ABSTRACT

The challenge of economic development in the 21st century is linked to innovation. Enabling innovation contains a wide span from the new idea to learning how to provide value through the new idea and continuing to how to control resources to perform at prime. The focus in this paper is set on how to control resources for innovation to add value and economic development. This paper reveals how crossing dynamic composite underlying boundaries can have an impact on control of resources for economic development in food networking SMEs. The analyses in this paper shows the broad and significant impact of preferences on the control of resources, the significant benefit of oral instructions and the significant negative impact from supervising product quality on economic development in the context of the food networking SMEs. Previous level of knowledge has no significant influence on their economic development. Connections are revealed to have no significant influence on the internal control of resources but a significant direct influence on economic development through value chain activities. Through the analyses in this paper the notion of ‘boundary utility’ is elaborated as the crossing and transformation of the dynamic composite underlying boundaries to enable innovation for positive impact on economic development.

Keywords: innovation, control forms, networks, dynamic boundaries, boundary utility, economic development

1. INTRODUCTION

In the food sector a traditional business approach is predominant. But new trends on health, variety of customer needs and technological developments are challenging the business approach. Therefore innovation is very important for continuous economic development. SMEs have limited resources and limited access to pools of knowledge, which frame limitations on economic development (Kogut,1989; Kleinknecht and Reijnen,1992; Hagedoorn, 1993, Mowery and Teece, 1993; Eisenhardt and Schoonhoven, 1996).

Economic development is in this paper measured as growth in turnover in the networking companies. This is not a single clear-cut measurement, because growth in turnover only represents one dimension of economic development. Profit is another measure of economic development, which takes both growth in turnover and development of cost into account. Gathering of data on profit is difficult due to competitive secrets and it is also extensive with the likelihood of errors occurring in the sample. Against this respondents can easily relate to their own growth in turnover and answer reliable and valid.

The networking SMEs are loosely coupled with a joint aim of innovation and economic development. This means a weak organizational structure and emphasis on process through meetings and activities to tie the networking SMEs together in the network. Transformative change has been elaborated by Jones, Harris and Santana(2008) in their theoretical analyses on the importance of deepening purposefulness and common will. This paper will through testing of hypotheses on empirical data elaborate the process approach and the notion highlighted by Weick and Quinn (1999) of a ‘reversed classical Lewin’ (1951). This is a receipt of freeze, rebalance, unfreeze. As also Argyris (1990) elaborates on process and notes: ‘to freeze continuous change is to make a sequence visible and to show patterns in what is happening’. The data gathering and statistical analyses will show the ‘patterns in what is happening’ and hereby reveal the underlying dynamics in the learning process for economic development hitherto and the opportunities of crossing composite underlying dynamic boundaries for continued learning. This paper reveals how crossing these dynamic composite underlying boundaries influences control of resources for economic development in food networking SMEs.
The contribution of this paper is to reveal a snapshot and a ‘freeze’ of relations and ‘patterns of what is happening’ by statistical analyses of data and elaboration on the dynamics of underlying composite boundaries. Hereby a theoretical contribution is given to a cross-disciplinary understanding of control of resources in relation to the dynamics of underlying composite boundaries. Furthermore a practical contribution is provided by this framework which may be applied by networking SMEs, their boards and regional bodies to enhance innovation and economic development.

2. THEORETICAL SUPPORT

Innovation will be understood as the span between new ideas and the ability to successful implementation of these ideas. The definition along this path is represented by Amabile et al’s notion (1996): ‘Innovation as … successful implementation of creative ideas within an organization. In this view creativity by individuals and teams is a starting point for innovation; the first is necessary but not sufficient condition for the second’ (Amabile et al., 1996:1154-1155). Innovation is through this definition a dynamic process with a wide span from the new idea into learning how to execute and control resources for economic development. Controlling resources is hereby a central issue and has been elaborated by Child (2005) on the legacy of Weber’s (1947) notion on control. Child summarizes attributes of control to be ‘power, authority, expertise and rewards’ (Child 2004; 113). In the context of the networking companies the attributes are reframed to control forms represented by their typical opportunities and actions in relation to their control of resources: direct supervision of staff, quality of products and quality in the process of manufacturing, written procedures, oral instructions and IT systems for surveillance.

An important issue within different control forms is the amount and variety of information handled. This is elaborated by Ashby (1962) in his system theoretical notion on the importance of variety of information from external environment to internal organization for the ability of the organization to execute new actions. His notion is called: ‘law of requisite variety.’ Ashby applies the law to the brain (or any other regulatory and selective device) – and provides an application requirement to the information channel in organizations: ‘The amount of regulatory or selective action that the brain can achieve is absolutely bounded by its capacity as channel’ (Ashby, 1958). The actions are hereby bounded by the capacity of expanding the information channel and penetrating boundaries around different information/knowledge collections/pools. Ideas have to go through a crossing and transformation process as also highlighted by Czarniawska and Joerges (1996) in their notion of ‘the travel of ideas’, which they see as an ongoing process of turning an idea into an object and then into action again and so on. The key process is here translation used in the understanding of the word cited from Latour (1986): ‘The Spread in time and space of anything – claims, orders, artefacts, goods – is in the hands of people; each of these people may act in different ways, letting the token drop, or modifying it, or reflecting it, or betraying it, or adding to it, or appropriating it’ (Latour 1986:267)

The networking companies can employ the notion of ‘the translation of ideas’ and the notion of attention through ‘the hands of people’ in the translation process. The channel highlighted by Ashby contains the information for ‘the translation of ideas’ to be able to turn the idea into actions by ‘the hands of people’. The attention on underlying dynamics of boundaries around information pools becomes essential for economic development.

As claimed by Hernes (2004) through a qualitative case study there is a need to ‘…. take account of the multi-faceted nature of boundaries, but also actually to take the boundary and its dynamics as a point of departure……. and working from the following three ideas:

1. …. Multiple sets of co-existing boundaries
2. Boundaries are central, not peripheral to organizations. ……
3. Boundaries are constantly subject to construction and reconstruction………..
   (Hernes, 2004;10)

The emphasis on the underlying boundaries and the dynamic process within and across boundaries reveals a need for a deeper understanding of underlying dynamic cross boundary transformation. However, as Hernes (2004) points out ‘the study of boundaries largely entails studying something that cannot be seen’ (Hernes, 2004; 12). He offers a relational framework for interpreting boundaries in three
categories on mental, social and physical space. This is also consistent with Scott’s (1995) distinction of institutional mechanisms in organizations standing on the three pillars of regulative-physical, normative-social and cognitive- mental structures. As Hernes (2004) claims many other categories could be relevant in this co-existence of boundaries. The point of departure in this paper is to use these three broad frames as point of departure for more specific research on underlying composite boundary dynamics within the network context. Further to enhance Hernes’s (2004) findings with a quantitative research design, which reveals a snapshot of the intertwining relational process and shows the opportunity for structure/pattern in future enhancement of underlying composite boundary dynamics to enable economic development.

An underlying boundary for control forms is found in the internal set of preferences guiding individual and group behavior in the organization. This is revealed by Jung’s (1959) notion on archetypes and elaborated by Jacoby (1973) on personal profiles and later by Csikszentmihaly (1996) on creativity and flow. From their research is found that the more composite personal profiles of individuals and groups the more development is obtained by integration of creativity and ability to perform activities at prime. In the practical context of the networking SMEs the archetypes are reframed in their wording as four preferences of: accurate, amenable, positive and effective.

Another underlying factor of the control of processes is expertise and the previous level of knowledge obtained by the participants. Education is measured as the number of years the respondents have been educated. A third underlying factor of the learning process is the external connections. This is revealed and elaborated in context of the value chain of the SMEs. In the practical context of the networking SMEs embeddedness is measured as the number of connections established.

3. METHOD

In collaboration with a project team at IFUL – Danish Institute of Rural Research and Development at the University of Southern Denmark – I developed a questionnaire for three different food networks in the spring of 2009:

- ‘Sønderjyske Madglæder’ (Food joys of Southern Jutland) – 27 SMEs in the food industry in Jutland
- ‘Vadehavsprodukter’ (Wadden Sea Products) – 85 SMEs, of which 49 SMEs are located in Southwest Jutland
- ‘Småøerne’ (The Small Islands) – 17 SMEs within the food industry located on the smaller islands of Denmark.

The questionnaire revealed information on basic economic information, connections, preferences, organizational culture, learning and innovation in the three networks. This paper deals only with preferences, connections and control forms in relation to economic development.

Data is collected through an online questionnaire with freezed quantifiable responses combined with open comments for each question. This means that the data is primarily quantitative with a supplement of qualitative comments. In the quantitative part a Likert interval scale with a range of 1-7 is used which makes it easy for the respondents to answer. Respondents are busy and not used to read long texts. The questions must be easy to answer to ensure a high response rate and reliable answers. Respondents are encouraged to respond impulsively. Tests are conducted with the wider research team and three participants of the committee of each of the three networks. The questionnaire must be accessible and understandable to all relevant respondents. This requires pretests of the online system for answering the questions. The questions are primarily based on previous qualitative observations in one of the participating networks.

The response rate for the data collection is satisfactory. In total 65% of the respondents who could answer the questionnaire replied. Five members overlap in the different networks, which means, they participate in two of the three networks. In the data analysis the five companies participate in each of the networks they are members of, and thus are double counted in the basis data of the analysis. This method is applied to be able to generally show the networks independently of other affiliations the members may have.
4. DATA AND CONSTRUCTION OF VARIABLES

A short description of the network profile in economic terms provides an understanding of which financial resources are available in the networks. The three networks represent an estimated total turnover which corresponds to about 1 million EURO calculated on average figures on turnover. A similar calculation can be carried out on the total workforce of full-time staff. It shows about 700 employees in the networks. The networking SME’s employ a niche strategy with emphasis on quality in their approach to the market.

The data was collected in the period from April to May 2009 when the financial crisis had a marked impact on Danish companies. The food industry is usually more stable than other industries during crisis because of the continuous need for food in the population. The financial crisis has, however, had a serious negative impact on the food sector as shown by a review from the Danish Industrial Food Association where the turnover from June 2008 to January 2009 was reduced by 8.5%. The serious negative effect is also elaborated by Nielsen in their survey on Global Consumer Confidence, Concerns and Spending in the 1st half of 2009 where 41% of global customers have taken actions on switching to cheaper grocery brands. The scene for growth and growth expectations is therefore set in a negative frame.

4.1 Economic development.

Growth in turnover from the data collection in the networks is shown in Figure 4.1. Here the SMEs average growth rate for the past two years and what they expect the growth rate to be in the coming two years are shown. When we look at the growth rates in Figure 4.1, it reveals that they are very high in comparison with the general growth in Denmark in terms of GNP per year at current prices. The GNP development in Denmark is registered by Statistikbanken to be +1.8% in 2007 and -0.3% in 2008, which represents the two years in this research. The negative development in 2008 is dominated by the financial crisis, where the 4th quarter alone had a negative GNP growth of 2%. In comparison the EU had a negative growth rate in the 4th quarter of -1.5% and the United States had a negative growth rate of -1% in the 4th quarter. Taking into account that the networks’ growth is measured over two years and GNP is measured per year, then the networks had well over twice the growth of the overall GNP growth in 2007. The high growth can be seen in all three networks as shown in Figure 4.1.

FIGURE 4.1.

GROWTH RATES FOR PAST TWO YEARS AND ANTICIPATED GROWTH FOR NEXT TWO YEARS

Figure 4.1 shows that despite the financial crisis the network members expect to continue to grow at almost the same high level. This implies a continued high level of growth of between 7 to 10%. From the qualitative comments on growth rate, it can be revealed that the members are aware of the financial crisis, but also set about new initiatives, which they expect will offset the effects of the crisis and lead to
growth for their businesses over the next two years. This reveals a very strong commitment to economic development even though the conditions for growth are extremely difficult. It further reveals the flexibility of their niche strategy approach.

A statistical factor analysis was done on the data collected on the growth issue. In the computation a clear correlation between the variables of 0.872 are revealed. It means a clear positive correlation between past growth and future growth in the networking SMEs, which shows a commitment to growth in turnover. The two variables are thus combined in an index for economic development called I-growth to go into the statistical analyses. Economic development in the analyses is thereby defined as the average combination of growth in turnover for the past two years with the expected growth in turnover for the next two years in standardized form. The growth variables are skewed with many observations around the mean growth rate and some observations on very high growth rates. Therefore a logarithm of LN is taken to reduce the weight of the very high observations and take a diminishing impact into account.

4.2 Preferences

Preferences are here identified by four variables which can reveal answers on how people behave in archetypes. The questions are the following:

<table>
<thead>
<tr>
<th>How do you see yourself in a normal work situation in your company?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accurate, systematic, analytical – variable: accurate</td>
</tr>
<tr>
<td>Amenable, helpful, loyal – variable: amenable</td>
</tr>
<tr>
<td>Positive, inventive, spontaneous – variable: positive</td>
</tr>
<tr>
<td>Efficient, resolute, exacting – variable: efficient</td>
</tr>
</tbody>
</table>

The variables show the preferences of people and how they behave in daily life in the context of Jung’s theory on archetypes. A statistical factor analysis is done on the four variables and they are ranging from 0.829 to 0.882. Therefore a clear positive correlation is revealed between the 4 variables of accurate, amenable, positive and efficient. They are in the following combined in an index for preferences called I-preferences to go into the statistical analyses as a measure of the blended archetypes. Preferences are thus in the analyses defined as the average combination of the four variables in standardized form.

4.3 Education – number of years

The level of education is revealed by information from the respondents on their education. Very few of the respondents have less training than vocational level. On average, they have trained themselves in almost 14 years with a standard deviation of nearly two years. This variable is called Education – number of years and goes into the statistical analyses in standardized form.

4.5 Connections

The description of economic connections in the network is based on the below questions:

<table>
<thead>
<tr>
<th>What activities can be found in the company?</th>
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</thead>
<tbody>
<tr>
<td>– variable: Number of value chain activities</td>
</tr>
<tr>
<td>Agriculture, Manufacturing products, Manufacturing concepts, service or stories, Distribution, Sales of products and services from own business, Product sales in retail chains, Sales of products and services by another company/person, Use of consultants and advisers, Miscellaneous</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Major collaborators on these activities?</th>
</tr>
</thead>
<tbody>
<tr>
<td>– variable: Number of collaboration partners</td>
</tr>
</tbody>
</table>
The number of value chain activities from agriculture to sales and support activities are counted. It shows the variety of activities the organization performs. The number of collaboration partners is also counted. It shows the collaboration intensity of the SME. Together the variables show the variety of activities and the number of connections in economical space. The more value chain activities, the more functions and vocational skills the company needs to have for execution. In the data material the SMEs generally have several value chain activities in-house. The mean is approximately 3 value chain activities and the standard deviation is approximately 2 value chain activities. Number of external collaboration partners is also revealed. Many SMEs have several partners for collaboration, however, it is also revealed that a minority has no collaboration partners. The mean is approximately 2 collaboration partners and the standard deviation is approximately 3 collaboration partners. Some of the networking companies are much embedded through collaboration partners, others seem to be much more isolated. A statistical factor analysis is done on the two variables. They have a clear correlation ranging from 0.847 to 0.869. As a consequence the variables are constructed in one index for measuring connections called I-Connections.

4.6 Indirect influences

Control is here identified by the questions which can reveal information about control in the companies and is called the following:

- We supervise staff performance – variable: Supervise staff
- We supervise the quality of our products – variable: Supervise product quality
- We supervise the process of manufacturing – variable: Supervise Manufacturing process
- We write down working procedures to our employees - variable: Written procedures
- We give detailed oral instructions to our employees - variable: Oral instructions
- We use IT systems to ensure quality control - variable: IT-systems supervision

The control variables are very high on supervise product quality and supervise manufacturing process, in the middle oral instructions and the rest ranging average. The mean is nearly 6 on value for supervise product quality and supervise manufacturing process, nearly 5.5 for value on oral instructions and the rest on approximately 4 for control value. The standard deviation is approximately 2 for control value on all variables. This shows a dedication to product and process control and the other variables seem to be differently employed in the networking companies. The questions within the control variables reveal the degree of use of different control forms. A statistical factor analysis is done on these questions to reveal their correlation and thereby the different pattern of control used in the networking companies. The computation shows a positive correlation divided in two components. The first contains control of employees in different forms ranging from 0.700 to 0.854. The second contains control of product and production quality ranging from 0.91 to 0.924. The 5 control variables will be held separately for deeper analyses on the impact of control variables on growth in turnover.

5. HYPOTHESES

My research question focuses on how control of resources has an impact on economic development by research on underlying dynamics of boundaries. The indexes and variables are constructed and employed in accordance with previous data analyses. The constructed hypotheses are listed on next page.

All hypotheses have direction and are therefore one-tailed. The data for the test of hypotheses are grounded in 60 observations which are satisfactory for test of the hypotheses. Therefore the level for significance for one-tailed hypothesis is set to a p value less than 0.05 in the further analyses.
Direct:
1. Preferences have a positive impact on economic development/ growth in turnover.
2. Education – number of years has a positive impact on economic development/ growth in turnover.
3. Connections have a positive impact on economic development/ growth in turnover.

Indirect:
4. Preferences, education-number of years and connections have a positive impact on control elements – supervise staff, written procedures, oral instructions, IT-systems supervision, supervise product quality, supervise manufacturing process.
5. Supervise staff has a positive impact on economic development/ growth in turnover.
6. Written procedures have a positive impact on economic development/ growth in turnover.
7. Oral instructions have a positive impact on economic development/ growth in turnover.
8. IT-systems supervision has a positive impact on economic development/ growth in turnover.
9. Supervise product quality has a positive impact on economic development/ growth in turnover.
10. Supervise manufacturing process has a positive impact on economic development/ growth in turnover.

6. FINDINGS

The hypotheses are elaborated in AMOS (Analysis of Moment Structures), which is a program for data analyses known as structural equation modeling (SEM), also known as analysis of covariance structures and causal modeling. A dominant prerequisite to be able to use a tool like AMOS is the existence of a time-difference in the occurrence of the variables. In the model, preferences and connections are perceived as deep rooted aspects of the organization present before control takes place in a business context. Also controlling activities are anticipated to be a prerequisite for economic development. The integrated causal path diagram for testing the hypotheses is shown in Figure 5.1 on next page.

The path diagram combining all hypotheses in Figure 5.1 is tested by a backwards elimination of the least significant to reveal statistical significance. Hereby findings on the research question on how controlling resources have impact on economic development by the underlying dynamics of boundaries are revealed.

Surprisingly, it is revealed in Table 5.1 and Figure 5.2 that only two control variables have significant impact on growth in turnover; oral instructions and supervise product quality. Both these control variables are highly significantly and positively influenced by preferences. Neither of the two significant control variables is influenced by connections. Oral instructions have a significant positive influence on growth by a proportion of 0.384 and are influenced by preferences by a proportion of 0.416, which reveals an overall contribution of (0.416*0.384) 0.16 on growth in turnover. Surprisingly, supervise product quality has a negative impact on growth by a proportion of -0.278 and is influenced by preferences with a proportion of 0.608, which reveals an overall negative contribution of (0.608*-0.278) – 0.17 on growth in turnover. The impact of the two control variables hereby neutralizes each other.
Connections have a direct positive impact on growth by a proportion of 0.117 and have no influence on control variables. Education- number of years has no significant impact on growth. A significant impact on IT system supervision can be revealed, but IT system supervision has no significant impact on growth.

A small negative covariance exists between preferences and connections with a proportion of -0.09. No covariance exits between preferences and education- number of years. A positive covariance exists between connections and education – number of years with a proportion of 0.14. The underlying variables are hereby revealed as predominantly different elements with own impact on growth.

All significant variables with their p values are shown in Table 5.1 on next page.
TABLE 5.1 SIGNIFICANT RELATIONS

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
<th>S.E.</th>
<th>C.R.</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Instructions &lt;--- I-preferences</td>
<td>0.416</td>
<td>0.146</td>
<td>2.846</td>
<td>0.004</td>
</tr>
<tr>
<td>Supervise Product Quality &lt;--- I-preferences</td>
<td>0.608</td>
<td>0.134</td>
<td>4.549</td>
<td>***</td>
</tr>
<tr>
<td>I-growth &lt;--- I-connections</td>
<td>0.117</td>
<td>0.056</td>
<td>2.086</td>
<td>0.037</td>
</tr>
<tr>
<td>Supervise Manufacturing Process &lt;--- I-preferences</td>
<td>0.373</td>
<td>0.148</td>
<td>2.517</td>
<td>0.012</td>
</tr>
<tr>
<td>IT-systems Supervision &lt;--- I-connections</td>
<td>0.163</td>
<td>0.067</td>
<td>2.448</td>
<td>0.014</td>
</tr>
<tr>
<td>IT-systems Supervision &lt;--- Education</td>
<td>-0.270</td>
<td>0.126</td>
<td>-2.137</td>
<td>0.033</td>
</tr>
<tr>
<td>I-growth &lt;--- Oral Instructions</td>
<td>0.384</td>
<td>0.108</td>
<td>3.573</td>
<td>***</td>
</tr>
<tr>
<td>I-growth &lt;--- Written Procedures</td>
<td>-0.296</td>
<td>0.106</td>
<td>-2.786</td>
<td>0.005</td>
</tr>
<tr>
<td>I-growth &lt;--- Supervise Product Quality</td>
<td>-0.278</td>
<td>0.108</td>
<td>-2.582</td>
<td>0.010</td>
</tr>
</tbody>
</table>

In Figure 5.1 is revealed that the underlying variables of preferences, connections and education – number of years have further significant impacts, however, not related to growth in turnover. The underlying preferences are hereby revealed as having an important influence on control variables. Only two control variables are significantly influencing growth in turnover and thereby some of the potential from these underlying variables is lost for growth to happen. One control variable is not influenced by the underlying variables; written procedures have a surprisingly significantly negative influence on growth in turnover by a proportion of -0.296.

In Figure 5.2 the significant paths are drawn by the bold arrows showing three main influencers on growth; two indirectly from preferences on two different control variables and one directly from connections on growth. An opportunity exists for utilizing the other paths, but apparently boundaries are limiting the transformation channel and potential for utilizing the boundary fruitfully. Also a negative impact has been revealed from supervise product quality and written procedures on growth in turnover. Here the boundary transformation shows a surprisingly negative impact.

7. DISCUSSION

The findings in the food networking companies show their pattern for control of resources and impact on growth in turnover. Predominantly preferences are the underlying variable supporting control variables for growth in turnover. Preferences are seen to be a strong force also with positive impact on further control variables. This is interesting because it highlights an important underlying assumption for action on control. It is natural that preferences have a positive impact on growth in networking companies as listed in the hypotheses. The high proportion is a surprise and indicates a need for understanding and elaborating preferences more in relation to business development. In networking companies with a loosely coupled structure the complementing processes and activities are important for development. It supports the anticipation that a high blend of preferences supports the SME’s and makes them able to adapt, understand and transform innovative actions in daily business into economic development.

It is surprising that education has no impact in relation to growth in turnover. Many of the networking companies have vocational education. They have thus know-how in relation to their product. Most companies are working with a niche strategy with focus on innovation in relation to their customers. The number of education years only supports if the know-how is used for innovation to go beyond the ‘normal’ boundaries set in the field. It does not appear that the networking companies actually utilize their education for innovative activities beyond what could be expected from vocational level.
Connections have a direct positive impact. It seems that the networking companies are very good at collaboration in the value chain and thereby get a direct positive impact on growth. It does not seem that they are good at extending the collaboration in the value chain to directly collaboration between the involved organizations on control variables e.g. supplier information on their control of products and process, distributors control of temperature and duration, ‘customers’ in the value chain informing about their requirements of products and services. Here opportunities for business development can be lost.

Oral instructions have the most beneficial impact on growth in turnover. In the networking SMEs the easiest way to control activities is to give oral instructions. Their vocational education provides a platform for insight and understanding of instructions and the size of the companies also means that employees know a lot about their own products and are close to all activities in the company. Other control forms are more time consuming, unaccustomed and can take longer to alter by management. Management can easily overview activities and guide new activities on innovation in oral form. Therefore other control forms do not provide significant opportunity for growth in turnover.
Supervise product quality should be anticipated as very important to these networking SMEs with their focus on niche strategy and quality. Surprisingly it is revealed that this is not the case. Supervising product quality is significantly directly negatively related to growth in turnover. It seems that some of their supervision on product quality is overdone. It can take too much time. Change and innovation seem to be more important than providing the same quality. Also the content of quality can be an issue here. What is seen as quality by customers? Is it to get the exact same products and services every time or is it to experience new products and services in their interaction with the SME? In the context of the food networking companies it seems to be the last indicator of innovation and new experiences which the customers emphasize most.

The findings reveal patterns where dynamic transformation within boundaries of information collections on controlling resources can be of value e.g. oral instructions. Dynamic transformation of boundaries can also destroy value e.g. supervise product quality. And last boundaries of information collections can be insignificant. However, it is interesting in a ‘reversed classical Lewinian way’ to elaborate what dynamic composite boundaries can provide a positive impact on growth in turnover. The notion is here called to search for ‘boundary utility’ and represents a research on dynamic composite boundaries, the underlying assumptions and the impact they have on economic growth. The notion of ‘boundary utility’ requires information collections of value for economic growth; further it requires transformation processes which support a positive impact. This cannot necessarily be fulfilled, e.g. if information of value is not available in the information channel or it is too time consuming or nobody in the networking SMEs is able to provide a meaningful transformation in relation to consumers.

8. CONCLUSION

This paper reveals how crossing dynamic composite underlying boundaries influences control of resources for economic development in food networking SMEs. This has been illustrated through analyses of control of resources and growth in turnover in three Danish food networks containing 93 SMEs. An on-line questionnaire has been employed to gather primarily quantitative data with a response rate of 60%. The research question was elaborated through a quantitative causal modeling in a path diagram. This was done in a backward elimination of the least significant p values until the p value was less than 0.05.

The underlying preferences have a strong influence on control variables. However, only one control variable; oral instructions have a significantly positive influence on growth. Two other control variables; supervise product quality and written procedures have a negative influence on growth. The rest of the control variables are insignificant. It reveals that only oral instructions are transformed across the composite boundaries for positive economic development. This highlights the need for more attention on preferences within business development. It also highlights a notion of ‘boundary utility’ where attention on the information collections and the ability to transform information for economic development need more elaboration. One way of creating attention is revealed in this paper by a ‘reversed classical Lewinian way’ starting with an elaboration of the ‘frozen’ patterns for economic development.

Further research in networks and in different networking contexts need to be conducted for testing the findings of underlying dynamics of composite boundaries’ impact on control forms and economic development.

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