Learning from chaos: the advent of antifragility in service organizations

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Abstract
This paper presents a novel form of service operations design that can build an "antifragile" organization to learn from disruptions. Two case studies were conducted in the UK insurance sector using in-depth interviews supported by documented evidence. The findings suggest that this novel approach expressed as the Vanguard Method is likely to enhance organizational "antifragility" by promoting a multilevel driver for learning from stressors. These levels being: 1) the macro level of clarity on the system, 2) the meso level of organic structure of work place, 3) the micro level of employees' engagement with work and readiness to learn.

Keywords: Antifragility, Service Operations, Vanguard Method, Learning Organizations

Introduction

To maintain viability and growth in chaotic environments organizations must build highly effective learning systems to learn from stressors they face (Hannah and Lester 2009, Loss et al. 2010). According to Taleb (2012), organizations that have built this property are called “antifragile”, as they are able to grow when exposed to volatility of the surrounding environment as they learn from them. Antifragility, therefore, views randomness as an essential thing for organizations to prosper, and that depriving organizations from volatility and shocks will weaken the system (Taleb 2012). In the opposite case, fragile systems tend to function well in mechanistic environments were changes are rare or even does not exist, which is simply impossible to find in the current global business environment (Taleb and Douady 2012). Furthermore, previous research paid little attention to the tools and methodologies that help organizations to design better operating systems that guide organizational learning and “antifragility”. As a result, there are many organizations that diminish as they fail to learn to improve their performance when faced with stressors as result of organizational fragility.

Arising from this, this paper aims at closing the aforementioned gap by offering an innovative systems engineering approach for service delivery that can help in developing an "antifragile" organization. This approach is developed by John Seddon (2003), a British specialist in the service industry. The term "the Vanguard Method" will be used to describe this service delivery system throughout this paper. The Vanguard Method is based on the interrelationships of employees' interaction and social exchange, both within their teams and between organizational parts, in addition to wholeness of the organization where departments are dependent on each other and the whole to guarantee the interconnectedness of people (Jaaron and Backhouse 2012, Seddon 2008, Jackson et al. 2008). For these reasons, the Vanguard Method helps in developing an organically structured organization (Jaaron and Backhouse 2014). The paper suggests that building an "antifragile" organization, which can learn from disruptions, is possible using the Vanguard Method approach. Two exploratory case studies are conducted for this purpose in the UK insurance sector service departments. The paper is focused on post-the Vanguard Method application in the case study organizations.

In the first part of this paper, the concept of "antifragility" is presented, and then the Vanguard Method's philosophy and methodology are discussed with a focus on its implementation principles. Next, the research methodology is explained, and the case studies of two British insurance organizations are presented. Finally, results are shown and conclusions discussed.

The concept of "antifragility"

Taleb (2012) argues that there are many systems in this life that can benefit from disruptions up to a certain level. For example, human bones, as a biological system, become stronger when stress is exerted on them. "Antifragility", in this sense, is defined as a property of a system that can absorb chaos and errors to learn and grow. According to Taleb (2007), organizations that have built the ability to benefit from shocks are more likely to benefit from those shocks that the past did not reveal. Moreover, "Antifragile" systems are characterized by gaining more benefits from disorder than harm, while fragile systems are literally the opposite (Taleb 2013). The definition of "antifragility" is different from resilience; resilient systems absorb shocks and stay the same, while antifragile systems absorb shocks and get better and stronger.

The Vanguard Method

The Vanguard Method is based on redesigning service operations around customer demand instead of functional hierarchies (Seddon 2008). Customer demand understanding process begins with analyzing customer demands over a period of time to collect information about what customers want and expect and what matters to them most. The need for analyzing customer demands stems from the fact that a comprehensive understanding of the transformation processes in the service system needs to be unequivocally presented before interpretations about the situation are made (Checkland 1981).

Customer demand is analyzed on the basis of two different types usually available in service departments (Seddon 2008). First, value demand- is what the service department has been established to serve and what the customers want which is of value to them. Second, failure

demand- is the demand that the service department was not able to serve due to the lack of information or supporting operations. The findings of customer demand analysis phase help to explore all the possible ways through which a better flow of processes can be designed against customer demand. This is followed by redesigning the processes flow charts taking what have been learned considering the customer "wants" and then mapping out the new service system design. The most fruitful way to make full use of the Vanguard Method concept is through the use of a team who is basically from the people facing the problem at work and using the system (Checkland 1981, Jaaron and Backhouse 2011).

Typically, the new service design is focused on minimizing non-value adding activities from a customer point of view. The new design is used in an experimental environment by using the new model after it has been discussed with the people doing the work. The new processes are induced gradually with careful observation of both employees reaction to it and customer feedback. The processes are tested, re-designed and re-tested again to make sure that customers get the best possible service before going fully live in the service department. However, to design against customer demand is to be more responsive by providing a solution for customer demands at the first time of contact, thus being more productive. Therefore, the Vanguard Method focus is shifted from conventional service measures (i.e. targets and statistics) towards the percentage of one stop service and demand analysis. This is supplemented with the managers' continuous endeavor to further improve service operations to reduce, and ultimately prevent, repeated failure demands. Table 1 presents the major steps for creating a service delivery system following the Vanguard Method.

Table 1- Stages for the Vanguard Method service delivery design. Adapted from Jackson et al. (2008)

Stages in process	What is it?	What does it do?
'Check'	An analysis of the what and why of the current system	'Check' asks: What, in reality, is the purpose of this system? What is the nature of customer demand? How does the work flow? What is value work and what is waste?
'Plan'	Exploration of potential solutions to eliminate waste	'Plan' asks: What is the purpose of the system from the customer's perspective? What needs to change to improve performance against purpose?
'Do'	Implementation of solutions incrementally and by experiment	'Do' includes: Develop redesigns with those doing the work, experiment gradually, Continue to review changes, and work with managers on their changing role.

The Vanguard Method integrates the decision-making processes with the work itself (Jackson et al. 2008, Jaaron and Backhouse 2014). This way allows for more control on service processes because data is in the hands of the people doing the work, and provides ability and creativity in responding to the system's surrounding environment (Jackson et al. 2008). However, the success of the Vanguard Method is based on achieving economies from understanding the flow of the work, and not from the scale of production (i.e. quantity of transactions). Measures used are built in so they automatically tell you what is happening. These measures are usually

centered on the concept of how good the service is in achieving the purpose and absorbing the demand variety. When demand variety is absorbed service productivity increases. The Vanguard Method absorbs variety by making intelligent use of the empowered employees (Jackson et al. 2008). The result is a self-adapting system (Seddon 2008). Eventually, this way allows for more control on service processes because data is in the hands of the people doing the work (Korkmaz 2012), and provides resilience and creativity in responding to the system's challenging environment (Jackson et al. 2008). This is also reflected in the work of Jaaron and Backhouse (2014) who indicated that such system characteristics is essential for developing a capacity for resilient organization.

Research methodology

This research inquiry uses a qualitative exploratory case study method. Exploratory case studies have been regarded by Benbasat et al. (1987) as adequate research methods for exploring a topic or an area where no previous research has been conducted (Cooper and Emroy 1995). The research work took place in two companies who are main providers of various insurance services in the United Kingdom who implemented the Vanguard Method in their service centers. Data were collected mainly through In-depth interviews with key informants in the two case study companies. A total of 19 interviews were conducted which were all tape recorded and transcribed as soon as the interviews were completed. In addition to interviews, theoretical triangulation (Jick 1979, Yin 2009) was achieved through collecting other supplementary data such as organization charts, service performance reports, operating protocols, and power point presentations that provided a useful source of information.

Data analysis and results

The analysis process of interviews followed the "thematic analysis" guidelines presented by Bryman and Bell (2007). After analyzing the interviews, they were compared with observations and documents' content to provide a thorough analysis of the phenomenon under investigation. The full process of analysis used coding system of transcripts in order to achieve the analysis themes. Three levels of "antifragility" enablers were identified in both case studies; these levels are presented in Figure 1 and fully explained below.

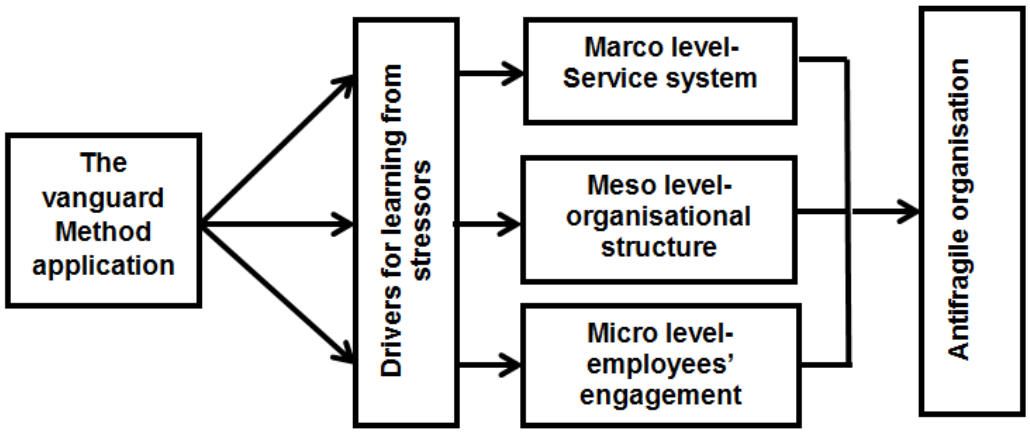

Figure 1- multilevel driver for building "antifragile" organization

Level 1: clarity on the whole service system.
This level refers to the clarity on the service system due to the continuous analysis over all aspects of demand received. Interviewees at both companies have explained that employees are encouraged to log in any failure demand received into the IT system used. These logged failure demands are used by a specially created team called the "leaders' team", who are basically the leaders of different teams in the service center. This team's role is to exploit every single failure demand received by analyzing the causes that have developed these failure demands. This has helped team leaders to identify potential problems in the services offered and thus the immediate corrective measures to be taken. Interviewees have identified that employees knew that by logging failure demands into the IT system they will receive a feedback about root causes of the failure demands and their required solutions, as these were shared by their "leader's team". Interviewees believed that this has helped employees get a better working place where they feel they are valued.

Level 2: effects on working structure.
The theme of working structure refers to the new working structure built in the case study companies after the implementation of the Vanguard Method, and their level of participation in delivering an "antifragile" organization. The new working structure was found to be remarkably the same in the two service centers. Interviewees, at two case companies, have indicated that they were relocated to work within teams. In this structure, problems may not be passed to or given to someone else, but employees can ask for support from others with experience to solve problems, even if they are in other teams or departments. They can also seek support from their own team leaders, as the new role of middle managers is to support the work rather than to monitor employees. This was reported by interviewees, at two research sites, to change the top-down hierarchy as it was seen not suitable for this new environment of working. Information arising from demand problems and stressors were shared collectively on constant basis. Interviewees, at two case companies, highlighted that it is for the purpose of improving their service and operational systems the center of authority and control is the property of front-line employees at the service center, or any rank in the organization where the extensive knowledge or omniscience is located.

Level 3: Employees' engagement and readiness to learn
This level refers to employees' involvement as a result of using the Vanguard Method and how the new design enhanced employees' participation in the creation of "antifragile" company. Interviewees, at both research companies, have regarded the ability of employees to make work decisions, open channels of communication, and freedom to act on the system as the cornerstone of employees' self-development and readiness to learn. Employees, at both companies, have explained that they are able to capture learning opportunities from the system, for the problems they receive, through the encouragement of lateral communication with other team members. This way allowed the involvement of team members, with highest level of experience, to help in formulating corrective actions that is shared with and learned by other team members. Interviewees have also commented that reducing the hierarchical distance from their leaders and middle managers has increased their attachment to work by tapping their motivation for self-regulated learning.

Discussion and conclusion

While it is difficult to generalize findings from exploratory case studies, the study demonstrates an interesting dynamic of the vanguard method that can provide an understanding of how an "antifragile" company could be achieved. The results suggest that clarity on the whole service system, or the macro level, is the strongest theme identified through analysis of data. At the lowest level, continuous demand analysis was completely performed by front-line employees at the two case companies. This has shown that employees were responsible for identifying failure demands and other associated errors in the service. These activities add to the competencies and experience of individuals and better prepare the knowledge-base of the organization (Shipton et al. 2013). Employees were also able to question the current ways of processing demands, which have been classified as failure demands, by proposing different methods or processes of dealing with problematic demands in order to convert them into value demand that can retain future customers and, ultimately, flourish business. This learning level is what Taleb (2012) firmly links with an antifragile system.

In the second level of "antifragility" enablers, called the meso level, the two research companies have shown dramatic changes in their organizational structures and the way the work is done. This change might be due to the fact that a service department is typically exposed to a greater demand variety and disruptions from the customer than any other departments in the organization (Seddon and Brand 2008, Seddon 2003). Therefore, mechanistic top-down structures, which emphasize standardization, and the elimination of variation, were not found at the two case companies. On the contrary, leaders were viewed as part of the workforce as they had an active role in supporting front-line employees when a problem is faced. Leaders can enhance organizational "antifragility" by maintaining a tendency of employees to feel equally valued within their environment, while also maintaining a tendency of different employees to collect in diverse teams (Hannah and Lester 2009). It could also be elicited from results that it was possible for employees to absorb demand variation and randomness as they are given enough time to make work decisions. It is as described by Taleb (2012), individuals having the right tools, tend to learn better from acute stressors if they have enough time to think and analyze the situation after the stressor. According to him, this is a condition for building "antifragility". In addition, it is suggested that employees were trusted when working on received failures and building relationships with customers. As a result, employees would naturally build a sense of freedom and responsibility (Jaaron and Backhouse 2011). Giving employees' freedom to act on the system suggests that a loose orientation by leaders would be essential to activate latent learning capabilities to face business stressors.

With both companies have encouraged lateral communication between their employees, knowledge creation has been enhanced in the third level of enabling antifragility; the micro level. These results are also consistent with the views of Taleb (2012) who perceive complex systems (i.e. organizations in this case), with high levels of interactions, as essential for creating strength and powerfulness, and that depriving such systems from interaction will bring a great deal of fragility to the system. Sharing knowledge at the workplace, at both case companies, has proved to increase employees' self-development. Shipton and Zhou (2008) support this view by indicating that knowledge can only be generated by combining, what they call, "explicit" and "tacit" knowledge.

To conclude, this research inquiry enables us to draw some managerial implications. In the current business environment, there is a paucity of tools, and relatively little is known about how employees' engagement can be nurtured to face global fierce competition and improve performance (Sahoo and Mishra 2012). The results show that continuous demand analysis, performed by front-line employees, provides knowledge on how the competencies and engagement of individual employees can be positively influenced. This can be very useful for managers who find themselves faced with the decision of choosing between various options for managing their employees' engagement and work experience. Further, the new design of the service delivery system was found to better prepare the knowledge-base of the organization by facilitating conversations between employees, and promoting knowledge sharing across teams. These are necessary activities when a manager is supervising the knowledge-creating process on the level of organizations. They explain how an organization should motivate individual employees who create knowledge, and what type of relationships they should build between themselves and with the outside environment.

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