

Service organisations resilience through the application of the Vanguard Method of systems thinking: a case study approach

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Abstract:

The construct of organisational resilience is embedded in a set of individual level attributes and organisational level processes; however, there seems to be scarcity in the current literature of resilient models of operation that can amalgamate these two **interlinked** levels. This paper is an attempt to empirically explore the relationship of applying the Vanguard Method of systems thinking in service organisations with enhancing organisational resilience. Two case studies were conducted in two service organisations in the UK. Data were collected via semi-structured interviews, observations, and archival documents, followed by the use of the nine-item Organisational Commitment Questionnaire (OCQ). Cross-case analysis of the results shows that the employment of the Vanguard Method in service organisations operationalized two-dimensional determinants for improving organisational resilience; an organically structured organisation (i.e. organisational level), and highly affectively committed core employees (i.e. individual level). The value of this paper is the identification of two-level service organisations capabilities that can support organisational resilience and how these capabilities emerge as a result of employing the Vanguard Method.

Keywords: organisational resilience, service delivery, vanguard method, affective commitment, service organisations, two-dimensional resilience.

1. Introduction

For an organisation to survive and compete, it has to interact with its surrounding volatile environment to understand the changes in its consumer market and, therefore, be able to adapt its structures and processes to remain in business (Johnston 2008). However, an organisation's external environment is represented by continuously evolving turbulence

found outside the boundaries of the organisation that can pose several threats to its functionality and effectiveness (Huczynski and Buchanan 2007). Moreover, the turbulence of a chaotic and uncertain environment on an organisation is, indeed, unavoidable (Mason 2007). These threats include disruptions and discontinuities such as natural disasters, extreme weather events, unstable political situations, financial crisis, changing customer demands, and many other surprising factors (Dongxia and Kan 2011). Disruptions like these can have severe effects on organisations' ability to deliver their products and services to customers when and as required (Juttner 2005, Burnard and Bhamra 2011). **In such environments, only flexible, adaptive, and organically structured organisations with strongly engaged employees will thrive (Pati and Kumar 2010, Lengnick-Hall et al. 2011).** In fact, the ability of some organisations, irrespective of their type, to revert back and prosper from adversity more effectively than others has recently fuelled research into the concept of organisational resilience (Sutcliffe and Vogus 2003, Chan 2011). Several studies in the organisational behaviour literature have emphasized the notion that organisational environment-fitting is an important attribute for an organisation to become resilient (Mullins 2005, Pellissier 2011, Linnenluecke et al. 2012). Such an endeavour to keep organisations fit with their environments will have a direct impact upon their internal **decision making patterns**, and their departmental structures and management styles (Huczynski and Buchanan 2007, Mullins 2005, Freel 2005). **Griffin (1999) pointed out that organisations can adapt to the adversity of their surrounding environment by creating a certain level of organic structural designs,** but as Mason (2007) explained, management choice for responding strategies to such environments requires an organic type of management style where the decisions need to emanate from the bottom levels of the organisation. In practice, the emergence of a responding strategy allows organisations to reshape their internal structures and operational models, and make business decisions that will evaluate **their** internal capabilities on how to become a resilient organisation (Johnston 2008).

Previous research has proposed conceptual models that illustrate how organisations respond to discontinuities (Staw et al. 1981), it has also identified human, operational and financial resources, and other factors necessary for organisations to achieve resilience (Bennis and Thomas 2002, Worline et al. 2002, Hamel and Valikangas 2003, Sheffi and Rice 2005). Resilience, in this sense, is a multidimensional and multifaceted concept (Ponomarov and Holcomb 2009), as it resides in both individual and organisational levels (Burnard and Bhamra 2011). The interaction between the individual resilience and organisational resilience

is quite similar to the interaction between the systems and subsystems (Lengnick-Hall et al. 2011). As reflected by the work of Powley (2009), individual resilience is defined as an individual latent capacity to recover from crisis, and that people relatedness to one another in adversity is the platform for such latent capacity to be activated. Moreover, employees who enjoy open communication and are trusted might develop a high degree of commitment and positive affect to their organisation, and that this commitment can be employed when responding to adverse events (Brass 1992, Powley 2009). Arguably, employees' affective commitment is on top of the desired core values that an organisation wants their individuals to develop (Hunt et al. 1985, Jaaron and Backhouse 2011a). Highly affectively committed employees are prepared to develop a strong relationship with their organisation (Porter et al. 1974, Allen and Meyer 1990). It is through this relationship that they would effectively absorb the consequences of disruptive shocks and be strongly engaged in activities beyond their core role to maintain organisational effectiveness (Meyer and Allen 1991, Sung 2007, Pati and Kumar, 2010).

While the construct of organisational resilience, as discussed above, is embedded in a set of individual level attributes and organisational level processes (Lengnick-Hall et al. 2011), there seems to be scarcity in the current literature of resilient models of operation that can amalgamate these two interlinked levels. This paper aims at closing this gap by introducing an innovative consultancy-led systems engineering approach for service delivery. This approach is developed by Vanguard Consulting in England (Seddon 2003). The term "the Vanguard Method" will be used to describe this service delivery system throughout this paper. However, while this system has so far received little attention in the academic literature, it is getting a significant take-up in the service sector, where it offers a considerable impact on improving the efficiency and effectiveness of organisations (Jackson et al. 2008, Jackson 2009). The Vanguard Method offers employees the ownership of their work within the boundaries of a team-based structure and this, in return, gives them a feeling of personal importance and self-esteem in the organization, thus, improving employees' affective commitment (Jaaron and Backhouse 2011b, Elloy 2012). It is centred on three core elements: (1) interrelationships of employees interaction and social exchange, both within their teams and between organisational parts, (2) dynamics of the organisation that requires a significant amount of coordination, and power delegation to team members, (3) wholeness of the organisation where departments are dependent on each other and the whole to guarantee the interconnectedness of people (Jaaron and Backhouse 2011c, Seddon 2008, Jackson et al.

2008). Therefore, the Vanguard Method is an enabler for developing an organically structured organisation (Jaaron and Backhouse 2010). The paper suggests that a well-designed service department, using the Vanguard Method approach, is likely to enhance organisational resilience ability based on two-fold by-products of the service design; high employee's affective commitment and organisational organic structure. Therefore, the research question sought to be answered in this paper is as follows.

RQ: How does the Vanguard Method service delivery system enhance organisational resilience?

It is as Bhamra et al. (2011) indicated; literature is lacking empirical methods such as case studies on how organisations can achieve resilience. To close this gap, two independent case studies are presented in this paper. The case studies were conducted in the UK housing sector service departments. The paper is focused on post-the Vanguard Method application in the case study organisations, to conceptualise and analyse its proposed relationship with enhancing organisational resilience.

The paper is structured into eight parts. The concepts of organisational resilience, the Vanguard Method, and affective commitment and their proposed relationships with each other are presented in the first four parts. Next, the research methodology is presented in part five. The case studies of two housing sector organisations, that are working in partnerships with two city councils, are presented in part six. Finally, in the seventh and eighth parts, results are presented and conclusions discussed.

2. Characterising organisational resilience

Fundamentally, the concept of resilience is widely used in engineering, ecology, and psychological studies (Pettit et al. 2010). In engineering, resilience is closely related to “*the tendency of a material to return to its original shape after the removal of a stress that has produced elastic strain*” (Merriam-Webster 2007). While much of the work related to the concept of resilience has been witnessed in the field of ecology popularised by the work of Holling (1973) of viewing the behaviour of natural systems, it has also become an important topic in psychology (Dongxia and Kan 2011). As it would be expected, psychological resilience research such as the work of Dyer and McGuiness (1996), Connor and Davidson (2003), and Hou, et al. (2010), are focused solely on exploring the capacity or qualities that

can create resilient individuals (Dongxia and Kan 2011). Nevertheless, there is a growing popularity, in recent years, for the concept of organisational resilience as an indispensable trait of an organisation to overcome serious challenges (Sheffi 2005, Chan 2011). Due to the fact that discontinuities and other environmental turbulences can have a direct impact on organisational ability to deliver substantial products and services to customers (Juttner 2005, Burnard and Bhamra 2011), efforts are exerted by organisations to generate continuity and contingency plans (Cerullo and Cerullo 2004); however, it is argued that unless the response is instantly intuitive and can help in continuously monitoring the operating system, continuity and contingency plans will not work (Seville et al. 2006). It is as reflected by Vogus and Sutcliffe (2007), resilient organisations, facing serious challenging conditions, should swiftly and spontaneously adapt and adjust their operating systems to cope with threats. Moreover, it is not possible for organisations to exactly predict the future; building organisational resilience capability is therefore the key for preparedness and survival (Hamel and Valikangas 2003, Ates and Umit 2011).

In this paper, the definition of organisational resilience adopted is the ability of an organisation to adapt to the requirements of the surrounding environment and being able to effectively develop new capabilities to absorb and manage environmental variability (Coutu 2002, Hamel and Valikangas 2003, McDonalds 2006). This is closely related to the work of Hollnagel et al. (2006) who defined organisational resilience as the ability to sense, adapt, and absorb variability, surprises, and disruptions of the environment. These two definitions recognise the need to look beyond mere restoration by continuously leveraging organisational resources through developing new individuals' capabilities to learn from current crises and build better preparedness (Lengnick-Hall et al. 2011). It is in this sense that organisational resilience is closely attached with individual resilience (Chan 2011, Mallak 1998, Coutu 2002). **According to Lengnick-Hall et al. (2011), enhancing the resilience of an organisation is a multilevel collective task that emanates from the capabilities and behaviour of core individuals within a well-designed team-based organisation. Providing core team members with specific traits such as, open communication, decision making ability, and an environment where team members can develop willingness to contribute to organisational success, is vital for achieving organisational resilience (Pellissier 2011).** However, core individuals within their teams can only develop willingness to contribute to their organisational success if they are committed, since committed employees are more likely to find creative ways to protect and improve their working processes (Hartel et al. 2003,

Pellissier 2011). This highlights the importance of having an organic systems approach to the work where there is a high degree of team members authority and power at the lower levels (Mullins 2005), and where employees are expected to develop a strong affective commitment with their organisation (Jaaron and Backhouse 2011a, Elloy 2012). An **organisation** adopting an organic systems approach is viewed as a living organism that can adapt to the surrounding environment in order to survive (Robey and sales 1994). It is as stated by Jackson (1991), organically structured organisations are exceptionally able to sustain and recover when faced with adversity. Through organic systems, a great deal of decision making authority is delegated to team members to allow for flexibility and quick response to unpredictable circumstances (Griffin 1999). **Team members**, this way, are fully engaged in performing their tasks with high performance effectiveness (Dalal et al. 2012). They can approach each other informally as well as officially as the personal relationships comprise an important aspect for the **organisational** life in such environment (McKenna 2006), **team members** can also approach other departments where needed to find expertise with the required level of information to solve a problem (Courtright et al. 1989). Ultimately, when this collective behaviour of **team members**, in the organic system, is aggregated at the organisational level, a capacity for organisational resilience is developed (Lengnick-Hall et al. 2011, Chan 2011). In fact, most of organisations today are mechanistically structured (Pellissier 2011); employees are given low discretion on executing their own initiatives, and more control is placed on their own behaviour to a degree that is believed to reduce their interaction with other co-workers (Raub 2008, Mao 2009). With this limited social interaction in the face of adversity, mechanistic operational systems lack effective social mechanisms that enable an organisation to be resilient (Powley 2009, Elloy 2012).

This paper builds on the work of Lengnick-Hall et al.(2011), who proposed that organisational resilience is embedded in a set of individual level attributes and organisational level processes. It also builds on the work of Chan (2011), who linked organisational resilience attainment with organic structure adoption where individuals are placed within teams. Therefore, it is argued in this research that the employment of the Vanguard Method (explained in the next section) to service business operations, will operationalize a two dimensional determinants for improving organisational resilience; an organically structured organisation (i.e. organisational level), and highly affectively committed core employees (i.e. individual level). This theoretical framework will guide the research in hands.

3. **The Vanguard Method: Philosophy and Methodology**

Organisations are viewed as complex systems that are composed of interconnected participants within multiple nonlinear dimensions (Crichton et al. 2009). This would suggest that all participants in the system (i.e. parts) are dependent on each other and the whole, thus, supporting the notion that **an organisation** should be viewed as a holistic entity within its environment (Pellissier 2011). For a long time, organisations have been structured around the **concept** of functional specialisations by viewing each department as a separate entity (Kilman, 2001, Botla 2009). The focus of management is on separate entities, as they believed it would be possible for them to manage the whole (Gregory 2007). This reductionist approach of modelling organisations allowed the parts to achieve their targets at the expense of the whole (Capra 1996). According to Gregory (2007), standalone parts can harm the whole due to the silo working that limits organisational dynamic ability and necessary interaction between parts. Further, Ackoff (1981) pointed out that managing system parts without understanding their interactions makes the system lose its essential properties, and causes managers to face unintended consequences. It is as reflected by the work of Robb (2000), organisations, as complex adaptive systems, must not be viewed as separate elements, and that **the** reductionist approach is inadequate to their study. In fact, resilient organisations require a holistic view as it guarantees the interconnectedness of people (Kilman 2001), and it provides an organic view of the organisation and its systems (Pellissier 2011). Within this representation, Comfort et al. (2001) present a clear link between the value of holistic view of an organisation and its ability to become resilient. **They suggests that in order for a complex system, such as an organisation, to recover and sustain a satisfactory level of performance when faced with challenging events, the system requires a team-based structure equipped with a significant amount of internal communication, coordination, and power delegation. Powley (2009), has also supported the findings of Comfort et al. (2001) of linking organisational resilience with team members interaction and social exchange, both within and between organisational parts. In fact, restructuring of work around teams rather than individuals' work has been regarded by Ilgen (1999) as one of the major changes in the way organisational work is designed. This conceptualisation gave rise to the new innovative work of Seddon (2003), described here as the Vanguard Method, of implementing systems design principles into service organisations. The Vanguard Method is, therefore, centred on three core elements: interrelationships, dynamics, and wholeness (Jaaron and Backhouse 2011c, Seddon 2008, Jackson et al. 2008). A detailed account of the philosophy is reported in the work of Seddon (2008) and Jackson et al. (2008), and will be explained here as well.**

The Vanguard Method embraces aspects from intervention theory introduced by Deming (1982), the systems theory of Ohno (1988) and pulls it together with some influential aspects from Soft Systems Methodology (SSM) as developed by Peter Checkland (1981). It is based on the view that organisations are holistic systems serving a purpose that is “always seen in terms of its customers” (Marshall 2010). Therefore, customer demand is the focal point for redesigning the organizational service systems and not the functional hierarchies (Seddon 2008, Jaaron and Backhouse 2010). The Vanguard Method depicts a culture characterised by the formulation of a self-managing teams. The teams are created from the workplace itself to lead the intervention into business processes (Jackson et al. 2008). The teams require spending a considerable amount of time to understand business processes and the main purpose of the system from the customer perspective (Seddon 2008). This begins by studying the demand coming into the business, over a period of time, to find out what matters to the customer the most, what do they want from the system. Once the purpose of the system “from a customer perspective” is defined, attention is given on how the organisational parts can be linked together to deliver that purpose (Jackson et al. 2008). The study of the demand provides two different categories of demand usually available in service departments (Seddon and Brand 2008). First, value demand which is what the service department has been established to serve and what the customers want which is of value to them. Second, failure demand which is the demand that the service department was not able to serve due to the lack of information or supporting operations.

Another important aspect of the Vanguard Method is the need of the system to be highly responsive to customers. This is reflected by the creation of variety of operations that improve capacity, and by removing waste found in the traditional processes through the redesign of the service processes. This is achieved by focusing on minimizing the non-value adding activities from the customer point of view (Jackson et al. 2008). This will significantly reduce the frequency of failure demand (Jaaron and Backhouse 2011b). Moreover, redesigned organisations give attention to monitoring demand variety and continually analyse it in order to improve demand predictability (Jackson et al. 2008). Accordingly, this increases team members’ learning in the system and provides them with enough knowledge to handle demand uncertainty. Team members learning is “a cognitive precursor to adaptation” (Ilgen et al. 2005) that is necessary when faced with adversity (Powley 2009). In this regard, organisational teams, operating under difficult circumstances, also need to learn from their

best knowledgeable individuals, this knowledge will then be used to improve performance in the face of disruptions (Ilgen et al. 2005). In fact, LePine (2003) found that team-based structures, equipped with empowerment and openness to communicate and interact, is critically important to activate their latent knowledge to perform better when the task environment changed. However, Morgan et al. (1986) described the main enablers for team-based structures to act successfully in a turbulent environment. According to their study, team members should monitor how others in the team were performing and should seek to learn from their colleagues when an opportunity arise. Also, team members should provide and accept feedback as a normal part of the daily work on the understanding that the lessons learned from this feedback would be critical to survive under disruption. The next step was making sure that any message sent by a team member is well-received and understood by the recipient as intended to enhance clarity of situation and to minimise communication error. Finally, members of effective teams should provide backup to their colleagues when received demands requires full attention. Due to these, the role of team members in the Vanguard Method change from controlled to full empowerment as the Vanguard Method requires employees to be self-directed by learning and then making their own rules and decisions to absorb changes (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 Vogus and Sutcliffe (2007) who indicated that such system characteristics is essential for developing a capacity for resilient organisation.

On the other hand, the Vanguard Method embraces the principle that employees need to think, analyse, judge and make decisions on the work on hands. Therefore, team members training is not the focus in the preparation process for this kind of job, it is actually educating them on “why” a failure happen and then finding ways to eliminate it from the system. Training increases skills of employees and teaches them the “how” of doing jobs while education increases their competence level in finding the reasons of failures in the system (Hammer and Champy 2001). To accommodate for the requirements of the Vanguard Method, managers' role shifts from command-and-control to supporters. This keeps managers very close to their employees to assist in their work when necessary. Due to this kind of managers-employees relationship and due to the whole service processes being owned by team members, the structure of the organisation changes. The organisation becomes organically structured

(Jaaron and Backhouse 2011a), in other words, **the** Vanguard Method is an enabler for developing an organically structured organisation (Jaaron and Backhouse 2010).

Consequently, team members are taught to be responsible for the tasks in hand; problems may not be passed to or given to someone else, but an employee can ask for support from other team members with experience to solve problems. It is in this sense that organic systems delegate a great deal of decision making authority to their employees to allow for flexibility and quick response to unpredictable circumstances (Griffin 1999), thus, enhancing organisational resilience. Furthermore, the Vanguard Method recognises the need to absorb variation in environmental demand. In order to absorb this variation, they need to become adaptive organisations (i.e. organic structures). Such ‘organic’ organisations are frequently introduced as remediation for mechanistic pitfalls. It is recognised that when team members are given the ability to make work decisions, organisations are more able to absorb environmental variation and overcome difficult problems (Pellissier 2011). In addition to these principles, the system measures used are usually centred on the concept of how good the service is in achieving the purpose and absorbing the demand variation. The variation can be absorbed by making intelligent use of the empowered team members (Jackson et al. 2008). The result is a resilient system (Seddon 2008). This virtue of **the** Vanguard Method encourages team members to point out the system pitfalls that decrease system performance, and introduce them as the experts through which the new design of processes **is made**. Team members, this way, get the chance of self-development and continuous learning (**Dalal et al. 2012**).

The operationalization of the above philosophy usually follows three main action steps of “check-plan-do”. These are adapted from Deming and Walton’s (1992) management cycle work: “plan-do-check-act”. These steps are summarised in Table 1 below.

[Table 1 near here]

Check: This stage aims at understanding the system and why it behaves in such a way that failure demand is **created**. Therefore, **this stage starts with a demand analysis to distinguish between value and failure demand. A specially formed team collates information about what customers expect and want from the organization and what matters to them most, they need to be able to use views of different people involved in the problematic system to build the**

real situation. Data collated in the check stage enables the identification of future major demands in the area. It is at this stage where mapping the flow of business processes is done. A quest for the waste present in the service operations flow is then carried out (Seddon 2008). For this purpose, the team discusses the causes and issues that blocked the flow of the work causing stress and dissatisfaction for employees and customers (Jackson 2009).

Plan: this stage starts with a clear emphasis on what the purpose of the system is from the customer perspective. It is concerned with constructing the framework through which system waste can be removed (Jackson et al. 2008). For this purpose, the team uses findings of the check phase to explore all the possible ways through which a better flow of processes can be designed against customer demand (Seddon 2008). Mapping out the new service system design is then carried out. Typically, the new service design is focused on minimizing non-value adding activities from a customer point of view.

Do: at this stage, the new service system design is used in an experimental environment with the check team using the new model after it has been discussed with the team members 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. This is much slower process than the check phase as the slogan at this stage is to “do it right rather than do it quick” (Jackson et al. 2008).

Although the Vanguard Method cycle has a lot of similarities to the Deming’s (Deming and Walton 1992) ‘plan-do-check-act’ cycle, it differs in the order of stages. The Vanguard Method cycle starts with the “Check” stage in order to show business managers the failings of their current system, and to provide them with a solid evidence for the need to change the way they think and manage things (Jackson et al. 2008). To ensure continuous improvement of the new system, the check-plan-do cycle is a continuous cycle (Seddon 2008, Jackson et al. 2008). It is, therefore, a learning system by itself: the process of acquiring knowledge and taking action to improve the situation is continuous (Jackson et al. 2008). In addition to continuously altering business processes to improve the service offered, the Vanguard Method Cycle involves the identification of new demands coming in to the service

department. This is followed by designing new processes to ensure dealing with new demands as value demands (Seddon 2008).

4. Affective commitment: impact on organisational resilience

The characteristics of the Vanguard Method discussed above provide evidence that employees working under the principles of the Vanguard Method will fulfil their desire of achievement (Jaaron and Backhouse 2011b). Of particular importance here is the ability of team members to make decisions on the work they have on hand without the need to go back to their immediate managers. The new role of immediate managers includes becoming part of the workforce as they have the capability to substitute for front-line employees where available to help front-line employees deal with surprising events (Seddon 2008). As a result, hierarchical distance from top management is reduced. Hill et al. (2012) argued that the smaller the hierarchical distance from top management the smaller is the discrepancy between team members and top management's uniformity of purpose and vision, thus, the higher the level of trust and faith in top management. This has been associated with higher levels of employees affective commitment toward the organization (Wanous et al. 2000). Given this new hierarchical context, the Vanguard Method provides team members with open channels of communication that keep them closely connected within the team and with other departments and managerial levels (Seddon 2008). This reinforces the importance of Bottom-up communication of team members in the Vanguard Method, which is of paramount importance in enhancing employees self-esteem and personal importance and this, in return, helps to build employees affective commitment (Hill et al. 2012). It is, therefore, evident that team members have the ownership of their work (Meyer and Allen 1991). Inevitably, individuals, working in such systems, are more likely to possess "positive emotions" (Fredrickson, 2004) that develop affective commitment with their organization (Jaaron and Backhouse 2011c, Mowday et al. 1982, Elloy 2012). This, as explained by Mullins (2005), is due to the fact that organic structures, developed as a result of the Vanguard Method, promote employees' feelings of shared beliefs and values in the organisation, which substitute for employee monitoring practised in mechanistic structures.

Affective commitment is defined by Meyer and Allen (1991) as "*a measure of the employee's emotional attachment to the organisation, the strength of identification with the goals of the organisation and strength of commitment to its success and continuous improvement. The employee remains a part of the organisation because s/he wants to do so.*" In this regard,

research has proved that affective commitment is of particular importance for organisational success (Herscovitch 2002, Gong 2009). Further, affective commitment has been found to have the greatest impact on individuals' performance in a team, on-work collective behaviour and ultimately organisational effectiveness (Porter et al. 1974, Sung 2007, Shum 2008). Ilgen (1999) stated that organisations are social systems composed of teams, and that teams themselves are social systems composed of individuals. However, Pellissier (2011) argued that individuals' commitment, among other positive qualities, is the most influential for team performance levels and ultimately organisational performance. Meyer et al. (1998) have demonstrated that employees' affective commitment is significant in times of instability and change, as it relies on individual resilience within a team to save organisations a tremendous amount of time, effort and monetary resources usually invested during organisational turmoil (Jaaron and Backhouse 2011b). This evolves the idea that resilience is an organisational capability that emanates from its individual employees nested within teams, by rapidly reconfiguring organisational resources to quickly respond to unpredictable events (Ates and Bititci 2011). It is as explained by Pellissier (2011); it is only through a committed and creative team members that an organisation will be able to overcome disruptions and adversity. In fact, affectively committed employees have the ability and willingness to do extra efforts on behalf of their employer to do an exceptional job of protecting operational stability that keeps customers (Mowday et al. 1979, Mathieu and Zajac 1990, Meyer and Allen 1991, Mowday et al. 1982). Day and Gu (2009), have explained the mechanism through which team members with positive emotions, such as affective commitment, can promote organisational resilience. According to them, positive emotions are 'banked' and 'stored' at individuals level, and that they are able to function as reserves in times of adversity. This pays a significant attention to the value of employees' affective commitment, as a construct, to respond to organisational threats.

5. Research Methodology

In order to empirically explore the Vanguard Method relationship with enhancing organisational resilience, two case studies were conducted in the UK housing sector companies that have partnerships with two different city councils. Case studies have the advantage of being able to answer questions like "what", "how" and "why" (Yin 2009). This accommodates the type of question posed at the beginning of this paper. Also, case studies typically use any and all types of methods for collecting and analyzing research data such as interviews, questionnaires, archives, and observations (Hamel et al. 1993). In other words,

case study research design has the unique strength in providing a full range of evidence through the use of multi-sources of data. In this research, the cases were chosen with the help of “extreme case sampling” technique (Patton 2002, Creswell 2004) that displayed evidence of full employment of the Vanguard Method in their service operations.

The mixed methods design (Tashakkori and Teddlie 1998) is used in this research as the technique for conducting the research process. Further, cross-case analysis was used to search for common themes. Both quantitative and qualitative data were collected in the two case studies simultaneously. In this research inquiry, four main sources of qualitative and quantitative data have been employed; these are observations, semi-structured interviews, questionnaires, and documents (Bryman and Bell 2007). Overall, 19 Semi-structured Interviews were conducted. Interviewees from both case studies were asked questions such as “would you like to tell us what benefits the Vanguard Method has brought to your department?”, “do you think the Vanguard Method better prepared your department to provide a constant service level without disruption? How?”, and “how do you compare employees’ working experience before and after the Vanguard Method?”. Interviews were tape recorded and transcribed in preparation for data analysis. Observations and notes were recorded to supplement the data collected through interviews. In fact, observations and documents collection captured things that escaped the interviewees’ awareness during interviews. Furthermore, the nine-item Organizational Commitment Questionnaire (Mowday et al. 1979) was piloted in the case studies to measure the affective commitment among core employees. This questionnaire consisted of fifteen items - later shortened to a nine-item version which was found by many researchers to be superior in measuring affective commitment (Allen and Meyer 1990, Mathieu and Zajac 1990, Meyer and Allen 1991). The data sources used in the two case studies are summarised in Table 2.

[Table 2 near here]

6. Research Sites

The first case study was carried out at Kier Stoke. The firm is one of the leading companies in building maintenance and repairs services in the north of Staffordshire County in England. Kier Stoke has formed a joint venture with Stoke-on-Trent City Council that has been in operation since early 2008. As a result, all operational aspects of housing and public buildings maintenance and repair were transferred to Kier Stoke. Stoke-on-Trent City

Council is responsible for **just under 20,000** Council homes and approximately 500 public buildings. The joint venture company has 292 employees comprised of 225 craftsmen, who attend property repairs, and 67 managerial staff, 17 of which are call handlers; all are located under one roof. Since the formation of the joint venture, the Council has been working in partnership with Kier Stoke to ensure that all working operations and services are reviewed and modernised. However, the service has experienced high levels of customer complaints, and it was felt that policies and processes of the service were not ideally designed. Therefore, the joint venture company underwent a Vanguard Method intervention in May 2010. The intervention covered empty properties management and repairs handling service in conjunction with Stoke-on-Trent City Council Housing Management Services. However, the Vanguard intervention on Stoke-on-Trent City Council and Kier Stoke viewed the purpose of maintenance and repairs system from a customer perspective; it is as stated by the Head of Neighbourhood; the purpose of the repairs system was to complete the repair at a convenient time from the customers' perspective. In order to maintain this purpose, the service currently follows six major value steps as opposed to 294 steps before the intervention (mainly caused by the work policies and system conditions of adhering to rules). **Designing service operations to deliver what the customer wants at Kier Stoke had a remarkable effect on reducing the potential for duplicating work. With more processes being transferred to front-line employees, the number of departments and employees involved in dealing with a particular demand is reduced, thus reducing end-to-end processing times and avoiding the chance of duplicating the work by other departments.**

The second case study was conducted in Incommunities; one of the large housing associations in England, with links to the Northern Housing Consortium covering the north east of England. Bradford Council has contracted out its housing operations and buildings maintenance and repairs to Incommunities since 2003. The company provides affordable, high quality homes, principally for rent in neighborhoods across the Bradford District. It currently manages and owns 21,500 high quality and affordable homes in the district and almost 1,000 leasehold properties. The company started a Vanguard Method intervention in September 2010 which has covered responsive repairs services and empty properties management. The intervention was deemed necessary as the customer satisfaction was noticeably low. It was felt that end to end average service time of over 100 days was one of the main causes of the low customer satisfaction, and that almost half of the demand coming in to Incommunities was failure demand. In addition, it took the company up to two weeks on

average to attend a property that needed a repair. At the time of the study, there were 206 craftsmen, who carry out repair work, and 50 office staff who **receive customer** demand and support craftsmen work. At the operations department, large screens are used; customer demands received are logged into the system screen, this makes it easier for the office team to assign repair demands to craftsmen at a time determined by the customer.

7. Data analysis and results:

Once each single-case was analysed thoroughly, the cross-case analysis was carried out at two different levels. Firstly, interviews and other qualitative data (i.e. observations and documents) were analysed to explore the Vanguard Method benefits to resilience at the organisational level and, secondly, the nine-item OCQ was analysed to identify the relationships between the Vanguard Method employment and individual employees' resilience. The aim of multiple case analysis is to search for similarities and differences and to expand the understanding of similarities and differences across cases (Miles & Huberman 1994). The results from the thematic analysis of qualitative data were directly compared with results from the quantitative methods (i.e. questionnaires results) of the two cases. The analysis process started by transcribing and studying the qualitative data (i.e. reading and listening to the audio taped interviews, and revising field notes and documents). After transcribing the interviews, the "thematic analysis" approach (Taylor and Bogdan 1984, Attride-Stirling 2001) was employed to analyse the data. However, the process of analysis followed Bryman and Bell's (2007) considerations in coding in order to achieve the analysis themes; these are illustrated in the following stages:

1. General theoretical topics were identified by reading the **interview transcripts** and revising the research question. General theoretical topics helped in generating a coding framework for the **interview transcripts**. This is a set of topics carefully selected to reflect what has been said in interviews (Attride-Stirling 2001).
2. After identifying the coding framework it was possible to divide the **interview transcripts** into meaningful parts, and every part was given a code that belongs to a pre-defined topic.
3. At this stage it is necessary to revise **interview transcripts** to find codes with similar topics. Similar topics are clustered around larger central themes that were used later for interpretation.

Table 3 illustrates the coding framework devised and the central themes found. However, the findings from the interviews data analysis provide a support for a relationship between the employment of Vanguard Method in service organisations and the enhancement of organisational resilience. The three central themes emerged are presented below.

[Table 3 near here]

Theme1: Absorbent design of the service system

Almost all the 19 interviewees regarded the ability of the Vanguard Method to deal with demand variation as the most important element that would help an organisation to enhance its resilience. The success of **the Vanguard Method**, according to interviewees, is based on achieving economies from understanding the flow of the work, and not from the scale of production (i.e. quantity of transactions). It is at the “check” stage where understanding the flow of the work is taking place, and through this understanding new business operations can quickly emerge to quickly deal with unexpected demands. **Interviewees at Kier Stoke stated that unexpected property repairs are now being completed at a time that is determined by the customer, in an average of 74 hours as compared to up to 100 days before the intervention. As a result, Kier Stoke capacity has increased, allowing the organisation to handle more demand. Customer satisfaction has also increased to achieve a score of 9.9 out of 10 satisfaction level for the repairs completed at the first visit. Similarly, the Vanguard Method intervention at Incommunities was able to help reduce the end to end average service time of repairs to only 29 hours including unexpected demands, and the failure demand is down to 4% as opposed to 48% before the intervention.** Interviewees added that system measures used are built in so they automatically tell you what is happening. They have indicated that challenging situations can only be absorbed by making intelligent use of the empowered employees who can act on the system operations in the way they deem necessary. Therefore, Vanguard Method is viewed by interviewees as a self-adapting system.

Theme2: Employees psychological domain

In this theme, **the majority** of interviewees have indicated that the **two main benefits of the Vanguard Method of satisfying employees’** psychological needs and sense of **achievement, are crucial** aspects that would also help organisations to perform better under adversity. Interviewees indicated that employees working under the principals of **the Vanguard Method** are empowered to deal with the job in the best way they see is vital to resolve adversity and mitigate the impact of unexpected events. According to interviewees in both sites, employees

now have opportunities to develop their working skills by handling a wide range of challenging demands on daily basis; employees are evaluated on their ability to solve business challenges at early stages of detecting them. Interviewees explained that individuals working in this environment have a feeling of belonging and attachment with the workplace. It is as reflected by interviewees; those psychologically attached and experienced employees are more able to quickly point out organisational resources necessary to overcome disruptions in business operations.

Theme3: Employees' organisation and team work

While interviewees acknowledged the importance of individuals' psychological domain, they have also regarded the individual ability to play within a well-organised team as an important enabler for **creating a resilient** organisation. They indicated that each individual is a part of a team who shares the responsibility of the work. The team has no hierarchy of control thus allowing the team to identify the right person to solve a particular problem, and also the individual to seek help from the experienced colleagues, if needed, to overcome disruptions. **The Majority of interviewees** depict this as a culture characterised by the formulation of a self-managing team where the supervisor is more of a source of feedback and advice. Moreover, interviewees explained that open channels of communication between team members and other departments is significantly important for readiness of information which they considered as one of the determinants for a resilient organisation.

7.1 Affective commitment measurement

To test the availability of highly affectively committed core employees, in the two research sites, as a result of working under the principles of Vanguard Method, the nine-item Organisational Commitment Questionnaire (OCQ) was conducted. A total of 117 office staff in the two research sites were available at the time of the questionnaire, 101 questionnaires were completed and submitted electronically targeting 86% response rate. The data collected from the OCQ were analysed by averaging responses to each item in the questionnaire to obtain a single score, in addition to calculating the standard deviation for each item as shown in Table 4. **However, due to the fact that the two research sites are relatively similar in the type of service operations they perform and had the same history of operational problems before the Vanguard method Intervention, and that the Vanguard Method has been implemented in both sites around the same time (i.e. 2010), it was believed that employees at both research sites would have developed the same emotional response to the new system intervention.** The results show a high level of affective commitment among office staff in the

two research sites with an overall mean of 4.060 for the nine items, where a return of 3.0 would reflect a lack of affective commitment among employees (Porter et al. 1974), and where values of 3.5 are typical in many organisations (Jaaron and Backhouse 2011a). Figure 1 provides a visual representation for the level of affective commitment among employees in both research sites as opposed to the levels where lack of affective commitment is indicated.

[Table 4 near here]

[Figure 1 near here]

8. Discussion and Conclusions:

Following the work of Lengnick-Hall et al. (2011), who indicated that organisational resilience is composed of a set of individual level attributes and organisational level processes, and the work of Chan (2011), who linked organisational resilience attainment with organic structure adoption at organisational level processes, it would seem significantly important to introduce resilient models of operation that can amalgamate these two **interlinked** levels. **The paper fills this gap by proposing that the employment of the Vanguard Method of systems thinking can amalgamate these two interlinked levels by operationalizing a two-dimensional determinants for improving organisational resilience; an organically structured organisation (i.e. organisational level), and highly affectively committed core employees (i.e. individual level). The paper also demonstrates the factors underpinning the enhancement of organisational resilience at these two levels. These sets of relationships are assembled in Figure 2 in a conceptual model.**

[Figure 2 near here]

The paper empirically contributes to this construct by answering the research question posed at the beginning of the paper through the findings of the two case studies conducted. At the organisational level, the results of the two case studies show that the Vanguard Method application provides organisations with the characteristics of organic structures. It was found that departmental integration is widely promoted in such an environment, also open channels of communication between the service department and other business units affected by its work were established. Formal and informal communication at both teamwork and managers' level allowed for significant information sharing to support organisational attempts to survive

and grow during times of adversity. Further, the absorbent design of the new service system at both case studies have created an adaptive organisation, able to absorb business disruptions completely depending on employees' freedom to act and make decisions to provide the right things at the right time. Interestingly, this created a collective behaviour of individuals, in the form of teams, and allowed them to robustly respond to unexpected events, and to implement adaptive responses early. However, the offerings of the Vanguard Method to team members psychological domain has contributed to the development of individuals' sense of job ownership and promoted feeling of belonging and value to the work place. This is because the Vanguard Method, at both case studies, allows employees to steer the work rather than being steered. They rely on their innovation and intelligence to make decisions regarding unexpected situations. Therefore, team members can decide what and how to do the work as long as they are "within the boundaries of their obligations to the organisation" (Hammer and Champy 2001). The employer ability to diffuse power to be at the team member level has been found vital to develop these positive emotions. These dimensions of the psychological domain have been found to be stored to later function as reserves in times of business adversity.

Moreover, analysis of the results at both case studies suggest that once the Vanguard Method principles are implemented, the individuals relocate within the service department to be a part of a team. The essence of this team-based structure is that all the individuals are working together to perform an entire process and if necessary they can seek help from each other to accomplish a task. Instead of separating the individuals into different departments, they are all now working within the boundaries of one team. Powley (2009) described these social connections of individuals relating to one another within the boundaries of a team as a way to overcome disruptions and recover from discontinuities. Analysis of the results also indicated that the Vanguard Method urges the individuals to share the responsibility of the work with their team members. An individual could receive different demands on constant basis. This adds a tremendous potential for individuals and teams to develop renewal and dynamic creativity from the inside-out to absorb disruptive shocks (Dutton 2003, Sutcliffe and Vogus 2003, Powley 2009, Lengnick-Hall et al. 2011).

At the individual level, results show that the Vanguard Method draws out emotional aspects of the employees' attachment to their workplace. The characteristics of the Vanguard Method, as explained in the psychological domain, provide the environment for individuals to fulfil

their personal ambitions; social needs, and a feeling of importance for the organisation. Therefore, results show that individuals have developed high levels of affective commitment with their organisation. From the perspective of psychological resilience, it is only through committed individuals who are equipped with the right resources that organisations will succeed in recovery and development from adversity (Pellissier 2011). This research recognises that affectively committed individuals usually activate their latent accommodative capabilities to face business stressors, and that they are more able to think “outside of the box” to generate creative ideas to help the business recover. In line with the literature of human resources management, the two case studies findings suggest that leveraging affective commitment among individuals builds respectful interactions between team members and other organisational **communities**. Respectful interactions promote informed intimacy between individuals and are viewed as a key enabler for developing contextual elements that enhance organisational resilience (Alder and Kwon 2000).

The findings of this research have some prominent insights for academics and practitioners. This research has examined a two-level mechanism through which organisational resilience can be enhanced. While **the majority** of existing literature on organisational resilience has extensively combined the development of resilience with social exchange theories (Powley 2009, Lengnick-Hall, et al. 2011), and to a less degree with business management systems (Sutcliffe and Vogus 2003, Stewart and O’Donnell 2007, Ates and Bititci 2011), this research has shown that organisational resilience could potentially be enhanced through the type of service system structure used. Therefore, if organisations attempts to develop organisational resilience on the basis of social interactions only **within an inappropriate** organisational structure, then these attempts will not help in fulfilling the organisational level element as the focus on social interactions (i.e. individual level) **needs predefined** channels of communications that is only protected by a legitimate structure.

This research has the limitation of providing attempts to only explore the dynamic of organisational resilience in private service organisations as a result of applying the Vanguard Method. Future research is needed to explore the dynamics of organisational resilience in public sector service departments that have applied the Vanguard Method. As such, future research directions should explore the enabling conditions and determinants of organisational resilience in these departments. In addition, further research is required to explore the application of Vanguard Method in other industrial sectors, such as manufacturing

organisations, in order to understand the appropriateness of Vanguard Method in other working environments, and the extent to which they impact organisational capabilities to influence organisational resilience.

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Table 1 Vanguard Method's three stages of 'check', 'plan' and 'do' (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	Provides an understanding of the system as it is and identifies waste and the causes of waste. '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? Why does the system behave like this?
'Plan'	Exploration of potential solutions to eliminate waste	Provides a framework to establish what the purpose of the system should be and how the flow of work can be improved to meet it. 'Plan' asks: What is the purpose of the system from the customer's perspective? What needs to change to improve performance against purpose? What measures are necessary in order to gauge improvement?
'Do'	Implementation of solutions incrementally and by experiment	Allows for the testing and gradual introduction of changes whilst still considering further improvement. Develop redesigns with those doing the work, Experiment gradually, Continue to review changes, Work with managers on their changing role.

Table 2 Sources of case study data.

Company	No. of Interviews	Interviewees' roles	Organisational commitment Questionnaire	Observations	Documents
Kier Stoke	10	<ul style="list-style-type: none"> Assistant director, housing services (Stoke city Council) Kier Stoke senior manager Vanguard Method company consultants Operations manager Resource controllers Quality surveyors 	Circulated among 67 office staff working under the principals of vanguard method	Covered all aspects of demand handling and operations	Various sources of publications and internal reports.
Incommunities	9	<ul style="list-style-type: none"> Director, building services Assistant chief executive Vanguard Method Company Consultants Interim logistics manager Field manager Repairs resource controller 	Circulated among 50 office staff working under the principals of Vanguard Method	Covered all aspects of demand handling and operations	Various sources of publications and internal reports.

Table 3 from codes to central themes

Codes	Issues discussed	Basic Themes	Central Themes
<ul style="list-style-type: none"> • Non-standard • Absorb • Variety 	<ul style="list-style-type: none"> • Demand predictability provides clarity of the system • Quick adaptability of operations. • Non-routine is normal part of the job. • Demand variation prepares operations. 	<ul style="list-style-type: none"> • Service Variation is normal • Adaptive system 	Absorbent design of the service system
<ul style="list-style-type: none"> • Empowerment • Make decision • attachment 	<ul style="list-style-type: none"> • employees can change and challenge leaders • employees make business decisions • employees feeling of learning and competency 	<ul style="list-style-type: none"> • Ownership of the workplace • Mental constructs of employees support adaptability • Attachment to business and feeling to protect it 	Employees psychological domain
<ul style="list-style-type: none"> • Openness of relationships • Sharing roles • Teamwork 	<ul style="list-style-type: none"> • Employees can approach each other whenever needed • Employees have the necessary resources to deal with changing demand. • Employees enjoy open channels with other teams and departments 	<ul style="list-style-type: none"> • Teamwork shares the responsibility of work • Team coherence and cohesion • Readiness of information and open communication 	Employees' organisation and team work.

Table 4 results of measuring affective commitment level at research sites.

Item	Mean	Standard Deviation
1. I am willing to put great deal of effort beyond that normally expected to this organisation be successful.	4.458	0.721
2. I talk up this organisation to my friends as a great organization to work for.	4.042	0.908
3. I would accept almost any type of job assignment in order to keep working for this organisation.	3.675	0.924
4. I find that my values and this organisation's Values are very similar.	4.000	0.722
5. I am proud to tell others that I am part of this organisation.	4.083	0.830
6. This organisation really inspires the best in me in the way of job Performance.	3.917	0.974
7. I am extremely glad I chose this organisation to work for over others I was considering at the time I joined.	3.917	0.830
8. I really care about the fate of this organisation.	4.542	0.588
9. For me, this is the best of all organisations for which to work	3.908	0.908
Overall Mean	4.060	
Internal Consistency (coefficient α)	0.922	
Confidence Interval @ 95%		

Figure 1 employees' affective commitment level.

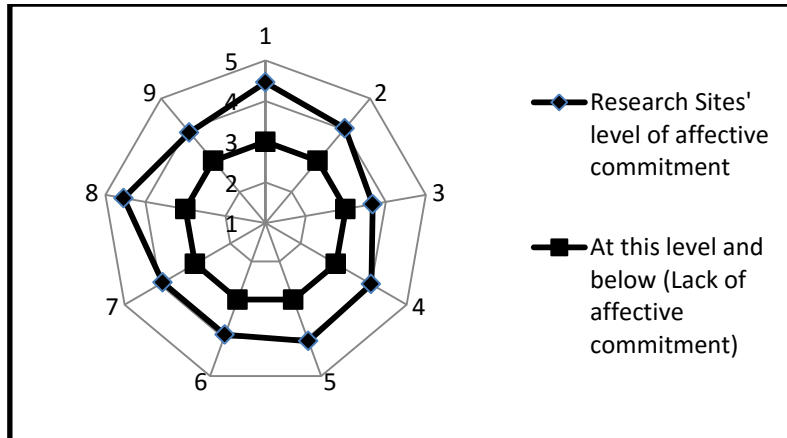


Figure 2 Two-dimensional determinant for organisational resilience: a conceptual model.

