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MODEL DEVELOPEMENT FOR ESTABLISHMENT OF SMART ORGANIZATIONS: CASE STUDY OF THE SOCIAL SECURITY ORGANIZATION

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ABSTRACT

Rapid developments and globalization are among the environmental issues that are faced by organizations these days. Thus, organizations are required to adapt to such environments whose levels of complexity, inconsistency, and uncertainty are increasing constantly. In such a condition, organizations need to identify the factors affecting their flexibility smartization, and the capability of providing logical reaction, discovering opportunities, and reducing the risks in a highly competitive environment, so that to become consistent with the conditions and, thus, survive. In this study, Structural Equation Modeling was applied by using Least Squares Method and SmartPLS software to test questions and accuracy of the model.

The results showed that the variables learning organization, the organization's comprehensive smartness, organizational communications, organizational management, and systemic thinking are reflection of the smart organization. Among these variables, the most influential was organizational management. The results showed a significant positive relationship between the level and components of smart organization in the Social Security Organization. This finding revealed that organizations, effectively using such systems, can achieve higher levels of systemic development and enjoy improved sets of data that enhance the overall quality of their decision-making capabilities in various situations.

1. INTRODUCTION

Nowadays, the old methods of organizational management are no longer responsive to the rapid environmental changes. The practice of medical sciences has changed in the modern organizations so that every organizational member is an active participant in the current organizational affairs. Such changes have led to the formation of new types of

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organizations, such as virtual organizations, horizontal organizations, etc., which are called knowledge-based organizations (Tabarsa & Nazarpouri, 2013; Mostafaei et al, 2014). The smart organization is a modified organizational pattern and a new way of organizational rethinking in the age of knowledge. In today's world, the development of a smart organization is one of the certain requirements for most knowledge-based organizations; so that, organizations can enhance their capabilities and gain knowledge through the acquisition and analysis of the available data. In light of this smartness, organizational managers can depict the current and future images of the competition scene and make better decisions (Maccoby, 2015). In today's turbulent environments, the success and strength of knowledge-based organizations depend on their employees' thinking abilities, and one of the biggest challenges that organizations face is how to create a new generation of smart organizations, designed specifically for the age of knowledge (Bagherian et al, 2016). Rapid developments and globalization are among the environmental issues that organizations face these days and organizations are required to adapt to such environmental changes with increasing levels of complexity, inconsistency, and uncertainty (Waldman et al, 2001). Under these conditions, organizations need to have appropriate levels of complexity, flexibility and logical responsiveness to be able to discover opportunities, reduce the risks in a highly competitive environment, be in line with the changing conditions and, thus, survive (Gotcheva et al, 2013). Successful organizations need to have something more than capital and human resources in the current competitive medical environment. Smart managers know very well that they must pay special attention to their other organizational assets (Bock, 1998). Organizational managers must accept that the philosophy of their jobs has changed; so that, being alive alone cannot guarantee their ongoing profitability. Therefore, they need to look for competitiveness, which becomes possible only through the encasement of their smartness level (Waldman et al, 2001). Today, companies are exposed to both internal and external forces, and they need to properly react to their environmental complexities. In today's turbulent and competitive world, the success of organizations depends heavily on their ability to apply both intra- and inter-organizational capabilities. Albrecht has introduced the importance of smart human resources, smart teams and smart organization as bases of success in an organization or generally a business (Albrecht, 2002). A smart organization must synchronize its employees and processes with advanced technologies and address the needs of its costumers in a relatively short time. A smart organization is secure, principled and value-based; it engages its employees in organizational processes, performs in accordance with perceived tools and practices, and finally, improves its internal extents to react reasonably to its environmental issues (Baars & Kemper, 2018). A smart organization must systematically connect its work processes to its different organizational dimensions and apply those processes and dimensions to achieve synergy (Staskeviciute, 2009). Schweninger (Schwaninger & Flaschka, 1995; Schwaninger, 2000) believes that a smart organization is able to adapt to its environmental changes and medically treat its complexities (Bock, 1998). In scientific literature on medical sciences, various scholars (Matheson & Matheson, 2001; Sydänmaanlakka, 2003) have tried to understand and introduce the smart organization as an entity, or a phenomenon. They have

also specified the features of an ideal smart organization. Results and implications of the use of a smart organizational system have always been focused, but inter-organizational processes and dimensions, moving and orienting an organization toward becoming a smart one, have been ignored (Augusto, 2009). According to David's view, achieving strategic goals requires attention to internal and external dimensions and strengths of the organization (David, 2013). In the scientific literature of medical sciences, the answer to the question of 'what internal aspects must be considered for the establishment of smart organizations' seems to be vague (Sydänmaanlakka, 2003). Therefore, the present study was conducted to address this question by developing a model for the establishment of smart organizations.

2. MATERIAL AND METHOD

In the present study, Structural Equation Modelling was applied by using Least Squares Method and SmartPLS software to test questions and accuracy of the model. PLS is a variance-based approach that is suitable for more realistic situations. Specifically, this approach is more favorable in complicated models. According to Hulland's suggestion, PLS model is performed in two stages: 1) validity and reliability evaluation of the measurement model; 2) assessment of the structural model by estimating the path between variables and determining the model' fit indices. The sequence of these two stages ensures the validity and reliability of the measure before any attempt to make any conclusion about the relationships between the constructs.

3. RESULTS

3.1 A QUANTITATIVE MODEL FOR THE ESTABLISHMENT OF SMART ORGANIZATIONS

To test the study's hypothesis, reflective modeling was used. In this type of modeling, mainly used in Confirmatory Factor Analysis-based studies, it is assumed that observed variables are reflections of the latent variable. In the context of the present study, it was assumed that each of the variables including learning organization, the organization's comprehensive smartness, organizational communications, organizational management, and systemic thinking was a reflection of the smart organization.

As shown in reflective model in Figure 1, the Market Leadership relates to the Service Innovation and the capabilities of adapting the socio-economic change and the Sales and Marketing. The Service Innovation is a composite effect of: (1) Practice Eminence (2) Technology Leadership and (3) Strategy Realization. The Practice Eminence is an accumulative capability of the Service Design and the synergy of the Value Co-creation and the Service Significance. The Research Development, along with the adequate Investment and the Technology Significance determines the success of Technology Leadership. The Service Design and the Research Development are a part of the outcome of the Strategy Realization. And finally, The Service Realization is the stimulus of the Creative Management of the Learning Organization possessing the Boundary Spanning capability.

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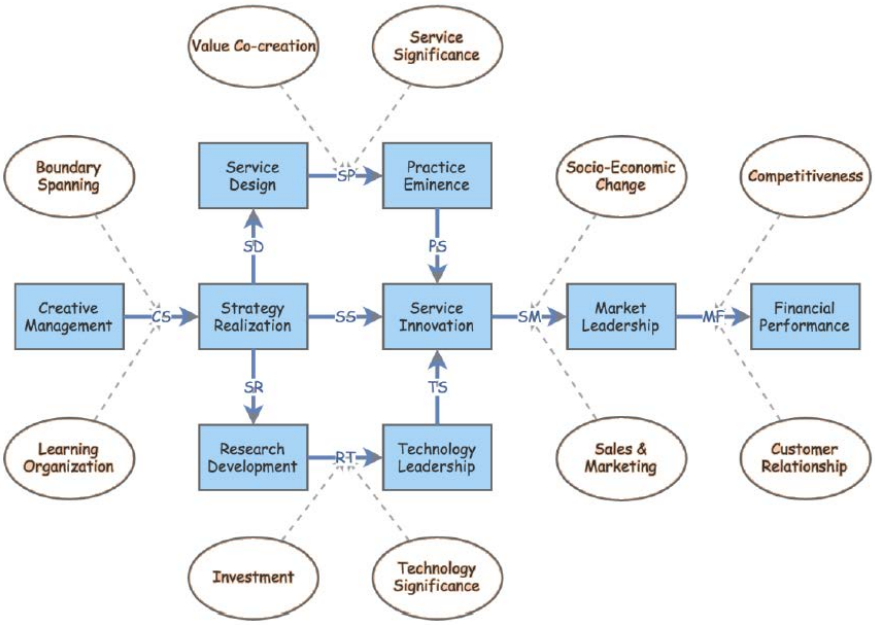

Figure 1: The Reflective Model of Smart Organization in Standard Mode

Table 1. Fit indices of the Model

Index	Df	CMIN/DF	CFI	NFI	RMSEA	RMR
Value	85	1.611	0.877	0.740	0.079	0.293

Indices of the model's overall evaluation generally indicated that the designed model was partially supported by the collected data, and in other words, the fit of the model to the data was somewhat established. The relative Chi-square to the degree of freedom (χ^2/df) was <5; the Comparative Fit Index (CFI) was <0.09; the Normed Fit Index (NFI) was <0.09; the Root Mean Squared Error of Approximation (RMSEA) was 0.079, and the Root Mean-square Residual (RMR) was 0.293.

According to the results presented in Figure 1, it was concluded that each of the variables including learning organization, the organizations' comprehensive smartness, organizational communications, organizational management, and systemic thinking was a reflection of the smart organization. Among the mentioned variables, the most influential was organizational management.

Table 2. Fit Indices of the Model of Smart Organization

Fit indices	Criteria	Values	Interpretations
Chi-square (χ2)	-	136.943	-
Degree of Freedom (df)	-	85	-
Ratio of χ2 to df	<3	1.62	Good enough
Root Mean Squared Error of Approximation (RMSEA)	<0.1	0.079	Good enough
Goodness of Fit Index (GFI)	>0.9	0.84	Not good enough
Adjusted Goodness of Fit Index (AGFI)	>0.9	0.787	Not good enough
Root Mean-square Residual (RMR)	<0.05	0.293	-
Comparative Fit Index (CFI)	>0.9	0.849	Not good enough
Normed Fit Index (NFI)	>0.9	0.740	Not good enough
Incremental Fit Index (IFI)	>0.9	0.882	Not good enough

According to the results of fit indices of the Model of Smart Organization, the Comparative Fit Index (CFI) and the Comparative Fit Index (CFI), as the main indices of fit, were <0.9, indicating the awkward fit of the model. Moreover, the other fit indices (i.e., IFI, NFI, AGFI) were not good enough. However, according to the obtained values for Root Mean-square Residual (RMR) and Root Mean Squared Error of Approximation (RMSEA), the model considered to be partially fit.

4. CONCLUSION

In this study, attempts were made to identify and analyze the factors affecting the establishment of a smart Social Security Organization. Accordingly, after reviewing the related literature and interviewing experts, those factors were identified and classified into six categories. The results of Structural Equation Model showed that the examined factors had significant effects on the establishment of smart organizations. As a result, it was concluded that any actual organizational improvement can be achieved by paying more attention to the five explanatory factors. In other words, considering these factors will enhance the smartness of the Social Security Organization. Thus, the Social Security Organization needs to consider these factors before the implementation of its programs. The results of this study were in line with those of Najjari et al. (2016), Bagherian Kasgrai et al. (2015), Haji Shahkaram and Mohammadi (2015), Ehsanlou and Khademi (2015), Ronaghi et al. (2014), Tabarsi et al. (2012), Rezaeian et al. (2011), Moshbeki and Zangoee Nezhad (2008), Stascovisiwit (2009), Stascovisiwit and Noraskas (2008), Schweninger (2005), and Argyres (1997) studies.

The results of this study showed a significant positive relationship between the level and components of the smart organization in the Social Security Organization. This finding revealed that organizations, effectively using such systems, can achieve higher levels of systemic development and enjoy improved sets of data that enhance the overall quality of their decision-making capabilities in various situations. Therefore, it became clear that the circulation and application of information in organizational processes can be improved by paying more attention to the issue of organizational smartness and providing educational contexts to enhance it. These activities will enhance the way a smart organization reacts to its environmental changes.

In today's highly competitive world, smartness and smart behaviors are the best guarantees for business success. Being smart is to make the best strategic decisions, and smart behavior involves the implantation of those strategic decisions. Thus, smart organizational behaviors lead to the elimination of all complexities, competitive pressures and non-responsiveness to the environmental changes that endanger an organization’s survival.

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