

Evaluation and study of the correlation between the human capital strategy and organizational performanceMasoumeh Jahani¹, Mohammadtaghi Abedian²¹. Executive MBA, Payam Noor University². Master of Business Administration, University of Ballarat

Abstract: This applied article collects descriptive information by Delphi survey method as well as investigating the significant correlation or lack of correlation in main hypothesis which has subsidiary hypothesis. In this paper, the correlation among the variables affecting the performance of Parsian Bank has been examined. The main hypothesis of this study is the existence of a significant correlation between the human capital strategy and performance of Parsian Bank. Subsidiary hypotheses include a significant correlation between the variables of manpower supply system, incentive system, human resources development system, and human resources maintenance system with the performance of Parsian Bank. Sampling was done randomly and by using Cochran's formula and based on the calculation 127 people were selected for questioning. In this paper, the Student's t-test has been used in order to determine the significant correlation between the performance of Parsian Bank and independent variables. Moreover, the hypothesis test by Pearson correlation coefficient method and the Student's t-test has been used in order to determine the existence or lack of defined variables. In this paper, the model coefficients are estimated using the factor analysis method and VPLS software. Model presented in this paper indicated that to which priorities and what extent the focus of Parsian Bank activities for increased performance should be allocated, respectively. Finally, the regression model for performance function of Parsian Bank is presented.

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1. Introduction

Raising the issue of human capital strategy improves the human resource management researchers' perception of the relationships between the organizational strategies, human capital, strategic human resource management and the performance of company and changes the focus on operational management and human resources to focus on strategic human resource management by various methods. Nowadays, analysis of operational management of human resources (i.e. evaluating the individual actions of human resource management such as selecting and recruiting, training and development, and service compensation and ...) has been changed to the strategic management of human resources. The concept of synergy or being complete measures of human resources is important in strategic management of human resources [1]. Creating the coordination between the strategy of organization on the one hand and various systems of human resources on the hand is emphasized in strategic management of human resources. In fact, the human resources strategy plays the role of intermediary between the organizational strategy and operation of human resources and changes the orientation of organization, presented in its strategy, to objective guidelines. Strategic human resource management emphasizes on organizational performance as a dependent variable, but the individual functions are not

considered. However, the traditional management generally focuses on individual outcomes such as the task performance, absenteeism, Job satisfaction and staff service-leaving. In this regard, understanding the processes and mechanisms, through which the human resource management practices affects the organizational performance, is one of the key issues which has been still remained vague. On the other hand, despite adopting a comprehensive and unified strategy, most of the organizations use a set of related strategies each which is designed at separate level. In most of large organizations, which have diverse activities, these critical levels of strategy are:

1. Firm strategy,
2. Business strategy (Business unit),
3. Applied strategies (task).

Important point, which should be considered in designing these strategies, is the necessity for coordination among them. So that each of the strategic level should have an appropriate coordination with its higher-level strategy otherwise the organization will not be able to achieve its objectives efficiently [2]. Accordingly, it seems that given the importance of organizational strategy (in various functions) and their direct effect on its performance, the coordination between the human capital strategies and organizational performance is one of the issues which could significantly impact the effectiveness of human resource management

practices on organizational performance. Therefore, the main objective of this study is to evaluate the effect of coordination between the Capital Human strategy and organizational performance. In defining the strategy, the experts have presented the definitions which guide this paper. For instance, Hunger and Wheelen, translated by Arabi and Izadi, 1381, have stated that the strategy is a comprehensive and plenary plan which shows the way through which the organization can achieve its mission and objectives [3]. Daft, translated by Parsaeian and Arabi, 1377: Strategy means a plan for creating a mutual relationship with environmental factors which are often contradictory in order to meet the organizational objectives. Some of the managers consider that the objective is synonyms with the strategy, but based on his view, the goal determines that to where the organization wants to go and the strategy determines the way of achieving it [4]. David, translated by Arabi and Parsaeian, 1380, and Mintzberg, translated by Saebi, 1383: Strategic vision considers the issues at the mental, conceptual or theoretical level. Thus the strategy is also expressed as subjectively and conceptually and can never be considered objectively and operationally. This issue rejects all views, which consider the strategy as a tool to achieve the long-term objectives, because based on this view, the strategy is a "general orientation of organizational movement to achieve a desired state at the mental and conceptual level" [5]. John and Harrison, Translated by Ghasemi, 1380: Analysis of internal and external environment, determining the strategic direction and creating the strategy to achieve its objectives and implementing it [6].

The important point is that there is a common issue in all provided definitions and it states that the strategic management is related to codification (Planning or selection), implementation and evaluation (Control) of strategy. The significant point is that each strategy is related to strategies of other levels and also to strengths and competitive competencies of business unit and is compatible with the organizational level as a set of coordinated unit as well as responding the environmental conditions [7].

2. Theoretical principles and research background

In this section, the theoretical principles and research background are presented, respectively.

2-1 - Theoretical principles

The concepts of strategy date back to 340 BC. The oldest work in this regard is the views of Chinese General, San Tzu. In this book, he has described the way of using the concepts of strategy for overcoming thee. But, the strategic planning in today form was started in 1960s. Second World War was a platform to adopt several strategic decisions for

involved countries. After ending the war, the United States Department of Defense compiled these experiences in the format of "Strategic Planning" method and included it in senior officers' educational program. These ideas entered the business and became the origin for important developments while applying by military senior officers in industry. In 1962, Alfred Chandler, Professor of Harvard University, published the results of his own studies on large American companies and described the process of senior managers' strategic decision-makings. Chandler indicated in this research that how the way of strategic decision-making could lead to superiority in business environment. Three Year later, Kent Andrews, another professor of Harvard University, published an article based on Chandler's idea and raised the necessity for organizations attention to their own strength and weakness. He provided SWOT Analysis Method by the help of collaborators and introduced it as a tool to access the best match between the internal and external conditions of organization [8]. At the same year, Igor Ansof idea applied Chandler's ideas for company planning and achieved significant successes. These achievements attracted the attention of managers, organizations and academic circles to this approach. 1960s and 1970s can be considered as the mostly developed and flourished ones for the classical approaches of strategy. In this era, several tool and methodology such as BCG analysis, GAP analysis, and SWOT analysis were introduced. Numerous articles about the dissemination strategy and these concepts found a way to academic courses. 1980s began with important developments in economic structure of world. During this decade, the economic pole of world transferred from America to East Asia, particularly Japan, and the business environment was faced with fast and consecutive changes of technological and economic factors. In these conditions, the classical approaches, which have been designed for the relatively sustainable environments, could not respond any longer. In 1990s, the strategy theorists came back with completely different ideas and before anything, ask about the classical approaches. Henry Mintzberg denied the basis of "strategic planning" by proposing the differentiation between the analytical processes (Like what is done in planning) and the mental synthesis (What builds the strategies) and stated that basically, the process of planning could not create the strategy [9].

Based on the articles, Hamel and Prahalad introduced the creation of new paradigm as the infrastructure of success-maker strategies and proposed "Making the organization strategic" instead of "strategic planning". These views were accepted and welcomed by professional circles due to the

effectiveness at the operation scene and being compatible with environmental conditions of business, despite the fact that they obtained no considerable success in academic because of difference in ideas and lack of views which could be accepted by the all ones. Jeanne Liedtka, professor in Darden University, also can be considered as one of the experts in new approaches of strategy. As she acquired valuable experiences being present in professional circles and industry consultation circle as well as doing the academic activities, in the late 1990s proposed a model for "Strategic Thinking" which was widely welcomed. Each of these views is considered as the development origin in strategic approaches. This development requires the compliance of this approach with new era conditions [10].

2-2 – Research Background

Abbaspour, 1381, new approaches in functions of human resource management [11],

Soltani, 1384, Managers' strategic thinking, infrastructure of development and growth of organizations [12], Vafaei, 1384, strategic management [13], Khalili, 1385, Ideology and strategy; ratio measurement of strategic thinking and ideologic attitude concepts [14], Bagheri and Delpasand, 1387, Designing and compiling a strategic planning pattern at mission-centered and network universities [15], Peter Senge, 1990, relationship of issues and topics with a general pattern of special events and details [16], Jeanne M. Liedtka, 1998, strategic thinking can be thought [17], Collins et al, 2006, High-Performance Leadership at the Organization Level [18], Acur and Englyst, 2006, Assessment of strategy formulation [19], Baraldi et al., 2007, Using the IMP approach instead of developing the managerial check lists and decision-making rules [20], Vila and Masifern, 2007, Strategic Thinking: Strategy as a Shared Framework in the Mind of Managers [21].

Table (1) Time comparison of conducted research

No.	Researcher's name	Year	Research subject
1	Peter Senge	1990	Relationship of issues and topics with a general pattern with special events and details
2	Jeanne M. Liedtka	1998	strategic thinking can be thought
3	Collins et al.	2000	Performance Leadership at the Organization Level
4	Abbaspour	2002	new approaches in functions of human resource management
7	Soltani	2005	Managers' strategic thinking, infrastructure of development and growth of organizations
8	Vafaei	2005	Strategic Management
9	Acur and Englyst	2006	Assessment of strategy formulation
10	Khalili	2006	Ideology and strategy; ratio measurement of strategic thinking and ideologic attitude concepts
12	Baraldi et.al.	2007	Using the IMP approach instead of developing the managerial check lists and decision-making rules
13	Vila and Masifern	2007	Strategic Thinking: Strategy as a Shared Framework in the Mind of Managers
14	Bagheri and Delpasand	2008	Designing and compiling a strategic planning pattern at mission-centered and network universities

2-2-1 Need for research

In dynamic and competitive environment of today organizations, the change and development are parts of organizational improvement process. Even if a single unit of change in the independent variables changes the organizational development, the organizational development will be achieved. Human capital strategy can have a key role in organizational development by determining the effective strategies and considering the human capital as knowledge tool. Enhancing the organizational performance is one of the most important problems of industries and various economic units. This paper attempts to study the relationship between the strategy of human capital (with 4 independent variables including the manpower supply system, incentive system, human resources development system, Human resources

maintenance system) and the organizational performance (in the form of dependent variable ROA).

3 - Research Methodology

The method of research in this paper is applied based on the objective, and descriptive based on collecting data and information, and is from the branch of Delphi survey which aims to achieve a consensus of experts who are familiar with the subject of paper.

3-1 – Method of research

This article first collected the literature about the Human capital strategy by preparing the paper plan and then proposed a questionnaire for statistical population by designing a proposed conceptual plan. Finally, it concluded and proposed the recommendations after distributing and collecting the

questionnaires and views of HR and managers based on the analysis of data from it. The major tasks and activities carried out in this article include determining the article hypotheses, statistical population, sampling method and data analysis, determining the validity and reliability of questionnaire, testing the hypotheses of article which their definition and procedures are presented as follows.

Fundamental objectives of this research are;

- 1- Identifying the factors affecting the organizational performance in Parsian Bank
- 2- Determining the current status of organization (Parsian Bank) in terms of identified indicators of human capital strategy in Parsian Bank.

3-2 - Research Hypotheses

For developing the main hypothesis, this question is raised whether the human capital strategy has an effect on organizational performance. In response to this question, the research assumptions are determined as follows. Dependent variable is the performance of Parsian Bank with ROA indicator and the defined independent variables include the manpower supply system, incentive system, human

resources development system, Human resources maintenance system.

3-2-1 Main Hypothesis

Human capital strategy has a significant correlation with the between with the performance of Parsian Bank.

3-2-2 Subsidiary hypothesis

1. There is a significant correlation between the manpower supply system and the performance of Parsian Bank.
2. There is a significant correlation between the incentive system and the performance of Parsian Bank.
3. There is a significant correlation between the human resources development system and the performance of Parsian Bank.
4. There is a significant correlation between the human resources maintenance system and the performance of Parsian Bank.

3-3- Statistical population, sample and sampling method

Statistical population of this study consists of 190 Parsian Bank employees. The sampling method was randomized and the number of samples was estimated 127 by using Cochran's formula.

$$n_{\text{cochran}} = \frac{\frac{P(1-p)Z_{1-\alpha/2}^2}{d^2}}{1 + 1/N \left(\frac{P(1-p)Z_{1-\alpha/2}^2}{d^2} - 1 \right)} = \frac{\frac{0.5 \cdot 0.5 \cdot (1.96)^2}{(0.05)^2}}{1 + 1/190 \left(\frac{0.5 \cdot 0.5 \cdot (1.96)^2}{(0.05)^2} - 1 \right)} = \frac{384.16}{3.0166} \cong 127$$

In which,

P = 0.5: Possibility of a trait occurrence in the population is considered 0.5 due to unavailability,
 $Z_{1-\alpha/2} = 1.96$ ($\alpha = 0.05$),

d = 0.05: Maximum acceptable error,

N = 190: Population size,

n_{cochran} : Sample size.

Since it is predicted that some respondents do not complete their questionnaires, 10 people were added to the number of statistical sample and this increased the total number of questionnaires to 137, of which 128 questionnaires were completed.

3-4 - Data Analysis Methods

In the main hypothesis, the correlation of performance of Parsian Bank, as a dependent variable, with human capital strategy, as an independent variable, has been tested by student's t statistic. Moreover, in subsidiary hypotheses correlation of performance of Parsian Bank, as a dependent variable, with (the manpower supply system, incentive system, human resources development system, human resources maintenance system), as the independent variables, was assessed

by Pearson statistic. Finally, we conclude by advanced method of factor analysis by using the software VPLS, Coefficient of determination R and model coefficients.

3-5 - Data collection tools, Validity and reliability of questionnaire

As noted, the questionnaire is as the data collection tool in this study. In this study, the information is collected by implementing the questionnaire with closed questions (Seven options). The designed questionnaire was first distributed among the preliminary sample (30 individuals) of statistical sample and after survey its defects were removed and it was corrected by using the experts' views. In the next step, two final standardized questionnaires were distributed and collected in order to measure the human resources empowerment and effectiveness of organization after the validity determination.

The validity of a study means the accuracy of indicators and criteria which have been produced for desired phenomenon. In order to measure the empowerment, Spreitzer questionnaire has been used [22], which is developed for measuring the

psychological empowerment and by using Thomas and Volt Haas empowerment model [23]. Neefe questionnaire has been used in order to measure the organizational learning [24]. Since both questionnaires are standard, their validity has been confirmed in numerous external and internal studies.

Reliability means having the reproducibility, stability and consistency in the assessment tool and tested that to what extent the measurement tool tests the needed concept strongly at any time. Since both questionnaires are standard, their validity has been confirmed in numerous external and internal studies. Also for more certainty in this study for reliability test, Cronbach's alpha is calculated by SPSS15

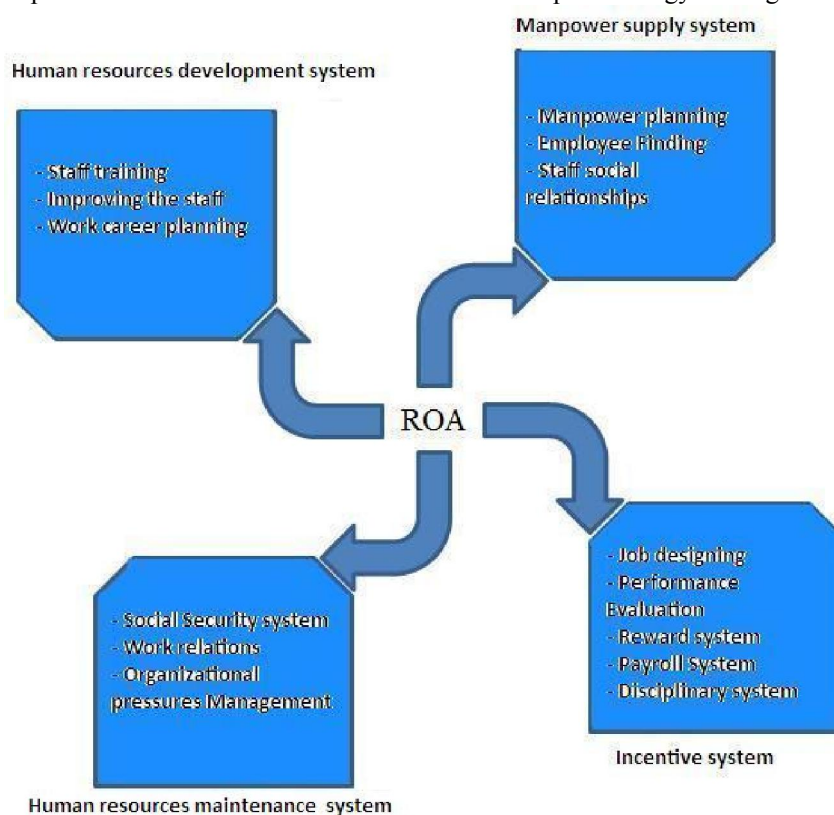
software. The formula for calculating this coefficient is as follows: $\alpha = \left(\frac{j}{j-1}\right)\left(1 - \frac{\sum s_j^2}{s^2}\right)$

In which, α is the estimated test validity, j : number of test questions, s_j^2 : Variance of subset j , and s^2 is the total variance of test. This value is calculated higher than 75% for both questionnaires.

4 - Research findings

The conceptual model of correlation between the dependent and independent variables are indicated as follows. Student's t-test is used for main hypothesis and Pearson Test used for the subsidiary hypotheses and finally the advanced method of factor analysis is implemented by using the software VPLS.

Figure (1) - Conceptual model of correlation between the human capital strategy and organizational performance



4 - 1 Results of Student's T-test in main hypothesis

H_0 : Human capital Strategy has a significant correlation with performance of Parsian Bank.

H_1 : Human capital Strategy has no significant correlation with performance of Parsian Bank.

Table (2) - Results of Student's T-test in main hypothesis

Secondary variables	Correlation coefficient	Sig	Test Results
Human capital Strategy → Organizational performance	0.625	0.000	A direct and significant correlation

Given that the correlation coefficient is estimated equal to 0.625, it can be concluded that H_1 is rejected and the opposite hypothesis (H_0), which indicates that the human capital strategy of Parsian Bank has a direct and significant correlation with bank performance, is confirmed.

4 - 2 Results of Pearson coefficient in subsidiary hypotheses

In the following table, the results of research sub-hypothesis test are presented.

Table (3) - Results of Pearson coefficient in subsidiary hypotheses

Secondary variables	Correlation coefficient	Sig	Test Results
Manpower supply system → Organizational performance	0.563	0.000	A direct and significant correlation
Incentive system → Organizational performance	0.448	0.000	A direct and significant correlation
human resources development system → Organizational performance	0.512	0.000	A direct and significant correlation
Human resources maintenance system → Organizational performance	0.474	0.000	A direct and significant correlation

1. The correlation coefficient of manpower supply system is equal to 0.563 and Sig statistic equal to 0.000. This suggests that there is a direct and significant correlation between the manpower supply system and performance of Parsian Bank at confidence level 95%.
2. Correlation coefficient of incentive system is equal to 0.448 and the Sig statistic equal to 0.000. This suggests that there is a direct and significant correlation between the incentive system and performance of Parsian Bank at confidence level 95%.
3. Correlation coefficient of human resources development system is equal to 0.512 and the Sig statistic equal to 0.000. This suggests that there is a direct and significant correlation between the human resources development system and Performance Parsian Bank at Confidence level 95%.
4. Correlation coefficient of human resources maintenance system is equal to 0.474 and the Sig statistic equal to 0.000. This suggests that there is a direct and significant correlation between the Human resources maintenance system and Performance Parsian Bank at Confidence level 95%.

4 -3- Factor analysis method based on applying the software VPLS

In this section, the factor analysis method based on applying the software VPLS is used in order to analyze and evaluate the more-important factors, to estimate the coefficients of independent variables, and determine the effectiveness of each independent variables on each other.

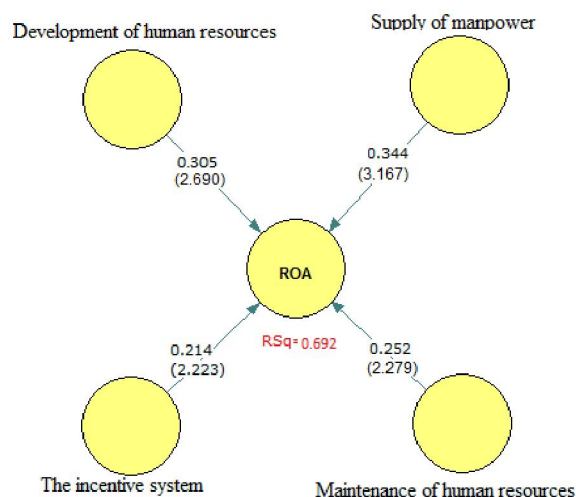


Figure (2) – Correlation between the independent and dependent variables (VPLS)

As the above graph presents, the coefficient of determination is equal to ($R = 0.692$) and this indicates that each of the dimensions (manpower supply system, incentive system, human resources development system, and human resources maintenance system) explain almost 69% of necessary changes in dependent variable.

Value of student's T estimate for each coefficients of model is higher than confidence level 95% (1.96), thus it can be concluded that the sub-hypotheses of research are confirmed as follows.

1. By one unit increase in manpower supply system, the performance of Parsian Bank will be increased to 0.344.
2. By one unit increase in incentive system, the performance of Parsian Bank will be increased to 0.252.

3. By one unit increase in human resources development system, the performance of Parsian Bank will be increased to 0.305.
4. By one unit increase in human resources maintenance system, the performance of Parsian Bank will be increased to 0.214.

Table (4)- Estimating the coefficients of model

Structural Model-Bootstrap			
	Entire sample estimate	Standard error	T-Statistic
Manpower supply system \rightarrow ROA	3.1668	0.1086	0.3440
The incentive system \rightarrow ROA	2.2787	0.1106	0.2520
Development of human resources \rightarrow ROA	2.6901	0.1146	0.3050
Human resources maintenance system \rightarrow ROA	2.2227	0.0963	0.2140

5 - Conclusion

In this study, the correlation between the variables affecting the performance of Parsian Bank has been tested. The main hypothesis of this study is the correlation between the variables affecting the performance of Parsian Bank. The subsidiary hypotheses include a significant correlation between the variables of manpower supply system, incentive system, human resources development system and human resources maintenance system with performance of Parsian Bank.

Given that the correlation coefficient of main hypothesis is estimated equal to 0.625, it can be concluded that the H_1 is rejected and the opposite hypothesis (H_0), which expresses that the human capital strategy of Parsian Bank has a direct and significant correlation with performance of Bank, is confirmed.

Correlation coefficient of manpower supply system is equal to 0.563 and Sig statistic equal to 0.000. This suggests that there is a direct and significant correlation between the manpower supply system and performance of Parsian Bank at confidence level 95%. Correlation coefficient of incentive system is equal to 0.448 and the Sig statistic equal to 0.000. This suggests that there is a direct and significant correlation between the incentive system and performance of Parsian Bank at confidence level 95%. Correlation coefficient of human resources development system is equal to 0.512 and the Sig statistic equal to 0.000. This suggests that there is a direct and significant correlation between the human resources development system and performance Parsian Bank at confidence level 95%. Correlation coefficient of human resources maintenance system is equal to 0.474 and the Sig statistic equal to 0.000. This suggests that there is a direct and significant correlation between the human resources maintenance system and performance Parsian Bank at confidence level 95%.

As presented in graph VPLS (figure 3), the coefficient of determination is equal to ($R=0.692$) and this indicates that the dimensions of (manpower

supply system, implementing time of incentive system, human resources development system, and human resources maintenance system) explain almost 69% of necessary changes in dependent variable.

By one unit increase in manpower supply system, the performance of Parsian Bank will be increased to 0.344. By one unit increase in incentive system, the performance of Parsian Bank will be increased to 0.252. By one unit increase in human resources development system, the performance of Parsian Bank will be increased to 0.305. By one unit increase in human resources maintenance system, the performance of Parsian Bank will be increased to 0.214.

Suggestions for planning the increased performance in Parsian Bank

One of the main results in this paper is to determine the values of correlation coefficient between the dependent and independent variables. It is suggested that by research approach in this paper the scholars and other researchers determine the structural equations in increasing the empowerment of desired organizations and determine and computationize the empowerment function of organization by considering defined variables. Proposed model in this paper is presented to calculate the value of Parsian Bank performance.

$$Y = a + 0.344 x_1 + 0.252 x_2 + 0.305 x_3 + 0.214 x_4$$

In which,

- Variables x in the model represent manpower supply system, Implementation time of incentive system, human resources development system, and human resources maintenance system, respectively.
- a represents constant value in regression equation.
- Model parameters represent the influence coefficient of independent variables in the model.
- Obviously, given the influence coefficients and availability of independent variables and facilities of organization in resource allocation, the senior managers of Parsian Bank can

multiplex the budget through the human resource strategy in order to make the increased performance of Parsian Bank operational.

– **Suggestions for other researchers**

1. Use a mathematical model in developing and allocating the budgets related to organizational performance improvement.
2. Determine the other enablers through future research based on Durbin- Watson statistic.
3. Determine the empowerment function based on the effective models by stepwise regression statistic as the final model of empowerment.

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