Title: The ‘service – social benefit chain’ of a UK food cooperative.

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Author: John Reed
Senior Lecturer in Management
Liverpool Business School
Liverpool John Moores University
98 Mount Pleasant
Liverpool L3 5UZ
UK

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Abstract

The ‘service-profit chain’ model has proved to be of use for both analysing and improving the operations of private sector businesses. This model considers the profitability and growth of service organisations to be primarily the result of employee and customer loyalty. This research studied a community food cooperative, based in the North West UK. Thirteen semi-structured interviews were conducted with key informants connected to the cooperative. Data from the interviews were analysed using template analysis and an analytic generalisation approach to support, reject or modify the relationships in the service-profit chain model. As a result of this analysis
a modified service-profit chain model appropriate for a food cooperative is proposed and discussed. This modified model has been named the ‘service-community benefit chain’. The value and limitations of the research are discussed. Further research involving a wider range of organisations and testing of the model is proposed.

Introduction

Food supply chains and their sustainability have become of increasing importance to government policy makers and to researchers. The 1996 World Food Summit stated that ‘Food security exists when all people, at all times, have physical and economic access to safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life’ (Windfuhr and Jonsen, 2005). However, Windfuhr and Jonsen (2005, p 22) argue that this concept of food security has a bias towards ‘global, national or regional access rather than individual access by deprived persons or groups’. Furthermore, food systems have failed to be both environmentally sustainable and to deliver this ‘safe and nutritious food’ to low income households (Jones et al., 2009) with the economics of sustainable food restricting its access to ‘a narrow and exclusive social strata (sic) distinguished by its relative affluence’ (p 3). Some third sector organisations are trying now to address this problem. But such organisations, mostly food cooperatives or social enterprises with similar objectives, have found difficulty in sustaining themselves, perhaps because it could be argued that the service value delivered by the large supermarket chains meets the needs of low income families more readily (Jones et al., 2009).
There have been attempts to address the issue through government supported initiatives to assist the establishment, development and survival of food cooperatives working in disadvantaged areas (UK Cabinet Office, 2008). This research investigates the operation of one of these food cooperatives. This cooperative, based in the North-West of England, was launched in 2007 and runs a number of individual food clubs, all operating ‘bag schemes’. A bag scheme provides customers with pre-packed bags of produce for a fixed price but with the contents of the bag determined by the seller. The number of individual food clubs within the cooperative has grown from six to 20 and there are now more than 400 members. The annual turnover is approximately £65,000. It is run by a network of 40 volunteers and each week sells up to 600 bags of fruit, vegetables, salads and eggs to some of the most deprived housing estates in the locality.

Much of the research into social enterprises, including organisations such as food cooperatives has concerned public policy (Battle Anderson and Dees, 2006). There is a need for social enterprise research with a practical management and multi-disciplinary orientation (Helmig et al., 2004). Social enterprises are defined by their pursuit of social goals but they also have to compete in a market and meet customer needs. However, social enterprises often lack the time resources or skills required to undertake their activities in a business-like way (Peatie and Morley, 2008). This has implications for understanding both how social enterprises create service value and how they can meet customer needs, and, although not profit making in terms of their objectives, how they can maintain sufficient income for sustainability.

This study uses a business model, the ‘service-profit chain’ (Heskett et al., 1994), to help address the gap in the social enterprise research field concerning their
management and operation. The service-profit chain model has been chosen for this study because it is a well established model, but also one which offers the opportunity of being extended to be made applicable to third sector organisations which have social aims and sustainability as goals rather than profit.

The challenge facing social enterprises trying to provide safe and nutritious food to low income families would seem to be how they can manage their service-profit chain in a way which creates loyal customers, especially in view of the competition from the private sector food retailers and the large supermarket chains. An analysis of the service-profit chain of the food cooperatives could help us to understand how their service value is composed and provide insights into how it could be better managed.

The research reported here has used interviews to determine the views of relevant stakeholders of a food cooperative concerning the structure of the service-profit chain. A qualitative analysis of the interview data has enabled the development of the service-profit chain model to make it applicable to a food cooperative.

**Literature Review**

The service-profit chain (Heskett et al, 1994) is set out as a series of ‘propositions’ which form the links in the chain. These links are: customer loyalty drives profit and growth; customer satisfaction drives customer loyalty; value drives customer satisfaction; employee productivity drives value; employee loyalty drives productivity; employee satisfaction drives employee loyalty; and finally; internal quality drives employee satisfaction.
The evidence provided by Heskett et al (1994) to support the existence of the service-profit chain could be described as anecdotal. Examples are given of successful North American companies such as Banc One, South West Airlines, Service Master and Taco Bell, and the examples are used to illustrate how these organisations have gained their success by paying attention to the importance of various links in the service-profit chain. There is no formal methodological approach to gathering and testing the evidence to support the existence and operation of the chain as they have described it. However, these ideas have been taken up by many business organisations and become an embedded part of the business literature. It has remained for others to try to test more rigorously the ideas of the service-profit chain and these investigations have questioned whether the service-profit chain as described by Heskett et al (1994) can be applied in all contexts.

Although significant relationships have been shown to exist in parts of the chain in some organisations (Brown and Lam, 2008), the model as stated by Heskett et al (1994) may not be applicable to all organisations and needs to be adapted to the specific context and structure of an individual organisation (Gelade and Young, 2005, Homburg et al., 2008, Pritchard and Silvestro, 2005, Silvestro and Cross, 2000). For example it may be that an additional variable such as store size could have an effect or that there may be a time lag between changes in input variables and their effect on outputs (Silvestro and Cross, 2000, Evanschitzky et al., 2012). Alternatively additional drivers such as the ‘company identification’ of both employees and customers have been proposed as important (Homburg et al., 2008). Furthermore the service-profit chain concept of quality and value is based on customer perceptions (Zeithaml, 1988) which could be seen to be too limited as it
pays insufficient attention to extrinsic value and quality (Walker et al., 2006). In the context of food cooperatives these extrinsic aspects of value and quality, such as the actual product price and measurable aspects of the quality of the food offered, could be important.

The idea that it may not be appropriate to generalise the service-profit model to all situations was also expressed in a study of multiple organisations (Gelade and Young, 2005). This study looked at four retail banks, one in Ireland and three in the UK, using company data from over 37,000 survey returns on customer satisfaction, sales, and employee attitude. Their analysis shows only cautious support for the theory and they conclude that other models may be more appropriate. They suggest a modification of the service-profit chain model and believe that there is a need to conduct a ‘stricter test of the service-profit chain in the broader context of organisational functioning’ (p 2).

Research into the service-profit chain has mostly focused on service organisations in the private sector. A modification of the service-profit chain concept for the public sector has been developed and re-named the ‘public-profit chain’ (Davis, 2006). However, as the goal of the public sector organisations in the Davis (2006) model is ‘service provision excellence’ rather than profit, the revised model may have been better titled the ‘public-service excellence chain’. The modifications made by Davis (2006) concern the addition of ethics and values as inputs to internal service quality, the use of service value benchmarks as measures of process efficiency for external service value, and goals which relate to service provision excellence and lack of complaints about process efficiency, rather than customer loyalty and profit.
The focus in the Davis model is on administrative bureaucracies, but he recognises that there may be the need for a further adaptation of the model for community, voluntary and charity organisations, and there has been some work undertaken in this area. Wisner et al (2005) examined service design and operational factors relating to volunteer satisfaction in not-for-profit organisations in a South Western US city. They looked at how volunteer satisfaction could be affected by schedule flexibility, orientation and training, client contact, empowerment, reflection, rewards and recognition. They also looked at how volunteer satisfaction could affect volunteer loyalty, volunteer intention to donate financially to the organisation and volunteer intention to recommend the organisation to others. Their main findings are that volunteers work for their organisation not to gain skills but because they want to be helpful, and they stress the importance of volunteers having time to reflect on what they are achieving. Social interaction with other volunteers and paid staff is important, but interaction with clients less so. This model is called the ‘service volunteer loyalty chain’ and it links the three aspects arising from volunteer satisfaction mentioned above (loyalty, intention to donate and intention to recommend) directly to the sustainability of the organisation (Wisner et al., 2005). This model may be closer to the public service model of Davis (2006) rather than being applicable to a food cooperative, which sells a product to its customers. Although they do not list the organisations on which this study was conducted, they do indicate that some of the volunteers were working in organisations concerned with helping drug addicts or prisoners and suggest that this may be why interaction with the clients was not seen as a source of volunteer satisfaction. However, the ideas and insights gained from this research could help inform a modification of the service-profit chain appropriate to food cooperatives which are run using mostly
voluntary labour. The outputs of such organisations differ from the private sector, in that they do not seek to make profit for owners or shareholders, but they may seek to create loyal customers and be sustainable through the reinvestment of any surplus income. They may be similar to public sector organisations in that ethics and values could be important inputs. The development of a modified service-profit chain relevant to such social enterprises would form a contribution to our understanding of the management of these organisations.

There have been many studies which have looked at the relationships between the variables involved in individual links in the service-profit chain. For example, the relationship between customer satisfaction and brand loyalty has been shown to be strongly positive but not a simple and straightforward one (Bloemer and Kasper, 1995). Another study revealed an inverse correlation between employee satisfaction and loyalty, and store profitability in a UK Supermarket chain (Silvestro, 2002). A twelve month study of a national fast food chain (Bernhardt et al., 2000) which analysed over 3000 employee and 300,000 customer responses reported a positive correlation between employee satisfaction and customer satisfaction but no significant relationship between either of these and company performance. So, although there is a body of evidence supporting various links in the chain, these studies have not always shown the links to be as clear and as positive as proposed in the Heskett et al (1994) model. Studies attempting to test the working and applicability of the service-profit chain as a whole have been much more difficult to conduct because of the number of relationships proposed in the chain. However, there have been attempts to do so and it is worthwhile summarising a few of these studies to highlight some of the issues and themes of the work in this area.
A study conducted on Sears, the US retail chain (Rucci et al., 1998) is often quoted as giving strong support to the service-profit chain theory. This study used data collected by the Sears organisation (measurements referred to by Sears as their ‘Total Performance Indicators’) which were then mapped on to relevant links in the service-profit chain model. Again, as in the Heskett et al (1994) study, there is no formal statement of their methods and the data collected were not analysed by Rucci et al (1998) but by ‘a firm of econometric statisticians’ using ‘causal pathway modelling’ (p 90). These ‘experts’ used ‘statistical techniques like cluster factor analysis’ (p 90) but there is no detailed explanation of how these methods were applied. The outcomes of this study predict that a 5 unit increase in employee attitude will drive a 1.3 unit increase in customer satisfaction which will drive a 0.5% increase in revenue growth. However, the lack of transparency in their methods reduces the credence which can be given to this unequivocal endorsement of the service-profit chain theory.

Some of the support for the service-profit chain has not tested the theory as such, but has examined the perceptions of managers involved in service-profit chain initiatives concerning their view of the success of these initiatives in improving service quality (Maritz and Nieman, 2008). Perhaps this type of evidence also needs treating with caution as it could be that managers involved in the implementation of service-profit chain initiatives may show bias towards reporting the success of their efforts rather than their doubts.

Other studies have been clearer about the methods used to test the theory and to analyse the data. Loveman (1998) tested the service-profit chain using ‘panel data’ from a large regional US bank. The bank had surveyed both employees and
customers since 1994, with data available concerning financial performance, customer retention, multiple product purchase and demographic data. Two years of data from approximately 450 branches, 100,000 employees and 45,000 customers were used to test hypotheses concerning the correlations which would be expected in the service-profit chain. This study claimed to show ‘modest support’ for the theory, but was limited to pair-wise correlations of variables rather than testing the whole chain and the need for further research on other organisations is stressed (Loveman, 1998).

Other studies have been more critical of the service-profit chain theory. Pritchard and Silvestro (2005) examined the service-profit chain as applied to a UK home improvement store chain. This was a 10 month study conducted in the year 2000 involving 75 stores. Employee and customer survey data were collected by an independent research company, following a company strategy to improve performance based on the ideas of the service-profit chain. Their analysis shows positive correlations for some links in the service-profit chain, but no correlation for other links. They are concerned that an unquestioning use of the Heskett et al (1994) service-profit chain has ‘a danger of applying a strait-jacket to academic thinking on performance relationships and performance improvement’ (p 337) and managers in this company concluded that the real drivers of customer loyalty ‘may be primarily non-service related characteristics such as product range and mix, price and location’ (p 349) and that the service management literature could be providing an ‘oversimplification of business realities in their organisation’ (p 349).

More recent studies have also reached differing conclusions concerning the relationships in the service profit chain. One, an empirical study of 210 high-contact
service shops in Hong Kong, provides strong evidence in support of the links in the service profit chain (Yee et al., 2011) while another reports that employee commitment and perceptions are not related to financial performance (Dimitriades and Papalexandris, 2011).

A review of the literature on the service-profit chain (Allen and Grisaffe, 2001) raised a number of methodological issues such as whether the measures used capture the key constructs in the model and whether those measures are reliable, as well as questioning aspects of the validity of the data.

The studies discussed above indicate that although the service-profit chain can be shown to have valid aspects for many organisations, care needs to be taken in applying it to all organisations, and other factors, not expressed in the Heskett et al (1994) model, may be important. There is a need to develop the model further in the context of a food cooperative and the following methods section will describe how this was undertaken.
Methods

This research was undertaken using a qualitative approach. Semi-structured interviews were conducted with a sample of 13 stakeholders of the food cooperative. Thirteen interviewees exceeds the recommended four to ten interviewees required to ensure that the incremental contribution of each additional interviewee is marginal (Eriksson and Kovalainen, 2008).

The 13 interviewees were not selected for statistical sampling but were selected purposively as representing different viewpoints on the service-profit chain. This enabled generalisation concerning theory (the proposed modification of the service-profit chain) through a process of ‘analytic generalisation’ (Yin, 2009). The purposes for which these stakeholders were selected and the abbreviations to be used in the results and discussion sections are presented in Table 1 below.

Table 1 Interviewees and purpose for selection

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<tr>
<th>Interviewee</th>
<th>Purpose for selection</th>
<th>Abbreviation</th>
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<tr>
<td>National manager of an organisation which supports the development of food cooperatives</td>
<td>Knowledge and understanding of the management and operation of food cooperatives on a national basis.</td>
<td>National Manager</td>
</tr>
<tr>
<td>NW Regional Coordinator for the development of food cooperatives</td>
<td>Knowledge and understanding of the management and operation of food cooperatives in the</td>
<td>NW Coordinator</td>
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The initial variables and the relationships between them were determined by the existing service-profit chain model. These relationships formed the basis of the questions which were used to determine whether the interviewee believed that the relationships described in the service-profit chain model are those which, in their experience, exist in the context of the food cooperatives. The set of questions varied depending on the nature of the interviewee. Questions to the professional advisers and paid workers related to the whole service-profit chain and food cooperative
sustainability. Questions to the volunteers related to volunteer satisfaction and loyalty but also customer satisfaction and loyalty. The questions to the customers related to their customer satisfaction and loyalty. The questions are presented in the Appendix.

The interviews were recorded on a digital recorder, after first seeking the interviewee’s permission. Interviews were fully transcribed. The transcriptions were then checked against the recording prior to analysis and transcriptions checked by the interviewees where they agree to do so.

Analysis of qualitative data differs from quantitative analysis as it is based on meanings expressed through words, using non standardised data, and requires categorising so that analysis is not just impressionistic in order to create a conceptual framework (Saunders et al., 2007). The conceptual framework in this study was based on themes identified in the interview transcripts through a process of thematic analysis. King and Horrocks (2010) provide a definition of the word theme for use in thematic analysis.

‘Themes are recurrent and distinctive features of participants’ accounts, characterising particular perceptions and/or experiences, which the researcher sees as relevant to the research question.’ (p150)

Here, the researcher decided how the words of the interviewee should be interpreted, what should be included in a theme and what should be omitted. To be considered a theme an idea should have been raised more than once and themes must be distinct from each other. This process of analysis could also be described as both pattern matching (Yin, 2009) and analytic induction (Myers, 2009). Through this
process aspects of the interviewee’s responses were identified which either matched or contradicted the various elements of the service-profit chain theory. Interviewees’ responses were also identified which did not relate to the elements of the service-profit chain theory. These responses were used to modify or extend the service-profit chain theory.

The analysis was conducted using the NVivo computer-assisted qualitative data analysis software (CAQDAS). Transparency concerning the use of the software package is an important aspect of the validity and reliability of the research (Bringer et al., 2004, Bringer et al., 2006). In this study the elements of the service-profit chain were entered into NVivo as nodes. Texts of the interviews were analysed and relevant sections of text attached to these nodes, as either supporting or contradicting the node as a valid element of the model. For example at the node ‘customer satisfaction drives customer loyalty’ a text extract from an interview with a customer stating ‘it’s a really good quality product so I keep coming back’ could be attached to that node to support the node as a valid element of the model. The analysis of the text could possibly attach a number of quotes from the interview texts to each node. There were also text extracts considered to be relevant which could not be attached to any of the nodes input from the existing service-profit chain model. New nodes were developed to accommodate these extracts and entered into NVivo. The extracts were attached to these new nodes and this process enabled the development of modified relationships in the service profit chain.
Results

This results section will present relevant views of the stakeholders, extracted from the interview texts, to either support, reject or modify the elements of the service-profit chain as described by Heskett et al (1994), or to propose new relationships appropriate to a food cooperative or social enterprise. The links in the service-profit chain will be discussed in separate sub-sections, along with a consideration of any elements identified as specific to the food cooperative generated through the process of analytic generalisation. The Discussion will present the modified service-profit chain model, appropriate for food cooperatives.

For brevity, interviewees will be referred to using the abbreviations given in Table 1 in the Methods Section. Extracts from the interviews will be presented in italics with the interviewee identified at the start of the quote.

Customer Loyalty/Profit and Growth

The objectives of cooperatives and social enterprises are not to make a profit for owners and shareholders, but to meet social objectives and to be sustainable.

Appropriate interviewees (National Manager, NW Coordinator, Manager and Chair) were asked about sustainability. Sustainability was identified as depending on a number of factors. Firstly, there should be an appropriately identified need which depends on a lack of outlets selling a range of fresh fruit and vegetables in the locality.

National Manager: *I think in the first place for any food co-op it’s assessing the need and making sure there is a need in the first place.*

The possible misidentification of need could be a result of the way that food cooperatives are established in areas of social deprivation, often by an outside
agency which believes that there is a need based on demographic or health data. The National Manager has a clear view on this.

National Manager: The main issue is that co-ops in disadvantaged areas are set up with a top-down approach so they are normally set up by an agency like a primary care trust or local authority or housing association or community based organisation and they're based on a perceived need in that community, ...and then if funding runs out, and [a funded] member of staff is no longer there then they will generally shut because the volunteers won't be able to do all the work by themselves.

The establishment of food cooperatives through this process appears to generate a further problem, which is that much of the work of the cooperative may be undertaken by a paid employee or employees of the outside agency. Failure of the cooperative could then occur if and when the paid employees are withdrawn, leaving the cooperative to run with volunteer labour only. The NW Coordinator believes that starting out with a structure which is less dependent on external funding or support is crucial because grant or other funding cannot be relied on, and sees this process as a key cause of failure.

NW Coordinator: I think setting up with a structure that is from the off dependent on ongoing funding is always going to be problematic.

In addition to the issues of identification of need and a structure which recognises that external funding may not continue indefinitely, a third factor is the pricing structure which a cooperatives establishes. Because food cooperatives have social aims there may be a tendency to set prices as low as possible and therefore not generate sufficient financial surplus to sustain the organisation. The National
Manager has experience of a number of food cooperatives for whom this has been an issue.

National Manager: *Most, food co-ops don’t actually work out their costs, running costs, and work out their profit margins properly.*

Such low prices could potentially limit a cooperative in terms of achieving its social aims because it could restrict them to being run on a completely voluntary basis, with no surplus funds for expansion through the employment of their own (rather than external agency) paid staff. Again, the National manager feels strongly about this.

National Manager: *...if they are set up to be as cheap as possible then they have to accept the fact they will always be completely voluntarily run.*

Cooperatives wishing to expand or move to a model which uses paid staff may need to charge higher prices and to extend their customer base beyond individuals in areas of social deprivation.

The results above indicate that the social aims and sustainability of food cooperatives could depend on the identification of need, appropriate organisational structure and a pricing strategy which generates surplus. Such financial surplus, generated through sales, will depend partly on customer loyalty.

**Customer Satisfaction/Customer Loyalty**

All interviewees were asked how the food cooperative could develop loyalty in its customers. The National Manager raised the possibility of food cooperatives using customer membership as an approach to engender customer loyalty. However, according to the National Manager, most of the food cooperatives operating in
socially deprived areas and established by external agencies have not taken this membership approach.

National Manager: *most of the ‘top down’ food co-ops have never been set up with a cooperative structure because it was too complicated but the whole point of the cooperative structure is that your customers are your members and then they have a say in how it’s run and then they are more likely to be loyal and then are more likely to want to keep it going, whereas if they’re just customers they come and go.*

Bag schemes could potentially be a factor in the creation of loyal customers as described by the National Manager.

National Manager: *In terms of bag schemes their customers are generally very loyal because once you start ordering a bag you get into the routine and you order it every week.*

This could be seen as an external aspect of service value because the bag scheme is the specific nature of the product. Interestingly this is a single product with no consumer choice, as the mix in the bag is determined by the seller. The Heskett et al (1994) model proposes that customer loyalty is driven by customer satisfaction, but this may not be the only driver in the case of the food cooperative. The Manager believes that loyalty could also be driven by social factors.

Manager: *One of the things might be that some of the volunteers have been there a long time. It’s almost like a [customer] loyalty to those volunteers and to that club.*

The Chair explained how some of the food clubs run by the food cooperative operate as part of a range of social activities offered from the same location:
Chair: ..it's about getting people socialised in there and we've got [the cooperative] in there as well and it works really well.

Most of the food clubs operated by the cooperative are run out of ‘community’ buildings of some kind, such as health centres or social centres. This location aspect is valued by customers.

Customer 3: I think that's good because it's accessible to everybody in the community...it's really welcoming and encouraging for everyone around here.

The customers report that the community and social aspects are important to them and make the purchase of produce from the cooperative a different experience to their other shopping. This community aspect could be simply that the customers enjoy social interaction with other customers and with the volunteers working for the cooperative. One customer was very specific about the lack of this kind of social interaction in the course of her other shopping.

Customer 3: And you come in and the ladies are so friendly, they're lovely, you have a chat when you get here. Because you don't really get that in shops any more. Everyone says that. They get to know you and what you want and it's really quick and it's all bagged up ready for you....I come from a little town not far from here that used to be a really thriving community with individual little shops that you used to go into for whatever you wanted and now that's all gone. I feel really sad when I walk down the main street now and I see nothing but betting shops and charity shops, there's nothing, nothing like this.

It may be a deeper community aspect as expressed by another customer, although this customer also emphasises the importance of price.
Customer 5: Yes, I like co-ops. Like credit unions they serve a purpose and I think they're really good.

The volunteers also believe that the community aspect is important for the customers.

Volunteer 1: Friendly faces, conversation. They come and chat to us and I think it's if they don't get out very much they make a point of coming here on a Wednesday. They stay for a chat we have bit of banter and it's really good.

This community and social aspect of loyalty is something which the NW coordinator wants to encourage in the region's cooperatives as a 'selling point'. She described a successful cooperative which uses community and social activity as part of its operations, and another which does not and is, she believes, struggling as a result.

NW Coordinator: Something I always try to push as a selling point for food co-ops is building community and it's a more sociable place to go and do your shopping.

However, even if community and social factors encourage loyalty it could be less significant than the role of price in the face of strong competition from the supermarkets. When asked directly about loyalty, the NW Coordinator believes that there is high turnover of customers.

NW Coordinator: I think there is a high turnover. A lot of co-ops feel a pressure to keep prices very low, to be lower priced than Asda say.

Furthermore, customers in deprived areas may not behave in a predictable or rational manner and have a number of factors affecting the regularity with which they buy a bag of produce from the cooperative.
National Manager: ...disadvantaged people always have other issues going on in their lives. ...Food is not their priority, shopping's not their priority.

However, some customers may remain loyal precisely because of aspects of their social disadvantage such as age or disability.

NW Coordinator: I think you get a hard core that will stay and there are some people who really depend on it.

In summary customer loyalty could be driven by satisfaction, as in the Heskett (1994) model, but alternative and significant drivers appear to be the social and community factors.

**Value/Customer Satisfaction**

All the customers who were interviewed reported themselves to be satisfied customers. The customers interviewed reported value as resulting from a mix of low price, good quality (a mix of produce and freshness) and the location of the food cooperative collection point close to where they live.

One customer emphasised price and the mix of produce.

Customer 1: *It is very good value for money, we found it has been, that's why we stayed loyal to the co-op.*

Location was seen as very important by this customer.

Customer 2: *Because its local I only just live around the corner so to carry three bags of that home from town.. I don't drive and if I go shopping it's either carry it back from town or taxi back from wherever so obviously it's saving me money in that respect as well.*
Other customers stressed price, range of produce, quality and location.

Customers 3/4: *I think it's really good value for money and you get a good range of fruit.*

Customer 5: *Because it's handy, in the place where I work and the goods are cheap and usually of reasonable, well good, quality.*

Customer 7: *It's just the quality that you get and the quantity for the price. And plus it's convenient for me.*

The bag scheme itself could be a factor in customer satisfaction, as long as the mix of produce in the bag meets customer expectations. The quality of the product is also essential for customer satisfaction. Problems with this aspect can cause problems of satisfaction and loyalty.

In summary, the drivers of the reported customer satisfaction include price, location and product quality (the mix of produce in the bag, the freshness of that produce).

**Volunteer Productivity/Value**

The cooperative has no paid employees and volunteers may show different behaviours to those of employees in both the private and public sectors. The National Manager believes that there may be problems in improving volunteer capability and productivity, partly because those running food cooperatives do not feel that they can ask volunteers to improve their performance.

National Manager: *I think lots of people think because they're volunteers you can't force people to pack any quicker, you can't force people to try to sell any more food....so I don't think a lot of people try and do it.*
An extension of this idea is that volunteers cannot be instructed in the same way as employees. They do not rely on their volunteer work for income and have no obligation to obey an instruction, which would be given by another volunteer, or to attend training events.

Manager: *It's really difficult to get them to training events… They're quite reluctant really to do anything other than what they're doing.*

This resistance to training was also raised by the National Manager.

National Manager: *…one of the findings from the North West evaluation [was] that it's patronising to be offered training when you're 60 years old and have been around a while and it's common sense as well.*

The NW Coordinator feels that volunteer productivity arises from community values and the clear identification of need in that community as discussed above, rather than being the result of training, perhaps because many of the tasks undertaken by volunteers are straightforward.

Interviewer: *What do you think could improve their productivity, the effectiveness of the volunteers?*

NW Coordinator: *Feeling like it's their project, that they really recognise the need in their community.*

In the discussion concerning customers, location was mentioned as a factor giving value to the product, because it is close to where the customers live. Similarly for the volunteers the location of the cooperative, in their local community, is a positive aspect.
Manager: *That's one of the strengths of it, it's run locally by local people.*

Ethics is one of the factors introduced into the Davis (2006) model adapted from Heskett et al (1994) for the public sector. However, ethics, apart from the community aspect, were not raised by any of the interviewees as important for the food cooperative.

National Manager: *It's not necessarily about helping the environment or helping food producers, it's about helping their community and that's why they do it because they want to...because wherever they live they want it to be a better place.*

**Internal Quality/Volunteer Satisfaction/Loyalty**

As expressed above, the food cooperative runs with volunteer labour and the input from the paid employee of the sponsoring organisation is being phased out. Volunteer loyalty is therefore of great importance for the continuation of a cooperative (McDonald and Warburton, 2003) and a number of the interviewees expressed strong views on this aspect. The Heskett et al (1994) model states that for employees loyalty is driven by satisfaction which arises from internal service quality. However, other causes were suggested by the interviewees in the context of the food cooperative and relating to the volunteers. Although these volunteers have no employment contract and no formal obligation to stay with the cooperative or even turn up for work, there was strong evidence in the interviews of loyalty. The Manager was very clear that the loyalty shown by the volunteers is very strong.

Manager: *I think they're proud that they're involved with something that...they have a strong sense of not letting us down...They're very, very loyal to the project.*
The National Manager provided an example of volunteers remaining loyal over an eight year period.

National Manager: I've had co-ops with workers who I recruited for my project in Hastings eight years ago and they're still there so there's obviously something keeps them there.

Furthermore, she believes that the strongest driver of loyalty in the volunteers is the desire to do something for the community.

National Manager: ...they're doing it because they want to help their community and they feel a responsibility so they don't want to give up now because they feel it will just shut if I give up and because it is a part of their life now.

One of the volunteers expresses this very well when talking about her own reasons for volunteering.

Volunteer 1: Basically a volunteer is someone who gives up their time to please other people and to benefit from it themselves, not just making other people happy but making themselves happy and hoping that other people benefit from what they do.

The Chair of the Cooperative is a volunteer rather than paid employee. What gives this key volunteer satisfaction and creates the loyalty to keep her motivated? The quote which follows contains a number of factors already mentioned elsewhere including the sociability of the work, community aspects and a clear recognition of need in the area.
Chair: I enjoy being a volunteer. I do quite a lot of volunteer work not just here and I really enjoy doing it meeting people making friends and getting the best for the community I live in, because I think people deserve to have a better chance.

Volunteer 1 reported social aspects giving satisfaction leading to loyalty.

Volunteer 1: Meeting new customers, making them feel at ease, being able to come here and buy it off us if they can’t get to supermarkets or if they can’t get elsewhere for it, it’s the nearest point to where they can go.

Some cooperatives offer rewards, such as a free vegetable bag or expenses, but perhaps these do not lead to as much volunteer satisfaction as may be supposed.

NW Coordinator: Staff are opposed to paying expenses, I think because they’ve got some volunteers that have done it for a long time without it and I think they’re a bit suspicious of other people who would only want to come in if they’re going to get their expenses paid.

Training could be a source of volunteer satisfaction but the evidence from the interviews was equivocal on this. The Chair of the Cooperative does feel that training is a source of satisfaction, especially for those who perceive it as helping their chances of securing paid employment.

Chair: I know we’re in a recession now and a lot of jobs are going but when it starts picking up again if they’ve had that training it can go on their CV and the volunteering could help them into work.

Overall, community values (the sense of doing something to help and of meeting a community need) seem to be stronger drivers of volunteer satisfaction and loyalty
than internal quality aspects such as training or recruitment, and the identification of genuine community need and an appropriate organisational structure could be seen as drivers of internal quality. The above results provide evidence that the relationships in the service-profit chain are not necessarily those which are appropriate for a food cooperative. The Discussion section which follows will examine how these results can be used to develop a modified service-profit chain appropriate for a food cooperative.

Discussion

The purpose of this discussion is to place the results presented above in the context of the literature review and to propose a modified service-profit chain model appropriate for a food cooperative operating in a similar situation to the case study organisation. The proposed modified model is presented in Figure 1 and the elements and relationships involved in this proposed model are discussed below.

Various authors (Gelade and Young, 2005, Homburg et al., 2008, Pritchard and Silvestro, 2005, Silvestro and Cross, 2000) have recognised that the service-profit chain model may not be appropriate to all organisations, even those in the private sector, and this led to the development by Davis (2006) of his public-profit chain specifically for public sector organisations. The results of the interviews conducted in this study indicate that that the models of both Heskett et al (1994) and Davis (2006) would not be applicable to the food cooperative examined in this study, and the major part of the discussion will explain why this is the case.
Figure 1: The Service - Social Benefit Chain

Organisational structure → Internal service quality → Volunteer recruitment and training

Organisational goals → Organisational structure

Volunteer productivity capability → External service value

Price, quality (mix of produce, freshness), location → Customer satisfaction → Customer loyalty

Community values → Sustainability

Community need → Volunteer satisfaction loyalty

Volunteer satisfaction loyalty → Voluntary productivity capability

Voluntary productivity capability → External service value

Financial surplus → Sustainability

Sustainability → Organisational goals

External support → Organisational goals
The Heskett et al (1994) model has organisational goals of profit and growth, which they see as applicable to all private sector organisations. The Davis (2006) model replaces these goals with service provision excellence for public sector organisations. However, for a non-profit making cooperative trying to address the food needs of disadvantaged communities, these goals seem inappropriate. The National Manager and NW Coordinator were very clear that the cooperatives have the aims of both community benefit and sustainability, and it is proposed here that a modified model should have these as the goals. Although the cooperative is a not-for-profit organisation, its sustainability was identified as being influenced by two key factors; the level of external support received and the amount of financial surplus generated from trading activities. Financial surplus can be seen as equivalent to profit in the Heskett et al (1994) model and may result from customer loyalty. However, a key issue identified, again by the National Manager and NW Coordinator, is that many cooperatives are established with a pricing structure which does not generate a surplus or one which may not even enable the cooperative to continue trading, especially if any external support is withdrawn. The interviewees also indicate that it may be very difficult for a cooperative operating in an area of social disadvantage to increase prices once these have been established, because of the relative lack of purchasing power of their customers. Walker (2006) raised this issue concerning external service value aspects such as price, but in connection with customer satisfaction. For a food cooperative, the interaction between the manner in which the organisation is set up, the level of external support, the ability to generate financial surplus and the organisation’s sustainability would seem to be crucial and will form a major modification to the model. This complex link in the chain could be expressed as:
-Customer loyalty drives financial surplus

-Financial surplus and external support drive sustainability

If these cooperative organisations have community benefit as a goal, and certainly this is given as the reason for external support for food cooperatives (Sustain, 2010) then it is proposed here that customer loyalty could itself be seen as a driver of community benefit. If customers remain loyal to the cooperative then they are purchasing food produce from the cooperative. The intended community benefit is to enable people to have healthier diets and therefore it could be argued that buying the cooperative’s produce regularly must in itself be a community benefit. Similarly, the sustainability of the food cooperative implies a community benefit as the presence in the community of the ability to purchase healthy food must be beneficial. This second aspect of the links in the modified model concerning loyalty and organisational goals is proposed as:

-Customer loyalty drives community benefit

-Sustainability drives community benefit

These links are presented diagrammatically in Figure 1 which shows the whole of the proposed modified chain appropriate for a food cooperative. Because a service is being provided, as in the Heskett et al (1994) and Davis (2006) models, but the goal is community and social benefit, this modified model has been given the title ‘The Service-Social Benefit Chain’.

The next link in the Heskett et al (1994) chain to be discussed is that customer loyalty is driven by customer satisfaction. This link is not present in the Davis (2006)
model because public services, such as the payment of local tax or parking fines, or attending hospital for an operation, do not require customer loyalty for their continuation. In the Davis model external service value, measured by process efficiency, drives customer satisfaction which drives the organisational goal of service provision excellence. Because the food cooperative is a service which sells a product, at this stage in the chain it has more similarities not with the Davis (2006) model but with the Heskett et al (1994) model. It is therefore proposed that, as in the Heskett et al (1994) model, customer satisfaction drives customer loyalty, and this seems to be supported by the interview results, although some interviewees found it difficult to distinguish between satisfaction and loyalty. However, there is evidence that the driver of customer satisfaction, seen as external service value in both the Heskett et al (1994) and Davis (2006) models, is more complex in the context of the food cooperative. All interviewees mention aspects of external service value as driving customer satisfaction and loyalty. Price is very important, as already mentioned above, because the customers of the food cooperative have limited purchasing power. Fresh produce gives customer satisfaction and there is evidence from customers and the Chair of the cooperative that produce which is not fresh can produce a level of dissatisfaction which can cause customer disloyalty. Whether the relationship between freshness of produce (if that can be measured) and customer dissatisfaction is a linear one or asymmetric, as it has been suggested some relationships may be (Anderson and Mittal, 2000, Kamakura et al., 2002), would be interesting to explore. It is also interesting to note that the cooperative sells a single product, a mixed bag of fruit and vegetables, offering no choice to the customer other than to buy one, two or more bags. Pritchard and Silvestro (2005) following their study of a home improvement store chain, suggested that product range and
mix could be drivers of loyalty, along with price and location. However, the interviews conducted with the cooperative indicate that the ‘bag scheme’ with no choice may itself be a driver of satisfaction as part of the effort is taken out of shopping (your choice is made for you) and customers become attached to their regular weekly supply. In agreement with Pritchard and Silvestro (2005) location was a factor mentioned by customers. One reason for the establishment of food cooperatives in areas of social disadvantage is that alternative outlets offering fresh produce are not in the immediate locality. The location of a food cooperative within the community, often in a community building, could be an important factor in determining satisfaction and loyalty.

The main factor relating to satisfaction and loyalty identified from the interviews is that of a sense of community and community values. Customers gain satisfaction and also develop loyalty from the ‘community values’ of the cooperative. This seems to have two aspects; the social interactions between customers and volunteers when customers attend the community building to collect their purchase, and a more abstract belief in the community work of the cooperative, the sense that it is a positive contributor to their community. This community factor is built into the modified model as ‘community values’. In addition to being a driver of customer satisfaction, community values are also a strong driver of volunteer satisfaction, as evidenced by the views of the interviewees. This agrees with the findings of Wisner et al (2005) who identified that a sense of helping and social interaction was so important in their volunteer subjects. This central series of links in the modified chain could be described as:

-External service value and community values drive customer satisfaction.
Volunteer satisfaction (and productivity and capability) drive external service value (but price, product quality and location are important).

The final set of links to be examined concern those connecting volunteer loyalty, satisfaction, productivity and capability, internal service quality and the factors driving internal service quality. The Heskett et al (1994) model sees internal service quality, which includes recruitment, training, job design and rewards, as driving a cycle of employee capability, productivity, satisfaction and ultimately loyalty. Davis (2006) modifies this for his public sector model in which internal service quality drives employee satisfaction, which drives employee productivity and retention (a term he uses but which seems synonymous with loyalty in the Heskett et al (1994) model). Davis (2006) introduces a further factor which is that the ethics and values of the public sector influence all the factors listed as comprising internal service quality.

Perhaps at a time when corporate social responsibility is high on the agenda of the private sector, it is not only the public sector in which internal quality could be influenced by ethics and values. As stated above, the interviewees believe that community values are important to the volunteers and are a source of satisfaction and loyalty, and may be a greater influence on these aspects of volunteer behaviour than internal service quality. Interview responses indicate that volunteers may be influenced less by aspects of internal service quality, such as training, than are employees in the private and public sectors, and that some volunteers may actually perceive training as a source of dissatisfaction. Their loyalty and satisfaction may be more strongly influenced by their perception of fulfilling a social need and also the social aspects of interaction with other volunteers and customers.
Internal service quality may also be influenced by the form in which the food cooperative is established and the role of external support. The National Manager expressed concern about the ‘top down’ way in which many food cooperatives are established by external agencies, perhaps lacking any clear identification of community need. Although the term food cooperative has been used throughout this study, the National Manager’s view is that few food cooperatives have a genuine cooperative structure in which both the customers and volunteers are members, which she believes could encourage loyalty. In more recent work Heskett discusses ‘customer ownership’ as a concept, whereas a genuine cooperative structure could involve actual customer ownership through a membership approach (Heskett et al., 2008).

The final section of the proposed chain could be expressed as:

- Internal service quality and community values drive volunteer satisfaction and loyalty (and productivity and capability)

- Organisational structure and community need drive internal service quality

Furthermore the cooperative could not continue to run without the continuing services of the volunteers and hence volunteer loyalty is directly linked to organisational sustainability. As a final link in this part of the chain it is proposed that:

- Volunteer loyalty drives sustainability

The above discussion has been used to specify links in the newly proposed Service-Social Benefit Chain. The elements of this chain have been identified through a
process of thematic analysis (King and Horrocks, 2010) combined with analytic induction (Myers, 2009) or analytic generalisation (Yin, 2009). However this process does not make any predictions about the relationships between the variables in terms of whether they are asymmetrical or non linear, or the methods by which these relationships could be tested (Anderson and Mittal, 2000, Kamakura et al., 2002). Although interviewees were asked in a general sense about the relationships, for example what they believe are the causes of customer loyalty, they were not asked about how customer loyalty or the parameters of its causes could be measured. Authors (Kamakura et al., 2002, Bernhardt et al., 2000) have raised issues about how best to measure these variables and this will be a key aspect of future research.

There have been limitations to the research conducted and reported on in this paper. Firstly, the research was conducted with a single food cooperative and its related national and regional advisers. Perhaps a broader study looking at more organisational cases would raise other aspects of relevance to the model proposed, although the involvement of the National Manager and NW Coordinator did give a perspective, albeit at arms length, across the range of food cooperatives of which they have knowledge. Secondly, the sample of individuals interviewed was necessarily small and although it did allow analytic generalisation to develop the new model, it did not allow any testing of the model. Such testing, involving the collection of quantitative data and inferential statistical analysis will require a much larger sample of individuals and could be the focus of future research.
Conclusions

Food cooperatives could potentially play an important role in improving the health of individuals in areas of social deprivation. There has not been a great deal of research into these small, not-for-profit organisations with social objectives, and a deeper understanding of their operations and possible success factors could prove to be useful not just for the cooperatives themselves, but also for external organisations with an interest in establishing food cooperatives and a wish to see them flourish. This research study has taken a well established theoretical model of a service organisation, ‘the service-profit chain’ (Heskett et al., 1994), and modified it to devise a model appropriate for a food cooperative. The model was modified through a qualitative research process in which interview data were collected from a range of stakeholders in one food cooperative. Their interview responses were analysed through a process of thematic analysis (King and Horrocks, 2010) and analytic generalisation (Yin, 2009) in which relationships within the service-profit chain were either supported, rejected or modified, and new relationships proposed to form a modified model.

This modified model has been named ‘the service-social benefit chain’ because the objectives of food cooperatives, as not-for-profit organisations, are sustainability and community benefit, whereas the objectives of the private sector organisations for which the service-profit chain was developed are profit and growth. Additionally the importance of generating a financial surplus, and the role of external support in the sustainability of food cooperatives, were identified as important. Many food cooperatives operating in areas of social disadvantage were established by external agencies, and the pricing strategy and organisational structure of food cooperatives...
established in this way are not necessarily sustainable if the external support is withdrawn. This aspect has also been incorporated into the model as it is seen as crucial to the food cooperatives’ objectives.

The other main difference between the private sector organisations (and the public sector organisations for which Davis (2006) developed ‘the public-profit chain’) and food cooperatives, is that private and public sector organisations mainly use employed labour, whereas food cooperatives mainly use volunteers. The causes of satisfaction and loyalty of the volunteers differ from those of employees in that the volunteers in this study reported that they were motivated mainly by community values and a sense of helping others, and these differences were incorporated into the model.

There were limitations to this study, relating to the use of a single organisational case and a small number of interviewees, although the 13 interviews conducted exceed the suggested 4 to 10 required to ensure that the contribution of any additional interviews would be marginal (Eriksson and Kovalainen, 2008).

It is proposed that the revised model, the service social-benefit chain, can now be tested across a range of food cooperative in the North West. It is hoped that the insights into the operations of food cooperatives which will be gained through this further research will be useful to food cooperatives and a broader range of stakeholders with interest in improving the nutrition of individuals in areas of social deprivation.
References


Appendix

Questions for interviews with National Manager, NW Regional Coordinator and Manager.

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<td>1</td>
<td>Can you describe your role relating to food-cooperatives?</td>
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<td>2</td>
<td>Do you think there are any issues concerning the sustainability of food cooperatives, especially those operating in areas of social disadvantage?</td>
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<td>3</td>
<td>How do you think a food cooperative can become sustainable?</td>
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<td>4</td>
<td>What do you think are the biggest influences on food cooperative income?</td>
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<td>5</td>
<td>What do you think could create loyalty in customers?</td>
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<td>6</td>
<td>What do you think could create satisfied customers?</td>
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<td>7</td>
<td>What do you think creates value for customers?</td>
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<td>8</td>
<td>If these issues have not been raised ask about the possible influence of: price, access (local?), community relationships, ethics, values</td>
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<td>9</td>
<td>What experience do you have of the work of both employees and volunteers in food cooperatives?</td>
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<td>10</td>
<td>What do you think creates employee and volunteer productivity?</td>
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<td>11</td>
<td>What do you think creates employee and volunteer satisfaction?</td>
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<td>12</td>
<td>If these issues have not been raised ask about the possible influence of: community relationships, ethics, values, selection, training, supervision, rewards</td>
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<td>13</td>
<td>Do you have any other thoughts concerning food cooperatives and</td>
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Questions for interviews with volunteers.

1. Can you describe your volunteer role with the food-cooperative?
2. What do you think could create satisfied customers?
3. If not already raised: What do you think creates value for customers?
4. If these issues have not been raised ask about the possible influence of: price, access (local?), community relationships, ethics, values
5. What do you think makes productive volunteers?
6. What do you think creates volunteer satisfaction?
7. What do you think could create loyalty in volunteers?
8. If these issues have not been raised ask about the possible influence of: community relationships, ethics, values, selection, training, supervision, rewards
9. Do you have any other thoughts concerning food cooperatives and their sustainability which you would like to discuss?

Questions for interviews with customers.

1. How long have you been a customer of the food co-op?
2. Would you call yourself a satisfied customer?
3. What do you think creates satisfied customers?
4. What do you think could create loyalty in customers?
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<td>5</td>
<td>If not already addressed: What do you think creates value for customers?</td>
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<td>6</td>
<td>If these issues have not been raised ask about the possible influence of: price, access (local?), community relationships, ethics, values</td>
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<td>7</td>
<td>Do you have any other thoughts concerning food cooperatives and why customers would stay loyal which you would like to discuss?</td>
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