in teaching and the degree of order in educational activities, as well as observing educational topics, the number of students and their interest in the course, conducting new and practical research, and the use of study opportunities are among the factors that managers can help by providing the necessary context for the development of educational and research activities. Most of the interviewees stated that they are very dissatisfied with the mechanism of publishing articles. According to this research, amending the regulations related to the educational and research criteria of professors, as well as helping to expedite the administrative process of approving the design and judging mechanism of the article, including cultural activities and holding ceremonies, should not be overlooked by managers. On the other hand, since the executive performance of individuals depends on the positions that members obtain, it is obvious that the selection and appointment of qualified people in these positions is important. Decision making in management means the power of anticipation and finding the challenge and its solution are one of the key points in the field of management, which according to the PCMM are at the second level and have received much attention in the research of Baradaran (2021). Budgeting is a type of planning that exists in the form of figures and numbers. Allocating the right budget and creating financial facilities for research and educational and cultural affairs and study opportunities is very important in increasing the motivation and

thus improving the ability of faculty members. Analyzing specialties and skills and assigning posts to members based on it, establishing proper coordination and communication between members and managers and even between department executives as well as establishing coordination with the central organization, and establishing systemic discipline in order to improve the organization and board members are of great importance. This method is consistent with the research of Raei Dehaghi (2019) and Amirkhani (2016) who consider the institutionalization of communication and coordination system in the administration of the Martyr Foundation necessary, but in not consistent with the research of Shekari (2013), who does not consider the use of this model to be effective in the second level. "It is useful to control and monitor the performance of the members if it is based on the correction of the person and not on inspection and gripping," said one faculty member interviewed. Monitoring based on people's quick feedback and evaluation of their performance, especially 360-degree evaluation, is a factor that managers should pay attention to. Another way to create faculty members' development by managers is to pay attention to human resource management in the form of hiring and providing appropriate staff, monitoring career advancement and paying attention to the payment system, as well as in-service training that is possible through measuring members' performance capability and analyzing the results, which is the statistical management of performance. This method is consistent with the research of Kamalanabhan (2017) and Titov (2016), who mention the use of statistical performance management and reward and training as a reliable method, but it is not consistent with the research of Shekari (2013), who does not consider the use of the third level effective. Consequences and results of the mentioned cases, in order of priority to create job motivation and work ethic, improve innovation and creativity, take innovative actions among faculty members, increase the value of human resources, i.e. respectable members, make and implement changes, and also continuous improvement of members' ability means growth of expertise, growth of skill level, increase of ability for specialized processes, analysis and development of competencies, and so on. This is consistent with the research of Suriga (2019), Wakaslahati (2018), and inconsistent with the research of Jing Li (2016), who believed that in order for activities to be continuous, they need to be limited and systematic, and this is an obstacle to change. Given what has been said, human resource managers who interact with faculty members should pay attention to issues such as increasing motivation, job satisfaction and promotion, creating appropriate facilities and equipment for research, while putting communicating effectively, sincere cooperation of members, monitoring and performance feedback at the forefront of their work so that Azad University can achieve its main mission, which is to nurture a talented and creative force for society. Despite limitations such as the breadth of the topic that the researcher faced, factors such as gender and type of discipline were not considered in the research sampling method and measurement of intervening variables such as individual and social psychology that could increase the effectiveness of the research. In line with causal, intervening, contextual, strategies and consequences paradigms, the following suggestions are presented briefly to improve the performance of managers in the maturity of faculty members, respectively:

1. Although the existence and involvement of the central organization is a matter of course, but in some aspects such as finance and budgeting, the way of financial management can be shifted to decentralized
2. Eliminating an acceptable number of adjunct members and spending their financial expenses to encourage and make optimal use of full-time and part-time faculty members is one of the researcher's suggestions.

3. Observing the appropriateness of courses and posts offered to members with their interest, expertise and personality is another important factor that should be considered by managers.
4. Sometimes the heads make decisions behind closed doors without considering the problems of faculty members, so members can be consulted and their views can be taken into account in decisions before the meetings.
5. Launching an internal database for managers
6. Presenting and implementing a solution to accelerate and facilitate the acceptance and publication of books and articles. For example, scheduling can be done based on the rank and base of faculty members in accepting and publishing articles, especially incentive articles.
7. Teaching how to delegate authority to new managers and familiarity with its limits.
8. Launching the Center for Development and Improvement of Faculty Members of Fars Province in Shiraz Azad University and helping to promote professors
9. Although the basic salaries of the faculty members are fixed and determined by the central organization, it is possible to manipulate the amount of the right of recruitment and other benefits (grants) and facilities.
10. Concluding employment contracts with faculty members in a way that is profitable for them
11. In order to increase the motivation and spirit of cooperation of faculty members, it is suggested that the university, while creating the necessary space, equipment and technology, establish knowledge-based companies with a profit base for members and use the strength of faculty members to advance university goals. In this way, members are less likely to turn to second jobs and work with the university to increase their income.

References

Abbospour, A. (2019). Advanced human Resources Management, Samt pub.

Amirkhani, A.H., & Najafi shahreza, M.M., & Hassani, S. (2016). Prioritization of Components of the System of Communications and Coordination Using the People Capability Maturity Model, MCSER Publishing.7 (3).

Baradaran, B. & Habibi, M. (2021). Pathology of Human Resources Processes Using the People Capability Maturity Model (PCMM) in Khazar Oil Company, HRM in oil industry Journal , 42(11), 263-288

Corbin J., & strass A., Grauded theory reseaech:procedares, canons, and eraluative critevla Qualitafive sociahoyy, PP. 1-2019.

Curtis, B. & hefely,M. (2010). People capability maturity model.2nd ed. Carnegie Mellon University Education. 49, 151-162.

Davari,A and rezazadeh,A(2017).Structural equation modeling with PLS,University jihad publications,Tehran,pp.97

Ferasatkhah, M. (2019). Ninth Meeting on Population and Scientific Development of Iran, 17 Feb

Jing lee, A. (2016). Exploring the Role of People Capability Maturity Model and Identifying People-Related Critical Success Factors in Large-Scale Organization with Agile Practice. [PhD Dissertation of the St. Gallen, School of Management, Economics.

Kamalanabhan,T.J. & Kothandaraman, K. (2017). A Scale to Measure Perceptions of Organizational Maturity, Psychology Studies, 62(1), 47–59.

Mohagheghzadeh, M. (2019). Determining the level of maturity of human resource capabilities with PCMM model and examining the relationship between empowerment factors and the results of EFQM excellence model with human resource capability levels [Ms.c Desseration, University of Fars payam e noor].

Mohsenzade,H and imamverdi,M (2013). Prioritize factors affecting employee maturity, The First International Conference on Political Epic (with an Approach to Middle East Developments) and Economic Epic (with an Approach to Management and Accounting,roodhen, https://civilica.com/doc/494972

Mosakhani,M and nayebi,M and bakhshi.j (2020). Evaluate human resource management through

the Capacity Maturity Model (P-CMM) in small and medium-sized organizations, management resources, 89, pp. 75-80

Raei Dehaghi, M. (2019). Enhancing Employee's Capability Maturity Level in Iran's Oil Company, EJBMR, 4(6**)**

Samimi, S. Imani,M. & ؛ Delkhosh kasmaie, A. (2018). A Model for Risk Management based on People-Capability maturity model (P-CMM) Levels and Education Quality (Case Study: South Pars Gas Complex), Journal of New Approaches in Educational Administration, 3(35), 221-245

Shamszare,m and tahmasebi,r and yazdani,h.r. (2017). Assess the maturity of human resource processes based on the Philips model. Human resourse management projects, 10 (1) pp.1-24

Shekari, G. A. Sheibanifar, M. S. (2013). Evaluation of the Performance Management System of Gas Company Employees in Khorasan Razavi Using the Personnel Capability Maturity Model (PCMM). Management: Future Research Management, 92, 1-24

Surega, N. (2019). Application OF People Capability Maturity Model In Business Process Outsourcing Enterprises Study With Reference To TAMIL NADU , IJHRMR, 9(1), 77-86

Titove, S. & Bubnov, G. & Guseva, M. (2016). Capability maturity models in engineering companies: case study analysis, EDP Sciences.

Vakaslahti, p. (2018). Process Improvement Frameworks – a Small Case Study with People Capability Maturity Model, SOFTWARE PROCESS, 3, 225–234.