

# Service Grid for the Development of Islamic Finance

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## Abstract

This paper develops and evaluates a new service design tool called Service Grid for designing Islamic financial services, using design science methodology. The development of the Service Grid is motivated by the current need for enhancing the visual capacity of service design tools to capture the concepts of agent-to-agent service, particularly within the Islamic financial services contexts. The proposed Service Grid separates and codes various service roles and episodes through rows and columns respectively, within a service process. The crossing points of roles and episodes create identifiable service encounters for better designing and development of Islamic financial services. The Service Grid is applied to a narrative of a Musharikah and Ijarah based service process, to demonstrate its implementation. The Service Grid is found visualising the in-depth detail of service and can, therefore, improve the design, development, and management of service two areas; that are, i) roles design and integration, ii) episodes design.

**Keywords:** *Service Grid, Islamic Financial Service, Episodes, Roles, Service.*

## Introduction

The adoption of Islamic financial system in multiple regions implies for the need to develop new financial products and services to play an embryonic role in the sector development (Ullah & Patel, 2011; Ahmed, 2011). To date, the development in the Islamic finance discipline is more focused upon the development of Islamic contracts and how the economic benefits of such contracts could be achieved (Obaidullah, 1999). In this regard, most of the existing literature highlights the Islamic scholars' research work on various conventional as well as Shariah-based contracts and their differences (e.g. see Hassan & Lewis, 2007; Metwally, 1997). However, there seems to be a paucity of literature into a broader phenomenon of Islamic financial service creation mechanism, that is, how such services are created and applied in practice (Ullah & Al-Karaghoul, 2017). Therefore, there seems to be a need for the development of new tools in relation to the development and designing of Islamic financial services, which would enable the industry to accelerate its growth and materialised the Maqasid Al-Shariah in substance.

As the Islamic finance service is more focused on value co-creation and co-consumption by transforming the structures into pragmatic practice (Ullah, Al-Karaghoul & Jan 2017), therefore, it bases upon the proposition of service as being conceptualised as an agent-to-agent relationship rather than producer-to-customer (see Lusch, Vargo & Wessels, 2011). The agent-to-agent way of conceptualisation perceives service provider and consumer as service co-creators, who are both involved in service creation, hence stimulates new thoughts for the design of service and for the Islamic financial services, as analogy.

Numerous publications have recently claimed that product development and design techniques are two important new research dimensions which requires attention while developing service design (Ullah & Al-Karaghoul, 2017; Siddiqui, 2018). Therefore, this research attempts to develop and evaluate a new service design tool, called Service Grid which focuses on separation and coding of the roles of each agent within and across multiple episodes in a service process. Thus, this research paper gives rise to *the developing a new service design tool called Service Grid as a research objective*.

## Service Design and Agent-to-Agent Services

The discipline of services design involves the knowledge of both the design and service. Hooker (2004) stated that the design theory provides the style, level of designing, and the knowledge about the objects which are to be designed will come from the subject area, such as Islamic finance, politics, and any other. Literally, design is “a plan or drawing produced to show the look and function of something before it is built or made” (Oxford Dictionary, 2011, p. 388), like design of a building before it comes into the existence. The service design, is therefore, can be interpreted as the plan for enacting unique service experiences. Mahdjoubi (2003) stated the design as a plan is a is a different thinking process that precedes the service actions, which are more likely the behaviours which emerge as output of the thinking process. In service design, the designer visualises and then prescribe the solution for the service problems (Segelström, 2010). Thus, the designers have to rely upon their prior experiences and visions with the objectives to design and develop (new) services (Boland & Collopy, 2004). Furthermore, the designers and developers conceptualise and visualise the service constructs and its functionalities considering

the micro and macro contexts. For example, in a car lease service design, the designer must have to specify who will do what and when in creating different encounters of a service process considering the organisation and regulatory structures, as contexts of application.

The service design is claimed to have its roots in service science and design science (Han, 2010). The service science is the study of service systems having an aim to create a basis for systematic service innovation (Maglio & Spohrer, 2008; Vargo, Maglio & Akaka, 2008). Whereas, design science is the method for designing outputs or solutions to design problems (Hevner *et al.*, 2004; March & Smith, 1995). The outputs or solutions take the form of artefacts, that could be constructs, models, methods, and instantiations to solve the human problem (March & Smith, 1995). In practice, the service design model is the preliminary work that serves a plan from which the final service is to be created (Moggridge, 2008; Mason, 2006). In thinking of designing and developing services, one of the quality criteria is that the actual service happened or intended to happen be maximally and accurately covered in the design. Which Forrester and Senge (1980) termed as the gap between the model and the problem, which is modelled. The service design models, such as the Service Grid that proposed in this study, need to synthesize the stakeholders' needs, problems, and solutions (Patrício, et al., 2011).

In Islamic banking services, the designers prescribe each service parameter based on models adopted from the Islamic jurisprudence and in totality show them as service package or an Islamic banking package/product. The Islamic finance packages/products, as a services are then implemented to enable actual actions upon the product process flows, manuals, and computer applications. These actions upon the service packages or products are repeated by multiple and various stakeholders in various contexts and thus every repeated act-upon the package becomes a new service instance. The service packages inform the local service creators about the actual service creation process to emerge in different context and therefore these packages work like the educational or informational packages for the service creators (Ullah & Al-Karaghoul, 2017). However, it has been noticed that these designed processes or packages do not come in a chart or as one full document, rather they come in segments informing about parameters of the designed service to local creators in parts (Ullah & Al-Karaghoul, 2017). In the Islamic financial institutions, the people at the headoffice integrate multiple Islamic financial contracts to design Islamic financial packages as services. For example, Diminishing Musharaka, Ijara, or Murabaha individually or any combination of it, work as pre-planned designs containing prescriptions for solving problems or fulfil financial service needs of the customers, that are (interpreted) as Shariah compliant.

## Methodology

As mentioned in the introduction, the objective of this paper is to construct and evaluate a Service Grid model to address the designing and development problem of Islamic finance practice. In this regard, a pragmatic design science approach is used to develop and evaluate a model as practical instance (see March and Smith, 1995; Hevner *et al.*, 2004). Narrative interviews have been conducted and analysed to develop and evaluate the proposed Service Grid in the subsection (see Ullah, 2014).

**Error! Reference source not found.** represents the narrative probs adopted to generate various roles and episodes of actual service delivered by the practitioners. The questions and probes were

derived from the reviewed literature that helped to keep the discussion focused. They ensured the collection of different views on Islamic financial service and its design dimensions.

**Table 1: Adopted from (Ullah, 2014); represent probing questions for the interviewed participants**

1. Who participates in the service creation?
2. What is the purpose of each participant in the service creation?
3. What role does each participant assume in the service creation?
4. What resources are used during the service creation process?
5. What rules does the service have to comply with?

Consistent with the design science methodology, and the reviewed literature around agent-to-agent services helped us to propose the Service Grid in sub-section below along with its concepts of roles and episodes segregations. The proposed Service Grid can be used as a replica of the real Islamic financial service and will thus enhance the visualisation capacity of the Islamic finance product developers. Later, the developed Service Grid is applied to a narrative of real Islamic finance service (Islamic leasing service) to demonstrate its implementation., to visualise and code the roles and episodes.

### Proposed Service Grid

The proposed Service Grid is demonstrated in Table 1 and it is implemented in Table 2, respectively. The proposed Service Grid below focuses on all the participants to present a balance visual of all the agents in service and provide a coding system for the effective design and management of roles and episodes within the whole process. There are two dimensions of the Service Grid, namely roles and episodes, respectively. Firstly, an Islamic financial service can be segregated into various ‘*roles*’ of people and institutions, who perform the service. Secondly, the whole service process can be separated into various ‘*episodes*’ as reported. The crossing point of each service episodes (columns) and roles (rows) creates unique traceable cells, representing the contribution of a specific agent within that episode.

**Table 2: The Proposed Service Grid (Extended from Ullah, 2014)**

		<b>Episodes</b>						
		<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
<b>Roles</b>	<b>1</b>	A1	B1	C1	D1	E1	F1	G1
	<b>2</b>	A2	B2	C2	D2	E2	F2	G2
	<b>3</b>	A3	B3	C3	D3	E3	F3	G3
	<b>4</b>	A4	B4	C4	D4	E4	F4	G4
	<b>5</b>	A5	B5	C5	D5	E5	F5	G5
	<b>6</b>	A6	B6	C6	D6	E6	F6	G6

Below Table 3 demonstrates the implementation of Service Grid into a Musharikah and Ijarah based service of a Pharma company with an Islamic financial institution in Pakistan.

**Table 3. Implementation of Service Grid to a Musharikah and Ijarah Based Service.**

			Episodes						
			A	B	C	D	E	F	G
<b>Roles</b>	<b>1</b>	<b>Client Company</b>	The Managing Director of the Pharma Company Visited a Bank A1	B1	The MD arranged a list of Suppliers C1	D1	E1	F1	The Client Paid Back the Money G1
	<b>2</b>	<b>Musharikah Manager</b>	A2	The Musharikah Manager did a Market & Business Research B2	The Musharikah Manager prepared a Proposal for the Client C2	The Musharikah Manager arranged an LC with a Bank for the Client D2	E2	F2	G2
	<b>3</b>	<b>Ijarah Manager</b>	A3	B3	Ijarah Manager Designed A Sale & Lease Back Case C3	D3	Made Inquiries About the Asset Ownership E3	The Assets is Bought and Leased-back to the Client F3	G3

	4	<b>The City Development Authority</b>	A4	B4	The City Development Authority Issued No Objective Certificate for the mortgage of property C4	D4	Provided the Property Related Documents E4	F4	G4
	5	<b>The Credit Committee</b>	A5	B5	C5	The Credit Committee Approved the Case D5	E5	F5	G5
	6	<b>The Supplied of Goods</b>	A6	B6	C6	D6	The Supplier Made Supplies	F6	G6
	7	<b>The Finance Department</b>	A7	B7	C7	D7	E6	The Finance Department Disbursed the Funds F7	The Finance Department Received the Funds G7

The proposed Service Grid in Table 3 has successfully segregated the roles of various participants into seven roles, namely 1) the client, 2) the Musharikhah Manager, the 3) the Ijarah Manager 4) The City Development Authority, 5) The Credit Committee, 6) The Supplier of Goods, and 7) Finance Division. The activities performed by various roles, episodes are coded from A1 to G7 (Table 3). This segregation capacity of the Service Grid has profound theoretical and practical implications for the overall service development in Islamic finance, as discussed in the following section.

## Discussions and Implications of the Service Grid

The proposed Service Grid has the following implications from the theoretical and practical perspectives:

### The Impact of Role Segregation

With the help of the proposed Service Grid (see **Error! Reference source not found.** & Table 3), the product and service developers can design and sketch each role in the service process separately to design the roles-in-service in more detail. From the implications point of view, those who apply the designed process can trace the actions of each participating individual separately within a service. The crossing points of service episodes (columns) and roles (rows) in the Service Grid creates unique traceable cells or locales of the service. These episodes of the service represent the contribution of each participant role within each episode. Such a detailed tracing and designing process can help the practitioners to answer important policy questions, such as who, among the service creators, will participate in each episode of the service? In how much episodes each service creator will participate? And how many episodes and in which sequence the episodes be performed. The conventional service blueprinting system does not have the mechanism to provide in-depth detail of service (see Shostack, 1984; Bitner et al., 2008), as it randomly putting all the roles into three categories, that are, i) the customer's actions, ii) personnel's actions and iii) supporting parties' actions, without traceable and codable episodes, as offered by the proposed Service Grid.

The basis of placing rows is the number of roles that the service creators or agents assume in a service process. These roles inform the actions of individuals in a service system. The actions are assumed as the core constructs of a service system (Grönroos, 2000; Sampson, 2010; Wilson, *et al.*, 2012). Various sets of actions become as roles captions, such as manager, in the Service Grid. Thus, every service creator as an action taker performs a specialised set of actions to makeup the whole service as activity (Sangiorgi, 2008). The job descriptions or personas of individuals can outline the roles and actions as additional annexures to the service grid. In Islamic banking setup, the account opening officer, the cashier, the credit risk officer each assumes a different role. The Ijara for auto lease, the financial institution assumes the role of a lessor and the customer of the bank work as a lessee (Iqbal & Mirakhor, 2008; Jackson-Moore, 2009; Ullah & Al-Karaghoul, 2017). Aiding parties such as surveyors and takaful providers also take specialised roles. All these roles integrate-in to establish the service, as an activity system. Just like a script for a roleplay, the roles are also characterised, describing which actor will perform what in each episode of the service process. A service creator can have or assume single



or multiple roles in a single service or multiple services. The roles, in general, can be mutually inclusive, as each role make one individual differently responsible in various episodes of the service. As Vargo and Lusch (2011, p. 186) argued, "...the CEO of a firm, the head of a household, a carpooling parent, an individual grocery shopper, a politician, etc. are not fundamentally different kinds of entities; they are all just people going about the business of their daily lives and trying to improve them...". Multiple roles can be assumed by each individual or multiple individuals can assume a single role, thus collectively disseminate their responsibilities (Hammer, 2002).

In this research paper, the proposed Service Grid divides the chart into three broad categories to create a space for the contribution of customer, service organisation, and aiding parties. Each segment is further divided into rows to show the roles of micro-entities. The conventional blueprint assumes one level of systems, except for the service organisation, which is divided into front office and back office. The assumption is that the customer is will always be an individual, which though is not always the case, and the grid can provide further space to identify and code the sub-roles of the customer, if a customer is an entity such as corporates.

## The Impact of Episodes segregation

The proposed Service Grid in this paper allows the service developers to assign column numbers to a usual Islamic financial service, that enables one to visualise each service episode within a single column in the Service Grid. Through this way, all service episodes within an Islamic financial service can now be viewed and identifiable as separate analysable units. The conventional service blueprinting process does not provide a separate system of episodes representation through columns as it only segregate the roles as front office, back office, and supporting systems (for detail see Bitner et al., 2008). Through the proposed Service Grid in this paper, now the researchers and practitioners can effectually locate any planned and emergent episodes to analyse the real service processes for better management and policy making.

## Conclusion

Service design is a sessional element of overall product development in various industries, including Islamic financial services. The proposed Service Grid has the capacity to separate a complete Islamic financial service process into various roles of the actors in service and episodes as separable events that holistically cause the emergence of a complete Islamic financial service. This separation of roles can provide clear guidelines, for the human resource management departments of Islamic financial institutions to trace roles and actions of individuals and departments in the execution of various financial products/services and will also make the functional managers enable to trace and thus manage the various episodes for analysis and determinacy of whether each individual episode is Shariah compliant or not.

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