Development of a Career Path Planning Model for Essential and Key Human Resources (Case Study: Saipa Automotive Group Companies)

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A R T I C L E   I N F O

A B S T R A C T

Objective: The importance of career path planning in organizations has increased and has been recognized across various domains. The aim of this research was to present a model for professional career path planning for essential and key human resources.

Methodology: The methodology of this research was quantitative-qualitative, employing a survey approach with a practical orientation. The study population consisted of managers and employees of Saipa automotive group companies. The data collected through questionnaires were analyzed using descriptive statistics for demographic characteristics and inferential statistics (single-sample t-test, paired t-test, confirmatory factor analysis, and structural equation modeling) in SPSS and LISREL software. The current status of the study population was evaluated using a one-sample t-test, and the significance of each indicator across the five dimensions was examined.

Findings: The results showed that individual needs, job rotation, job characteristics, job promotion, and organizational needs are of high importance in the current situation, respectively. Additionally, the results of the second-order factor analysis indicated that the dimensions of career path planning in terms of importance according to respondents are: 1- Job rotation with a factor load of 0.94, 2- Individual needs with a factor load of 0.91, 3- Job characteristics with a factor load of 0.90, 4- Job promotion with a factor load of 0.89, and 5- Organizational needs with a factor load of 0.85.

Conclusion: It can be concluded that job rotation and the needs of organization employees in professional career path planning are of significant importance, which warrants special attention.

Keywords: *Professional career path planning, Employee needs, Job rotation, Job promotion.*

1 Introduction

In the modern perspective of management science, career path management is a tool for implementing human resource development programs, aiming primarily to balance individual and organizational needs to provide a clear vision for creating favorable conditions. Consequently, employees and organizations reach equilibrium between the psychological contract associated with job development responsibilities and job security. Such an approach to career paths requires characteristics that make the system efficient and effective, enhancing dynamism in the organization and its employees (Nagavi & Abbaspour, 2010). However, it is noteworthy that the career path is a key pillar in the field of human capital; it deals with people who can be agents of change and respond to environmental changes to advance the organization (Hoseinian, 2021). Therefore, when discussing human resource development in an organization, attention to the career path is considered crucial as it provides necessary support for employees and their jobs, and timely placement of suitable individuals enhances organizational efficiency and effectiveness (Pordaelan et al., 2017). Thus, the career path is described as a process comprising a system known as the career pathway, formally organized and planned to balance individual needs with organizational needs. In this context, the individual and the organization together facilitate the effective and efficient performance of jobs defined in the career path; over a specific period, the individual acquires the necessary knowledge, skills, ability, and awareness to perform and be appointed to these jobs (Gander, 2021; Moghaddam et al., 2021).

Therefore, if organizations fail to meet the material and spiritual needs of employees, capable employees inevitably seek job changes or even leave the organization. This situation can cause problems for the organization and even threaten its existence. Different approaches have been pursued by organizations to address and solve this problem, one of the best solutions being the implementation and designation of a career path. In this regard, scholars and organizational experts have conducted extensive studies in this area with different perspectives and approaches (Khalili Moghadam, 2023; Konek, 2019).

Hosseinian (2021) in a study found that the career path planning for female police in the military sector includes 31 job titles. This number does not suffice for horizontal movement (training, job rotation, transferring from one job family to another within the same sector) and vertical movement (job promotion) (Hoseinian, 2021). Moghaddam et al. (2021) concluded that a future-oriented personality significantly and directly affects human resource productivity and also indirectly through the mediation of a career-focused career path and the moderation of political skill. Their research results in the field of future-oriented personality and career-focused career path have brought innovations, helping organizational managers understand the impact of future-oriented personality on human resource productivity through the mediation of a career-focused career path and the moderation of political skill (Moghaddam et al., 2021). Hakak et al. (2021) found that career path competencies directly affect employee employability and also through career success. Additionally, the results indicated that career path shocks moderate the effect of career path competencies on employee employability (Hakak et al., 2021).

In this context, companies in the Saipa Automotive Group, as one of the important pillars of the automotive industry in the country and with about half a century of activity, face fundamental challenges in the development and progression of the career path of human resources. On the one hand, since the revolution and especially in the past decade, we have faced sanctions on parts and a ban on car imports to the country, and on the other hand, the ratio of production to human resources in automotive companies and Saipa Automotive Group companies is much lower than the global average. Among other problems, frequent changes in management with changes in government in the country and the entry of custom forces into the company without sufficient attention to meritocracy can be mentioned. With this perspective, the current research initially seeks to identify the most appropriate model for the professional career path advancement of essential and key human resources in the companies of the Saipa Automotive Group, examining which factors influence the professional career path advancement model of essential and key human resources in the Saipa Automotive Group companies and what are the consequences of choosing an appropriate model for the professional career path advancement of essential and key human resources in the Saipa Automotive Group companies. This seems possible, as studying the professional career path advancement of essential and key human resources allows us to examine different approaches and analyze the appropriate model in the professional career path advancement of essential and key human resources in the Saipa Automotive Group.

2   Methods and Materials

This research is developmental in terms of its objectives, exploratory and descriptive in nature, and combines library and field environments for execution. Accordingly, the fuzzy Delphi method was utilized to compare cognitive theories of career progression and to identify influential factors and consequences of career progression for essential and key human resources in the Saipa Automotive Group. The statistical population consisted of managers and specialists from the Saipa automotive group companies, and the sampling was conducted randomly. The Cochran formula was used to determine the sample size. Library research data were collected by reviewing and searching books, articles, and various databases. Additionally, a questionnaire was also used in the field section.

3   Findings and Results

Of the 178 respondents, 39% held a bachelor's degree, 34% a master's degree, 11% were doctoral students, and 16% held a doctorate. Of the 178 respondents, 29% were technical experts at Saipa Automotive Company, 25% were managers in roles such as department manager or CEO, and 46% included individuals who distribute the company's products nationwide. Furthermore, of the 178 respondents, 18% had been employed at Saipa Automotive for 1 to 5 years, 53% for 5 to 15 years, 16% for 15 to 25 years, and 15% for over 25 years.

Figure 1

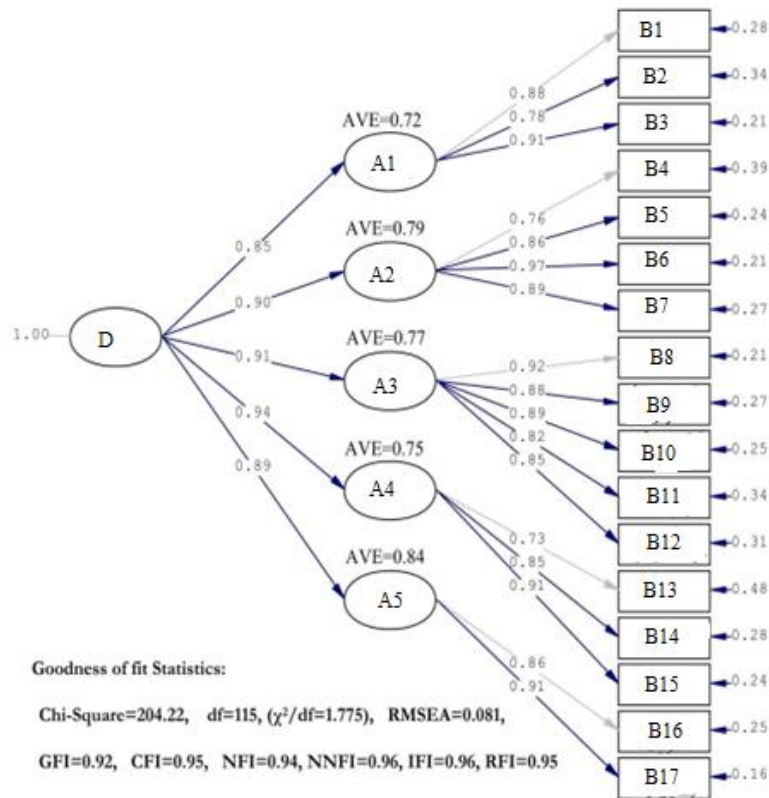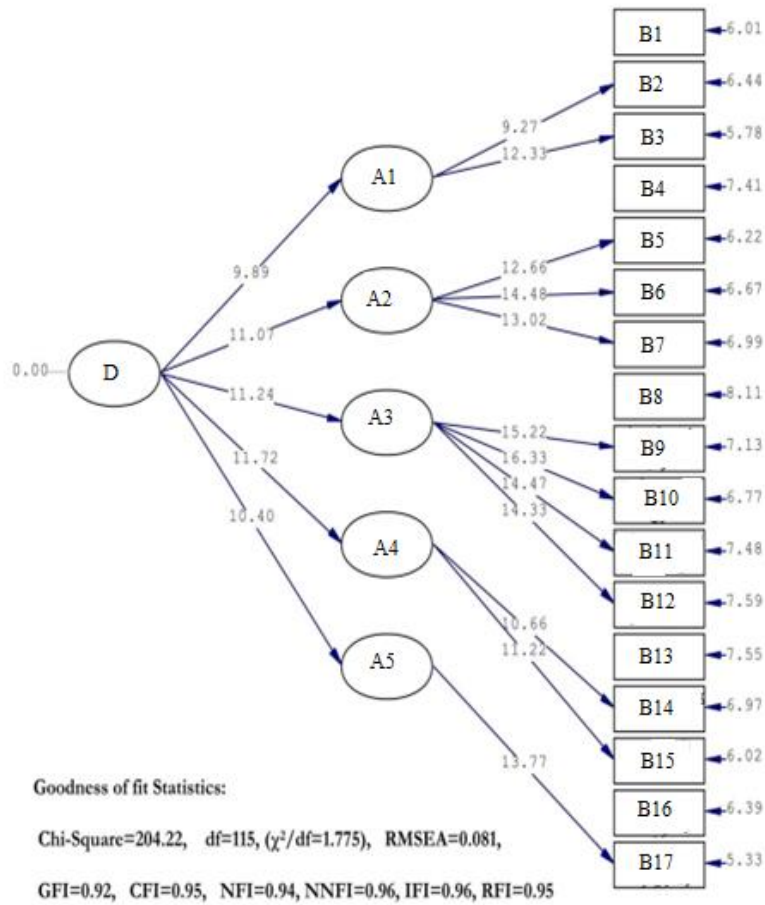*Model with Factor Loadings, AVE, and fit Indices*

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Figure 2

Model with T-Values

Goodness of fit Statistics:

Chi-Square=204.22,   df=115, (χ²/df=1.775),   RMSEA=0.081,

GFI=0.92,   CFI=0.95,   NFI=0.94, NNFI=0.96, IFI=0.96, RFI=0.95

A1: Organizational Needs; A2: Job Characteristics; A3: Individual Needs; A4: Job Rotation; A5: Job Promotion; B1: Efficiency; B2: Effectiveness; B3: Creativity and Innovation; B4: Job Knowledge; B5: Job Ability; B6: Job Skills; B7: Attitude; B8: Job Satisfaction; B9: Personal Skill Growth; B10: Work-Life Quality; B11: Attention to Talents and Abilities; B12: Interests and Desires; B13: Diversity in Work; B14: Reduction of Monotony; B15: Increase in Employee Perspective; B16: Increase in Responsibility; B17: Providing Growth and Progress Opportunities; D: Career Path Planning

Figure 1 displays the second-order confirmatory factor analysis model in the standard coefficient estimation state. According to the model in this estimation state, factor loadings and path coefficients can be assessed. Based on the factor loadings, the indicator with the highest loading has a greater contribution to measuring the respective variable, and an indicator with smaller coefficients contributes less to measuring the respective construct. This model also shows the average variance explained for each variable. Since the AVE index for all variables in this study is above 0.5, the convergent validity of the model constructs is confirmed.

Figure 2 shows the behavioral characteristics model in the significance state of coefficients (t-value). This model essentially tests all measurement equations of factor loadings using the t statistic. According to this model, a factor loading is significant at a 95% confidence level if the t-value falls outside the range (-1.06 to +1.96) and is not significant if within this range. At a 99% confidence level, a factor loading is significant if the t-value falls outside the range (-2.58 to +2.58). According to the results obtained from the test, all first and second-order factor loadings have been significant at a 99% confidence level and have played a significant role in measuring their constructs.

Table 1

Model Fit Indices

Index	Obtained Value	Acceptable Limit
Chi-square/Degrees of Freedom	1.775	Less than 3
GFI (Goodness of Fit Index)	0.92	Above 0.9
RMSEA (Root Mean Square Error of Approximation)	0.081	Less than 0.1
CFI (Comparative Fit Index)	0.95	Above 0.9
NFI (Normed Fit Index)	0.94	Above 0.9
NNFI (Non-Normed Fit Index)	0.96	Above 0.9

Table 1 describes the key indices of model fit and shows that the model is in a favorable condition for explanation and fitting. Specifically, the Chi-square to Degrees of Freedom ratio is less than 3, the RMSEA is less than 0.1%, and the remaining indices are within acceptable ranges. In other words, the model and the overall framework for assessing the research components are significant and acceptable.

Table 2

First-Order Factor Loadings

Observed Variables	Organizational Needs	Job Characteristics	Individual Needs	Job Rotation	Job Promotion
Efficiency	0.88				
Effectiveness	0.78				
Creativity and Innovation	0.91				
Job Knowledge		0.76			
Job Ability		0.86			
Job Skills		0.97			
Attitude		0.89			
Job Satisfaction			0.92		
Personal Skill Growth			0.88		
Work-Life Quality			0.89		
Attention to Talents and Abilities			0.82		
Diversity in Work				0.85	
Reduction of Monotony				0.91	
Increase in Employee Perspective					0.86
Providing Growth and Progress Opportunities					0.91

Table 2 provides the factor loadings for the first order, which indicate the significant contribution of each index in measuring the dimensions of career path planning. These indices can also be ranked based on their factor loading coefficients. Based on the results, it can be said that all indices for all dimensions have created a significant weight and have significant factor loadings at a 99% confidence level.

Table 3

Second-Order Factor Loadings

Dimensions	Factor Loading	Rank in Model
Organizational Needs	0.85	5
Job Characteristics	0.90	3
Individual Needs	0.91	2
Job Rotation	0.94	1
Job Promotion	0.89	4

From the second-order factor analysis results, it can be concluded that each dimension has made a significant contribution to the measurement of career path planning dimensions and can be ranked based on the factor loading. According to the results, all five dimensions have created a significant weight and have achieved significant factor

loadings at a 99% confidence level. According to the obtained coefficient, the job rotation dimension has had the most significant share in creating the career path planning model. The dimension of individual needs has the second most significant share. The dimensions of job characteristics and job promotion follow in rank, and the dimension of organizational needs has the least share in the ideal state of the career path planning model.

4   Discussion and Conclusion

In this research, considering the main and subsidiary objectives and questions formulated, five dimensions derived from the literature on career path planning for human resources at Saipa Company were assessed and studied. The current and desired status of career path planning for human resources at Saipa Company was posed as the main questions, and the five dimensions of organizational needs, employee needs, job rotation, job promotion, and job characteristics, along with the indicators related to each of these, were examined using single-sample paired t-tests and confirmatory factor analysis. What is the current status of career path planning for human resources at Saipa Automotive Company?

Given that for optimal career path planning, the five dimensions of organizational needs, employee needs, job needs and characteristics, job promotion, and job rotation, along with 57 derived indicators from reviewing theories and literature, were identified and tested among a statistical population of human resource experts at Saipa Automotive. Statistical analyses showed that only 4 of the 57 indices related to the components of the five dimensions were considered, and the remaining 53 indices were not confirmed due to insufficient attention or disregard. In other words, 4 indices were confirmed, and 53 were rejected, indicating that the current planning of career paths for human resources at Saipa Automotive Company is not ideal. Given the importance of Saipa Automotive Company in the national automotive industry, attention to career path planning is of special importance. What is the ideal model for career path planning for human resources at Saipa Automotive Company? Respondents confirmed the dimensions and indices of career path planning and declared the importance of each dimension according to the research results, showing the importance levels of job rotation at 94%, individual needs at 91%, job characteristics at 90%, job promotion at 89%, and organizational needs at 85%. The dimension of organizational needs at Saipa Automotive Company with

three constructs and indicators of efficiency, effectiveness, and creativity and innovation result from the literature and theoretical background of the research (Moghaddam et al., 2021; Nagavi & Abbaspour, 2010; Sabet Motlagh & Alvani, 2018) and was tested under the first stage of confirmatory factor analysis, and the results confirmed five constructs. All indicators created significant weights and had significant factor loadings at a 99% level. Also, from the factor loadings calculated in the confirmatory factor analysis, the components related to each of the constructs included the creativity and innovation index with a factor loading of 91% as the most important indicator; the efficiency index with a factor loading of 88% as the second indicator; the effectiveness index with a factor loading of 78% as the third and final indicator.

The job characteristics dimension at Saipa Automotive Company included four indicators: job knowledge, job ability, job skills, and attitude. The outcome of the literature and theoretical background, Herzberg, Ternowolars, and Adams, and considering the conceptual and analytical models under the first stage of confirmatory factor analysis, the results indicated the confirmation of all four indices significant at a 99% level. The job rotation dimension at Saipa Automotive Company with two indices, increasing responsibility and providing opportunities for growth and advancement, results from the literature and theoretical background of the research (Hakak et al., 2021; Hoseinian, 2021; Khalili Moghadam, 2023; Moghaddam et al., 2021; Seyed Naghavi & Arab Kolmari, 2013), and considering the conceptual and analytical models under the first stage of confirmatory factor analysis, the results indicated a general confirmation of the index and its significance at a 99% level.

One of the limitations of this research is related to the method. The researcher used a quantitative approach and a questionnaire tool, which may have led respondents to not fill out the questionnaire carefully. Additionally, the sample studied was related to Saipa Automotive Company, which makes the results not very generalizable to other jobs. It is suggested that future researchers use a mixed-method approach and also study more professions to make the results more generalizable to other jobs. Since job rotation had the highest priority in this research, it is recommended that Saipa Automotive Company pay more attention to job rotation and empowerment of its employees. Another suggestion is to pay more attention to the prioritized needs of employees because human resources play a key role in achieving the goals of any organization.

Authors' Contributions

All authors have contributed significantly to the research process and the development of the manuscript.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

The authors report no conflict of interest.

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Ethical Considerations

In this research, ethical standards including obtaining informed consent, ensuring privacy and confidentiality were observed.

References

Gander, M. (2021). The hybrid career concept: creating hybrid career pathways. *Career Development International*, *26*(7), 853-868. https://doi.org/10.1108/CDI-07-2020-0189

Hakak, M., Chegeni, F. F., & Sepahvand, M. (2021). The Effect of Career Path Competencies on Employability by Analyzing the Mediating and Moderating Role of Career Path Success and Career Path Shocks (Case Study: General Assembly of Iranian Association of Certified Public Accountants). *Journal of Development of Logistics and Human Resoure Management*, *16*(60), 83-106. https://www.magiran.com/paper/2291463

Hoseinian, S. (2021). Modeling the career path of a female police officer in the disciplinary field. *Order & Security Research Journal*, *14*(1), 77-102. https://www.magiran.com/paper/2278042

Khalili Moghadam, M. (2023). Investigating the relationship between the adaptability of the career path with job satisfaction and job stress among the educational managers of Lordegan city. *Studies in psychology and educational sciences (Nagareh Institute of Higher Education)*, *93*(0), 277-295. https://www.noormags.ir/view/en/articlepage/2040419

Konek, J. (2019). Epistemic conservativity and imprecise credence. *Philosophy and phenomenological research*. https://www.academia.edu/download/35620331/Epistemic_Conservativity_and_Imprecise_Credence.pdf

Moghaddam, A., Vishlaghi, M., & Jafari, M. (2021). Proactive personality and human resource productivity: Analyzing the mediating and moderating role of protein career path and political skills (Case: Imam Khomeini port staff). *Journal of Teaching in Marine Sciences*, *8*(1), 111-123. https://www.magiran.com/paper/2272364

Nagavi, M. A. S., & Abbaspour, H. (2010). The Analysis Of Relationship Between Empowerment Sense & Personnel Creativity And Organizational Culture (A Case Study In NIODC). *Strategic Studies in Petroleum and Energy Industry*, *4*(11), 77. https://www.magiran.com/paper/853252

Pordaelan, N., Sarmad, A., & Motaghi, H. (2017). Factor Structure and Validation of the Short Form of the Multidimensional Calling Measure among Students in Isfahan University. *Quarterly Journal of New Thoughts on Education*, *12*(3), 157-190. https://www.magiran.com/paper/1629527

Sabet Motlagh, M., & Alvani, M. (2018). Designing a Model Explaining the Relationship of Spirituality in the Workplace with Human Resource and Organizational Performance. *The Journal of Productivity Management*, *12*(3(46)), 39-67. https://jpm.tabriz.iau.ir/article_543658.html

https://jpm.tabriz.iau.ir/article_543658_91a4442b77a8b6e3e4972de5bb36dfba.pdf

Seyed Naghavi, M., & Arab Kolmari, M. (2013). Internal Career Orientations : A case study of banking industry. *Iranian journal of management sciences*, *6*(24), 25-40. http://journal.iams.ir/article_110.html

http://journal.iams.ir/article_110_f490619aea8de20f51ae51966326312f.pdf