EXPLORING CO-CREATION NETWORKS: CREATING 'BALANCED CENTRICITY'
WITHIN A PUBLIC TRANSPORT SERVICE SYSTEM

Competitive paper proposal for the Naples Forum on Services, Capri, 2011

Elina Jaakkola

Turku School of Economics, University of Turku

E-mail: elina.jaakkola@utu.fi

Tel. +3582 3339 222

Fax: +3582 3338 900

Address: Turku School of Economics, FI-20014 University of Turku, Finland

Matthew Alexander

Strathclyde Business School, University of Strathclyde

E-mail: matthew.j.alexander@strath.ac.uk

Tel. +44 141 548 3949

Department of Marketing, 173 Cathedral Street, G4 0RQ Glasgow, UK

Biographies:

Dr. Elina Jaakkola is a Senior Researcher in the Department of Marketing at Turku School of Economics. Her current research interests focus on knowledge intensive services, new service development, and the role of networks in service businesses Her articles have been published in e.g. the International Journal of Service Industry Management, Marketing Theory, Journal of Marketing Management, and Scandinavian Journal of Management.

Matthew Alexander is a lecturer in the Department of Marketing, University of Strathclyde. He is currently writing up a PhD addressing the impacts of Value Co-Creation on service firms and customers. His research focuses on services marketing, the management of customer relationships and the service encounter. His articles have been published in the International Journal of Contemporary Hospitality Management.
.

EXPLORING CO-CREATION NETWORKS: CREATING 'BALANCED CENTRICITY' WITHIN A PUBLIC TRANSPORT SERVICE SYSTEM

Abstract

Purpose: This study is explores how network level value co-creation has created 'balanced centricity' in a setting where business, consumer, and community actors are involved in a value co-creation network. The study investigates 1) the operand and operant resources contributed and integrated in the value co-creation process, 2) the value-in-use experienced by network actors, and 3) the factors that enable network functionality and facilitate balanced centricity.

Methodology: A case study approach is employed to examine a unique partnership between a public transport provider and community groups who are invited to 'adopt' railway stations in Scotland. The case represents a network where value co-creation occurs within Actor to Actor interactions involving consumers, members of the community, rail staff and governmental organisations.

Findings: The study describes resource contribution and integration involving a range of actors. In this case, community actors and rail operator act as operant resources integrating resources, promote the network and building relationships. Other organizational actors contribute principally operand (financial and physical) resources to the scheme, but derive both direct and indirect benefits from involvement. Four critical prerequisites for value co-creation within the network were identified: the provision of access to the network and the nature of that access; the level of ownership taken by adopters in the network, user empowerment, and support from other actors in the network.

Research implications: More research is needed to study the prerequisites of engaging in value co-creation within a network of dissimilar actors. Also research assessing balanced centricity within more competitive or turbulent markets is essential.

Practical implications: This project serves to demonstrate the potential benefits of achieving balanced centricity and indicates factors that facilitate this.

Originality/value: This paper addresses calls for research to increase understanding of value creation at the service system level by exploring a) network-level value creation and b) the value-in-use experienced by multiple actors.

Key words: value co-creation, networks, actor-to-actor, balanced centricity, public transportation

Paper type: Research paper

INTRODUCTION

Marketing literature has predominantly explored value from the perspective of the customer (e.g., Eggert and Ulaga, 2002, Flint, 2002). Service researchers have widened the perspective to the level of customer-provider dyad with the recognition that the interaction between the parties has influence on customer perceived value (e.g. Grönroos, 1998), but the value perceptions of other parties besides customers is seldom addressed. A growing number of scholars within the marketing domain have highlighted the systemic nature of value creation (e.g., Normann and Ramirez, 1993, Davies, 2004, Kothandaraman and Wilson, 2001), and value creation at the level of service networks and value chains is increasingly identified as a important research area but empirical research remains scarce (Ostrom *et al.*, 2010, Vargo and Lusch, 2011, Windahl and Lakemond, 2006, Cova and Salle, 2008, Matthyssens *et al.*, 2009).

Service-Dominant Logic (SDL) regards all actors, whether businesses or consumers, as resource integrators who interact to gain resources for use in their respective value creation processes (Vargo and Lusch, 2008b). These processes involve a range of stakeholders (Gummesson, 2007) who form service systems that provide contexts for value creation (Vargo *et al.*, 2008). Although literature on industrial networks acknowledges that interactions between single counterparts are inevitably connected with their other interactions across the network (Ford, 2010), few studies examine networks that consist of different types of resource-integrating actors. Therefore, the study of value creation within service systems comprising of relationships between a range of actors (both business and consumer) represents an interesting research gap in the literature.

This study is explores how network level value co-creation has created 'balanced centricity' in a setting where representatives of business, consumer, and community actors are involved in a value co-creation network. The research centres on the following questions: 1) What kind of operand and operant resources are contributed and integrated in the value co-creation process? 2) What value-in-use is experienced by network actors? 3) What factors enable network functionality and facilitate balanced centricity? Drawing on SDL, industrial network literature, and a qualitative case study, the paper provides new insights into value co-creation at a network/system-level.

The paper is organized as follows. First, literature on resource integration within actor-to-actors networks and value co-creation is briefly discussed. Second, methodology and the case are presented. The subsequent sections report the study findings, followed by conclusions and implications for research and practice.

THEORETICAL BACKGROUND

MUTUAL SERVICE PROVISION WITHIN ACTOR-TO-ACTOR NETWORKS

The appropriateness of the traditional division between business-to-consumer and business-to-business marketing is increasingly being questioned, e.g. by Gummesson and Polese (2009), Gummesson (2011) and Vargo and Lusch (2011). One of the foundational premises of SDL is that "all social and economic actors are resources integrators" (Vargo and Lusch, 2008b). Essentially individual customers, households, companies, and other organizations are similar as all are engaged in value co-creation through resource-integration (Vargo and Lusch, 2011). Analyzing dyadic exchanges does not give a sufficiently wide view of value creation, as all exchanges are influenced by a network of actors (cf. Gummesson and Polese, 2009). A more abstract designation "actor-to-actor" is suggested by Vargo and Lusch (2011) to emphasize the complex and dynamic system of actors that co-create value, and at the same time, jointly provide the context through which value gains its individual and collective assessment.

The industrial network approach suggests that companies interact and develop relationships in order to enhance their resources and to access the resources of others (Harrison and Håkansson, 2006, Gadde and Håkansson, 2008). Similarly, SDL suggests that actors form a value network where resources are integrated and applied through interaction to provide service-for-service (Vargo and Lusch, 2011). Such a value network, or service eco-system, is "a spontaneously sensing and responding spatial and temporal structure of largely loosely coupled value proposing social and economic actors interacting through institutions and technology, to co-produce offerings, exchange service offerings, and to co-create value" (Lusch *et al.*, 2010, p. 20). Service systems are connected through the proposition, acceptance and evaluation of value (Vargo *et al.*, 2008). Through value propositions - "reciprocal promises of value, operating to and from suppliers and customers seeking an equitable exchange" (Ballantyne and Varey, 2006, pp. 334-335) - partners, suppliers, shareholders, and other stakeholders offer access to their resources, but they also expect reciprocation. Exchange is motivated by application of resources for the benefit of another party with the anticipation of reciprocity (Vargo and Lusch, 2008a).

Each actor has specific capabilities, rooted in their available resources and the way they can be combined with others, that would attract other actors facing similar problems (Ford, 2010). Using SDL vocabulary, resources can be considered "operant", i.e. active, typically intangible and human resources, such as skills and knowledge, that can be used to act on something (Vargo and Lusch, 2011), or "operand" in nature, passive, often tangible resources such as natural resources and equipment that need some action to performed on to become valuable. Actors in a network integrate and transform different kinds of resources in interaction to co-create value (Lusch and Vargo, 2006).

NETWORK VALUE CO-CREATION AND BALANCED CENTRICITY

The concept of value is increasingly considered subjective and context-dependent, and hence relative to an individual customer's situation (Eggert and Ulaga, 2002, Vargo and Lusch,

2004). The benefits and sacrifices are not fixed at the time of purchase, but are actualized during the consumption or usage of the good or service. Therefore products and services are not an end result of a value chain, but they serve as input to customer's own value creating processes (Normann, 2001). In other words, goods and services do not have value as such, but their value is determined in the user's context (Normann and Ramirez, 1993, Vargo and Lusch, 2008a, Grönroos, 2008).

According to SDL, value is always co-created: the supplier contributes to value creation by making a value proposition, and the customer actualises the value by using what is offered to them (Vargo and Lusch, 2008b, Gummesson, 2007) . In some cases, the customer is involved in co-production, which refers to user participation in the creation of the core offering of the firm, e.g. through shared inventiveness, co-design or shared production (Lusch and Vargo, 2006). In other words, customers may actually co-create the value proposition itself. Wikström (1996, p. 10) views co-production as 'buyer-seller social interaction and adaptability with a view to attaining further value'. In co-production exchanges, "interaction between the parties should generate more value than a traditional transaction process, during which seller and buyer meet briefly, exchange finished products and services and then go their separate ways" (Wikström, 1996, p. 10). Co-created exchanges provide opportunities for suppliers to customize their offering (Payne *et al.*, 2008), and gain a more extensive role in the customer's value process by influencing the way customers integrate offerings with their own resources (Grönroos, 2008).

Extant literature emphasises the role of customers shifting from passive recipients to active formulators and coordinators of value (Ostrom *et al.*, 2010, Prahalad and Ramaswamy, 2000, Prahalad and Ramaswamy, 2004b, Ramirez, 1999, Hoyer *et al.*, 2010). This makes an "actor-to-actor" view more suitable for value co-creation contexts: as it is not a question of the supplier making a value proposition and the customer making use of the offering, but reciprocal relationships where all actors make and use value propositions, or even co-design them. Participation in such activities may even be an important source of value-in-use in itself, evident in the contexts of customer-led brand communities (Schau *et al.*, 2009), virtual environments (Nambisan and Baron, 2009), and open source product development (Rowley *et al.*, 2007).

However, responding to customer willingness to co-create requires reciprocity from firms. The importance of knowledge as an exchangeable commodity and the need for sharing of resources between firm and customer is central to S-D Logic and value co-creation (Maglio & Spohrer, 2008; Prahalad, 2004; Vargo & Lusch, 2004). Prahalad and Ramaswamy (2004a, 2004b) argue that firms can facilitate customer involvement in the co-creation process through extensive **Dialogue**, granting **Access**, making them share the **Risk**, and providing **Transparency** for their actions (DART). It is through these 'building blocks' (Prahalad & Ramaswamy, 2004a, p. 4) that enable a company to engage more effectively with consumers as co-creators. The DART model challenges firms to break out of traditional roles of firms and customers and provide more meaningful opportunities for customers to engage as equal partners. in the value co-creation process 'enabling both joint problem definition and problem solving' (Prahalad & Ramaswamy, 2004b, p. 9).

The point of departure from a more dyadic view of value co-creation is that actors or relationships between certain actors do not exist in isolation, but as part of networks of stakeholders, (Gummesson, 2007, e.g., Möller and Halinen, 1999, Håkanson and Snehota, 1995, Gummesson, 2008a, Gummesson, 2008b). Ramirez (1999) notes that actors hold different roles in relation not only to different counterparts (one is one's suppliers' customer; one's customers' supplier), but also in relation to a single counterpart. For example, one economic actor 'A' may simultaneously be (i) a supplier to another economic actor 'B', (ii) as well as a customer of economic actor 'B', (iii) as well as a competitor of 'B', (iv) as well as a partner with 'B' to coproduce value with and for a third economic actor 'C', and (v) possibly a competitor with 'B's partners, if 'A's own alliance with others competes with 'B's (Ramirez, 1999). This example illustrates that value co-creation is not necessarily a dyadic or sequential process, but takes place in a complex network consisting of different types of relationships that indirectly influence value creation.

Recent contributions in the S-D logic literature acknowledge that the provider and customer are not the only actors involved, but value co-creation takes place in the context of multiple exchange relationships (Lusch *et al.*, 2010, Vargo and Lusch, 2010). Each actor contributes by integrating resources through which receive benefits. Value is therefore the concern of each actor within the network, not just the customer (Gummesson and Mele, 2010). However, by focusing on customer-perceived value and customer-centricity, mainstream marketing has disregarded the value and satisfaction experienced by suppliers andother actors in the service system (Gummesson, 2008a). Gummesson (2008b, p. 136) suggests that customer-centricity is 'non implementable and not fit to form the foundational credo of marketing', instead the focus should be on creating 'balanced centricity'; a perspective where the needs and value perceptions of all stakeholders in a network are taken into account, instead of maximizing the benefits of single customers. However, Gummesson suggest that a state of balanced centricity may be utopian (Gummesson, 2007), and a professorial whim, (Gummesson, 2008a, 2008b). Research exploring balanced centricity, its prerequisites and viability is therefore critical for understanding how to mediate between interests of multiple actors, and achieve a "win-win-win[x]" situation. Also Vargo et al. (2008) and Lusch et al. (2010) emphasise the importance of exploring the prerequisites of value co-creation, the processes involved in it, and its synergistic effects.

METHODOLOGY

An embedded case study approach (Halinen and Törnroos, 2005) was employed to examine a unique partnership between a public transport provider and community groups who are invited to 'adopt' railway stations. The 'Adopt A Station' scheme allows community users to utilize unused space within stations free of charge to provide services or facility improvements to benefit the wider community. The scheme in Scotland has its roots in the 1990's in a small group of rail users who successfully lobbied the rail operator to halt plans to reduce staffing hours at their local station, other informal projects emerging thereafter. The official adoption programme was introduced in 2005 and since then over 100 stations (out of a total of 343) have been adopted with schemes including gardening, charity bookshops,

cafes and community meeting space. The case represents a network where value co-creation occurs within Actor to Actor interactions in the interplay of consumers, members of the community, rail staff and governmental organisations.

The research consists of four station case studies alongside interviews with stakeholders from the rail operating firm, local government and other public bodies (see Table 1). Initial contact was made with the ScotRail manager responsible for adoption projects who facilitated visits to adopted stations. Case studies involved site visits to the stations where actors were able to discuss projects *in-situ* and be interviewed in more comfortable surroundings. The natural setting and informal approach to the interview meant that in some cases multiple actors were interviewed (either planned or unplanned) as other adopters and rail staff arrived. Other interviews were conducted with actors not directly involved with the scheme to provide an alternative perspective. A total of 14 interviews were undertaken and digital files and notes were subsequently coded, transcribed and analysed using QSR NVivo 8.

Table 1 Informants for the study

Actor	Role in the "Adopt a station" network	Interviewees
First ScotRail	The current franchise holder, a private sector transport firm that operates the rail network	External Relations Manager (JY) Station Manager (FD)
Adopters	Individual citizens or groups who are directly involved in activities at the stations.	Wemyss Bay (NC, PM, PM2) Uddingston (IW, PW, MD) North Berwick (SS) Pitlochry (NM, PM)
Passenger Focus	Public Watchdog concerned with rail passengers	Advisor (JK)
Local community	Local councils who own the land around stations Entrepreneurs who run small businesses in or around the stations. Local Residents	Councillor (AW)
The Railway Heritage Trust	Charitable organisation that is concerned with preservation of historical infrastructure	Chief executive (AS)

FINDINGS

The following section reports the findings of the study. Firstly we identify the complexity of the network; the actors who take part and their motivations for engaging. Secondly, we explore the contribution of the various actors to the network, identify the resources that are integrated to co-create value, and identify the resulting value-in-use experienced by the actors. The final part addresses the prerequisites that enable the functionality of the network and facilitate balanced centricity.

OVERVIEW OF ACTORS & MOTIVATIONS

The rail network in Scotland operates under a complex franchise arrangement. The rail network (track, signalling, infrastructure and maintenance) is owned by 'Network Rail' a private UK wide organisation. Network Rail does not operate any rail services, the franchise for this is granted by 'Transport Scotland', a Scottish government body responsible for the operating of the transport network in Scotland. The current franchise holder is 'First ScotRail', a subsidiary of FirstGroup a large private sector transport firm. Other actors involved include passenger focus (an independent, consumer travel watchdog); The Railway Heritage Trust (charitable organisation concerned with the preservation of historic railway buildings and infrastructure); local councils who own the land around some of the stations and, in some cases have responsibility for buildings on stations; finally the local communities themselves are actors and are involved as either station adopters or by running small businesses within stations. A representation of the network is shown in Figure 1.
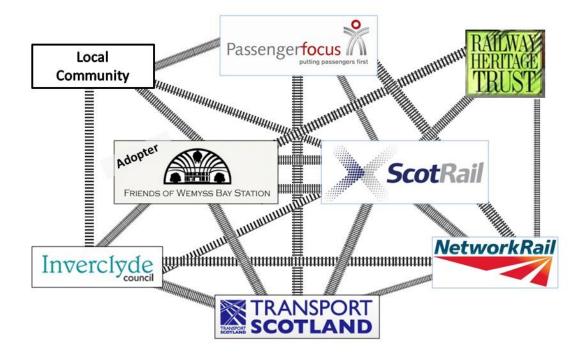

Figure 1 Adopt a Station Network

For ScotRail adoption represented an opportunity to improve public perceptions:

> *"At times when there is nothing else happening, no positive stories because cycles of investment have run their course and so on, this is a kind of state of steady advance not related to recessions or electoral cycles or anything, as the word spreads the more people wish to get involved with adoption" (JY).*

Although station adopters in Scotland have no formal duties, the presence of the community within the station did serve to improve the environment for rail users; ScotRail operates under a quality control regime which: *"Sets standards for the number of bits of litter that should be lying around and the maintenance of the fabric of the place...'Adopt A Station' is adding value on top of that, giving a personal touch on top of the 'hygiene factors" (JK).*

A city councillor recognised the benefits of community involvement. He explained that many stations across Scotland contained buildings with listed and other historical, status. He described a community project which planned to offer cycle hire at a station near a large city park within a grade A listed building. By allowing a small community business use of the building for a 'peppercorn rent' the building became *"protected by occupation"* (AW).

The custodian role of adoption was also recognised by adopters, *"It's the history [of the station] we are trying to preserve"* (NC). Motivations for other adopters varied but reflected a growing sense of community engagement:

> *"It's very post-industrial; these are communities seeking identity in a world where it is no longer generated by the local factory if you like...also people are living longer, and looking for activities to keep them going" (JY).*

Other adoption examples include a passenger opening a coffee shop as she was *"fed up with not being able to get a coffee"* (MD) at the station. At another station two community members sold 2nd hand books *'from a cardboard box in the corner'* (NM) and after ScotRail involvement took over two vacant rooms in the station and have since raised over £20,000 for charities.

RESOURCE INTEGRATION AND RESULTING VALUE-IN-USE

Value co-creation within Adopt A Station occurred within processes of resource contribution and integration involving a range of actors. Some of the actors were merely exchanging resources, i.e. contributing something with the expectancy of certain benefits, whilst others adopted a key role in integrating the versatile resources. The interviews indicate that the provision of resources is motivated by the value-in-use each actor anticipates gaining from involvement in the network.

Resource Integration

Within the network a key role was played by the adopters. For example, one community group who open a charity bookshop explained:

"The deal, which is a fair one, is that we can use the space but we had to decorate it, we had to clean it out, that's fair enough...we don't pay rent and that is a wonderful addition" (NM).

So whilst ScotRail were happy to allow use of space (and ensure the safety of and access to electrics/plumbing etc.) the adopters were charged with upkeep and decoration. Adopters also liaised with other stakeholders to drive through their own agenda for the station by targeting other network actors, securing and integrating the resources they provide:

"The inside of the station is in a dreadful state...that's one of the reasons why we got together in the first place... Network Rail redecorated the front of the building (bits of which were just falling off), which was an embarrassment (very sad)... they also gave us a new ceiling in here ... repainted and re-floored us also and we are in a much better state than we were" (NC).

"Passenger Focus said we were credited with encouraging Network Rail to do the renovations...the Railway heritage trust and network rail agreed funding for the front and the renovations inside are pencilled in for 2012" (NC).

The passion of adopters was a significant factor in the provision of funds for regenerating stations, and allowing ScotRail to recruit other communities into the scheme. For example, two groups of consumers were concerned that particular timetabling changes had resulted in certain trains not stopping at their local station, ScotRail recognised that:

"We had to develop unusually close relationships with those communities because we were in the firing line of email traffic between them and Transport Scotland. We turned that to our advantage by saying to them that, these stations of which they were so proud about and so concerned about, would they like to make them better places - both of them have risen to that challenge" (JY).

The work of the communities within the stations appears to also motivate ScotRail staff to improve station appearance: *"The two chaps [ScotRail staff] at the station are first class; they keep the station spotless"* (IW). Other stakeholders are willing to be involved with the regeneration of the stations but once again it was the passion of the local community, which motivates other stakeholders and ensures the continuation of the projects.

Value-In-Use

Network involvement is unlikely to be valued by adopters, however, if the actors involved do not receive adequate value-in-use from their participation. The research has already identified how local government benefits by ensuring that listed buildings are protected by occupation but one councillor identified that adoption fitted into to a much wider agenda to promote rail travel and expand 'park and ride' schemes to include retail outlets and other facilities. Value-in-use was also evident for the community groups in the network and station adoption gives an opportunity to contribute to community regeneration as identified by ScotRail; *"the operative phrase is putting something back"* (JY).

One adopter acknowledged the strength of support from ScotRail but was astute in recognising that they were "*doing ScotRail quite a lot of favours as well*" (NC). At one adopter group the level of fines that ScotRail received due to failures related to the SQUIR quality control resulted in the chair of the adopters remarking "*we must be able to help you avoid that*" (PL).

For the firm, community engagement through Adopt A Station resulted in an improved station environment for railway station staff and other passengers on the network:

> "*An environment which looks uncared for, tends to attract trouble ... stations are notorious for people loitering about...so anything that makes a station look cared for does a lot to calm the background. We know there are something like 15% more journeys that rail passengers would make if they felt more confident about fear of crime and the more stations and trains look cared the more you will attract people on to the system, confident that this is a safe place to travel from*" (JK).

The benefits of an improved environment were likened to the notion of 'broken windows' the theory that if an environment is respected and cared for then anti-social behaviour and crime is reduced:

> "*Some people say 'oh I wouldn't do gardening, there's bound to be vandalism...well there is no vandalism...this is a public space which is your space and you have the decency and kindness to take care of it*" (JY).

Long term benefits were identified by ScotRail in relation to the involvement of schools in adoption projects through gardening and creating artwork for certain stations. ScotRail's external relations manager observed that:

> "*School involvement is about getting them young; a child in railway terms is, a potential customer, employee or vandal depending on how you feel about it*" (JY).

In some cases, the community users were used as ambassadors and promoted the scheme to a wider audience:

> "*We go around doing presentations on what we do at the station, so if anyone wants to adopt we go out to them and let them see what it involves and what they might do*" (AW).

One local councillor proposed that Adopted Railway stations better "*reflect the communities where they are located*" (AW), a role recognised by adopters:

> "*The station is one of the main, entrances to the town; we enter competitions like beautiful Scotland, Britain in bloom and one of the areas where one is marked is the entrance ... but we also look at it from a much wider point of view which is tourism, a welcome to North Berwick*" (SS).

In summary, some actors (mainly business) contributed principally operand resources to the network in the form of financial and physical resources but also access to the network. The

community actors and rail operator become operant resources that integrate network resources to ensure success of each project, whilst promoting the network and build relationships with other actors. A summary of actors and their contributions is presented in Table 2.

Table 2 Network Resource Inputs and Value Outputs

Actor	Resource Input(s)		Outputs: Value in Use experienced
	Operand	Operant	
Station Adopters	Fundraising	Time/Labour/ Passion / Knowledge /Promotion	Community Awards/Reduction in Anti-Social Behaviour/Recognition /Funding/Improved facilities/ Facilities use
First ScotRail	Funding (operational)/ Equipment/ Access	Access/ Lobbying / Networking /Relationships	Improved environments/better relations with community/indirect benefits for passengers/reduced fines
Network Rail	Funding (Infrastructure/ Renovation)	Labour	Improved perceptions of Network
Transport Scotland	Funding (Grants)		Improved perceptions of Network/Community relationships
Local Council	Funding/Access		Improved environment/potential increase in rail use/Protection of infrastructure
Local Community	Funding		Improved station environments/ Reduction in Anti-Social Behaviour/Community Awards
Passenger Focus		Recognition / Support	Improved station environments/ Reduction in Anti-Social Behaviour
Railway Heritage Trust	Funding (Renovation)		Facility protection

PREREQUISITES FOR NETWORK LEVEL VALUE CO-CREATION

The data indicated that value co-creation in the Adopt a Station network was dependent on factors that improve functionality for adopters and facilitated value co-creation (summarised in Table 3). Such prerequisites included the provision of access to the network and the nature of that access; the level of ownership taken by adopters in the network, user empowerment, and, critically, an appropriate level of support from other actors in the Network.

The involvement of a wide range of actors was initially made possible by the rail operating network recognising the potential benefits of community involvement and **providing access** to the network:

> "Sometimes a member of the public saying 'can I use that' has concentrated our minds...do we really need all these rooms?" (JY)

> "ScotRail are always keen to hear new ideas for rejuvenating station buildings" (JK).

The level of enthusiasm for engagement with the community is accompanied a desire to facilitate involvement without putting up barriers that might discourage adopters. Whilst all adopters undertake a certain level of safety training and are required to liaise with station staff for the most part adopters recognises that it was "*just a good common sense approach, if there was too much bureaucracy people wouldn't do it*" (SS). To further facilitate access Transport Scotland created the Station Communities Regeneration Fund (SCRF) which allows community groups to apply for funds to support the redevelopment of station areas for small business and community use, ScotRail identified that provision of funds was not necessary but:

> "Everybody judge's Adoption as a heart-warming, not a heart-rending, experience... and the proof of that was the [SCRF] scheme" (JY)

Another key prerequisite was the notion of community adopters **taking ownership** of the project was recognised by one adopter as being "*at the heart of everything*" (SS). An approach by a ScotRail representative to one station made one potential adopter realise that "*this is my environment and I am sick of it looking like this*" (NC). This sense of ownership was recognised and fostered by the rail company who identified local communities as being the one constant feature of a periodically changing ownership and management landscape:

> "Ten years ago this would have been a RailTrack station, funded by the 'strategic rail authority', with services operated by National Express ScotRail. Now, all those bodies have gone, replaced by Network rail, Transport Scotland and First ScotRail. Chances are in 10 years' time it will be another set of bodies, the only question then is whose is it? By having community involvement we are making it clear that it [belongs to] the good people who buy the tickets and pay taxes to keep it going....that is the most important message I think" (JY).

Alongside the notion of ownership the **support of secondary actors in the network** was essential to facilitate resource integration. This included local business support that includes providing plants for gardening or technical assistance such as the setting up of web sites for adopter groups. Other groups identified connections with local government as being important, one adopter felt "*fortunate to have three councillors who come to our meetings who are very supportive of us*" (IW). More direct support was obtained by one group by setting up the 'Friends of Wemyss Bay Station:

> "We had a public awareness day, we had about 100 people sign up to become friends and that gave us some money (£6000)...it really was surprising, a lot of local support" (NC).

Adopters also benefitted from increased **empowerment** given by the rail operator enabling them to solve problems with company support:

> *"Last year we had great problems with litter bins, seagulls were going in and spreading the contents, so we contacted ScotRail and arranged to have new bins which are seagull proof and working very well. (SS)*

This empowerment was facilitated by frequent communication between adopters and ScotRail's external relations manager. A high level of trust and engagement between actors developed enabling the swift resolution of issues and providing adopters with a fixed point of contact: *"If I have a problem, I get in touch with (JY) and the problem is solved - that's a good relationship"* (SS).

Involvement in adoption projects gave groups legitimacy enabling them to acquire further support from actors in the network and other external bodies:

> *"I think it gives you leverage in that you have a relationship with ScotRail, that you are not coming as 'Mr Angry' out of left field. You have an established relationship where you can make suggestions (and demands), and you are seen as reasonable people, rather than rabid activists"* (NM).

Our findings identify how a community engagement scheme operating within a complex public transport system has created a state akin to that of balanced centricity where multiple network actors engage in a range of C2C, B2C and B2B interactions that serve to maintain the network and provide value-in-use for all participants. To achieve balanced centricity it was clear that community groups needed a degree of empowerment facilitated by the level of access given by the rail operator and the provision of support and funding from the community and other network actors. However, this network was dependent on two principal actors (First ScotRail and Adopters) who were central to the scheme and fundamental to its success. Other actors contributed mainly operand resources but still received benefits from involvement.

Table 3. Prerequisites for and network functioning within the Adopt-a-Station network

Prerequisites for network functioning	Key actors responsible	Actions and resources contributed	Beneficiaries
Provision/ Nature of Access	• First ScotRail • Network Rail • Community Council	Making space available for adoption use, flexible attitude towards community use.	• Adopters • Local Community

Ownership	• Adopter • Local Community	Strong desire for community involvement, established sub-network or group	• First ScotRail • Network Rail • Community Council
Support	• First ScotRail • Network Rail • Local Community	Facilitating functionality of network through provision of operand and operant resources (money/expertise)	• Adopters • Passengers
User Empowerment	• Adopter • Local Community	Giving community groups a legitimate, acknowledged status. Engage wide range of groups (schools etc)	• First ScotRail • Network Rail • Local Community

DISCUSSION

"An interesting story is Whitecraigs station which has a nice cottage style building. Peter McKinley, a local project manager was in touch one day making the rather strange request that could he treat Whitecraigs station as an extension of his own garden, we didn't ask what his garden was like we just said yes, if you want to do it. Gary, the guy who works in the booking office said he had tried but it was very difficult on his own....so he has supplied Peter with cuttings from his own garden and now Peter waters while Gary sells tickets" (JY).

It is relationships such as the one described above that are symptomatic of the Adopt A Station scheme where individuals or groups are empowered by First ScotRail to take ownership of their local station and make improvements which benefit an entire network of different actors (cf. Gummesson and Polese, 2009). The scheme is evidence that the complex, dynamic "actor-to-actor" system is achievable, mutually beneficial and represents service-for-service provision that typifies SDL (Vargo and Lusch, 2011). Our research reveals how firms can embed activities within a network where a configuration of actors carries out value activities by integrating and accessing resources (Harrison & Håkansson, 2006; Gadde & Håkansson, 2008)

As a service eco-system the Adopt A Station network represents a of 'balanced centricity' (Gummesson, 2007) where actors are "loosely coupled" (Lusch *et al.*, 2010, p. 20) through institutions and technology and value is co-created through the provision of both operand and operant resources. Crucially, the eco-system supports a mutually beneficial environment where the provision of operand resources by even peripheral actors is still reciprocated with

value benefits. Of particular importance is the central role played by the station adopters who act as principal resource integrators highlighting the consumer role as active formulators and coordinators of value as opposed to passive recipients (Ostrom *et al.*, 2010, Prahalad and Ramaswamy, 2000, Prahalad and Ramaswamy, 2004b, Ramirez, 1999, Hoyer *et al.*, 2010).

Our research indicates how balanced centricity is typified by exchanges where resources are offered in anticipation of reciprocity (Vargo and Lusch, 2008a) and a range of both financial and non-financial benefits were experienced by actors within the network. For each actor value was determined phenomenologically within each the user's context (Normann and Ramirez, 1993, Vargo and Lusch, 2008a, Grönroos, 2008). For example: involvement in adoption benefits community actors through the ability to take 'ownership' of an important community gateway, acting as custodians of important buildings and gaining award recognition for the community and also by participation, itself providing an outlet for active community members; passengers and the wider community benefit through an improved environment reducing the stress of commuting and providing enhanced service provision; and the rail operator benefits with a reduction in fear of crime, increased passenger journeys, reduced fines relating to station appearance and a reduction in anti-social behaviour around stations. This highlights the benefits of actors (and networks) striving to co-create value proposition with whereby the resultant value is of greater use to a wider group of network actors (Wikström, 1996).

Within this network the access to physical, financial and firm operant resources made available to community users was crucial for the functionality of the network. This enabled the empowerment of adopters who were subsequently able to integrate and transform a range of resources to co-create value (Lusch and Vargo, 2006). But, crucially this was dependent on the level of ownership that community actors took of the activities of the network. This has significant implications for our understanding of network level value co-creation and the achievement of balanced centricity in that consumer actors have a central role and this must be reflected in their level of commitment to the endeavor. So although value is of concern to all actors within the network (Gummesson and Mele, 2010) it will often be one actor who acts as a principle resource integrator and drives the creation of value for other actors who take a more passive role by contributing operand resources to the network.

Figure 2 illustrates how balanced centricity is achieved within a service eco-system. Our research suggests that this state requires a strong mutually beneficial 'co-created' relationship between *primary* actors (there could be more than two but we attempt parsimony in our model). This relationship could be B2B or B2C but is likely to require actors to grant access or empower other actors. Our theme of ownership (of aspects of the relationship) will also be important. Once this relationship is established, the exchange of operand and operant resources (and benefits) will motivate other actors to contribute to the network. Whilst the contribution of these *secondary* actors is likely to be limited to the provision of mainly operand resources they still receive benefits from involvement.
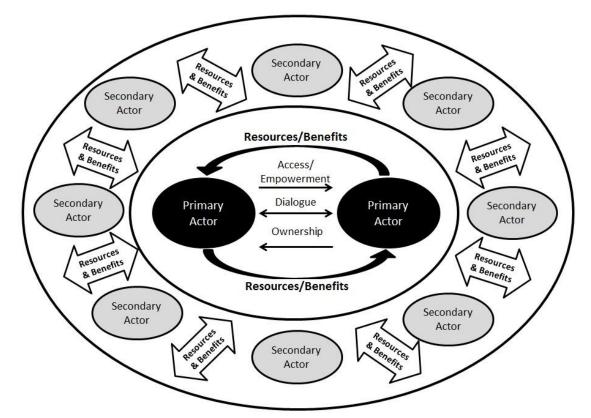
Figure 2 Balanced Centricity in a Service Eco-System

IMPLICATIONS

Our study suggests that understanding value-in-use from the perspective of different network actors is crucial to organizing a well-functioning service system. This project serves to demonstrate the potential benefits of balanced centricity and indicates the sacrifices and investment required to achieve this. Far from a utopian idyll or even a professorial whim we assert that balanced centricity is achievable and, in fact, critical for the service system to exist at all: the network of actors providing service for service emerged in the Adopt a Station case in consequence of diverse actors perceiving value to be achieved via participation. An important managerial implication is that these benefits have only been achieved by giving customers extensive access to the firm. In our study adopters were empowered to take ownership of their projects at stations and supported in their efforts by the rail operator when lobbying for funding from other agencies. This underscores the importance of the dialogue and access factors when engaging in network level and other co-created relationships.

LIMITATIONS & FUTURE RESEARCH

The research presented here represents one context where balanced centricity has been achieved through the strong relationship between a firm and community groups. However, case studies are widely understood as difficult to generalize from (Yin, 2003) and, as such,

studies in other contexts would aid understanding of how value co-creation at a network level can benefit actors, the prerequisites required and the extent to which networks can achieve balanced centricity. For example, the changes of mindset needed by organisations needs to be further understood.

Our research illustrates a network where all actors identified (primary and secondary) contribute resources and receive benefit from involvement. The study, as yet, has not identified actors who choose not to participate or who have dropped out of the network for any reason. The network in question also operates within a limited competitive context (ScotRail having a near monopoly on rail services in Scotland) therefore research assessing balanced centricity within more competitive or turbulent markets is essential.

REFERENCES

Cova, B. & Salle, R. (2008), "Marketing solutions in accordance with the S-D logic: Co-creating value with customer network actors", *Industrial Marketing Management,* Vol. 37 No. 3, pp. 270-277.

Davies, A. (2004), "Moving base into high-value integrated solutions: a value stream approach", *Industrial & Corporate Change,* Vol. 13 No. 5, pp. 727-756.

Eggert, A. & Ulaga, W. (2002), "Customer perceived value: A substitute for satisfaction in business markets?", *Journal of Business and Industrial Marketing,* Vol. 17 No. 2/3, pp. 107-118.

Flint, D.J. (2002), "Exploring the Phenomenon of Customers' Desired Value Change in a Business-to-Business Context", *Journal of Marketing,* Vol. 66 No. 4, pp. 102-117.

Ford, D. (2010), "IMP and service-dominant logic: Divergence, convergence and development", *Industrial Marketing Management,* Vol. 40 No. 2, pp. 231-239.

Gadde, L. & Håkansson, H. (2008), "Business relationships and resource combining", *The IMP Journal,* Vol. 2 No. 1, pp. 31-45.

Grönroos, C. (2008), "Service logic revisited: who creates value? And who co-creates?", *European Business Review,* Vol. 20 No. 4, pp. 298-314.

Grönroos, C. (1998), "Marketing services: The case of a missing product", *Journal of Business & Industrial Marketing,* Vol. 13 No. 4/5, pp. 322-338.

Gummesson, E. (2011), "2B or not 2B: That is the question", *Industrial Marketing Management,* Vol. 40 No. 2, pp. 190-192.

Gummesson, E. (2008a), "Customer centricity: reality or a wild goose chase?", *European Business Review,* Vol. 20 No. 4, pp. 315-330.

Gummesson, E. (2008b), "Extending the service-dominant logic: from customer centricity to balanced centricity", *Journal of the Academy of Marketing Science,* Vol. 36 No. 1, pp. 15-17.

Gummesson, E. (2007), "Exit services marketing - enter service marketing", *Journal of Customer Behaviour,* Vol. 6 No. 2, pp. 113-141.

Gummesson, E. & Mele, C. (2010), "Marketing as Value Co-creation Through Network Interaction and Resource Integration", *Journal of Business Market Management,* Vol. 4 No. 4, pp. 181-198.

Gummesson, E. & Polese, F. (2009), "B2B is not an island!", *Journal of Business & Industrial Marketing,* Vol. 24 No. 5, pp. 337-350.

Håkanson, H. & Snehota, I. (1995), *Developing Relationships in Business Networks,* International Thompson Press, Boston.

Halinen, A. & Törnroos, J. (2005), "Using case methods in the study of contemporary business networks", *Journal of Business Research,* Vol. 58 No. 9, pp. 1285-1297.

Harrison, D. & Håkansson, H. (2006), "Activation in resource networks: a comparative study of ports", *Journal of Business & Industrial Marketing,* Vol. 21 No. 4, pp. 231-238.

Hoyer, W.D., Chandy, R., Dorotic, M., Krafft, M. & Singh, S.S. (2010), "Consumer Cocreation in New Product Development", *Journal of Service Research,* Vol. 13 No. 3, pp. 283-296.

Kothandaraman, P. & Wilson, D.T. (2001), "The Future of Competition: Value-Creating Networks", *Industrial Marketing Management,* Vol. 30 No. 4, pp. 379-389.

Lusch, R.F. & Vargo, S.L. (2006), "Service-dominant logic: reactions, reflections and refinements", *Marketing Theory,* Vol. 6 No. 3, pp. 281-288.

Lusch, R.F., Vargo, S.L. & Tanniru, M. (2010), "Service, value networks and learning", *Journal of the Academy of Marketing Science,* Vol. 38 No. 1, pp. 19-31.

Maglio, P.P. & Spohrer, J. (2008), "Fundamentals of service science", *Journal of the Academy of Marketing Science,* Vol. 36 No. 1, pp. 18-20.

Matthyssens, P., Vandenbempt, K. & Weyns, S. (2009), "Transitioning and co-evolving to upgrade value offerings: A competence-based marketing view", *Industrial Marketing Management,* Vol. 38 No. 5, pp. 504-512.

Möller, K.K. & Halinen, A. (1999), "Business Relationships and Networks:: Managerial Challenge of Network Era", *Industrial Marketing Management,* Vol. 28 No. 5, pp. 413-427.

Nambisan, S. & Baron, R.A. (2009), "Virtual Customer Environments: Testing a Model of Voluntary Participation in Value Co-creation Activities", *Journal of Product Innovation Management,* Vol. 26 No. 4, pp. 388-406.

Normann, R. (2001), *Reframing Business - When the Map Changes the Landscape,* John Wiley & Sons, Chichester.

Normann, R. & Ramirez, R. (1993), "From value chain to value constellation: Designing interactive strategy", *Harvard Business Review,* Vol. 71 No. 4, pp. 65-77.

Ostrom, A.L., Bitner, M.J., Brown, S.W., Burkhard, K.A., Goul, M., Smith-Daniels, V., Demirkan, H. & Rabinovich, E. (2010), "Moving Forward and Making a Difference: Research Priorities for the Science of Service", *Journal of Service Research,* Vol. 13 No. 1, pp. 4-36.

Payne, A.F., Storbacka, K. & Frow, P. (2008), "Managing the co-creation of value", *Journal of the Academy of Marketing Science,* Vol. 36 No. 1, pp. 83-96.

Prahalad, C. (2004). The cocreation of value. *Journal of Marketing, 68*(1), p. 23.

Prahalad, C.K. & Ramaswamy, V. (2000), "Co-opting customer competence", *Harvard Business Review,* Vol. 78 No. 1, pp. 79-87.

Prahalad, C.K. & Ramaswamy, V. (2004a), "Co-creating unique value with customers", *Strategy & Leadership,* Vol. 32 No. 3, pp. 4-9.

Prahalad, C.K. & Ramaswamy, V. (2004b), "Co-creation experiences: The next practice in value creation", *Journal of Interactive Marketing,* Vol. 18 No. 3, pp. 5-14.

Ramirez, R. (1999), "Value co-production: Intellectual origins and implications for practice and research", *Strategic Management Journal,* Vol. 20 No. 1, pp. 49-65.

Rowley, J., Beata Kupiec-Teahan & Leeming, E. (2007), "Customer community and co-creation: a case study", *Marketing Intelligence & Planning,* Vol. 25 No. 2, pp. 136-146.

Schau, H.J., Muñiz Jr., A.M. & Arnould, E.J. (2009), "How brand community practices create value", *Journal of Marketing,* Vol. 73 No. 5, pp. 30-51.

Vargo, S.L. & Lusch, R.F. (2010), "From Repeat Patronage to Value Co-creation in Service Ecosystems: A Transcending Conceptualization of Relationship", *Journal of Business Market Management,* Vol. 4 No. 4, pp. 169-179.

Vargo, S.L. & Lusch, R.F. (2008a), "From goods to service(s): Divergences and convergences of logics", *Industrial Marketing Management,* Vol. 37 No. 3, pp. 254-259.

Vargo, S.L. & Lusch, R.F. (2008b), "Service-dominant logic: continuing the evolution", *Journal of the Academy of Marketing Science,* Vol. 36 No. 1, pp. 1-10.

Vargo, S.L. & Lusch, R.F. (2004), "Evolving to a new dominant logic for marketing", *Journal of Marketing,* Vol. 68 No. January, pp. 1-17.

Vargo, S.L. & Lusch, R.F. (2011), "It's all B2B…and beyond: Toward a systems perspective of the market", *Industrial Marketing Management,* Vol. 40 No. 2, pp. 181-187.

Vargo, S.L., Maglio, P.P. & Akaka, M.A. (2008), "On value and value co-creation: A service systems and service logic perspective", *European Management Journal,* Vol. 26 No. 3, pp. 145-152.

Windahl, C. & Lakemond, N. (2006), "Developing integrated solutions: The importance of relationships within the network", *Industrial Marketing Management,* Vol. 35 No. 7, pp. 806-818.

Yin, R.K. (2003), *Case study research - Design and methods,* Sage Publications, Thousand Oaks.