Portals for microenterprises in rural area - Two cases

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Abstract- Research has shown that microenterprises have ability to survive and grow with the support of portals that include eCcommerce. However, almost no research has demonstrated how it's done and what support microenterprises want. Results of our study shows; that the portals have to be improved to support the use of advanced ICT applications, make it usable to use, and give more time for core business for the participating microenterprises. We have seen that portals have to solve problem with the technical solution and the process of payment. The network building activities in the portals do not happen in such extent that we have expected based on previous research. If portals will get businesses to grow in microenterprises, we propose that in addition to providing access to advanced ICT applications need to climbs one step higher in the DTI ladder and create more of eCommerce to increase sales in a greater market. We also propose that portals which support cooperation between microenterprises in rural areas from different branches have the best chances to succeed in the future.

Keywords: Microenterprises, portals, eCommerce.

I. INTRODUCTION

In present paper we use the EU (2003) definition of microenterprises. Enterprises with fewer than 10 employed and an annual turnover or an annual balance sheet total not exceeding EUR 2 million. In order to measure the ICT maturity in the company a ladder has been developed. This ladder is called the DTI ladder (Department of Trade and Industry) (Lynn, 2005). The steps on the e-adoption ladder are:

Level 1: e-mail, internet access,

Level 2: Website, on-line communications,

Level 3: eCommerce, e-ordering,

Level 4: e-Business, electronic payment,

Level 5: A transformed organisation, e-enabled.

Here, we describe the levels 3 to 5 with references:

Level 3 eCommerce: Purchase, sale and exchange of goods and services using ICT support (Chaffey, 2009). This study also includes rental and booking of services as a part of eCommerce, which allows speaking about eCommerce in the service sectors (Chaffey, 2009).

Level 4 e-business: ICT support that integrates processes within the organization and creates an internal value chain. You can also exchange information with external stakeholders (Chaffey, 2009).

This means that you can see the eCommerce is a subset of e-business (Thuraisingham, 2001). The advanced computer support at this level is all modular systems. Examples of such systems are ERP (Enterprise Resource Planning), SCM (Supply Chain Management) and CRM (Customer Relationship Management).

Level 5 transformed organizations: This means that new business models created with the help of ICT and has a network organization which is linked by ICT support. A term used for such a structure is eCommerce (collaborative). (Thuraisingham, 2001)

Gray (2006) shows that curiosity, external pressure, increasing ICT skills and business needs are drivers which move us up at the DTI ladder and system change, lose key staff, lack time; money; experience, technical problems, crisis of trust are weaknesses which move down.

ICT usage is important for SMEs (Downie, 2011; Sandberg et al., 2014; Sandberg et. al, 2011; Sandberg, et. al, 2009; Wahlberg et al., 2009). ICT usage are able to create business opportunities and reduce the global competition they face (Cloete et al., 2002; Morgan, 2005), and make them growth (Matthews, 2007; Qiang et al., 2006; Raymond et al., 2005; Sullivan, 1985)

ICT could achieve cost reduction and efficiency improvement. Cost reductions which can be achieved are reduced inventory costs, reduced sales and purchase costs and lower sales costs (Ashrafi et al., 2008; Harindranath et al., 2008; Morgan, 2005). Efficiency improvements that can be made are simplifications in the development and management of information, communication such as e-mail, time savings in procurement processes, production and sales when performing multiple parts in those with ICT support (Ashrafi et al., 2008; Harindranath et al., 2008; Morgan, 2005; Porter et al., 1985).

Wolcott et al. (2008) has shown what prevents microenterprises to adapt ICT (Figure 1).

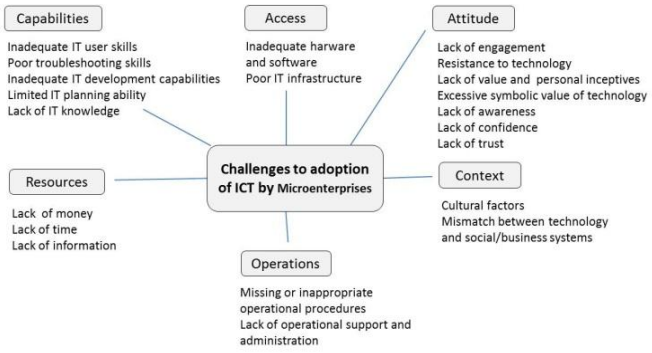

FIGURE 1. BARRIERS FOR MICROENTERPRISES TO ADAPT ICT. SOURCE WOLCOTT ET AL. (2008).

In earlier research it has been shown that eCommerce can achieve competitive advantages as new markets, better customer relationships, less mistakes, improved availability and quality of the offered service, faster product development and reduced loss of market share to competitors who have eCommerce for SMEs (Ashrafi et al., 2008; Chaffey, 2009; Laudon et al., 2011; Stockdale et al., 2004).

A solution that has begun to emerge for the microenterprises to counteract these barriers to use ICT and eCommerce more are portals (Gengatharen et al., 2005). Downie (2011) has in his study demonstrated that portals are something that many governments and authorities have been trying to set up and finance for micro and small businesses must use more ICT

I. PURPOSE

The focus of the present study was to investigate how portals supporting microenterprises with eCommerce in rural areas

II. METHOD

The study plan for the present study include: review of the literature about portals and add a case study to see how portals containing common eCommerce could support participating microenterprises to overcome the known barriers of ICT and eCommerce.

The literature search in scientific databases was based on search criteria's; portals and SMEs. Case study has "consistently been one of the most powerful research methods in information systems, process and supply chain management research, which is used to develop new theory and to gain understanding and insight into complex situations" (Howard et al., 2007).

Criteria for the selection of portal in the case study based on the following assumption: it should be only microenterprises involved in this, and cooperation between these exists in some form. This portal should have eCommerce without linking to another site.

In order to collect data from each case in the present study we utilize databases with business information, enterprises websites, documents, observations and interviews.

Documents: Both portals were created in the EU project, which meant that we had access to documents about their goals, the work carried out and the result of this.

Interviews: These are semi structured and made with people who works within the portals.

Observations: The observations were made on all companies (units of the cases) that use one of the portals on the internet, social media and other marketing channels, following a guide based on previous research of Wolcott et al. (2008) and Chitura et al. (2008).

Questionnaire: A number of questions about the company's ICT use and reasons for participating in the portal were created with fixed account options in order to make an Importance-Performance Analysis (Abalo et al., 2007). These questions would give a couple of Importance-Performance point regarding a factor. Factors that were selected were:

P1 Understanding of eCommerce,
P2 Larger market,
P3 Improved profitability,
P4 Understanding of ICT use,
P5 Knowledge in the use of ICT,
P6 Knowledge of marketing,
P7 Knowledge of logistics,
P8 Networks of contacts relating to persons in ICT and e-commerce,
P9 Increased willingness to use ICT,
P10 Technical equipment at reasonable price,
P11 Software at reasonable price,
P12 Time saving for working with Website,
P13 More efficient use of time in the ICT project,
P14 The need for models to calculate the ROI of technical equipment,
P15 Easier to calculate the ROI of technical equipment,
P16 Sense of security regarding understanding of the current laws and regulations,
P17 Sense of security regarding the safety and reliability of financial transactions,
P18 Sense of security regarding changes in the value chain.

To be able to calculate where an item should be placed in the matrix, a Likert scale from one to seven was used.

A number of open questions regarding the participation in the portal and attitudes surrounding that have been down to get more information and see that the fixed questions not affect answers from respondent too much.

III. RESULT OF LITERATURE REVIEW

One must consider that after 2006, the technology that supports eCommerce and advanced ICT support has matured and that business models based on consumer participation and social networks emerged (Laudon et al., 2011). When companies are involved in such portals their understanding of e-marketing has increased (Chong et al., 2010).

Portals that have a partnership that includes more than eCommerce are sometimes known as eCommerce (collaborative) (Chang et al., 2011).

Gengatharen et al. (2005) have found that enterprises have different needs in help with eCommerce in portals depending on whether it relates to B2B, B2C, and B2G.

B2B portals began to be used around the mid 90's and were used mainly by medium and large enterprises (Premkumar, 2003; Stockdale et al., 2004). They wanted to achieve the following effects with these portals:

- Reduce search costs by facilitating the comparison of rates, products and services (Kandampully, 2003; Bakos, 1998; Kaplan et al., 2000).
- Improve production and delivery capacity (Albrecht et, al. 2005).
- Enhance the personalization and customization of product offerings (Bakos, 1998).

- Improving customer relations (Kierzkowski et al., 1996).
- Reduce marketing costs compared to traditional marketing media (Sculley et al., 2001)
- Reduce employee who works in marketing (Gloor, 2000).
- Operating 24/7 and 365 days (Ngai, 2003).
- Facilitate global presence (Laudon et al., 2002).
- Explore new market segments (Murtaza et al., 2004).
- More interactive and efficient services in terms of marketing communication (Petersen et al., 2007).

Brush et al. (2010) show that the most significant perceived barriers for B2B portals were conflicts with existing relationships, risk perception and usability and problems with existing infrastructure. The dominant motives to participate were to exclude intermediaries, reducing transaction costs and larger market.

Regional portals were something that started to appear around 2000. These portals were often built with the help of government funding. This was done to reduce the growing difference in the utilization rate of eCommerce among small and large companies. These portals gave the opportunity for SME access to eCommerce without investing too much in time resources and capital for investments in ICT equipment. The government hopes that these portals would form networks between enterprises which would lead to innovations. Gengatharen et al. (2005) found in a study that it was important that confidence in the portal was built and technical issues were solved to get the right expectations from SMEs that participated. If the participating SMEs got for high expectations, they became dissatisfied. If portals should include more functionality than eCommerce, i.e. work for regional development and building networks it is necessary to pass the following points:

- Develop real understanding of the benefits of e- communities,
- Stimulating and motivating activities for active participation,
- Training on ICT and eCommerce for all users,
- Get commitment from all stakeholders,
- Realistic budgeting and good project management (Gengatharen et al., 2005).

Factors Gengatharen et al. (2005) saw for successful results were:

- Adequate funding for the development and maintenance of the portal and be able to build e-business skills of SMEs,
- Broader community involvement in the ownership, development and management of portal,
- Strong networks/relationships between the way enterprises outside the portal
- Occurrence of e-business champion in the community,
- Portal structure that matches the region's profile
- A good marketing / awareness plan for the portal.

We can find portals for companies in the same sector. In Sweden during the period 2008-2011 a research project in which companies from the food sector participated has been down. It was small farmers who participated. It turned out that they took part in this portal to:

- Broaden contacts,
- Meet likeminded people,
- Exchange experiences,
- Joint marketing efforts,
- Achieve other advantages of joint efforts (Petrakou et al., 2011).

Petrakou et al. (2011) concluded in the study that a major factor affecting participation in the portal is the cost of this and how the ownership will be designed.

Rossignoli et al. (2009) describes the project AgriOK initiated in 2000 for SMEs operating in the agriculture sector and food in Italy. The effect they wanted to achieve with this portal was:

- Communication effect: faster transfer of information using ICT and reduced transaction costs.
- Electronic integration effect: Facilitate ICT support between suppliers and buyers.
- Electronic mediation effect: With ICT market transparency for buyers make it more easily for sellers to compares offers.
- Strategic effect: Facilitate strategic collaboration using ICT.
- Portal acts as arbitrator: With ICT support economic transactions between actors in the portal.

Portals for a sector are also called e-clusters. Adebanjo et al. (2006) found following barriers to e-cluster development in sectors:

- Design of e-cluster applications that deliver value to enterprises of different sizes with different strategic objectives and have significant differences in the genetic system.
- Cultural inertia against the routine use of the Internet in some sectors.
- Unwillingness to participate or share information within a virtual cluster, which is based on a traditional parochialism and corporate fixation of intellectual property protection by strengthening links.
- Create resources to create e-clusters and identifying and deploying a business model that clusters self-supporting.
- Fill the e-cluster with enough members to make it a natural fit for the prospective organizations and to work in such a way that the cluster even succeeded in attracting new members.
- Identification of appropriate technology to enable e–clustering.
- Orientation difference between the small and large companies.

Adebanjo et al. (2006) believes that the ability to attract new business is the key point for the success of e-clusters. If companies will feel the benefit of the portal and this should be able to attract new companies must participating companies adapt their culture to the proposed working seat with e-functionality (Tatnall, 2007).

Tatnall (2007) describes that the adoption and use of the portal, it is that controls the success, it does not matter how well the software in the portal are.

An important part to integrate into portals where microenterprises should cooperate in eCommerce to grow is blended learning. This has been demonstrated in a project Selling Web conducted in 2009 in northern Sweden (Kuttainen et al., 2011). According Kuttainen et al. (2011) is a main feature of such portal facilitates learning in networks. This is so that the participants in the portal will be supported to get to know each other on a personal level and a professional level, then they can integrate without losing too much time. Kuttainen et al. (2011) believe that it is easier to discuss the process of introducing eCommerce if they have confidence in each other. Another important aspect of Kuttainen et al. (2011) are all learning resources in the platform can be used when the participant wants, which enables asynchronous learning on an individual basis.

IV. Result of Case study I

The section contains a timeline description of the case on the basis of documentation and an interview with the webmaster, a user's eyesight, Importance-Performance analysis based on the survey and our observations.

Description - documents and interview

Agricultural Society had desires to build a portal within an EU project. In order to do this they ran a pilot that ended in December 2010. This pre project concluded:

- It is important to have a well thought out website.
- A website cannot creep up and running, it must be clear when it is launched.
- Distribution and delivery points must be countywide.
- Procedures for suppliers and product information shall be prepared.
- Procedures for monitoring inventory, purchasing, accounts payable, etc. shall be prepared.

Based on these conclusions, they determined that the portal that would be built would make it easier to buy and sell locally produced food. The portal would be a brand that would ensure proximity and quality. They wanted to market themselves through small-scale (often organic) production. The basis for bringing such a farm is that the animals have a good time on the farm. The company is in the portal would be a guarantee for the buyers to the rules on how to take care of the animals and produce food followed. The companies that participated had to declare the origin of food and show openly how it was produced. One goal of the portal was that it should be easy to shop for the consumer. The portal's eCcommerce function, would give food producers the opportunity to sell their goods with the lowest cost possible to get the best results.

The main project started in 2011 with the end date of December 2013. The Project had the objective of a turnover in 10 million from eCommerce in 2013. To solve this, the idea was that the portal would have access to many products which would lead to consumers making a stop and sales are increasing. An important goal of the project was to build a strategic network of the companies in the portal which continue to operate the portal after the end of the project.

Activities held in 2011 were a lot about marketing on the project and the participating companies. There was training in production methods. Production methods related to alternative solutions for slaughter and butchering of tenderizing the meat.

They had various types of gatherings to discuss how the portal and network cooperation could help the participating companies. They lined up requirements for a documented animal welfare and suppliers to follow Swedish rules on animal welfare, food handling and environment that would be involved in the eCommerce part. They started to test sales in a small scale through an agreement with a local company for eCommerce of food and other household products. This meant that they had access to a distribution network and a complete solution for eCommerce.

In April 2012, it was seen that it was difficult to get the eCommerce function in the portal work fine. The big problem was to get a good payment solution. There were requests that this would be solved with the help of a partner in the project. This meant that it focused on helping the companies involved in the sale of products in other ways. They will use the portal site primarily for the participating companies to be visible so they can gain greater market share. The webmaster says that it has plans to rebuild the portal. There are plans to link to social media. They want the project to train the participating companies in the field of social media in order to be able to use it for marketing. To hold training sessions for the participating companies can be a problem when they are busy spring, summer and at Christmas with production. The portal links to the participating companies who have their own web pages. Participating companies get no help through the project to build these. A number of companies are moving into the project. A major problem for creating eCommerce in this sector is logistics. (Interview webmaster 2012)

In 2012 activities is very similar with 2011, but it there also courses in pricing and how to succeed in public procurement. You can clearly see that it is becoming more important with a business strategic thinking than pure production activities.

In July 2012, the project had been developed two strategic networks where participating companies included as it was felt to work well.

The portal had a strong functional and visit performance during late 2012.

It has been TV advertising for the portal in 2012 and 2013 to make it known.

2013 came in much as the previous two years. However, there was also training in economics and on packaging in design and materials. They were working with quality and logistics issues. A viable payment solution was in place for eCommerce function in April 2013.

The company Kognito has made a final evaluation of the project 2014. They noted that the project had the focus changes during the time it has been going. That has been down prioritized include marketing and sales to restaurants. However, they believe that they succeeded in continuing the network enhancement and skills development initiatives that have characterized the project. It is thought that the project

put up two cases concerning what should be done. These were:

- To establish an eCommerce with a turnover of 20 million,
- Create at least three strategic networks.

Regarding eCommerce solution, it was almost entirely focus on the establishment a brand included the portal and a physical store for the project "reboot" in 2012. This brand should be able to reach an annualized sales of somewhere between 10-15 million has already been associated with project's completion. However, this is dependent on how to interpret the target. There are more factors that indicate that the brand is on track to serve as a well-established marketplace for locally produced food in the county. This is because there is now a well-functioning sales and distribution to a large proportion of grocery stores in the county. The idea was that the brand from 1 January 2014 will continue to operate as a commercial centre, with responsibility for marketing, sales and distribution of locally produced food to stores, restaurants and individual customers (eCcommerce). It is considered that the project has meant that sales have increased and customers are experiencing increased access to locally produced food. This has made for some of the partial-taking businesses, profitability has improved. It estimates that the project has played a relatively large role in this, even if it took place within the framework of a general trend of increased interest in local food. It is believed that managed to create two viable networks, one for food artisans and one for meat producers. A third of growers is running but is only just a start-up phase.

User's perception – interview

One of those who use the portal says the following about ICT use in agriculture and barriers to eCommerce. It is important for agriculture to reduce wholesale power which is something that can be done with the help of eCommerce. This is to achieve a higher profit without intermediaries. The user believes that without intermediaries can get 10-20 % more profit. The user believes that small businesses need to embrace computers more and keep up with technological developments, of which that person has a passion for. The user believes that ICT leads to changing processes in agriculture and that eCommerce is essential if agriculture shall survive in rural areas. The user indicates that there are specific problems with the food when selling through eCommerce. The main problems are in logistics here you may need refrigeration or special delivery points where customers can get what they ordered. In terms of barriers to ICT usage and eCcommerce user says they lack the skills they need to deal with ICT issues, but since these are so important they buys help from consult if no one in the family has that knowledge. The user says: "Wireless broadband high speed will benefit sparsely built." Users say you could not say that today's infrastructure is a barrier to eCommerce. The user point to something that is important in eCommerce is to make customer inquiries, which is easier if you are some kind of compound that has a portal. The user says that it is important to be able to solve the opportunity to cash payments, as many customers have been sceptical of the payments through online. The user believes that eCommerce would also be a win for the environment. As examples he specifies emissions reductions if groceries are delivered by a carrier to a number of customers in eCommerce. The user believes that a major problem with eCommerce is to get customers find this. The user says: "There are many who have not yet embraced the possibility to buy food online." User think food trading online is still in its infancy. The user believes that the Web be used for marketing and communications, making a portal solution in this way is also useful because it can advertise for the rural regions. The user says that he had made an own eCommerce solution, if he should had the farm near a big city.

Importance-performance analysis – survey

The figure 2 presents an Importance-Performance Analysis based on the survey, responses from six microenterprises.

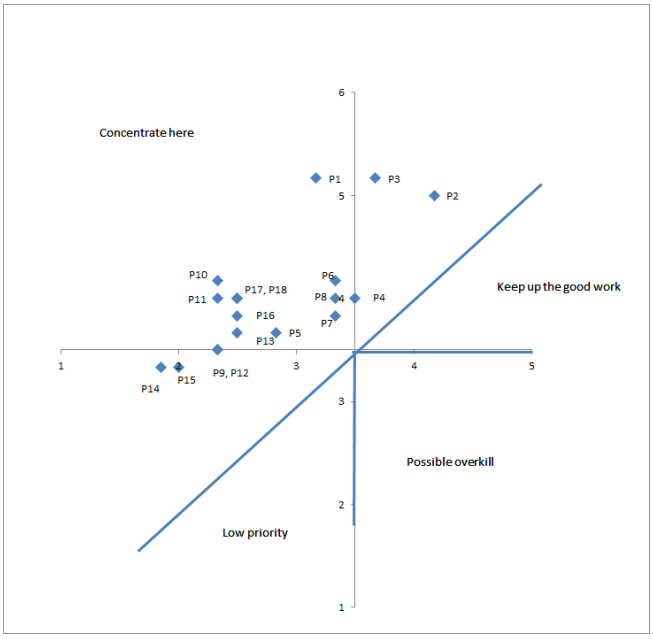

FIGURE 2. RESULTS OF IMPORTANCE-PERFORMANCE ANALYSIS.

Figure 2 shows that P9, P12, P14, and P15 are factors the companies think have low importance to support in portals. The companies believe that the importance factors to support in portals are P1, P2, and P3. The companies consider that factors the portal supports good are P2 and P3. Factors portal supports bad are P14 and P15.

The survey shows that advanced ICT applications like CRM, SCM and ERP is not common. Five of the companies that responded have another website, four of them engage in none-eCommerce. However, there is participation of companies engaged in this, both in the portal and in other places.

The microenterprises have responded to why they use the portal as follows:

- Increase profitability 3 (50 %),
- Getting more customers 6 (100 %),
- Upgrading skills regarding marketing 1 (17 %),
- Upgrading skills regarding logistics 1 (17 %),

- Raise the skills of IT and eCommerce 0 (0 %),
- Create more time for core business1 (17 %),
- Disseminate information about the company 3 (50 %),
- Build networks with other companies 3 (50 %),
- Need of experts on tools regarding eCommerce 3 (50 %).

No company chose to enter any cause of portal participation beyond the fixed options in the poll. The survey shows that users of the portal almost exclusively spreading positive information about this.

Observations

A number of companies have joined the project after its start up. All is not participating in the portal part. Those not participating in the portal are interested in the training that goes on outside the portal and appear in a marketing context of the project. This was very evident when project showed TV advertising. Those involved in the portal has some employee who is interested in ICT questions or are interested in what eCommerce can bring to the company.

In August 2013 it was 25 companies that used the portal. 24 of these companies are using e-mail. Twelve companies have their own website. Five companies have their own website and are on Facebook. One company use Facebook. Three companies operate eCommerce in some form in other places.

The companies engaged in eCommerce in other places has been increased sales by potential customers discovered them through the portal.

The eCommerce functionality was changed several times during the study. In January 2014 they released a new version of the eCommerce function developed by Duplicera. We feel this as badly structured. That because you have to consider for a moment how to access the products. It is difficult to see which companies that are linked to the product you want to buy. One should look around to find the conditions in which the gift card sold. There is a function called calculate freight as to not understand what it is for. You can read information about the condition to understand what delivery means. Delivery has a buyer in this function not related to Bus Cargo Agents mentioned. You may click on terms at checkout to get some information about how to use eCommerce feature that you should get before you select products. No observation show that has been any attempt to find out what consumers want out of eCommerce portal feature.

V. Result of Case Study 2

This section contains a timeline description of the case on the basis of documentation, a user's perception, an Importance-Performance analysis based on the survey and observations.

Description – document

VINNOVA has financed a project with a strong focus on the individual and the community in a small rural city in Sweden (ISSI). The purpose of the project was to develop and support the business in the region. The project started in 2009 and ended in 2011. One part of the project was to create a common eCommerce portal between numbers of microenterprises in rural area of Sweden. The aims in this part were:

- Networks for collaboration
- Virtual mall (a common web shop),
- E-services for collaboration
- Support for ICT,
- Corporate training,
- Business Development.

The project started up with a number of workshops to find out what microbusinesses need to support in order to grow in rural areas. An important lesson from these workshops was the need to create an understanding of portals opportunities with eCommerce among small businesses to be included in them.

This led to the following objectives for the portal within ISSI:

- For the customer: an entrance, several shops, a shopping cart, a checkout, coordinated transport.
- For Shop / Company: a company can only handle their own products / services, there is a back-end system when payment from the bank comes to portal automatic take a charge, then send the payment to each firm based on commodity codes.

In June 2011 it was a demonstration of the portal. After this they started to build the final version.

An important part of this portal project has been business training for entrepreneurs in some small villages. This training has been using the portal, other e-services and development of web pages.

A follow up project started in September 2012 and had as an endpoint in June 2013. The purpose of this project was developing e-service platform in the country to provide equivalent service and service throughout the municipality. They pronounced the milestones of the project are to, inter alia, developing eCommerce, apps for visitor attractions, fishing license, etc.

One can see the following text in a document "Here you can create your own online shop where you put products in the categories that you create. The advantages are that the costs be shared, joint marketing and support" for attract to the portal.

A document from the summary meeting of project in June 2013 showed suggestions on how to have a portal such as linking regions in different countries in order to achieve cross-fertilization. This could be a Comby realized in the cloud. It would provide solutions that do not ruin nature and people, without creating culture. What you need to resolve in order to achieve these solutions are in production, distribution and consumption systems. What one could get cross-fertilization are areas:

- ICT and optical fibre - where villages in Sweden have succeeded while Italy is stuck in the "copper trap".
- Trading on collaborative virtual and real stadiums - dynamic e-mail platforms and local markets.
- Municipality - skills and experience. Can we learn anything from Italy? Still living villages/communities (functional small-scale solutions and real functioning

cooperatives) and they can learn from us when it comes to including refuse handling and recycling?
- Regulatory Services - how will new communica-tion technologies used in "Combyn" to reform the petrified authority service both in Sweden and in Italy.
- Service point - area Servizio. How do we develop meetings point and service places for locals and travellers/tourists with new communications? Solutions that reinforces social exchange, real meetings and interaction.
- Culture and Nature Tourism.
- Music Exchange (choir, orchestra, opera, etc.). Play together virtual and real.
- Support for entrepreneurs - how we give young people in Combyn common hope!

The user's perception – interview

One of those who use the portal says the following about ICT use in retail and barriers to eCommerce. The use of ICT in retail trade in small business could probably increase if the software's becomes easier to use. To adapt the software to different disabilities such as dyslexia could probably increase use. The user believes that a fear of ICT reduce use in small companies. Users think that peripherals and costs for utilizing ICT are too high. The user believes that the web is important to disseminate information about the company. User has not seen any specific reason why customers would avoid using eCommerce. The user believes that eCommerce solutions can be difficult to use but to the exploitation of these could contribute to lower local costs. The problem the user sees on eCommerce affects costs and usage. Time spent on eCommerce solutions and eCommerce, are problems the user has experienced. The user does not feel that there would be some specific problems in retail eCommerce. The user thinks it is important to get help with the design of a webpage and training how to work further with this.

Access to a coach to help overcome the fear of using ICT and e-commerce would facilitate. (Interview portal users 2013)

Importance-performance analysis – survey

The figure 3 presents an Importance-Performance Analysis based on the survey. All participating companies have responded to the survey.

Figure 3 shows that P9 and P10 are factors the companies think have low importance to support in portals. The companies believe that the importance factors to support in portals are P1, P2, and P4. The companies consider that factors portal supports good are P4, P5 and P9. The factors portal supports bad are P3, P11 and P18. The survey shows that advanced ICT applications like CRM, SCM and ERP are not common.

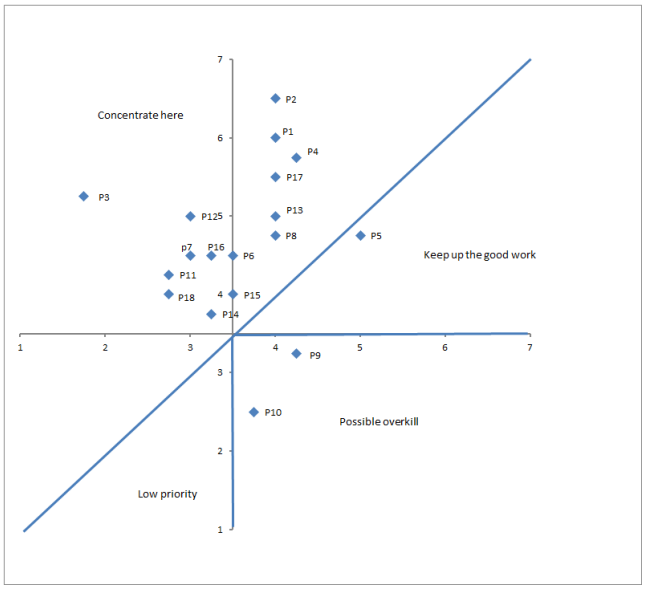

FIGURE 3. RESULTS OF IMPORTANCE-PERFORMANCE ANALYSIS.

Companies have responded to why they use the portal as follows:

- Increase profitability 1 (25 %),
- Getting More Clients 4 (100 %),
- Upgrading skills regarding marketing 1 (25 %),
- Upgrading skills existing logistics 0 (0 %),
- Upgrading skills for IT and eCommerce 1 (25 %),
- Create more time for core business 1 (25 %),
- Disseminate information about the company 3 (75 %),
- Build networks with other companies 1 (25 %),
- Buyers of experts in tools regarding eCommerce 1 (25 %).

Companies add to this fix points that the portal was an interesting concept and a simplification for customers to access the company's products.

The survey shows that users of the portal almost exclusively spread positive information about this. They are promoting it and trying to get more participants.

The survey shows that participants have gained in confidence for the use of ICT and knowledge about technology.

Observations

In May 2013 every there are four companies that used the portal. These companies are in retail, sports and leisure, and food. All companies use e-mail and three of the companies have their own website. However, the portal is the only place where they engage in eCommerce.

After the survey was conducted in May 2013, three more companies have joined the portal. All have e-mail. One has its own website. One has its own website and BlogSpot.

In our experience the eCommerce functionality is not user friendly. This is because it is difficult to understand how to switch between the companies when you want to shop from several of them. No observation suggests that the

attempt to find out what consumers want out of eCommerce operation portal have been done.

VI. Discussions

Observations of the participating companies in the portals show that these are at the DTI-ladder level 2 and 3 (Lynn, 2005). The things mentioned lead to movement on the ladder according to Gray (2006) is supported by the observations. We have no way of participating companies in one of the portals conducted trials to adapt their culture to the intended working with e-functionality which according Tatnall (2007) is important in order to attract new business to the portal, and that they themselves should be able to grow. Observations of the participating companies in the portals supporting Gengatharen et al. (2005) study that participants become dissatisfied if they get too high expectations of what the portal can achieve. This makes it important to convey what the portal can provide when you step into it and what it has for goal with the portal in the end. The portals of the respective case can be classified as c-commerce, according to Chang et al. (2011) when it has network partnerships between companies. The stronger definition of eCommerce by Thuraisingham (2001) are met in case 1 when it sells packs which combined products from various participating companies, but not in case 2. Both case shows that it largely works with the goal Gengatharen et al. (2005) indicate regional portals and also to secure the factors he sets for successful portals. This allows one to see both the portals as belonging to this type of portals in the first place. However, what is interesting from this is former regional portals mainly had a B2B perspective (Gengatharen et al., 2005). In this study, the two portals have B2C, B2B and B2G focus. Case 1 can also be viewed as a sector portal as it only contains the producing company for the food sector. That portals can belong to several types are not uncommon. This has been shown in previous studies (e.g. Rossignoli et al., 2009). An analysis based on previously referenced research and the different methods of collection of data in this study show that profitability is a reason companies give for participating in portals. Profitability can be built up of several factors. One of these is the bigger market that can be created through information dissemination. These are also factors that can be directly identified by companies as reasons for their involvement in the portals, so they are discussed in separate sections later. One factor that emerged as not belonging to those discussed later, higher profit when you could avoid middlemen. This factor emerged in the interview with the users in case 1. Other factors affecting the profitability are cost savings and efficiencies that can be achieved through the use of advanced ICT applications such as CRM, SCM and ERP, which the literature has shown. The surveys show that the companies in cases not utilize such ICT applications in any significant way. Which makes it important to portals strengthens the will to use ICT and particularly advanced ICT applications. This has been shown in previous research by Ashrafi et al. (2008), and Matthevs (2007). The willingness to use ICT impact on the implementation eCommerce, and are discussed more fully in the section on implementation. Portals must also facilitate the introduction of advanced ICT applications in order to keep down costs for the microenterprises in need of these. This can be done through various types of integration into portal. These advanced ICT applications also supports other processes than sales. In order to benefit from them must also process changes implemented in microenterprises. If microenterprises succeed in this, they can grow and reach higher on the DTI ladder. Cost savings that can be generated with the help of eCommerce function was lower local costs. This emerged in an interview with the user in case 2. In case 1 profitability increased more for the participating companies than in the case 2.

According previous research ICT and eCommerce can help smaller companies to gain a larger market (Matthews, 2007; Qiang et al., 2006; Raymond et al., 2005; Sullivan, 1985). This is confirmed when the surveys and the observations of firms in the portals showed that a major reason for participating in the portal was to appear for an increased customer base and not to only sell through eCommerce. Both cases show that companies consider it important that the portal supports the possibility of a larger market. This has been more successful in case 1 than case 2. Getting a bigger market is also linked to the dissemination of information as discussed in the next section.

The dissemination of information about the companies is an important factor for participation in portals. Observations show that firms in both cases utilizes Facebook and other social media which Laudon et al. (2011) recommended. The use of such social media will help increase the understanding of e-marketing at the participating companies according to Chong et al. (2010). Interviews with users of the portals show that it believes that websites should be used for marketing purposes. Observations of the participating companies in the portals show that those in case 2 using their own web pages more than in case 1. This is probably due to case 2 has had the goal in training in handling of web pages which do not case 1 has had. We don't think this web page has a good usability. In contrast, case 1 participants better at using social media. This is likely due to taking up social media as part of training on marketing. The surveys show that the information companies spread about the portal, in these cases only positive which should encourage an increasing number of companies in the portal.

To take advantage of ICT and eCommerce microenterprises needs access to cheap and useful software and technical equipment. That this is the reason for taking part in portals can be seen in the two cases in Importance-Performance analysis. What is surprising in the case 2 is the low value of 2.5 on the Importance of technical equipment at reasonable price then the corresponding value is 4.1 for software affordably cheap. This allows one to think about whether it is easier to acquire technical equipment than useful software. In case 2 it emerges in the interview of the user that they think it is expensive to have equipment for card payments. The cases in this study have not shown that the points which lower the cost of operation of eCommerce are important reasons for participation in the portal. They also show that participants do not believe that portals are good at creating lower costs. In previous studies of the SME has costs cited as an barrier to the use of eCommerce (Ashrafi et al., 2008; Chaffey, 2009; Harindranath et al., 2008; Laudon et al., 2011; Morgan, 2005; Porter, 1985; Stockdale et al., 2004).

To implement e-business requires a willingness to use ICT. Importance-Performance analysis shows that in the case 1estate believes there is something more important that the portal supports this desire than in the case 2. One sees, however, that the portal in case 1 is much worse in this than in the case 2. The implementation of eCommerce may be affected by how confident you feel from both an operational and legal perspective (Ashrafi et al., 2008; Gray, 2006; Harindranath et al., 2008). That this is the will be true can be seen in this study when companies want to have a feeling of security current understanding of the laws and regulations, safety and reliability relevant financial transactions and changes in the value chain to take advantage of eCommerc more. One can also see that this is something portal projects can be better at. This confirms previous studies done on the SME. Sense of security for changes in the value chain has been studied in previous research (Stockdale et al., 2004). That this would be an important matter to take care of the portal suggests none of the cases and there seems to be done in these cases. It is interesting to see that the factors affecting the sense of security is well contained in the Importance-Performance evaluation for case 1 while they have higher dispersion in case 2. In the case 2 is believed to factor financial transactions are most important to get a feeling of security. This factor also takes better care of the portal than in the case 1.

To have more time for core business is one reason that it is participating in the portal is supported by the interview of user in case 2. One sees in the questionnaires in these cases that measures to create more time for core business is a relatively important factor for participation. However, we had expected that this would be considered more important by the companies based on previous research on time barriers (Ashrafi et al., Gray, 2006). You see, in both cases based on Importance-Performance analysis of time-savings existing site is considered important but are somewhat portals are weak. Importance-Performance analysis shows that it thinks it is important that the portal ensures that the time-utilization of ICT projects will be more effective in case 2 than case 1. Portal in case 2 is also considered to have been better at this.

Previous research has shown that network creation is important for microenterprises to grow (Downie, 2011). This study shows that the companies involved in making it to some extent, to create networks among others to compete against larger enterprises but not into the extent we expected. None of the cases show that companies considered networking as an important aspect in order to participate in the portal. Network building was an important part of the case 1, however the vast majority of networking outside the portal. This supports earlier research by Gengatharen et al. (2005) that specifies the network creation as a key success factor in the portals.

In Importance-Performance analysis, one can see that the participants in cases have relatively low interest of investment models and ROI. This was surprising for us, as previous studies suggest this as a barrier for SME to use eCommerce. These areas were also weak in the portals in our cases.

Microenterprises training needs are reflected in the interview of users and the surveys in the two cases. This supports Kuttainen et al. study (2011) on the professional development needs. The study which is presented on how learning can go to is supported by participant observations made, as well as documentation from our cases. Learning about ICT and eCommerce in our cases are better in the case 2 than in the case 1. We believe this is due to learning and regional development were more pronounced goal of the case 2 than in the case 1. Raising the level of skills in terms of ICT and eCommerce was with that goal in both cases. Importance-Performance analysis shows that in both cases the view that portal participation increased the understanding of ICT and eCommerce. It is interesting that in both cases find it more important that the portal provides an understanding of eCommerce than ICT but it succeeded in increasing the understanding of ICT most. The portal will provide the habit of using ICT is considered more important in case 2 than case 1. There is also a clear statement about the need to learn to use ICT in case 2 this was shown for example in the interview by user. One sees that the more successful in creating this habit in case 2. Observations show that you got more skills regarding ICT and greater understanding of eCommerce in case 2 than case 1. One sees this, among other things, on how Web pages developed among the companies included in the case 2. It is believed that in both cases it is important that the portal participation leads to a network of contacts that can be used in support of ICT and eCommerce issues. The need for a network that provides access to specialists has been shown in previous research by Morgan (2005). A request for such a network can be seen in the interview in case 2 and they have succeeded somewhat better with the creation of this network than in case 1. When it comes to getting knowledge of marketing and logistics, it is precisely no difference between the cases how important this is and how well the portals achieved this. The participants in the portals perceive different types of skills policies as important are confirmed in the case 2, both in the interview and via observation. What is surprising is that the respondents in the case 1 not press more on the need for skills policies when they explain why they participate in the portal. This may be because the project had many skills policies that focussed on the more than ICT. Of what is seen in the study are training on web pages is important. You have to educate more about advanced ICT applications if you want to get businesses to grow. Competitor analysis has been done in case 1 and received positive effect. What surprises us is that none of training on business models and strategies related to ICT is taken up by the firms participating in any of the cases where this is barriers to using eCommerce (Harindranath, et al. 2008; Stockdale, et al., 2004). This skill affects the also how you are thinking about implementing processes and opportunities to standardize these processes. Skills policies around business models and strategies have been addressed in the case 1 but when handled outside of the portal. Results as Brush et al. (2010) and Petrakou et al. (2011) presents why microenterprises are interested to use eCommerce and portal solutions has also emerged in our case 1. In the study, we have seen that the desired effects are listed on SME participation in B2B portals in previous research also applies to microenterprises participating in our cases (Albrecht et, al., 2005; Bakos, 1998; Gloor, 2000; Kandampully, 2003; Kaplan et al., 2000; Kierzkowski et al.,

1996; Laudon et al., 2002; Murtaza et al., 2004; Ngai, 2003; Petersen et al., 2007; Sculley et al., 2001). The study suggests that it is still possible to work from the structural of barriers for ICT as Wolcott et al. (2008) present to support microenterprises.

New findings in the study

What emerged in this study that we have not seen discussed in previous research is that a weakness to a common eCommerce feature would be the technical solution and the process of payment. This problem emerged in the two cases. In the interview with users also suggests that the payment solution affects how the participating companies' customers understand the eCommerce function.

Final reflection

ECommerce as an individual phenomenon cannot get microenterprises to grow, we believe when one must meet the following criteria:

- Lowest price,
- Best service,
- Fastest delivery of a product to increase sales and lowest price,
- Unique nature,
- Unique activity,
- Concepts about the conference, training for service/booking to increase sales.

Our understanding is that it was done for the portals that entered into the study should be sufficient to allow the participating companies to survive. This is because the documents for the case 1 show that participating companies had increased profitability. We believe that you should have more training on business strategies and ICT strategies to encourage businesses to grow. We also think that you have to get the parts that enables companies may start using more advanced ICT applications like CRM, SCM and ERP so companies involved can lift themselves to DTI-ladder level 4 and 5 if they are to grow. As it stands now is to get a level 3. The eCommerce function included in portals leading to the participating business growth must be user-friendly for customers and be of high quality. This time it is not to create a negative attitude to the participating companies. It must also be easy to use for the participating companies so no weaknesses that can move the company down on the DTI ladder arise.

We believe portals for cooperating microenterprises have the best chance of success if they are regional and the participating companies are from various sectors. They should also have some type of physical store connected to the portal.

VII. Conclusions

The study shows that an important reason for participating in micro portals for collaboration with common eCommerce functionality is increased profitability. This factor is made up of a number of components such as:

- Wider and wider market: This is the single reason that is regarded as important for participation in portals.
- Create cost savings and efficiencies: Access to ICT and eCommerce at a reasonable price is not a high priority reasons for participating in portals. Portals must be better at strengthening the will to use advanced ICT applications and make this easier. Portals must be better at generating more time for core business for the participating companies. Portals strengthens the skills of business if they so desire. Important skill-enhancing measures that must exist in the portals are web pages. Participants in these portals are not interested in the issues surrounding the ROI of ICT and eCommerce.

To lower costs for participating on this company is something portals must improve.

Companies participating in portals feel a sense of security about the factors influencing the uptake of these.

Networking job in portals is not done in such a large extent as expected. A lot of networking is done outside the portal.

Portals must find better technical solutions and processes payments on common payment solution in these portals.

Further research

During the work on the study number of interesting research questions coming up, divided in two views; the Business Administration and the Data Oriented:

Business Administration:

- How do you create time for microenterprises to work with business and ICT issues?
- Design of business models with eCommerce.
- Advantages and disadvantages of both the physical store and eCommerce.
- Which business processes are needed related to e-commerce?
- What benefit has microenterprises received by e-commerce?
- Is there a difference between working on different types of eCommerce as B2C, B2B and B2G?
- If a more global eCommerce starts can you get a single dominant business?
- How to attract microenterprises to participate in e-clusters?

Data Orientated:

- Is there any connection between the sectors microenterprise belongs and how advanced ICT support they used?
- What ICT knowledge management of microenterprises needs to be competitive with the help of ICT?
- How will the system be integrated to facilitate eCommerce and e-business for microenterprises?
- How to design the system for eCommerce and eBusiness for microenterprise uses them.

In further studies in this area may be appropriate to continue to work with case studies. The data collected could be analysed based on a Technology Acceptance Model (TAM) (Venkatesh et al., 2000) because in these issues deals with the study of microenterprises opinions and attitudes to

ICT and eCommerce. Good technical solutions for the payment of goods in eCommerce functionality and an adequate process around this for the participating companies are important. It is also important that the customers in the portal have confidence in these solutions.

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