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VALUE CREATION LOGICS: A UK CASE STUDY

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Abstract

Value creation is the core purpose of organisations, and the Value Creation Logics (VCLs) describe how organisations create value for their customers through the provision of goods or services. VCLs can help organisations understand and model their business processes in order to fully utilise their resources and achieve optimal performances. Most organisations rely heavily on IS/IT for their value creation. Alignment between IS/IT and business strategies as well as with the VCLs thus plays a key role in the benefits realisation of IT investment. This paper investigates the empirical realisation of different VCLs, and the role of IS/IT therein, through a case study of a UK law firm. The findings show that the different types of value creation logics co-exist and that problems occur when the organisational structure does not support the various needs of the different logics. In order to support the logics, a Viable System Model-inspired organisational design is suggested. This is intended to drive the IS/IT strategy in order to support concurrently different value creation logics.

Keywords: Business-IT alignment, Value creation, Value chain, Value configurations, Organisational design, Viable system model

1 Introduction

This paper investigates the realisation of different Value Creation Logics (VCLs), and the role played in them by Information Systems (IS) and Information Technology (IT). It analyses a case study of a UK law firm that has recently has implemented a range of IS-related tools and methodologies in order to improve customer and business value. The findings show that the different types of value creation logics co-exist and that problems occur when the organisational structure does not support the various needs of the different logics. Beer's Viable System Model (Beer, 1979) is also used to examine how better organisational design can be used to drive IS/IT strategy, and thus support concurrently different value creation logics.

Before we introduce the notion of VCLs, however, it is important to define some basic concepts related to organisational systems and value creation. From the organisational semiotics perspective (Liu, 2000, Stamper, 2001), an organisation can be categorised into a human activity system, information system and ICT system (Beynon-Davies, 2009). The human activity system is the logical collection of activities and tasks

executed by groups of people, and the IS emerges in response to the need for human agents to communicate and coordinate with each other during numerous business activities.

According to Porter (1985), the collection of activities performed in a firm exists to design, produce, market, deliver and support its products or services as a 'value chain'. The value chain analysis has been one of the major approaches to analysing organisations and how IT can support organisational performance. Since the advent of value chain analysis, many researchers have developed alternative value creation logics to reflect the various natures of business operations (Payne and Holt, 2001). It is widely acknowledged that IS/IT plays an important role in supporting and enabling different value creation logics (VCLs).

However, there is not much literature on how organisations can support value creation through ensuring alignment of IS/IT with their VCLs. Hence, the aim of this paper is to understand how organisations can align their IS/IT to the VCLs. Through a case study, it will explore the various views on value creation, their empirical applications, their implications for IS/IT and their organisational impact. Using VSM, an organisational design to support alignment of value creation and IS/IT will then be proposed.

2 Business-IT Alignment & Viable System Model

Business-IT alignment looks at how well an organisation's business and IT strategies work with and support each other. Many researchers have highlighted the importance of business-IT alignment for organisations in order to maximise the business benefits of IT investments (Irani, 2002, Ward and Peppard, 2002). Organisations that successfully aligned their business strategies with IT strategies can improve their business performances (Tallon et al., 2000, Schwarz et al., 2010). The alignment can also help organisations change their business infrastructure (Henderson and Venkatraman, 1993) and obtain competitive advantages (Tallon and Pinsonneault, 2011). In order to develop an IT strategy that supports an organisation's business performance, it is essential to fully appreciate how the organisation operates. Understanding its VCLs is a core element in this.

This paper applies Beer’s Viable Systems Model to analyse the organisational context of the VCLs. An organisation can be seen as a system with a defined boundary composed of inputs, processes, and outputs, and contains distinctive parts that are integrated to accomplish a shared goal (Senge, 1990). Such a system view enables management to view the organisation in terms of the flows, processes and relationships, designed to achieve optimal results (Seddon, 2008). Beer (1979) applied Ashby’s Law of Requisite Variety (1956) to develop the concept of Viable System Model (VSM). VSM views an organisation as a system that becomes viable by balancing the internal and external factors. Each viable system is composed of five subsystems that have specific roles and functions within an organisation (see Table 1). VSM has been widely adopted to understand and design organisational structures and information systems in various fields, such as complex systems and communications systems (Sun and Liu, 2011, Preece et al., 2013, Preece et al., 2014).

Table 1 Five systems of VSM (Beer, 1979)

Element	System	Descriptions
Operation	System 1	The collection of operational units that perform primary tasks
	System 2	The system that supports coordination between operational units in system 1
	System 3	The structure and control of operation, also provides an interface with system 4 and 5
Meta-system	System 4	The system that interacts with and investigates environment and develops future strategies and plans
	System 5	The system that makes policy decisions and controls the organisation as a whole

3 Value Creation Logics and IS/IT alignment

The creation of value is the main purpose of business operations. It consists of a process that requires resources and activities to deliver benefits to customers. Porter (1985) introduced the concept of value chain, which views the primary value-adding process as a sequence of activities. Stabell and Fjeldstad (1998) argued that Porter’s value chain analysis does not describe the value-adding activities in non-manufacturing industry, and propose additional value configurations, including ‘value shop’ and ‘value network’. The value chain, shop and network logic have been the genesis of many researches on value creation. For example, Maglio and Spohrer (2008) define a service system as a configuration of people, technologies, organisations and information that are able to deliver value to relevant parties. Mele and Polese (2011) further define the four key elements of a dynamic value creation process: customers, individuals,

information and technologies. However, both service system and dynamic value creation process are still in line with the principles of network logic. Johansson and Jonsson (2012) investigate the chain and shop logics and further propose the 'package logic'. This new logic recognises that generic problems exist in business situations for which organisations can provide packaged 'underlying solutions'. Such solutions, say the authors, can be customised and utilised across projects and customers, providing for greater efficiency and economies of scale.

A further alternative approach is to categorise value creation into goods-dominant logic (G-D logic) and service-dominant logic (S-D logic) (Vargo and Lusch, 2004, Lusch and Vargo, 2006). G-D logic is based on the value-in-exchange concept, where producers perform activities to create value for customers. S-D logic, on the other hand, is based on the value-in-use perception, where value is fundamentally created and derived from the integration and application of resources (Vargo et al., 2008). S-D logic and S-D logic categorise value creation based on the views on how value is created, and they provide an alternative way for organisations to understand their operations. However, they do not describe the micro activities within the value creation process, and are not suitable for the purpose of this paper in terms of categorising value-adding activities in organisations.

This paper therefore focuses on four value creation logics, namely: chain, shop, network and package logics, and their empirical applications in the case study organisation. Each of the four logics defines how value is being created in different environments. The four VCLs are summarised in Table 2. Based on Porter's generic strategies (Porter, 1985), Porter and Millar (Porter and Millar, 1985) suggest that IS/IT play an important part in value creation through three key routes: help to improve the performance of separate activities, improving linkages between activities, and to form linkages in the value system (i.e. with other organisations). Following this line of thinking, Table 2 also suggests key issues around the strategic alignment of IS/IT for each of the four VCLs.

Table 2 Value Creation Logics (adapted from Stabell and Fjeldstad, 1998, and Johansson and Jonsson, 2012)

Value creation logics	Descriptions and characters	IS/IT alignment focus
Chain logic	<ul style="list-style-type: none"> • Create value through a sequence of activities that transform inputs into final products • Value-adding activities are performed in sequence and repetitively • Scale of operations and repetitive delivery provide competitive advantages 	<ul style="list-style-type: none"> • IS/IT needs to support the flow of materials and products between the activities and in the supply chain • Repetitive standard processes are embedded in and enforced through IS/IT
Shop logic	<ul style="list-style-type: none"> • Create value by solving each customer problem with bespoke solutions • Value-adding activities are unique to individual customers, and are less likely to be repeated and reused • Innovation and pure customisation provide competitive advantages 	<ul style="list-style-type: none"> • IS/IT support access to knowledge within and outside the organisation – be it tacit (in people) or explicit (stored) • IS/IT support problem definition and solution delivery workflows (e.g. through project management software)
Network logic	<ul style="list-style-type: none"> • A network of people, technologies, organisations and information co-create and deliver value through interactions • Value-adding activities are the interactions between customers when facilitated by the network • Configuration of networks and relationships in networks provide competitive advantages 	<ul style="list-style-type: none"> • IS/IT need to provide digital network capabilities, within and outside the organisation
Package logic	<ul style="list-style-type: none"> • Create value by providing packaged solutions (based on generic problems) that can be customised and utilised across projects • Value-adding activities focus on the gathering, decomposing and solving of problems • Development of re-usable underlying solutions provides competitive advantages 	<ul style="list-style-type: none"> • IS/IT support the analysis of recurring problems to recognise patterns • IS/IT support and reinforce the workflow of packages from customer problem definition to delivery and follow-up

4 Method

The empirical study is primarily a qualitative case study based on participant observation (Yin, 2003). A UK-based law firm was selected as the case study organisation. This organisation is of particular interest due to the level of change in the UK legal industry in recent years. Businesses in the legal industry need to improve their process efficiency to meet modern world customers' requirements at a lower cost via

adopting the techniques and technologies already widely used in other industries (Ribstein, 2010, Susskind, 2013, Barton, 2014, Butler and Kobayashi, 2014, Henderson, 2014). In the UK, since the advent of the Legal Service Act 2007, non-lawyers have been allowed to enter the legal market, which consequently has increased the level of competition. This change in particular was the driving force behind the transformation of how law firms interact and create value for their customers. Studying the implications of this transformation within the case organisation enables the understanding of applications and impact of value creation logics in this organisation. While generalizability from this singly case study is limited, there is some scope to apply the findings more broadly as a range of different activities and VCLs can be found within the one organisation.

The case study organisation offers a wide range of legal services to both business and individual customers. It has over 250 employees across 3 geographical locations. The first author started working with the case study organisation as an independent consultant in January 2013 and has been there for over a year. As such, the case study has benefited from the principle that data collected through observation in a natural setting can provide a more accurate insight into organisations (Ghauri and Grønhaug, 2005). In addition to the observation, the first author conducted a number of unstructured interviews with the lawyers in order to further understand how the legal works were delivered. We will analyse the operations and use of IS/IT within the case organisation with the different value creation logics, as well as organisational structure's impact on value creation logics.

5 Value Creation Processes: Findings from the Case Study

In order to understand the empirical applications of value creation logics, we analyse how value creation logics describe the processes of delivering value to the customers in the case study organisation. We focus how the organisation arranges its activities and utilises its tangible and intangible resources to fulfil its customers' requirements. Seven of the key legal services offered by the case study organisation are analysed. The names and descriptions of these services are presented in Table 3.

Table 3 Overview of services analysed

Service names	Descriptions
Online divorce	Customers get a divorce online without seeing lawyers. The processes are managed online via IS, by legal caseworkers and customers themselves, to reduce the costs. This service normally only works for couples who jointly agree to a divorce and have a consent order.
Conventional divorce	Customers hire a lawyer to act for them to get a divorce. The process is normally managed by a lawyer and a legal support team. The lawyer discusses the situation with the customer and then designs and performs legal actions accordingly.
Residential conveyancing	Customers instruct lawyers to manage the transfer of the legal title of properties from one person to another. Lawyers act for either the seller or buyer and deal with all the issues arising during the transaction.
Online wills	Customers fill an online questionnaire form to generate a will that is then electronically checked and verified by a lawyer. The process is mainly performed by IS.
Conventional wills	Customers see a lawyer to discuss their situations and view relevant documents. The lawyer then drafts the wills for the customers based on the discussion and documents.
Commercial recovery	Companies instruct a law firm to recover the money or possessions owned by companies or individuals. The process is performed by a team of trained administrators and managed by team managers. The team follows a standard procedure for all the works.
Litigation	Customers instruct a lawyer to resolve disputes. The lawyer investigates the situation and negotiates with the other party on behalf of the customer. The process is often performed by junior lawyers and supervised by a senior lawyer.

These seven service offerings will be further analysed looking at three criteria: the approach to solution development, the process flow design, and the level of customisation. Solution development focuses on how the organisation approaches and understands a customer's legal problems and then delivers the solutions. It could involve developing bespoke solutions for each customer, utilising and adapting generic solutions to customers, or providing customers the standard solutions with little or no adjustment. The process design perspective addresses how the value-adding activities are organised and managed in relation to the resources. Customisation refers to the level of adjustment made to the solutions around customers' individual requirements. Based on these criteria the operational model of the services was identified and categorised. The characterisation of the seven services in relation to the three criteria is summarised in Table 4.

Table 4 Service characters

Service names	Solution development	Process design	Customisation
Online divorce	Applies a commercially available	Pre-defined standard divorce process flow	Standard procedure offers very little

	‘standard divorce process’ developed by IS vendors based on how a generic divorce works.	embedded in IS. Less qualified staff follow the procedure and manage the tasks.	customisation. Not suitable for customers that require customisation.
Conventional divorce	Solutions are developed based on individual customers. The solutions are mostly one-off and hardly re-used. Only administrative elements of the solutions are reused, for example letter templates.	Lawyers’ knowledge and judgement are the main driving force of the process. Very few procedures or structures are defined. Lawyers design the process for each customer.	Each piece of work is customised to individual customers. There is a very high level of customisation in this type of legal service.
Residential conveyancing	The standard process flow has been identified in-house. This process was then embedded in IS. Lawyers follow the process in the IS and review and provide input as required.	The defined process flow provides guidelines on the sequence of required activities as well as inputs. Inputs need to be processed by qualified staff.	There is a low level of customisation in this service. Any customisation is mainly related to customer contact points, rather than the actual service.
Online wills	Lawyers define the standard elements needed in a will based on existing wills. Pre-defined questions are used to help customers provide the information required to draft a will.	The pre-defined questions are embedded in IS that allow customers to supply the main input. The IS also organises the information and drafts wills for qualified lawyers to check.	There is little customisation in the process of customers supplying information, but a medium level of customisation in the second part of the process where lawyers review the wills.
Conventional wills	Solutions are developed for each customer after identifying their situation. Some basic document templates are re-used.	Lawyers perform the relevant activities to gather information and draft wills. The activities are not structured nor documented.	A high level of customisation is applied in this service; each solution is drafted to customer’s requirements.
Commercial recovery	Best practice is defined in-house via analysing and standardising the process. The process is performed repeatedly and in a large volume.	The process is structured and organised with allocated resources. Each team member is responsible for specific activities within the process.	There is very little customisation in this service. It is usually only applied to contact points to create a ‘personal touch’.
Litigation	Solutions are developed by experienced lawyers through analysing the	The process is designed and implemented by the lawyers as the legal	There is a very high level of customisation in this service. The

	problems and proposing solutions. The development requires the expertise and skills of the lawyers. Very little of the process is re-used.	case progresses. There is no formal structure nor flow. The process is led by the lawyers, who usually have their preferred ways to tackle the legal work.	solutions are made-to-measure.
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Legal tasks are traditionally heavily led by the experience and judgement of lawyers. The lawyers investigate and analyse the customer's problems, then develop and deliver solutions that are bespoke to them. Each piece of legal work can be viewed as a standalone project that is archived once the project finishes. The process requires a high level of customisation, and is performed with very little automation or computer support. Value is created through the problem-solving activities performed by lawyers. The intense level of human capital required consequently keeps the cost of legal process high. This type of process fits the principles of the *shop* logic, where value is created through solving unique customer problems. The legal services in the case study organisation following the shop logic include conventional divorce, conventional wills and litigation.

Some of the other services, by contrast, benefit from the use of process modelling and technologies. The case study organisation developed or purchased IS with embedded business processes of certain legal services. The embedded processes are the result of identifying common patterns of customer requirements and solutions. The IS here provide a framework that specifies inputs for each part of the process. Although the lawyers and legal assistants still need to process the documents and make necessary adjustments during the process, the case study organisation benefits significantly from the standardised process through a reduction of operation time. This type of service follows the principle of *package* logic, as it focuses on developing generic solutions that can be customised and re-used. The adoption of generic business process helps the organisation better predict the time required to complete the work and consequently allows better management of resources, e.g. individual capacity and workload. Services of this type include online divorce, online wills and residential conveyancing.

Unlike other legal services, commercial recovery service are standardised to a high level. The activities involved in commercial recovery have been analysed and modelled

in the case study organisation with the aim of increasing operational efficiency and profitability. This effort led to the restructuring of the team and re-design of business processes. The process is now broken down into smaller collections of activities with a defined order. Instead of performing activities throughout the whole process, individuals repeatedly perform specific collections of activities with the support of IS. As a result, this service is delivered in a large volume and shorter lifecycle. The repetitive delivery through following sequences of activities of this service demonstrated how the *chain* logic was utilised to create value to the customers.

In summary, across the seven services we analysed, three of the value creation logics were utilised in the case study organisation. No application of the ‘network’ logic was identified. This could be related to the problem-solving nature of legal services. Although the delivery of legal services has been standardised to some extent, it normally does not involve a network of people and elements. IS/IT is utilised to automate processes in departments that follow the chain and package logics. However, the use of IS/IT is still relatively limited, especially in the area of knowledge management and problem pattern analysis. Table 5 provides an overview of the services, their value creation logics, and how IS/IT provides currently support to the value creation.

Table 5 Value creation logics and current IS/IT support of analysed services

Service names	Value creation logic	Current IS/IT support
Online divorce	Package logic	Automated online portal processes the inbound and outbound flows of legal works; IS/IT with standard workflow assists to manage the works
Conventional divorce	Shop logic	A low level of IS/IT support is found; IS/IT supports mainly administrative tasks
Residential conveyancing	Package logic	IS/IT with embedded ‘best practice’ workflows supports the entire work process
Online wills	Package logic	IS/IT utilises customer input and pre-defined structure to generate most part of the legal work
Conventional wills	Shop logic	A low level of IS/IT support is found; IS/IT supports mainly administrative tasks
Commercial recovery	Chain logic	IS/IT manages the repetitive work flow, which allows people to focus on dealing with customers

Litigation	Shop logic	A low level of IS/IT support is found; IS/IT supports mainly administrative tasks
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6 Discussion and Conclusion

Building on the above, it is important to note that the case study organisation has effectively sought to apply a ‘one size fits all’ approach to some aspects of work through the provision of an IT-based legal case management systems (complete with embedded standardised business processes). This aims to move the delivery of legal services from the shop logic to the package logic or the chain logic to achieve cost-saving.

This approach has had various levels of success across different legal areas in the case study organisation. Legal departments that process large volume of repetitive tasks, such as commercial recovery, enjoy the efficiency and economy of scale. The success encouraged the management to apply this method to other parts of the organisation too. However, many lawyers claim that the embedded business processes are not suitable for their customers and struggled to fully utilise the IS. This reaction is strongest in the departments where value was created following the shop logic.

Due to the complex nature of customers’ requirements, certain types of legal services, e.g. litigation, are likely to inherently need a reasonably high level of customisation. However, this does not mean that only the shop logic can exist in the areas where customisation is required. The package logic can be seen in some legal services through the provision of generic solutions. These services follow a defined process but still allow customisation, reducing the time and cost of solution development. Residential conveyancing, for example, demonstrates how the defined pattern and project lifecycle of legal service can help organisations to manage their resources more effectively.

In the case study organisation, there is a trend of shifting operation models away from the shop logic. Due to the nature of legal service and the difference in customer requirements, the package logic is more likely than the chain logic to be adopted in law firms. The emergence and growing popularity of legal services that use IS to standardise part of the process, such as online wills and online divorce, can be seen as part of this shift.

However, the move to the package logic is no easy task. Johansson and Jonsson (2012) state that the development resource, e.g. an R&D function, is vital to the success of the package logic, and that the package logic requires a different organisational structure, process and roles. Consequently, it also provides challenges to the strategic alignment of IS/IT. The case study organisation, like most of the law firms in the UK, is structured around the lawyers' areas of expertise. The lawyers manage their value-adding activities. All the departments and lawyers are supported by the firm-wide administrative support functions. This high level of autonomy allows the lawyers to perform their tasks in their preferred ways, but it also leaves the business operations in silos. These silos allow very little lateral knowledge flow. Without the knowledge sharing between operational areas, it is difficult to identify the patterns of customer requirements and develop generic solutions. Furthermore, the central support does not have a function to focus on the development of generic solutions. This might contribute to the low level of IS/IT utilisation in knowledge management and problem pattern analysis when IS/IT is mostly adopted to improve operational efficiency. The lack of the R&D-like function leaves this task to operational teams that do not necessarily have the time and skills for generic solution development. As a result, moving towards the package logic is very time-consuming and difficult. As discussed above, providing organisation-wide IS solutions has also proven to be problematic. The organisational structure and the supporting IS strategy need to change in order to support the ability to develop generic solutions, as required by the emerging package logic.

By reviewing the organisational structure against VSM, it was noticeable that system 4 did not exist in the case study organisation. System 4 plays a key role in understanding the environment and proposing solutions, and it often provides the R&D function for the organisation. A system 4-like function can support the move towards the package logic by investigating the patterns of customer requirements and developing underlying solutions accordingly. By placing this function between the management and the legal teams, it also serves as the knowledge hub allowing forward, reverse and lateral knowledge flows (see also Johansson and Jonsson, 2012). An organisational design reflecting VSM can potentially support law firms to transform their value creation logics to meet customer requirements in a more efficient way. Such a design should then drive the organisation's IS/IT strategy to enhance alignment. At the very least,

IS/IT should support the knowledge flows, as well as the implementation of standardised processes.

Future research at the case study organisation into detailed organisational design and implementation, reflecting VSM, is intended to contribute to the understanding of the relationship between value creation logics, organisational structure and IS/IT systems.

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