

Recognition the Suitable Model of psychological Empowerment: case Study in automobile parts manufacturing industry (APMI)

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Abstract: The purpose of this paper is to examine the impact of empowerment on employee's performance in automobile parts manufacturing industry (APMI) in Iran. In this research, the factors and the characteristics of the psychological empowerment model of employees in Iran's APMI have been identified and prioritized appropriately and relevantly with the empowerment model in the local environment based on current literature and then using factor analysis statistical procedure and structural equations technique, the ultimate combination of factors has been analyzed in the local empowerment model framework aiming at the improvement of the performance of employees' at APMI selected from 56,052 employees working in 1,933 APMI companies in Iran. Statistics society consists of the experts of human resources (HR) and organizational behavior of especially university staff and some of the specialists in large companies APMI. The sample size provided based on "Cohan- Morgan- Korjsay" is 382 persons which has been determined with descriptive methods. For data analyzing we used with Delphi method to identify and explore the local variables of psychological empowerment and performance of statistical population to be introduced to answer the first and second research questions. Also, to collect data regarding the third and fourth research questions, multi-phase cluster sampling was utilized. Then to evaluate the gathered variables and to identify the relationship between psychological empowerment and performance of employees, Structural Equations relations, LISREL Software was utilized so as to obtain the optimal model between these variables. To examine the relationship between the characteristics of statistical community and their empowerment level, ANOVA was employed. The Cronbach's alpha for this study was 0.89. The results obtained from the analysis of findings indicate the fitness of model and it can predict and estimate up to 92% of alterations of psychological empowerment on performance. Given that the set of linear equations in the route diagram fits into observed data, it can be concluded that the existence of causal model is significant and this model is an appropriate model to answer the research question. In fact, investigating the subordinate questions of research, it can be analyzed that the model has a foreign existence. With regard to the results obtained from the research questions and the relationship between independent and dependent variables, it can be stated that the competence and effectiveness traits have the most positive and increasing impact on APMI employee's performance, and on the other side, the trait of self-determination has the least impact on empowerment. Moreover, on the basis of the results of the statistical tests in Structural Equations Model, it can be concluded that the existence of relationship between the dimensions of employees' psychological empowerment and their performance (attitudinal behavioral) is confirmed and it is the research model and the optimal model of psychological empowerment that leads to improvement and performance promotion of employees in Iran's APMI.

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1. Introduction

Automobile manufacturing and its peripheral industries is one of the most important infrastructural factors in every country's economy. The outcomes, productions and research in this industry widely and abundantly affect other industries. Widespread application of other industries affect in this industry, direct employments amounting to a hundred million

people worldwide, annual sales volume of more than 1200 billion dollars in this industry all together represent the importance and vastness of this industry in the world economy.

The significance and vastness of this industry is so vital that it is called "the moving engine of industries" [1]. It also necessitates the research in line with the development and progress of its processes.

In this connection, the APMI is regarded as the main infrastructure forming APMI.

Investigating the development and promotion of human processes of this industry is of considerable importance due to its significance and effectiveness on its success achievement. Nowadays, this industry requires empowered personnel to succeed in its competition, those who can offer the best application of advanced technology and lead to innovations so as to promote the current products and services of auto parts industries.

Empowerment of employees will result in the success of the organization in business, making their job meaningful and motivating them to work. On the other hand, empowerment helps improve the quality of services, increase the efficiency of the organization, develop positive feelings and attitudes in the employees towards their work as well as to job supervision and evaluation, increased motivation, commitment etc in their personnel [3].

Thus, empowering the employees is considered to be one of the most important responses to the present requirements of organizations and will be regarded as a crucial element in development of an organization's HR.

Review of Related Literature

Before being commonly used in management, the term "empowerment" was widely concentrated in various scientific fields including political, social sciences etc, in such theories as feministic struggles for increasing social freedom and also within the concept of granting humanitarian aids to the Third World countries [4]. In management, the application of the term "empowerment" refers to industrial democracy and involving employees in an organization's decision-making processes under such title as team-working, participation and management of comprehensive quality [5].

Since human relations movement, the term "empowerment" has become widespread and it has been attended to by management authorities. Theoreticians (such as Conger & Konungo, Spritzer, Thomas & Velthous, Kenneth Blanchard, John P. Calos, and Randolph) have considered it in their studies.

Issues such as complacency, job enrichment and democratic leadership have been raised as well as employees' empowerment was regarded as an essential goal in the organization [6].

Oxford Dictionary has defined the term "empowerment" as to "enable"[7]. Empowering means strengthening, that is to say, we should help people to improve their self-confidence and overcome their sense of inability.

Conger & Konungo state that any management strategy or technique which leads to increased right of determining fate and self-efficacy of employees will yield empowerment. Thus, empowerment is the process of strengthening the self-efficacy of individuals in the organization by identifying and introducing conditions that have made them feel "not benefiting from power" and attempting to eliminate them through official actions of organization as well as taking advantage of unofficial techniques and providing information that helps their efficacy in organization [8].

Although these definitions vary greatly, they can be divided into three major approaches concerning the view points of authorities [9]. These three approaches can be seen in diagram 1.

- In communication approach, empowerment is a process through which a manager tries to divide power and grant more authorities to employees to make necessary decisions [10]. Authorities of this approach are as follows: Bardoeik, Block, Peters, Shool and his colleagues [11].
- In motivational approach, empowerment is rooted in individuals' motivational propensities. Any strategy that results in the increased right of deciding employees' occupational activities and self-efficacy will lead to their empowerment [12].
- In psychological approach, which is mainly represented by Thomas and Velthous, it is believed that empowerment is a multi-faceted subject, thus it cannot be merely dealt with one particular concept. Therefore, empowerment is defined as the process of increased intrinsic motivation, concerning employees' assigned duties which can be represented in the following cognitive features: self-efficacy, impact, self-determination, and meaningfulness [13].

Based on the above approaches, plenty of studies have been carried out and researchers have offered various models and steps to develop empowerment. As explained, this study greatly stresses employees' psychological states due to its conceptual framework [14]. Since this study primarily discusses the cognitive approach to empowerment, in the rest, its different dimensions will be introduced. Regarding the identification of psychological empowerment, a large number of research studies have been conducted. These studies are both wide and various. Based on these studies, eight factors have been chosen as primary factors for examining psychological empowerment, four of which have been identified as local factors for psychological empowerment after being evaluated in the statistical community of research. The factors are as follow:

- **Self-efficacy (a sense of competence):** Individuals feel empowered, when they possess necessary capability and expertise to accomplish a task. Not only do empowered individuals feel competent, but also they feel assured that they can perform tasks competently and learn to deal with new challenges and grow up.
- **Self-determination (self-discipline):** Self-discipline is an individual feeling that deals with the right to choose to take precedence and to adjust activities. For instance, taking decisions on the procedures of working and the degree of effort [16].
- **Personally admitting the consequences (a sense of effectiveness):** It is the beliefs of an individual in a certain period of time, regarding his abilities to make changes [17]. The sense of effectiveness is said to be an extent in which an individual has the capability of influencing the strategic consequences of his administrative or operational work [18].
- **Meaningfulness (a feeling of valuableness):** Meaningfulness is the value of occupational objectives judged by individual norms or ideals [19]. In fact, meaningfulness involves matching the requirements of role and job, on the one hand, and beliefs, values and manners on the other [20].

Other dimensions of psychological empowerment researched in this study are as follow: goal internalization, perceived control, perceived competence and locus of control. In management of performance or the consequences of individual work, a variety of definitions have been noticed. Some of them have attended to any kind of outcome resulted from job performance, and some have taken it equivalent to concrete and qualitative outputs resulted from work or productivity [21]. Some others have regarded it equal to working activities and actions taken in the process of working or consequences resulted from those activities. Blanchard has divided this approach into two parts: attitudinal consequences and behavioral consequences [22].

Due to the closeness of second perspective with the fundamentals of research, this study has used it as the defining criteria of performance dimensions. Given that the performance dimensions are widespread in the scientists' research records, fifteen factors were chosen as the dimensions to be investigated, eight of which were identified as performance dimensions associated with psychological empowerment. These factors consist of increase of organizational commitment and loyalty, decrease of destructive stress, increase of job satisfaction, decrease of role ambiguity, increase of

self-control, increase of creativity and innovation, and an increase of motivation. Based on research findings, these factors have been considered as local performance dimensions.

Some other local dimensions investigated in this study, though not included, are as follow: group participation, effectiveness, tendency to decision-making, responsibility, efficiency, reduction of quitting job.

The Statement of the Problem

Investigations into Iran's APMI show that this industry faces particular problems such as instability in the sales' market of its products. On the one hand, the issue of importing automobiles, on the other hand, the issue of joining the world markets and meeting the requirements of World Trade Organization (WTO) have made this industry face an ambiguous future. There are also some problematic issues for this industry such as not making use of modern methods of management, capacities and their potentials, weaknesses in group work culture, promotion of skill and knowledge of HR, which are obstacles in solving problems and developing suitable grounds for creativity, innovation and flourishing of employees [23].

Considering the leading role of mankind in removing the obstacles and developing advanced technology, and that HR is the most important productivity factor in organizations and finally the entire community; it goes without saying that the flourish improvement of any community lies in the promotion and development of its HR; thus, the managers of organizations should pay particular attention in developing their employees by behavioral experts and HR. Therefore, empowering employees is one of the modern methods in the course of flourishing of HR and of organizations to overcome their weaknesses.

In this regard, authorities in managing development and optimizing organization have introduced the empowerment of employees as an effective factor on the performance and promotion of HR.

Empowered employees influence the performance of organization; thus, an organization which takes advantage of empowered personnel have definitely more different performance than the one lacking such personnel, taking into account the major impact of HR in organizational productivity [24]. Therefore, in this study, first, factors and features of employees' psychological empowerment model in Iran's APMI will be identified and appropriately and relatively prioritized with the empowerment and then employee's performance criteria and finally, the optimal combination of these factors will be offered as an example of local performance promotion.

On the other hand, the growth and development of world economy is based on the growth and development of different sectors including trade, industry, agriculture, services, etc. However, the role of industry in world economy and the process of development are so vital that it plays a fundamental part in the growth and development of world economy, with the quota around 40% of the value of world gross product [25].

According to the classification made by International Standard Industrial Classification (ISIC), in every country, various industrial sectors consist of industries of petroleum, gas, petrochemical, steel, textile, chemicals, food, automobile-manufacturing, electrical, mechanical etc. However, concerning the rate of economic growth and development of economic infrastructures based on the industry, the value and significance of the sectors are different in each country. But there are some industries that are of universal and international importance and almost all countries attach particular importance to them. Two important examples are automobile manufacturing and locomotive industries [26]. In fact, automobile manufacturing is a perfect representative of a country's economic and industrial development and its widespread operations, ranging from production to distribution and consumption, play a role in every country's economy [27].

This industry started working since 1950s and has an annual production of one million automobiles equal to world production standard in developing countries. On the other hand, this industry has approached to universal production standards in terms of technology, structure, HR and quality as well. Meanwhile, auto parts manufacturers play the most leading part in this industry's growth and development such that many experts believe that the future of Iran's APMI is highly dependent on the growth and development rate of APMI and thus they predict its future to be much brighter than APMI [28].

In Iran, by 2005, an amount of 50,000 billion Rials has been invested in automobile manufacturing corporations and 1933 auto parts manufacturing firms, hence more than 460 thousand people have been employed directly or indirectly in automobile industry. In other words, this industry is supporting almost two million Iranian families. 3.3% of the total employed people in the industry's sector and 63% of all employed ones in the country are active in automobile and APMI. Regarding the job creating potentials of automobile industry, it must be said that producing an automobile valued at 100 million Rials creates jobs for about 3.6 people in the entire economy, around 6%(1/6 of total employment) of

which is created in automobile industry and the rest in lateral industries.

The annual average growth rate in Iran's auto industry has been 28%; whereas, the average growth rate in country's total industry has been about 8% and in the entire economy it has been 4% [29].

Following the development of auto-manufacturing activities, a large number of relevant industries including parts-manufacturing have considerably grown and while creating increased value, they have contributed to effective and steady employment [30].

Due to a large amount of investment, the APMI has encountered over-capacity which has, in turn, caused the instability of market and intensified competition; hence, necessitating rapid innovation, research and development, particularly new markets [31].

Research into HR and investments of this industry is one of the most important areas of study which can help further growth, exaltation and development of APMI, in addition to manipulation of existing over-capacity in the market. In this study, the researcher intends to examine the psychological approach of empowerment and its impact on the performance of employees in order to promote its quantity and quality in APMI.

Research Questions

Based on the above main question, the following subordinate questions are considered:

1. What are the psychological empowerment variables of employees of APMI in Iran?
2. What are the component variables of performance of employees of APMI?
3. What is the relationship between empowerment and performance of employees in APMI?
4. How can the optimal example between variables of empowerment and performance of employees of APMI be achieved?

2. Material and Methods

Regarding the data collection procedure, this study is both applied and descriptive. The participants of this study include 56,052 employees working in 1,933 APMI companies in Iran [32]. These companies are working in their relevant provinces supervised by the Ministry of Industries and the Association of parts-manufacturers. Using the formula for determining the model volume in double statements environment in limited communities, the model volume has been determined to be 382 persons which is inadequate with the results obtained from the Cohan- Morgan- Korjsay. At first, Delphi method was used to identify and explore the local variables of psychological empowerment and performance of

statistical population (interviewing the experts of HR and organizational behavior of especially university staff and some of the specialists in large APMI companies).

To collect data regarding the third and fourth research questions, multi-phase cluster sampling was utilized. Table 1 shows the distribution manner, respective percentage of each province and the number of returned questionnaires.

This research has been carried out from 2007-2011. To analyze the data, various statistical procedures have been employed. At first, to identify the dimensions of the intended community, particularly its demographic features, descriptive statistics technique have been applied. To determine the variables of employees' psychological empowerment and the factors forming the performance in the intended community, Delphi method has been used in the introductory variables identified in research literature; the local variables to be introduced to answer the first and second research questions. Then to evaluate the gathered variables and to identify the relationship between psychological empowerment and performance of employees, Structural Equations relations, LISREL Software was utilized so as to obtain the optimal model between these variables. Also, to examine the relationship between the characteristics of statistical community and their empowerment level, ANOVA was employed. The Cronbach's alpha for this study was 0.89.

3. Results

Regarding the results obtained from the application of descriptive and inferential statistical procedures, observances and tests, efforts were made to explore the circumstances and to identify the dimensions of feeling of the employees' psychological empowerment in country's APMI so as to offer a theoretical model in terms of local variables of feeling psychological empowerment which can result in the performance promotion of employees of the industry. Table 1 shows the demographic features of the research community separately and based on the percentage of each feature.

Table 1: Demographic Features of the Research Community

Gender	Female 9%		Male 89%		Unresponded 2%	
	Education	School	After school	Diploma	Technician	Bachelor
1%		7%	65%	8%	18%	1%
Calendar Age	20-25	26-30	31-35	36-40	41-45	unresponded

	14%	39%	26%	10%	3%	8%		
Service Age	1-5	6-10	11-15	16-20	More than 20	unresponded		
	55%	25%	15%	1%	1%	3%		
Type of Employment	Contractual		Permanent Agreement (Formal)		Unresponded			
	95%		4%		1%			
Type of Job	Stokeeper	Worker	Q.C	Supervisor	Clerk	Staff Specialist	Acco un tant	Unres ponded
	3%	47%	11%	17%	11%	3%	1%	7%

To identify the psychological empowerment variables, Delphi method was employed. The results are shown in Table 2.

Table 2: Local Variables of Psychological Empowerment

Feeling of meaningfulness
Feeling of effectiveness
Feeling of competence
Feeling of self-determination

In view of the wide spectrum of psychological empowerment concepts and the results of the first subordinate questions, the local factors influencing the empowerment of employees in Iran's APMI, based on the results obtained from the specialists' responses to interviews (two separate interviews were conducted), four of the eight indicators are introduced as local variables in the intended community, hence they are considered as higher priority and significance by specialists.

These four indicators are meaningfulness, effectively, competence and self-determination. These dimensions accord with Spertzer's psychological empowerment model which clearly confirms the validity of his model in statistical community.

The results obtained from the interview responses in terms of performance traits can be seen in Table 4. Based on the research results, Delphi method was also used to attain these factors in Iran's APMI. On the basis of the results obtained from fifteen indicators stated in research literature, eight indicators are introduced as the local performance traits in statistical population consisting of a set of two traits such as: performance behavioral traits (including innovation and motivation) and

performance attitudinal traits (such as commitment & organizational loyalty, stress reduction, job satisfaction, decrease of ambiguity in role, self-control and creativity). These traits have been focused by specialists and finally they have been expressed.

Table 3: Local Traits of Performance

Job satisfaction	Innovation
Decrease of role ambiguity	Motivation
Self-control	commitment and loyalty
Creativity	Decrease of Stress

Given the obtained and statistical tests of fourth subordinate question of the research, and based on the achieved local dimensions for psychological empowerment and performance and also with regard to the results obtained from the first and second questions, the Structural Equations Model in the experimental community has been employed for estimating and offering psychological empowerment model (responding to the main research question). To carry this out, first Structural Equation and measurement of respective results were calculated, then the validity rate of the model presented in the research were explored and finally, the relationship and impact between implicit and explicit variable were concerned. These tests have been conducted using LISREL software [33].

Theoretically, implicit variables or structures are the measured infrastructural causes of variables. The pointed arrows show the effect of variables in diagram which represents the theoretical relations between implicit and explicit variable. In above diagram, certain relations are hypothesized between psychological empowerment variables, dimensions of behavioral performance and dimensions of attitudinal performance. As it can be seen from Tables 5 and 6, and based on the above diagram, there is one measurement equation and there are as many implicit dependent variables as structural equations.

4. Discussions

The results obtained from the analysis of findings indicate the fitness of model and it can predict and estimate up to 92% of alterations of psychological empowerment on performance. This represents that the model is well-proportioned and of powerful fitness. Diagram-1 illustrates the final model and the validity of research.

Given that the set of linear equations in the route diagram fits into observed data, it can be concluded that the existence of causal model is significant and this model is an appropriate model to answer the research question. In fact, investigating the

subordinate questions of research, it can be analyzed that the model has a foreign existence.

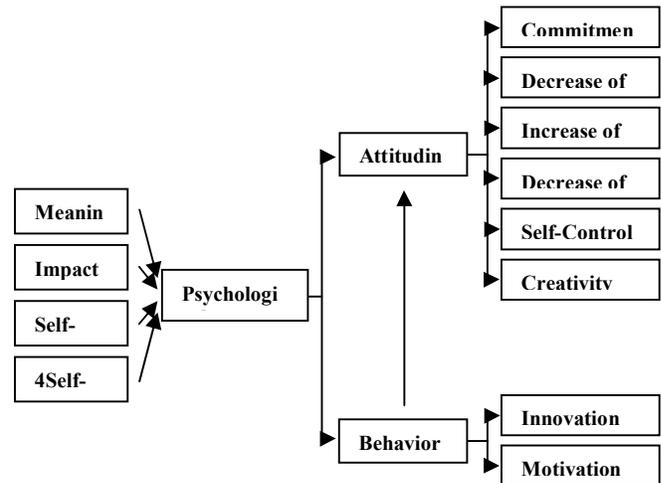


Diagram 1: A Model based on Research Findings

With regard to the results obtained from the research questions and the relationship between independent and dependent variables, it can be stated that the competence and effectiveness traits have the most positive and increasing impact on APMI employee's performance, and on the other side, the trait of self-determination has the least impact on empowerment.

Although in this research, empowerment is based on the psychological empowerment model, which results from four components pointed out in model, lack of any of the these components will not lead to its total elimination; however, its degree of empowerment diminishes.

Moreover, on the basis of the results of the statistical tests in Structural Equations Model, it can be concluded that the existence of relationship between the dimensions of employees' psychological empowerment and their performance (attitudinal behavioral) is confirmed and it is the research model and the optimal model of psychological empowerment that leads to improvement and performance promotion of employees in Iran's APMI.

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