

## **The Complementary Relationship between Organizational Architecture and Organizational Agility An Empirical Study in Mobile Carriers of Erbil – Iraq**

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**Abstract:** The present research aims to investigate the relationship between organizational architecture and organizational agility in the mobile carriers of Erbil in Iraq. A questionnaire was conducted on mobile companies based on a random sampling technique. The results show there is a statistically significance and positive relation between organizational architecture and organizational agility. The results also indicated that organizational architecture has a statistically significant and direct positive effect on organizational agility. Finally, the researchers draw an overall conclusion from the research as a whole.

**Keywords:** Organizational Architecture, Organizational Agility, Mobile Carriers, Iraq  
**JEL Classification:** M10, M21, L96

### **1. Introduction**

The organizational architecture is considered as one of the modern concepts which has been transferred from engineering and constructing to organizational work, as if every building has fundamentals and basis; organizations has the same basis with difference in subjects and perspectives, from this overview the importance of organizational architecture rises as a support that any organization is based on and trying to access the business field and compete with the others. Therefore Jansen (2007) referred that architectural must not be limited in technique and engineering field instead it needs to extend to the organizational fields as well.

The reality of modern business environment has the privilege of many variables and speed rather than aggressive competition and agent requirements, for that the organizations should increase their ability to compete and adapt with changes. Constructing architecture for any organization shows a firm challenge and needs to understand all the organization aspects, enlighten to this every organization must have the features of efficiency, activity, flexibility and ease of design (Goncalves, 2009).

In the same context, if the organization wants to add a value to the architecture then it must adapt to environmental changes always, so as business organizations is just like living objects open –minded to

its environment and works to verify a suitable relationships to ensure their living (Goncalves, 2009; Roest, 2014).

According to organizational fitness, sometimes the nature of changeable and unsettle business environment leads them to keep up with the changes and do the reforms and implement strategies that suits the dynamic environment nature, from this point the organizational fitness rises to how they can deal with that because many organizations resist the suddenly orientation changes to business that is for they find difficulty to ignore their current knowledge and administrative procedures. Therefore, it represents a formula to construct their business that is associated with people and specific policies (Amah & Nwuche, 2013). A lot of organizations started rapid responds to the unsettle markets, so every organization should be designed as a fitness one to respond the internal and external changes (Raschke, 2010), in this framework Imache et al. (2012) confirmed that fitness is a source to fill economic materials and future opportunities and make it ready for responding any changes.

Organizational fitness has the ability to succeed in a competitive environment and continuously and unexpected changes, this explanation depicts its ability to achieve growth at a fuzzy environment, this is for that fitness organizations trying to stay sustained via their knowledge of the environment but it still needs to deal with a lot of ambiguous circumstances (Goldman et al., 1995).

According to Iraqi environment (Investment Commission of Iraq & UK Trade & Investment, 2012) it was declared that portable communication section in Iraq is one of the vital sections in country and its rank is the second after oil & gas according to importance. That means the communication market is in continuous growth than it was before 2003.

Nowadays, there are about 27 million clients of communication market in Iraq, as a result of this huge competition among the communication companies, one of them has signed a contract for 3 years with Ericson company to initiate a network that can keep up with the unexpected developments, and to access to the 3<sup>rd</sup> generation system (3G), therefore Al-Hakim and Hassan (2012) confirmed that many Iraqi communication companies seek to survive in this continuous changes environment by continuous technical development, and attracting clients, so they need to improve their organizational performance to keep up their market positions, and to gain more profits.

## **2. Previous Literature**

A list of the main concepts used in previous literatures which is related to the concepts of this research.

### **2.1 The Concept of Organizational Architecture and Its Dimensions**

Many researchers described the concept of organizational architecture in different ways according to their visions and approaches, but the core of the definition remains as the link between organizational structure and different organizational activities. The good organizational architecture is the architecture that achieves the integration by adapting to various changes, and dealing with them by high level of flexibility to create high value for clients. Table 1 shows some definitions of organizational architecture

Table 1: Organizational Architecture Definitions

No.	Definition
1	It is a framework used for analyzing and designing the organizational culture, organizational structure and developing the human resources (Churchill, 1997).
2	It is the framework that coordinates, focuses and stimulates the efforts and resources of individuals (Reckard, 2006).
3	It is the representation of the business fundamentals their development (Goncalves, 2009).
4	It is the formal and informal organizational structures (Gulati et al., 2009).
5	It is the organizational interior design such as decision-making rights, and information systems (Yin, 2014).
6	It is a model or complex organizational system describes organizations (Schatten, 2014).
7	It is a discipline for proactively and holistically leading enterprise responses to disruptive forces by identifying and analyzing the execution of change toward desired business vision and outcomes (Roest, 2014).

As shown above, organizational architecture has some characteristics that limits the importance of it, Chaddad, (2013) described that it contributes to ease the consistency process, a good and active tool for planning and managing, organizational architecture is the key for change as Palmié, (2012) mentioned; as the same context focusing on what is good with organization and environment is not the only thing that architecture encourages for but also to the harmony and amity among main design factors; it also encourages to follow a comprehensive approach because the organizational architecture requires a comprehensive view of design and social system factors that fundamentals a large and growing company to get the optimal use of social motivation from the workers and use for designing the architecture.

Many business organizations ignore these social motivations, for example, General Electric Company uses tight security as a tool to prevent workers from being stolen, and this procedure certainly will hurt the social motivations among workers and discourage them to perform well. The organizational architecture represents an important aspect in business organizations, because the administration can affect on the performance and the value of the organization.

Many researchers and scholars differed in the dimensions of the organization. Table 2 shows the most important dimensions that raised in the related literature, which have been used to analyze the organizational architecture.

Table 2: Organizational Architecture Dimensions

No.	Soviana 2013	Schatten 2014	Chaddad 2013	Goncalves 2009	Churchill 1997
1	Contextual restrictions	Organizational structure	Organizational structure	Organizational self-awareness	Organizational structure
2	Organizational goals	Organizational culture	Accountability system	Organizational culture	Organizational culture
3	Collecting resources	Commercial Operations	The merit	Organizational design	HR Management
4	Architectural design	Strategy	Activities Exporting		
5			Individuals clients		
6			Organizational dynamic		
7			Organizational aspects		

As shown above, the most important dimensions that are used in measuring of the organizational architecture are organizational design, organizational structure and organizational culture. Therefore these dimensions were selected to measure the organizational architecture in current research, Table 3 explains these dimensions.

Table 3: Organizational Architecture Dimensions

Dimension	Explanation
organizational structure	It is a process to allocate the activities and resources among workers, and to clarify the formal relations among organizational levels.
organizational culture	It is a set of values, beliefs, rules, meanings, and practices shared by the staff within the organization.
organizational design	It is an oriented process to integrate information, technology, workers and their relations inside the organization.

## 2.2 The Concept of Organizational Agility and Its Dimensions

Although that many researches differ to clarify the concept of organizational Agility, most of them agree that it is fully prepared to face the volatile circumstances as a result for the dynamic nature of the competitive environment, since it requires from organizations to have non-traditional flexible and dynamic to deal with these changes, and to be in a high degree of vigilance to seize the various opportunities, to meet the current challenges, and to search for future opportunities.

It should be noted that the Agility organization do not think about how to deal with the changes only, but it tends to look at how to recruit potential opportunities in a volatile environment, and to access to a

special place in this environment taking into consideration its capabilities and competencies (Apicha, 2012).

Kettunen (2010) confirms that there is a need to provide three basic requirements to achieve the agility as following:

1. **The Strategic Sensitivity:** it refers to the firm’s capability to identify changes in its environment and understand them, and it includes the intensity of perception, awareness and attention to the surrounding environment.
2. **Collective Commitment:** it refers to the adoption of collective decisions that tend to be less conservative and more self confident than individual decisions, and to enable the team to take big, bold and quick steps.
3. **Resource Fluidity:** it refers to the availability of liquidity, resources, and abilities of internal business systems, re-formation and redistribution of resources faster.

Thus, the organizational Agility represents the re-engineering of competitive organizations, and in fact this is the goal of each pioneer organization aspires to achieve the highest degree of integration. Certainly, there is a close relationship between agility and organizational architecture, this relationship is represented by that the agility requires continues changing of the mechanisms, and the methods of dealing with the various aspects of internal and external business, and this requires a high level of architectural flexibility to fit with the goals of the Agility organization (Soltani & Lavafan, 2014). Table 4 shows the definitions that will depict the organizational Agility.

Table 4: Organizational Agility Definitions

No.	Definition
1	It is the ability of the organization to sense rapidly and respond to the opportunities and threats of market successfully and in the right time (Overby et al. 2006).
2	It is the full response to the rapid changes in competitive markets and achieve success by exploiting possible opportunities for organization (Yaghoabi & Dahmardeh, 2010).
3	It is the ability of organization to adapt and cope with various environmental changes strategically by presenting many new and innovative ideas and models to increase and create added value for the organization (Liu, 2010).
4	It is the ability of the organization for rapid and successful response to changes in market and customers' requirements (Shahrabi, 2012).
5	It is the ability of all levels of organization to response about the unexpected changes in environment, and the ability for rapid and innovative response to achieve growth (Cai et al., 2013).

Many researches and scholars differ about the most important dimensions of organizational Agility, but most of them focus on the three dimensions Clarified by Sambamurthy et al. (2003), and these dimensions are:

1. Customer Agility: Encourage customers to explore and exploit the opportunities for innovation and competitive activities.
2. Operation Agility: It is the ability of operational processes of the organization to innovate and compete with precision and effectiveness.
3. Partner Agility: It is the ability to take advantages of assets, knowledge and competencies from suppliers, distributors, manufacturers, and logistics providers by alliances, partnerships and joint ventures.

Therefore these dimensions were selected to measure the organizational Agility in current research.

### 3. Proposed Research Model and Hypotheses

The framework, based on RBV theory perspective, is conceptualized based on a number of previous studies (Churchill 1997; Sambamurthy et al., 2003; Jansen, 2007; Goncalves, 2009; Roest, 2014). Then, the research framework of the present research is shown in Figure 1.

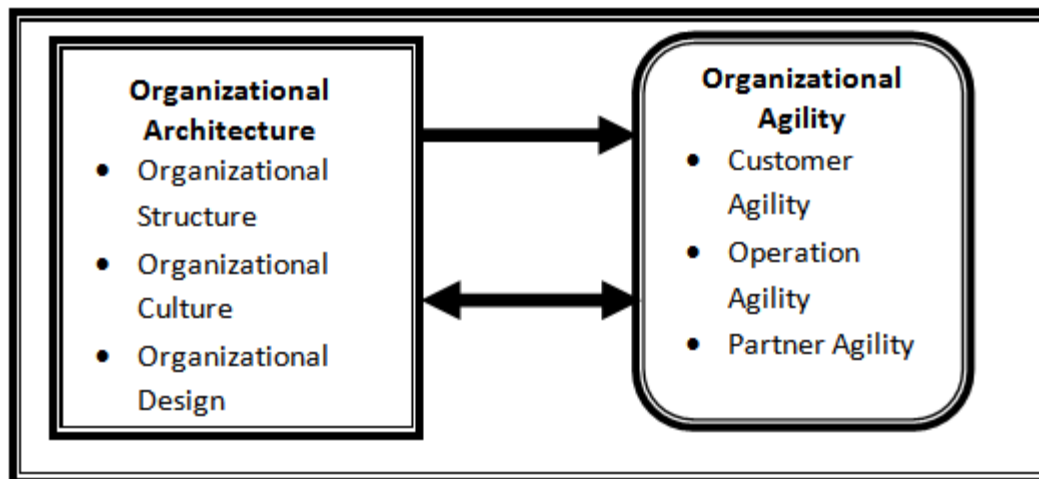


Figure 1: Theoretical Framework of the Research

According to theoretical framework of this research, the hypotheses are formulated as:

**H<sub>1</sub>**: Organizational architecture has a significant and positive related to organizational agility.

**H<sub>2</sub>**: Organizational architecture has a significant and positive effect on organizational agility.

## 4. Methodology

### 4.1 Target Population

In the present research, the population refers to all employees that work in the mobile carriers of Erbil in Iraq.

#### 4.2 Sample and Procedures

Based on an application of random sampling technique, questionnaires were randomly distributed only among 100 employees by personal delivery and collection of questionnaires from March to June 2016.

#### 4.3 Measures

In the present study, the 22 measurement items were adapted from Hsieh (2007) for organizational structure, Chong et al. (2009) for organizational culture, Roest & Jacco (2014) for organizational design and Tallon & Pinsonneault (2011) for organizational agility. Moreover, present study seeks to measure all variables by using a 5-point Likert scale where survey question is referred to agreement degree (i.e. 1 = strongly disagree, and 5 = strongly agree).

#### 5. Hypotheses Test

In order to test the substantive hypotheses, a structural model was developed. It was run with 22 items to exogenous latent variable (organizational Architecture) and endogenous latent variable (organizational agility). This is because the overall results presented evidence of a good model fit ( $p = 0.233$ , GFI = 0.940, and RMSEA = 0.012) and the Chi-square index was significant ( $\chi^2 = 313.916$ ,  $df = 314$ ,  $\chi^2/df = 1.057$ ). Hence, it can be concluded that these conditions meet the requirement of an acceptable model. The structural model of H1 is shown in Figure 2.

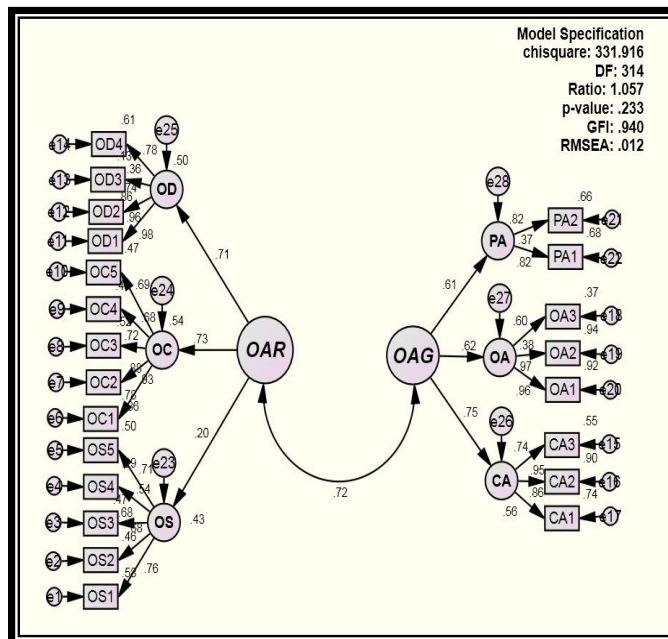


Figure 2: Structural Model of Correlation between Variables

Figure 2 shows that the standardized path coefficient of 0.722 seems to indicate that organizational architecture have a significant and positive related to organizational agility use (H<sub>1</sub>). Figure 3 shows that the standardized path coefficient of 0.722 seems to indicate that organizational architecture have a significant and positive effect on organizational agility use (H<sub>2</sub>). Then, these hypotheses were accepted.

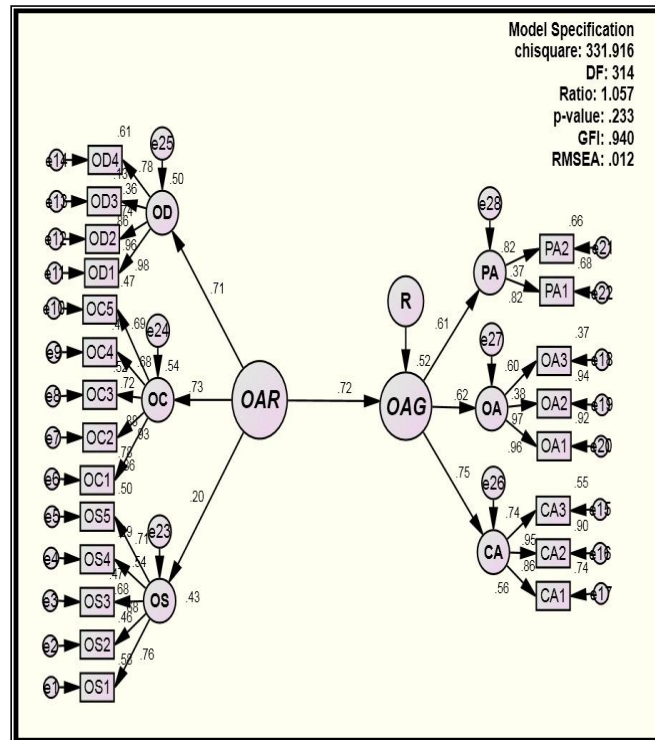


Figure 3: Structural Model of Effect between Variables

## 6. Conclusions, Limitations and Future Directions

This research has required investigating relationship between organizational architecture and organizational agility in the mobile carriers of Erbil in Iraq. Certainly, it augments our understanding of the organizational architecture (organizational structure, organizational culture, and organizational design) to achieve the organizational agility (customer agility, operation agility, and partner agility), based on the RBV theory perspective.

The results provided evidence that the organizational architecture has a significant and positive relation to organizational agility. Additionally, the results indicated that the organizational architecture has a significant and positive effect on organizational agility. Accordingly, the present research has contributed to the investigate relationship between organizational architecture and organizational agility field.

The findings of this research have theoretical, methodological, and practical contributions. As such, the current attempt has managed to fill in gaps that existed in the relationship between organizational



architecture and organizational agility literature. However, this research faced methodological and generalizability limitations. Then, further empirical research is needed to understand how these issues vary from culture to culture.

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