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Co-operation as a response to a turbulent environment

Heleen Stigter

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address: Italiëlaan 33
mail address: P.O. Box 7001
2701 AA Zoetermeer
telephone: + 31 79 341 36 34
telefax: + 31 79 341 50 24
website: www.eim.nl

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1 Introduction

Trends

After decades of mass-production and mass-distribution of standardised products (characterised by economies of scale), many entrepreneurs today face rapid technological change, increased (international) competition and the individualisation of society. Customer behaviour appears to be less predictable today than it was before and, consequently, traditional planning methods seem to be less effective to control production processes.

Today's segmented markets result from differentiated production for individualised customer needs. In fact, as markets disintegrate, customers can no longer be thought of as members of a homogeneous market grouping. Instead of focussing on homogeneous markets and average offerings, companies might need to focus more on the dimensions along which customers differ in their needs. Simultaneously, product-life cycles appear to become shorter. Industries develop new types of marketing, production and product development to cope with these changes. Consequently, the supply chain inverts as products are designed, produced, assembled and distributed according to individual customer needs, including time and place. Production runs are getting shorter, work units that produce them are getting smaller, and firms are becoming more geographically dispersed.

Position of SMEs

It is suggested that SMEs, at least a very relevant number of SMEs, are more flexible than large firms. They have the reputation to respond more readily to customers changing needs, management structures tend to be relatively flat and production runs tend to be small. In SMEs it is people who provide flexibility rather than complex (manufacturing) systems.

Past research of EIM has focussed merely on structure and performance of SMEs, whereas the way SMEs operate and react to changes in their environment has been given less attention.

Objective of the study and research questions

In literature, little is known about flexibility in and responsiveness by SMEs. Therefore the aim of the research has been to assess turbulence and identify the way SMEs perceive and respond to changes in their environment. The objective of this study has been formulated as:

How do SMEs perceive and respond to a turbulent environment?

Based on this objective the main research questions to be answered in this report are:

- What is meant by turbulence?
- How can SMEs respond to turbulence in the environment?
- To what extent do SMEs perceive these changes and how do they respond to them?
- What can be learnt from the empirical evidence?

Assumptions

Looking at the objective of this study, the scope of the research is rather broad. Businesses in general are confronted with several changes in their environment, which

might affect them in different ways. Consequently, businesses will probably respond differently to several changes, based e.g. on sector of activity, strategy and the perceived impact of the changing environment. In order to go further than just being able to draw general conclusions, we have focussed the research on several aspects. These aspects are discussed below.

1 Turbulence

It is hardly impracticable to focus on *all* changes that take place in the business environment nowadays. One of the changes that affect businesses directly are changing customer wants and needs. Customers are said to be more individualistic than some decades ago; they specify their needs more accurately and are not content with standardized products and services. The customer is always right, seems to be the leading attitude within businesses instead of supposing that supply creates its own demand. We therefore decided to look more closely at the way changing customer needs are affecting small and medium sized businesses.

2 Sector

Related to the aforementioned assumption we will focus our attention specifically on the retail. As they are often positioned in the last stage of the supply chain and often have direct contact with consumers, retail can be judged as a sector that might be heavily affected by changing customer needs and wants. It seems to be worthwhile studying how retail perceives and responds to this kind of turbulence in their immediate environment.

3 Responsiveness

Dependent on the extent to which SMEs perceive these changing customer demands, businesses can decide to react on these changes in several ways. They can for example adjust their working processes or the internal organisation in order to be able to become more flexible. Another interesting option, especially for SMEs, might be to set up or intensify relations with others outside the business, like customers, competitors or suppliers. As SMEs' resources are usually quite limited, they do not have the scope to realize scale advantages and often lack countervailing power towards businesses in the supply chain, which creates a more or less natural kind of dependency on other businesses to cope with changes in the environment. For this reason this research will focus on the way SMEs in retail are seeking cooperation with other businesses in order to respond adequately to changing customer needs.

Methodology

This report is partly based on literature study focussing on turbulence and ways for businesses to respond to changes in their environment, primarily looking at SMEs. As being mentioned before, we particularly focussed our attention on their cooperative behaviour. Within this respect we had a close look at the motives and aims of businesses to cooperate with others and at what kind of co-operations take place under certain circumstances. The literature study ends up with three hypotheses that are tested by using already available data from our SME-panel - in order to find out how enterprises perceive their changing environment and how they deal with it - and by using the results of some expert interviews on these topics (see Annex 1 for a list of interviewees).

Content of this report

Starting point of the report is to give a better insight in the environment SMEs are operating in and defining what we mean by a *turbulent* environment. Based on this defini-

tion we formulated hypothesis 1: *SMEs are confronted with changing customer demands that are uncertain and unpredictable*. In the next chapter the main question that will be answered is what SMEs can do to stay competitive in a turbulent environment, in the light of a certain strategic choice the business has made (hypothesis 2). Here we focus our attention specifically on possible ways of cooperation between SMEs (hypothesis 3). Based on these theoretical considerations, chapter 4 presents the empirical evidence on how SMEs perceive turbulence and how they respond to this, in terms of cooperative behaviour. The last chapter reflects on the outcomes of this research and points out what opportunities there are for SMEs to cooperate with other businesses. At the same time we indicate what role public business services and sector organisations can play to improve the cooperative behaviour of SMEs and their responsiveness to a turbulent environment.

2 SMEs and their environment

2.1 Changes in the environment

SMEs are confronted with changes in their business environment. These changes originate from different forces, like political, demographic, economic, legal, technological, infrastructure, ecology and social forces. Van Noort (1999) found that globalisation, internationalisation, innovation, technology and mass individualisation, are the most influencing elements in the environment of SMEs. All these forces add up to certain turbulence and the competitiveness in the industry.

Globalisation

The globalisation of markets pose challenges to many companies, as it improves and enhances their possibilities to export and import products or services. In combination with major advances in the information technology – decline of transaction costs – this trend creates a lot of opportunities for businesses, in particular also for SMEs. At the same time one should be aware that due to these developments competition is growing and the need to be distinctive seems to be more important than ever before. The limited possibilities SMEs have to realize economies of scale could be another barrier for operating on an international basis.

Technological change

Due to rapid technological changes, product life cycles are shortened. Business can no longer rely on their current market position; they have to keep up the pace in order to stay competitive. The innovative ability of businesses seems to be an important element in their competitive advantage, not only within an international perspective, but also on a national, regional or local level. Especially businesses in the supply industry should meet the requested standards within the supply chain concerning quality, efficiency and innovativeness.

Individualisation

Besides the mentioned forces that are characteristic for the current business environment, there is another important feature of the environment SMEs are operating in. Compared to 10-15 years ago, society in general has become more individualistic. This finds expression in consumers' attitudes: they are more mobile and conscious of quality aspects and ask for products/services that are tailor-made to their own requirements and wishes. Instead of looking only at prices, nowadays consumers are focussing also on aspects like time consumption, easiness, comfort and service. Customers are no longer members of a homogeneous market grouping. Instead of focussing on homogeneous markets and average offerings, businesses will need to focus on the dimensions along which customers differ in their needs. Consequently, the supply chain inverts as products are designed, produced, assembled and distributed according to individual customer needs, including time and place. The customer becomes the central player in the supply chain.

In this report we will look in depth to the effects of these changes in the environment.

2.2 Turbulence

Definitions

In the previous section several trends that businesses have to cope with, are briefly discussed. When referring to these changes in the business environment we often use the term turbulence. Although one might say that globalisation, technological changes and individualisation lead to a turbulent environment, this does not reveal what characterises a turbulent environment. For instance, what are the differences between a turbulent and a dynamic or complex environment? Before going into more depth discussing how SMEs should respond to a turbulent environment caused by changing customer needs, we need a better insight what is actually meant by turbulence.

Literature provides many definitions and features that characterizes a turbulent environment, such as:

- Turbulence is change experienced by the organisation that are major, rapid and discontinuous (*Kim, Cameron and Whetten, 1987*)
- ‘Market turbulence’ is an imprecise term but connotes the amount of instability, uncertainty, and lack of control within a firm’s marketplace. Market turbulence can be defined more precisely as the number of and magnitude of market events requiring a company’s attention per unit of time (*Pine, 1993*)
- Changes are no longer incremental, are more radical, non-linear and frequent (*Kidd, 2000*)
- Turbulence is different from quick change. Quick change can be predictable and turbulence is equal to unpredictability. Emery and Trist (1965) describe a turbulent environment as an environment in which one cannot predict the outcome of one’s actions. (*Dankbaar, 1996*)

Looking at the definitions mentioned above, it reveals some important features of turbulence: change, uncertainty, radical and unpredictability¹. Especially this last element is a distinctive feature of a turbulent environment. A market that is subject to permanent change, can be defined as dynamic, but might not be turbulent. This has to do with the extent to which businesses are more or less able to predict these changes and can easily anticipate on them. A turbulent environment is difficult to assess *ex ante* and requires a flexible organisation to respond quickly and adequately in order to remain competitive.

Based on these notions, we defined turbulence as:

<i>A situation that is subject to continuous and substantial changes which are uncertain and unpredictable</i>
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Measuring turbulence

It is not easy to measure turbulence. Pine (1993) even suggests that measuring the actual number and significance of events over time may be impossible. However, Pine developed a Market Turbulence Map that – by determining where firms and industries are perceived to stand with the market environment factor – can be used to determine

¹ Another approach to turbulence is the one that describes turbulence as the total of exit and entry in an industry. This approach discusses turbulence on an industry level. In this report we state that entry and exit of business could be viewed as a result of turbulence in general.

the level of overall turbulence companies are encountering. The aim of this Market Turbulence Map is to determine what kind of strategic focus business should move to. Pine discusses two different factors that influences market turbulence, i.e. demand factors and structural factors.

However, the distinction between demand and structural factors made by Pine can be doubtful; both factors are interrelated: is technology feeding the demands of the customers or is customer demand feeding technology?

Many authors (Dankbaar, 1996; Spruijt, 1998; Hussey, 1995) describe different states of turbulence, but few present an objective instrument to measure turbulence. Nonetheless, several indicators have been developed; table 1 presents indicators for turbulence related to demand factors. These indicators are ranked by importance (after Pine, 1993).

table 1 indicators of low and high turbulence

<i>low turbulence</i>	<i>high turbulence</i>
1. slowly changing needs and wants	1. quickly changing needs and wants
2. homogeneous desires	2. heterogeneous desires
3. low level of pre- and post sales services	3. high level of pre- and post sales services
4. low quality consciousness	4. high quality consciousness
5. stable and predictable demand level	5. unstable and unpredictable demand levels
6. necessities	6. luxuries
7. low price consciousness	7. high price consciousness
8. easily defined needs and wants	8. uncertain needs and wants
9. low fashion/style consciousness	9. high fashion/style consciousness

Source: Pine, *Market Turbulence Map* (1993), adjusted by EIM (2002).

We will shortly describe the indicators mentioned in table 1.

- 1 Slowly vs. quickly changing needs and wants: If customer needs are fragmented but change slowly, mass production can still be continued. However when needs and wants change fast, life cycles shorten, development cycles must follow and economies of scale get lost. The company should be flexible to respond to these changes. Innovation processes should be short, because products are only wanted for a short period of time. Anticipation of changes is important! When needs and wants slowly change, the company often has more time to innovate the product or to mass- produce
- 2 Homogenous needs vs. heterogeneous needs: Homogenous needs assume that all customers basically ask for the same products. The production of these products probably creates less turbulence than heterogeneous needs. Heterogeneous needs, require variety in product lines, different needs requires more flexibility.
- 3 Low vs. high service level: The level of service demanded by customers is directly related to how much customisation they want, as service is giving the customer what he needs.
- 4 Quality consciousness: A high quality consciousness places a high demand on the company's production process. The definition of quality has changed over time, whereas it used to be enough to meet customer specification, in a turbulent environment quality is more about meeting customers latent and expressed needs.

- 5 Stable vs. unstable demand factors: If the demand for a product is stable, the production levels are also stable, and mass production is encouraged. However, when the demand is unstable the company, the consequence is that smooth production lines and economies of scales are disrupted.
- 6 Necessity vs. luxuries: Products that are necessities are more likely to be standardized. In times of economic change, the demand will not be influenced as much as luxuries. Luxuries are more sensitive to economic cycles and are therefore more turbulent.
- 7 Price consciousness: Price conscious customers place great demands on firms' cost structures and profit margins. These customers are less loyal and readily switch between brands if they can find a better deal. One of the strategic responses is to move from standardised to non-standardised products and services.
- 8 Easily defined vs. difficultly defined customer needs and wants: If the needs and wants of the customer are uncertain, it is difficult to provide the market with a single product, a greater variety of products will probably be available. Uncertain customer demands are common in new markets.
- 9 Fashion style consciousness: Fashion consciousness is directly connected to flexibility. Firms that can quickly change design and production have an advantage on the companies that cannot.

Effects of turbulence

The conclusion can be that it is rather difficult to measure turbulence. We have therefore chosen to make a distinction between low and high levels of turbulence. The impact of turbulence on the market depends; taking turbulence at the demand side of the market as the starting point, table 2 shows what kind of effects low and high levels of turbulence cause to the market.

table 2 effects of turbulence

<i>low turbulence</i>	<i>high turbulence</i>
stable and predictable demand	fragmented demand
efficiency through stability	variety and customisation through flexibility and quick responsiveness
large homogeneous markets	heterogeneous niches
low cost, consistent quality, standardised products	low cost, high quality, variety and customisation of products
long product development cycles	short product development cycles
long product life cycles	short product life cycles

Source: Pine, *Market Turbulence Map (1993)*, adjusted by EIM (2002).

In general, turbulence on the demand side of the market can implicate three impacts for the company:

- demand fluctuations: the company needs to be flexible to handle fluctuations in demand
- adjusted products: the company needs to adjust the product in service, delivery, etc.
- new products: innovation and the development of new products, which requires knowledge and finances

2.3 Summary

In this chapter we have briefly identified several global trends that affect businesses. Special attention has been paid to the trend of individualisation and changing customer demands. In order to stay competitive businesses have to respond to these changes. The way they respond depends on the intensity and the effect of these changes. An important element within this respect is the extent to which these changes are unpredictable. Many markets are dynamic and subject to change. However, this does not imply that all these markets can be characterised as turbulent. We defined turbulence as a situation in which uncertainty, change and unpredictability are central issues. In the light of this definition hypothesis 1 is formulated as:

Hypothesis 1: SMEs are confronted with changing customer demands that are uncertain and unpredictable.

In the next chapter we will look further into turbulence and the effects for businesses, especially for SMEs, to operate in a turbulent environment and what opportunities they have to stay competitive.

3 Strategy and cooperation

In this chapter we will, from a theoretical point of view, look at the possibilities for businesses, SMEs in particular, to stay competitive in a turbulent environment. In this case, turbulence is caused by rapid and unpredictable changes in customer demands. The question how businesses cope with this kind of turbulence heavily depends on their business strategy and the means and opportunities they possess. In section 3.1 we therefore start with identifying and classifying several strategic choices. Based on these strategic choices, the possibilities for businesses to stay competitive and adjust to changing customer needs, are discussed in section 3.2. In section 3.3 we will focus our attention in particular to cooperative behaviour of businesses as a means of responding to a turbulent market. A short summary of the main results will be presented in section 3.4.

3.1 Classification of strategies

Defining strategy

Strategy is about dealing with limitations and uncertainties. This means one will have to create the optimal adjustment between the organisational capabilities and the environmental turbulence (Godfroij, 1989). The autonomy to choose a strategy is however, often not as big as one would like, as it is often limited by organisational capabilities of the firm and the trends in the environment (Talen, 1990).

Bamberger (1994) states that there are two ways to analyse strategic choices: a dynamic way and a static way. A dynamic analysis examines the behavioural change that needs to be gone through in order to achieve a certain development of the firm (for example Ansoff's growth strategies). A static analysis is identified as the examination of behaviour at a certain time (Porter's competitive strategies is a well known example). In this report's strategy is approached with a static analysis, defining ways for businesses to survive in a turbulent environment.

In literature a lot is said about strategy and strategic choices businesses make. With respect to the focus of this study, we have reduced this complex area of research by defining three business strategies:

- process or cost focus
- customer focus
- product focus.

In the next section we will explore these three strategies in relation to the need for responding to changing customer demands.

Process focus

Porter (1985) identifies *cost leadership* when a company sets out to be the low cost producer in its industry. The firm's span is often important to its cost advantage. Sources of cost advantages vary and may include the pursuit of economies of scale, proprietary technology, preferential access to raw materials etc. This strategy mostly concerns mass production. Miller (1988) states that literature generally links this strategy with an environment of low uncertainty.

Porter's cost leadership is mostly translated as operational excellence (Leeflang 2000, Treacy and Wiersema, 1995) or process innovation (Matthyssen, 1998). The main goal of this strategy is minimizing costs and making the process as efficient and effective as possible.

The consequence of this strategy is that the process will be integrated to minimize the transaction and production costs. The products are most likely not very heterogeneous because the customer needs are of minor importance than the process. Finances, structure and logistics are functional focus areas.

Customer focus

In Porter's terminology the customer focus is called 'differentiation' (1985). According to this strategy a firm seeks to be unique in its industry along some dimensions that are valued by buyers. The specific assets which are exploited are unique compared to those offered by rivals. Differentiation is not limited to the product itself, but also includes distribution, marketing and services. Miller (in Bamberger, 1994) identifies differentiation through innovation and differentiation through marketing and image. Other authors relate a customer focus with customer intimacy, which is described as a close contact between firm and customer (Leeflang, 2000). Matthyssen (1998) refers to this strategy as value added strategy, whereas Treacy and Wierseman (1995) identify a customer focus in their strategy of customer satisfaction. In general one can conclude that the customer focus is reactive towards customer needs; marketing and logistics are important functional focus areas.

Product focus

Finally the product focus is related to a strategy which aims at a specific segment in a competitive scope, according to Porter (1985). Matthyssen (1998) identifies an innovation strategy, which is described as constantly introducing new solutions as product or system. Treacy and Wiersema (1995) state that product innovation is a product-related strategy, offering new and quality products. Thus, the focus within this strategy is the product. The impact for a company of this strategy is that there is a close link between development and marketing. The process is of minor importance to the product and this generally means that the product has a premium price. This strategy is proactive towards customer needs.

The three strategic choices mentioned above do not exclude each other. Bolwijn and Kumpe (1992) stated that the market demands towards a company are no longer just price related, or quality related; current market demands are also flexibility and innovative demands. However, not many entrepreneurs are focused on all areas.

3.2 Strategy and changing customer demands

In chapter 2 we discussed the trend of rapidly changing customer demands. Customers are no longer members of a homogeneous market group and their behaviour is less predictable than it was some decades ago. Businesses can react on these changing customer demands in several ways. Based on the three strategies described above, the current section will explore what possibilities businesses have to respond.

We will distinguish six different ways business can respond to changing customer demands. Several studies often pay attention to only one of these approaches. Here we have brought these approaches together and linked them with the extent to which businesses are accessible to customer wants by adjusting their strategy.

These six different market approaches can be considered a continuum of possible approaches to changing customer demands.

- no response
- price policy
- flexibility
- customisation
- mass individualisation
- agility

These approaches will be shortly discussed in the subsequent subsections.

3.2.1 *No response*

A possible way to react to a turbulent market could be to continue daily business without responding actively to these changes in customer demands. This means that businesses stick to their chosen strategy and are not willing or not able to respond to changing customer demands. In this case businesses rely heavily on their own strengths and are not flexible to adapt to changes; this approach can be qualified as the opposite of the customer oriented.

3.2.2 *Price policy*

The first strategic focus we described in the previous section dealt with the aim to optimise the production process in order to reduce costs. This strategy is heavily relying on minimizing transaction and production costs. Efficiency of the logistic process seems to be far more important than differentiating customer needs.

This business approach can hardly be viewed as a way to actively respond to changing customer needs. Not the customer, but the product is in the centre of interest. We could define this approach as a price policy, trying to remain competitive by offering products/services at minimum prices. Although there will be a group of customers that is price-conscious and not interested in tailor-made products/services, a price policy is supply driven and cannot be considered a flexible approach to rapidly changing customer needs. Nonetheless, this approach can be reckoned as more customer oriented compared to the approach mentioned in the former section.

3.2.3 *Flexibility*

During the 1980s the concept of flexibility received much attention. The emphasis was on flexible production processes and logistics through effective utilisation of information technology and information systems. Flexibility generally is defined as the *ability* to do something different than what was originally intended (Levi et. al. 1998). These adaptive capabilities are analysed in their operational, strategic and organisational context. The key to this approach is *action* and *manoeuvres*. Flexibility captures stages fabrication, assembly and distribution, but is not specifically aimed at individualising products.

3.2.4 *Customisation*

Instead of a dominant position of the supplier, the customisation approach is much more demand driven. Based on the strategic classification, one might say that the customisation approach is related to the customer focus. Gilmore and Pine (1997) became known for their four types of customisation, four ways to individualise products in a low cost manner. They combine to elements, product and representation. Representation includes among others packaging, marketing materials, placement, terms and conditions and product names. The other element, product, indicates the degree of change in which the product is customised. Instead of focusing on homogeneous markets and

average offerings, mass customisers have identified the dimensions along which their customers differ in their needs. Therefore, their aim is *to create customer-unique value in an efficient manner*.

- 1 *adaptive customisation*: a standard, but customisable product that is designed so that users can alter it themselves. The product itself can be considered as part of a mass production process. It contains however several optional elements that customers themselves can adjust to their own wishes.
- 2 *cosmetic customisation*: a standard product differently to different customers. The distinctive element concerns the presentation of the product; the standard offering is packaged specially for each customer.
- 3 *transparent customisation*: the product is unique for each customer, but the presentation of the product is general. Essential element here is the supplier's ability to assess the needs and wishes of individual customers.
- 4 *collaborative customisation*: a unique product for each customer. Here, the supplier will have to start a dialogue with the customer to find out what his/her personal needs are in order to make a customised product. This type of customisation is often associated with the term *mass customisation*.

In contrast to Gilmore & Pine, focussing on the interrelation between the customer and the company, Lampel and Mintzberg (1996) concentrate their analysis on the supply chain and present a continuum of corporate strategies from standardisation to customisation. The approach focuses on the consequences of the degree of standardisation and customisation for the supply chain. It can perfectly be combined with the four types of customisation of Gilmore & Pine, which are variations in the distribution (assuming this includes 'representation') and assembly functions of the supply chain.

This supply chain is divided in the following functions: design, fabrication, assembly and distribution. The five strategies on standardisation/ customisation that they identify are:

- pure standardisation
- segmented standardisation
- customised standardisation
- tailored customisation
- pure customisation.

They suggest that the cost of customisation increases with an increased number of product varieties and conclude that the logic of customised processes producing customised products through customised transactions does not hold in all cases. Moreover, they suggest that there might be a trend from both extremes of the continuum towards the middle, i.e. customised standardisation, the shift from pure customisation and tailored customisation to the middle position of customised standardisation eventually follows the same technological innovations as the shift from pure standardisation to the middle position.

Note that the penetration of customisation in the production chain is limited in the analyses to the functions of distribution and assembly. With further penetration of customisation in the supply chain, the mass production character of production is lost in the analyses, states van Asseldonk (1995).

3.2.5 *Mass individualisation*

The concept of mass-individualisation originated from the strategic thinking on individualisation of consumer behaviour. The initial focus was, therefore, on consumer markets. The basic question is how to take economic advantage of heterogeneity in the market, based on individualised customer needs. We can relate this customer approach to the business strategy called the product focus.

Mass-individualisation is actually concerned with a specific type of 'customisation': individualisation of production in all its functions, including design, fabrication, assembly and distribution, without extra cost. Customisation in the approach of Gilmore & Pine is limited to the assembly and distribution stages, whereas Lampel & Mintzberg allow costs to increase with the degree of customisation and lose the mass-production character of production. Mass-individualisation, to the contrary, is about modularity of processes: mass-customisation without additional cost.

According to Van Asseldonk, the present industrial structure is unable to incorporate the consequences of increased individualisation without severe increases in costs. He emphasises that the following issues arise when mass-individualisation penetrates deeper into the supply-chain and moves into the design and fabrication processes as well:

- the point where client orders enter the supply chain slips deeper into the chain,
- unpredictability calls for responsiveness of the production process and the management (traditionally unpredictability is solved through the introduction of waiting times and stock),
- value creation is not based on reduction of production costs but on a price premium the customer is willing to pay for customised products, and
- communication (dialogue) with the customer to help them articulate their needs.

3.2.6 Agility

Similarities and differences with other approaches

Agility is a management approach, which joins together approaches such as flexibility, and strategies of customisation and mass individualisation. Although the emphasis seems to be on the customer, agility differs from the other approaches because of the focus on responsiveness and anticipation towards unexpected change. Agility is not specifically focussing on the customer, but the customer is in fact a major cause of present unpredictability. Mass individualisation and agility are often seen as similar. In many cases agility and mass individualisation are indeed dealing with the same elements, when both focusing on the customer. Agility is nonetheless a broader concept that deals with turbulence in all aspects of the environment. Another difference of agility is that it deals with unpredictability combined with a proactive response.

Definition

The agility program was initiated in 1991 by 'The Agility Forum' (Iacocca Institute, Pennsylvania) in the US in response to Congressional concern about the declining profitability of American industry. Agility is an integrated set of business strategies for competitiveness in a turbulent environment with a focus on the responsiveness of companies.

In the UK, agility is defined as the ability of a firm to respond quickly and flexibly to its environment and to meet the emerging challenges with innovative responses (John Besant et al., CENTRIM, University of Brighton, 1998). Agility refers to an organisation's capacity to gain competitive advantage by intelligently, rapidly and proactively seizing opportunities and reacting to threats. It is not enough to simply respond quickly to change. The essence of agility is the perception of change, reading the signals and creating opportunities for sales. Moreover, agility is defined as a *dynamic capability* and involves continuing search of environment to detect and choose which puzzles to work on, and active search for innovative solutions of these problems through developing competence and organisational capabilities. In the dynamic capability model three main factors determine agility:

- *Strategic direction* (path), this reflects the fit between capabilities and market requirements, i.e. differentiation.
- *Core competence* (position), central elements are technology, networking, learning and auditing of capabilities.
- *Organisational capability* (processes), is building up patterns and routines, which enable agility.

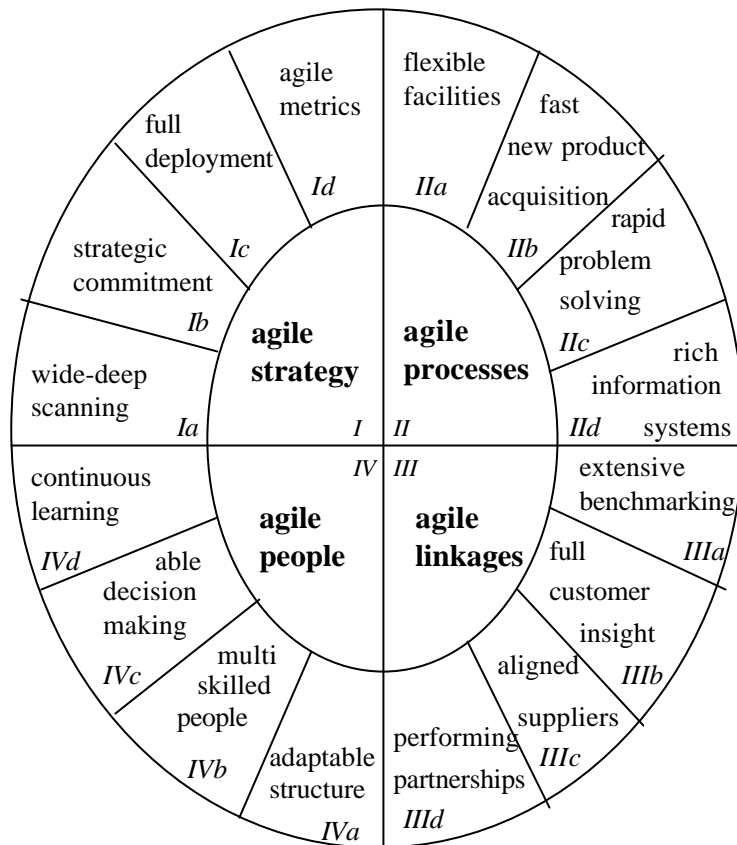
Agility wheel

The model that is developed by the University of Brighton (CENTRIM) aims at identifying and building up *behavioural patterns* – routines – that enable agility. The reference model links closely with that of benchmarking (the performance dimension: how responsive, flexible, high quality is the organisation's performance) and is essentially about providing a framework against which firms can position themselves and from this comparison can identify directions and options for future development (practice dimension: how can the organisation develop routines for agility). In order to respond adequately and quickly to changing customer needs, a business should be agile on four dimensions:

- 1 *Agile strategy*: involving the processes for understanding the firm's situation within its sector, committing to agile strategy, aligning it to a fast moving market, and communicating and deploying it effectively.
- 2 *Agile processes*: the provision of the actual facilities and processes to allow agile functioning of the organisation.
- 3 *Agile linkages*: intensively working with and learning from others outside the company, especially customers and suppliers.
- 4 *Agile people*: developing a flexible and multi-skilled workforce, creating a culture, which allows initiative, creativity and supportiveness to thrive throughout the organisation.

The individual aspects of these major dimensions are presented in the agility wheel below and together provide a framework for change and development of agile capability (figure 1).

figure 1 agility wheel



Source: CENTRIM, 1998, UK.

3.2.7 Connection between different approaches

It appears that the various approaches can be used complementary. Though, the focus or the emphasis might differ, the implementation of the concepts of agility, mass-individualisation (mass-) customisation, have some important elements in common:

- *Heterogeneity* of consumer needs and disintegration of markets and personalisation of the relation with the customer.
- *Turnaround of the supply chain into demand chain*: consumer's role transforms from push to pull through interactive communications
- *Responsiveness and flexibility of the (learning) enterprise*, through developing modularity of products, just in time (Jit) management, efficient consumer response (ECR), and, ultimately, building interactive linkages between production processes (modularity of processes) controlled by the customer (pull).
- *Networking* in the supply chain through interactive communication.

Clearly, ICT plays a major role in most of these developments, including communication with customers and the establishment of interactive production processes. Consequences of these developments go deep into social and economic life and effect, among other things:

- the role of (qualified) staff in the production processes,
- a shift from mass-marketing to more direct and personalised forms of marketing,
- the development of a virtual reality,
- the composition of the supply chain itself (the meaning of size, clusters and transparency),
- management and control of production processes,

- the organisation of the enterprise,
- the product life-cycles
- legal requirements concerning co-operation between companies.

3.2.8 Conclusion

There are several ways to respond to changes in customer needs. First business can decide not to respond to changes. They stick to their own strategy and are very much supply driven. Another approach may be to take supply as the starting point and aim to reduce costs. This process focus can lead to a price policy in which the business tries to offer their products to the lowest possible price. Another focus could be to be more flexible towards customer needs by offering differentiated products/services or even create new products/services. The agility approach goes even further as it considers total organisational flexibility as the only way to respond adequately to environmental changes, e.g. customer needs.

Apart from choosing how to respond to changing customer needs, businesses will have to consider what is needed to implement this approach effectively. In this respect there is a huge difference between small or medium sized businesses on the one hand and large businesses on the other. One of the main characteristics attributed to SMEs is their flexibility. Their survival is often ascribed to their adaptability and speed of response to environmental change. In particular SMEs have the reputation of being able to respond readily to customers' changing needs (Levy and Powell, 1998), mainly due to their close connection with the market. This especially holds for retail businesses. Larger companies lack this flexibility most of the time as the implementation of decisions take quite some time due to bureaucratic and complicated procedures.

Here we can formulate our second hypothesis:

Hypothesis 2: SMEs are aware of changing customer needs and are willing to respond.

Alternatively, small businesses are more dependent on their environment than larger companies. SMEs usually are highly dependent on suppliers, other businesses, sources of information and advice, access to human and financial capital (Koning and Poutsma, 1990). Consequently SMEs often need to cooperate with other companies in adopting a certain customer approach. In certain cases this might be necessary in order to gain economies of scale or to attract financial means for innovation plans.

The aim of this strategic study was to gain a better insight in the theoretic possibilities and the actual ways in which SMEs respond to changes in customer needs and what the consequences are with respect to their cooperative behaviour.

By narrowing the scope of this study, one may not conclude that seeking cooperation is the only of the preferred way to become agile. Businesses can only be agile when they also take into account the other elements of the agility wheel (strategy, process and people).

Before looking at the extent to which SMEs are indeed cooperating, we will review some possible forms of cooperation that could be valuable for SMEs given a certain customer approach.

3.3 Cooperation

3.3.1 *Motives for cooperation*

There are many reasons for businesses to cooperate. Some theories assume cooperation out of a necessity, rather than to create opportunities. Other theories suggest that cooperation should create competitiveness. In this section we will present a short review of some organisational, economic and strategic management literature concerning motives of businesses – in particular SMEs - to cooperate.

Theories on cooperation

The *resource dependence theory* suggests that the reason for SMEs to cooperate is the lack of internal resources. To deal with uncertainty in the environment and to gather the needed resources SMEs will probably be inclined to cooperate.

The *network approach* already assumes a network structure in the environment of SMEs because of the embeddedness of SMEs in the environment. SMEs are often characterised as 'specialized', which would assume that they have to cooperate more. Chell (2000), suggest that *the network* of SMEs is expected to be mostly informal, and generally consists of family and friends. The informal decision-making process of the SMEs can explain this informal character of its relations. Information is intuitively gathered and decisions are made intuitively and quickly (Doz and Hamel, 1999). Another explanation for the involvement of family and friends within SMEs' network is the lack of time for networking. More importantly, Chell states, SME value their independence and this produces a fortress enterprise. However, a more formal (indirect) relationship can, according to Chell, benefit SMEs because it can create more innovative ideas than family and friends.

Curran et al. (1993) suggested that the small business owner does not engage in relationships that go beyond those clearly demanded by trading needs. This is also suggested in the resource dependence theory. However, Bryson et al (in Chell, 2000) consider this dismissal of networks by Curran and others as a result of overlooking the importance of relationships with clients and other supply side companies.

Suggested by *Porters 5 forces*, SMEs (based on their smallness) will probably cooperate to improve their position in the industry. By collaboration SMEs will gain the advantages of economies of scale and the economies of scope, and still hold on to their local position. Technological developments and globalisation had an impact on the position of the SMEs. Because of their local position, larger companies will probably be more likely to cooperate with smaller companies. Flexibility and individual attention seem to become more and more important in the new economy.

The choice suggested by the *transaction cost approach*, whether or not to vertically integrate does not immediately refer to SMEs. Generally, SMEs do not have to means to internalise more activities other than their core business. This focus on only vertical integration or market transaction is a weakness of this model. However, the motives given for integration can be used to determine other kind of relationships like vertical relationships (between supplier and buyer).

An resource-based strategy suggests that a company's competitive position is dependent on their unique sources. The unique source of SMEs is their local position and their direct contact with the customer. SMEs have specific information about their customers. However specialization often involves dependency on others. Usually SMEs lack general

knowledge, innovative capabilities and financial possibilities. Therefore it is expected that SMEs will cooperate with other companies.

Conclusion

In general, all theories (except for the network theory) assume that the cooperative nature of SMEs is created out of the necessity, not to create opportunities. The motives for cooperation are pooling resources, sharing risk, learning, speed to market, cost-minimization and improving current market position. The relationships (their network) are created because of their lack of internal resources and their 'poor' market position, not because it can create opportunities for the future.

Cooperation arising from a strategic choice to create opportunities is rare, according to Golden and Dollinger (1993, in Reijnders and Verhallen, 1996). The reason cited for this is that they have few employees that perform multiple functions and time management problems prevent them from investing (time) in their network. Somewhat larger firms may be the most intense about inter-organisational relationships.

3.3.2 *Types of cooperation*

In the previous section we discussed different theories, resulting in different motives for cooperation. Different motives can lead to different forms of cooperation. Literature discusses many different forms of cooperation between two (or more) firms, everything from internalising processes and transactions through vertical integration like acquisition and mergers, up to making a transaction through the market. In our study we focus on a few elements to characterise cooperation, such as nature (vertical or horizontal relations), formal or informal, intensity of the cooperation and the time perspective. Additionally we have distinguished some functional areas of cooperation, related to the value chain (design, production, distribution, marketing, sales and service).

Table 3 reveals the possibilities and limitations with respect to certain types of cooperation.

table 3 possibilities and limitations of types of cooperation

	<i>Possibilities</i>	<i>Limitations</i>
Strategic cooperation	Can create durable competitive advantage	Complex High dependency
Operational cooperation	Low dependency Can support daily duties	Simple Low commitment
Vertical cooperation	Focus on core competences. To strengthen the position with regards to horizontal relationships. To guarantee the supply of materials and fabricates. Strengthen the distribution channel To create innovative ability with suppliers.	Can create dependency Restricted by own value chain
Horizontal cooperation	Can stimulate deep communication with no boundaries	The risk of giving too much information to the competitor Unstable relationship
Informal cooperation	Clear boundaries	Takes a lot of time (to communicate), Can create misunderstandings
Formal cooperation	High commitment from both sides Mutual specialization Useful for high complexity	Can be too strict and rigid
Intense cooperation	Pooling resources Weakening mutual competition Dam imitation Learning from for example the competitor Possibilities of cooperation are wide within/ or outside branch	Complex relationship Giving too much, competitor can use this information against you after the relationship is ended. High dependency
Loose cooperation	Relationship is easy defined Low dependency; partner is easily replaced	Low commitment form both sides Only useful for low complexity projects
Long term cooperation	Stable Lower risks	Rigid
Short term cooperation	Flexibility	Low commitment

Source: EIM, based on Grant (1998), Stroeken and Dierckx (1998) and Woolthuis (1999).

Using the two dimensions (characteristics and functional areas of cooperation) and based on the distinguished approaches to changing customer needs, we have identified adequate types of cooperation for SMEs.

In high turbulence the demand is fragmented, variety and customisation is needed and this requires a flexible and proactive response. This situation is often translated in a combination of structural and situational cooperation. Cooperation is expected to be dynamic in order to gain flexibility and is more informal, because future developments are unpredictable. The role of the SMEs can change into a service hatch for customer needs.

Price policy

A business that pursues this customer approach will use cooperation to reduce uncertainty and remain economies of scale and scope within a slightly flexible assortment. The main goal of is to reduce costs and provide the customer with the cheapest product within certain quality standards. Logistics and production are expected to be the most important functional areas of cooperation. It follows that cooperation is focused on vertical relations, to make the value chain more efficient.

In high turbulence a hollow network¹ (in terms of Cravens et al) can be expected, based on reducing transaction costs. This network will be both vertically and horizontally. Horizontal relations can enlarge power towards the suppliers (in order to gain a more divers assortment and to reduce costs by economies of scale and scope), but can also reduce customer's power.

Compared to situations of low turbulence, this type of cooperation will be slightly more informal to gain some flexibility. This is translated into a dynamic network with multiple suppliers. However, to retain relationship costs at the minimum, it will mostly concern vertical (value chain) cooperation. The cooperation is expected to be generally long-term, to gain the advantages of standardization and efficiency. In relation with the other customer approaches, cooperation within this strategy is expected to be comparatively stable.

Customisation

The main aim of this approach is to offer the customer the best possible solution and to improve customer satisfaction. Within this strategy, the company will be an initiator to meet customer wishes, this however in a reactive manner.

Marketing and sales are expected to be the main areas of cooperation. This is expected to be a more operational cooperation. Horizontal relations to improve convenience for the customer can be expected. These relations could be branch crossing and local (for example; the local baker, butcher etc).

The influence of SMEs within the value chain on the product is often limited. Cooperation is expected to be vertically backwards to improve the involvement of the customer and the SMEs in the value chain.

¹ The hollow network is based on transactional motives, which can be characterised by a less cooperative and trustful nature. It is not really a true alliance and relies heavily on other organisations and individuals to carry out many of the functions necessary to present its offering to the customer.

The cooperation is expected to be long term, but in a more informal manner. Informal cooperation can provide the flexibility needed. In comparison with the other customer approaches, in this type of cooperation SMEs are expected to be comparatively independent. A dynamic network should be created to increase the flexibility. Horizontal cooperation enlarge power towards the suppliers (reducing purchasing costs, and gaining more diversity in assortment etc.)

Mass-individualisation / agility

The main goal of this approach is to initiate, develop and offer new products/services. However, this proactive character can also easily turn into a supply push, instead of a customer push. The main problem of this approach is that in turbulent times product life cycles and product development cycles are generally short which often result in higher risks of innovation. Cooperation can be used to reduce these risks, by sharing knowledge and finances. The main functional area of cooperation is design and production.

Cooperation is expected to be strategic, creating a competitive advantage by innovations. This can be translated in both vertical and horizontal cooperation. Horizontal relations will be preferred when the possibilities of vertical cooperation are limited. One can describe this cooperation as a flexible network. A flexible network is built on trust and relational motives. It tends to be long-term in duration and requires the development of considerable depth of knowledge, technological competences etc.

Although often long-term, cooperation in this customer approach is generally project based. The intensity of this relation is expected to be high (both communicational and financial), mostly on project basis. Specialization of both parties is important in an innovative project. The cooperation is expected to be dynamic, at the end of a project the combination of partners can change radically.

3.4 Summary

In this chapter we firstly discusses three strategic choices businesses can make to enter the market (process focus, customer focus and product focus). These strategic choices determine, in combination with the changes in the environment the approach businesses are pursuing to stay competitive. Focussing on quickly changing and unpredictable customers needs, several approaches can be taken into account. Apart from not responding at all, businesses can focus heavily on prices (price policy), or on differentiation. The more differentiation is taking place further into the value chain (from offering after sales services to offering tailor made designs), the more customer needs are the leading principle. The extent to which businesses are applying this approach is called (mass) customisation or mass individualisation. Finally the agility approach is rather broad as it assumes that the business is organised in such a way, to be able to respond to all kinds of changes in an adequate manner.

SMEs, characterized by flexibility, but also highly dependent on their environment, cannot escape to choose a certain kind of cooperation when they intend to meet the changing customer needs. In combination with the customer approach, several types of cooperation are possible. Horizontal relations for example can be used to share risks of the development of a new product, to reduce costs, to enlarge economies of scale and to purchase more diversely. Vertical relations on the other hand can be used to

strengthen distribution channels, to innovate products, to customize products, to have a fast time to market and to guarantee the supply of materials/ products.

Informal cooperation and intense relations are necessary in an unpredictable environment, because formal contact can be too rigid; trust and reputation are important factors. With respect to the time perspective of the cooperation, it follows that the cooperation is expected to be long term in a large network and short term in one-to-one relations. The disadvantage of a network (which is moderately stable) is lock-in effects, which means that the relationship is interfering with the growth of a company. Note that the role of SMEs for larger companies is expected to become more important in case of high turbulence, because of the service possibilities and the customer specific knowledge. The role of SMEs has changed from a service hatch for products, to a service hatch of customer needs.

In the light of the different types of cooperation that are possible to respond to changing customer demands, we have formulated our third hypothesis as follows:

Hypothesis 3A: In case of a price policy strategy, SMEs seek strategic cooperation with a focus on vertical relations. The cooperation is long term, formal and stable.

Hypothesis 3B: In case of a customisation strategy, SMEs seek operational cooperation, with a focus on horizontal relations. The cooperation is long term, informal and dynamic.

Hypothesis 3C: In case of a mass-individualisation strategy, SMEs seek strategic cooperation, horizontal or vertical. The cooperation is based on trust, flexibility and is project based.

In the next chapter we will reveal some empirical evidence concerning the extent to which SMEs are cooperating according to their customer focus and the types of cooperation they are participating in.

4 Empirical evidence

In the former chapters, we discussed several approaches businesses can pursue as a response to changing customer needs and corresponding possibilities for cooperation in order to stay competitive in a turbulent environment. These considerations were based on theoretical notions and displayed ideal types of cooperation for SMEs. An important question in this respect is to what extent the actual situation matches theory. How do SMEs perceive their environment, and customer needs in particular? What approach are SMEs pursuing in confronting changing customer needs? What type of cooperation did they choose to meet their goals?

In this chapter we will test these questions, using quantitative and qualitative data. The quantitative data are based on already existing database, comprising of 1,500 SMEs. Here a representative group of businesses were telephonically asked several questions about their perception of changing customer demands and their responses to this turbulent environment. We also gathered some additional qualitative data by interviewing six experts in a face-to-face conversation. The selection of these experts is based on their knowledge of the retail sector and/or of the cooperative behaviour of SMEs.

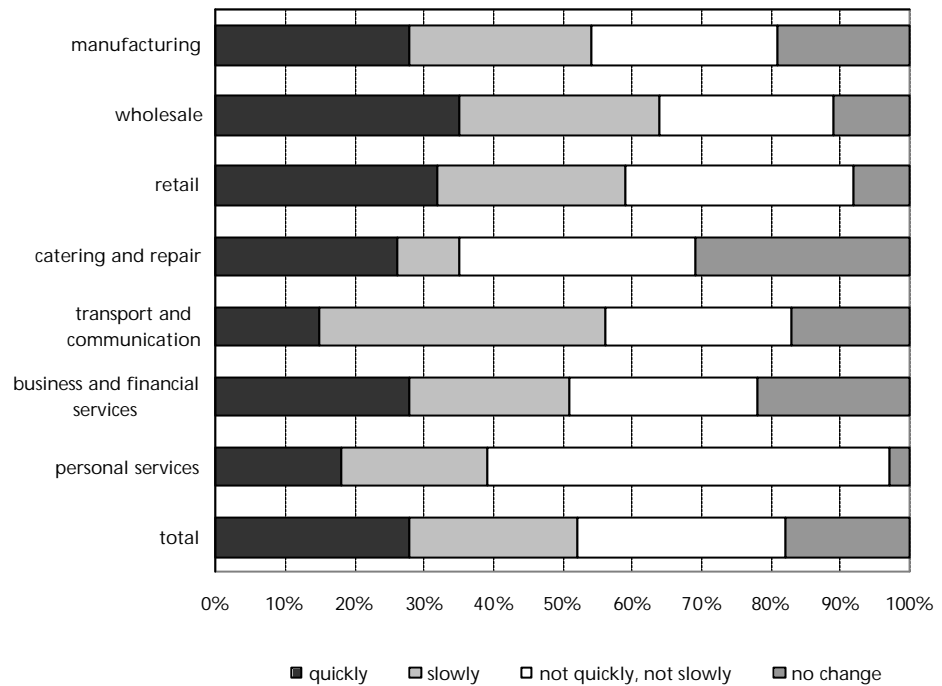
4.1 Results of the quantitative analysis

4.1.1 *Assessment of quickly changing customer demands*

In general eight out of ten entrepreneurs perceive the environment - in particular customer demands - more or less turbulent. Particularly wholesale and retail businesses (more than 30%) are the opinion that customer needs are changing rapidly. On the other hand, almost one third of all businesses in catering and repair sectors state that in their sector customer demands are not changing at all. Figure 1 shows the results for all sectors.

The length of the product cycle is considered another indicator of measuring turbulence. According to almost one third of all small and medium sized businesses the product life cycle is rather short. This means that businesses can rely on their products for only a short period. There are substantial differences between sectors, as a majority of businesses in catering and repair, transport and communication and personal services are the opinion that product life cycles are short. More than half of all businesses assess the product life cycle as long; this is particularly the case in wholesale and the business and financial services.

Figure 1 assessment of the extent to which customer needs are changing (in percentages)



Source: EIM, 2002.

When considering the future, 45% of all businesses expect many changes in the products or services they sell, next years. Still almost one out of five businesses expect everything to stay the same. The current perceivensness of turbulence is highly correlated with the changes businesses expect in their products and services in the coming years. About half of all businesses in wholesale and business and financial services are the opinion that changing products and services is necessary in order to meet customer needs.

Summarised, it is fair to say that businesses perceive turbulence on the demand side of the market quite high, taking into account their own assessments of changing customer demands and the length of the product life cycle. In the next subsection, we will have a closer look to what extent businesses are trying to respond to this perceived turbulence.

4.1.2 Responses to changing customer demands

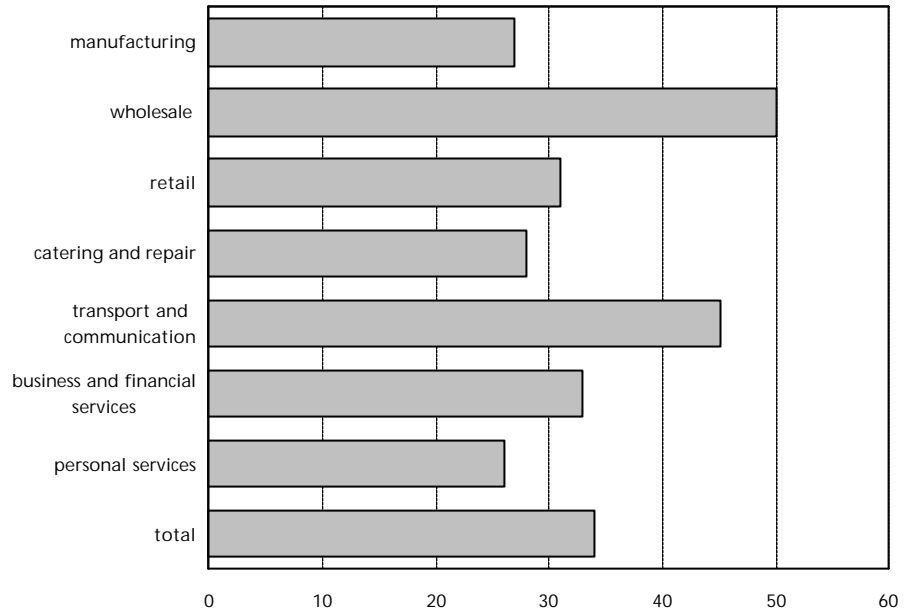
In this subsection we will shed a light on several aspects which are used as indicators for the extent of responsiveness to the perceived turbulence on the demand side of the market.

Importance of price policy

On average one third of all businesses rely heavily on a price policy. According to these businesses, the selling price is the most important aspect in order to remain competitive. Trying to work as effectively and efficiently seems to be the leading mission in many businesses. In wholesale this percentage adds up to 50 (see figure 2). Only 14%

of all businesses state that price is not at all the main competitive factor; particularly in the personal service sector this seems to be the case (19%).

figure 1 price as the most important element of competition (in percentages)



Source: EIM, 2002.

Although price is an important element in competition, more than 70% of all businesses are of the opinion that customers are willing to pay more in order to buy more differentiated products or services. In manufacturing and the personal service sector this notion is widespread (almost 80%). This implies that meeting customer needs can be an alternative to pursuing a price policy.

Customisation

Businesses have been asked whether they are offering different kinds of goods or services to different kinds of customers. This strategy of differentiation does not change the essence of the product, but the entrepreneur is adjusting the product to the needs of the customer with respect to marketing, delivery and service. Table 4 shows the main results. A lot of businesses offer some kind of after sales services to their customers; meeting customer needs at delivery, or by delivering products at home, seem to be more complicated. Businesses in wholesale and retail customise their products more frequently during the selling process and afterwards than businesses in other sectors.

table 4 customisation to meet changing customer needs (in percentages)

	yes	no / not applicable
during the selling process	74	26
at delivery	67	33
after sales services	90	10
delivery at home	62	38

Source: EIM, SME-panel, 2002.

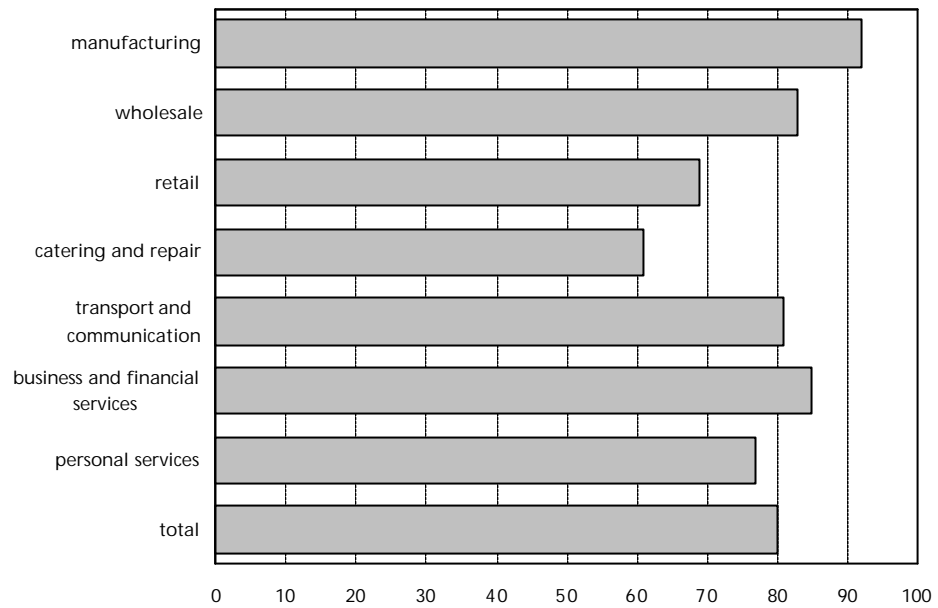
Businesses that reveal they are running their businesses in a highly turbulent environment, are more trying to offer customers different kinds of products or services. For example, 85% of all businesses that are the opinion that customer needs are changing rapidly is trying to meet these different needs and wants during the selling process and more then 75% at delivery.

Adjustment to changing customer needs

A step further in adjusting products to changing customer demands is to offer a 'tailor made' product to the client. According to the definition of tailor made production, used in this research¹, four out of five businesses state that they meet the needs of individual customers. Taking a look at several sectors, figures reveal that more than 90% of all businesses in manufacturing satisfy customer wishes. The retail sector seems to be less able to offer customers tailor made products; although they perceive relatively more turbulence on the demand side of the market compared to other sectors, only 70% argues that meet the needs of individual clients by tailor made production.

¹ Tailor made production is to adjust goods or services to the individual needs and wants of customers.

figure 2 offering tailor made production (in percentages)



Source: EIM, 2002.

Businesses that experience (rapidly) changing customer needs, are obviously more inclined to offer tailor made products or services (see table 5) than businesses that do not perceive this type of turbulence. Offering tailor made production is increasing according to almost two third of all businesses that expect changes in their products or services in the coming years. At the same time a vast majority of businesses that hardly expect any changes in their production are the opinion that tailor made production will become more important.

table 5 offering tailor made products in a changing environment (in percentages)

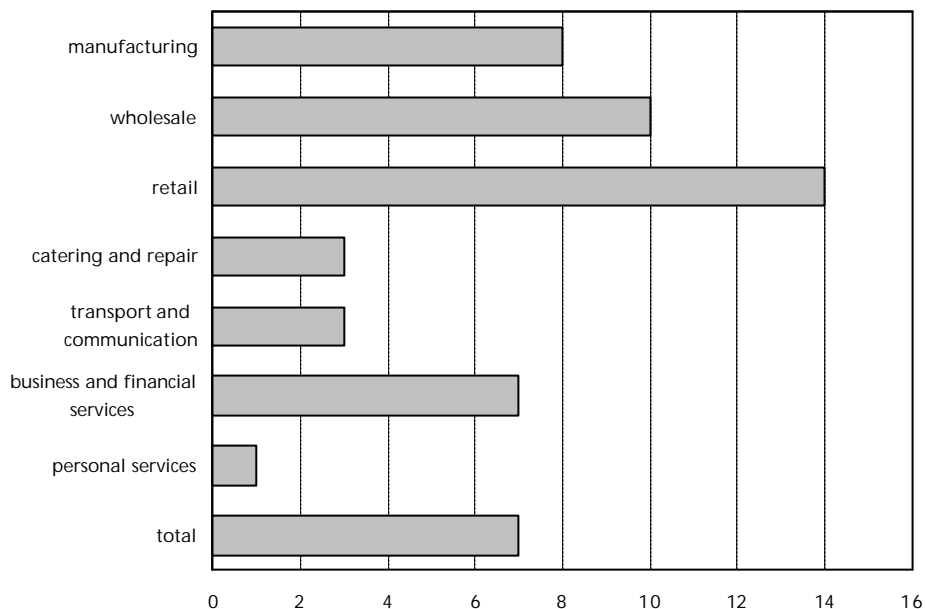
<i>changing customer needs / tailor made production</i>	<i>yes</i>	<i>No</i>
rapid change	86	14
average change	88	12
slow change	76	24
no change	65	35

Source: EIM, SME-panel, 2002.

Businesses that do not adjust their products to changing customer needs, state that customers do not asked them to do so. For almost 20% of these businesses, this is the main reason for not offering tailor made products. Other reasons, although less important, are related to the technical feasibility and the complexity to deliver goods the way the customer requests.

Notwithstanding that many businesses state they are offering tailor made products to their customers, almost one quarter would like to have more information about the delivery of tailor made products and the way they can meet changing customer needs. Less than one out of ten businesses is interested in further support services related to this subject.

figure 3 need for support (in percentages)



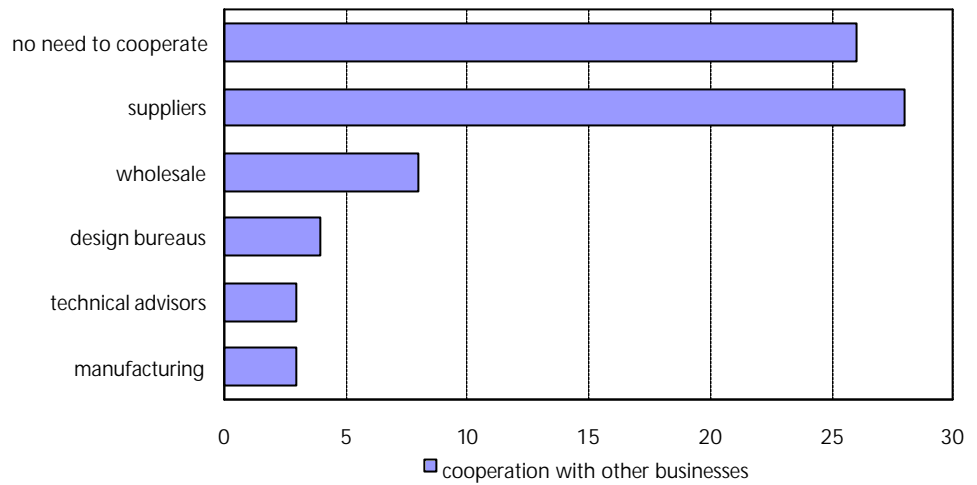
Source: EIM, 2002.

Summarising the main results with respect to the responses of businesses to changing customer needs, we may conclude that businesses still heavily rely on their price policy. At the same time, a vast majority of businesses try to meet customer needs in the selling process or by offering after sales services. Tailor made production seems to be quite common as well. Those businesses that are not adjusting their products to meet changing customer needs state that customer do not ask for adjustments, but that they, nonetheless, are interested to receive more information.

4.1.3 *The importance of cooperation to meet changing customer demands*

Meeting customer needs seems to be quite a common strategy in businesses. Notwithstanding the extent to which businesses adjust their products, a quarter of all businesses consider it not necessary to cooperate with other businesses in order to meet customer needs. Data reveal a correlation between changing needs and the need for other companies, suggesting that the more turbulent the environment is, the more there is a need for cooperation in order to customise products. Most favourable businesses to cooperate with are suppliers (28%) and wholesale businesses (8%).

Figure 5 assessment of the necessity to cooperate with other businesses to meet changing customer needs



Source: EIM, SME-panel, 2002.

In the next section we will focus more on the cooperative behaviour of SMEs in order to meet changing customer needs.

4.2 Results of the qualitative analysis

Based on six expert interviews focussing on the cooperative behaviour of SMEs, this section will look more closely at the incentives of SMEs to cooperate and the types of cooperation that result from this.

4.2.1 *Reasons to cooperate*

Many retail businesses are cooperating

According to the experts a vast majority of businesses in the retail sector are cooperating in order to stay competitive. Within the fast moving industry (retail food) this percentage adds up to 90%, whereas in the non-fast moving industries (retail non-food) cooperation seems to be less common.

Efficiency is the most important motive

The reasons for SMEs in retail to cooperate are in many cases dictated by efficiency motives and short term profit. Push factors, in order to reduce costs and consequently stay competitive, are the main incentives to join for example a purchasing combination. Almost half of all retail companies is part of such a combination.

Cooperation due to pull factors, like increasing value added towards customers, does not occur very often. SMEs are said to be quite reactive and adjust their strategy only when different circumstances require change. This means they show hardly any initiative to actively respond to changing customer needs. Some experts add that an important feature of self employment is to take your own decisions and to act freely. These characteristics are strained by the attitude to cooperate. SMEs often have problems to assess the advantages of cooperation and are more inclined to judge other businesses as competitors.

Identifying and translating customer needs

Some experts question whether the retail sector encounters a turbulent environment in which customer needs are rapidly changing. Particularly within the retail food one might state that customer demands are mainly driven by supply itself. The customer simply has no time or is not able to specify its own needs and wants.

At the same time one can argue that companies in the B2C-market are the first to catch the changes that are taking place at the demand side of the market. In their day-to-day business they often have a close, personal contact with consumers and should therefore be able to get a deeper understanding of what consumers are looking for. It seems to be a matter of trying to translate (latent) needs and wants into feasible products or services. Most of the customers cannot easily express what they want or what kind of possibilities exists. Nonetheless, a vast majority of customers leave the supermarket with other products than they intended to. Compared to businesses operating in other parts of the value chain or large companies, SMEs in the B2C-market should have the ability and flexibility to identify these changing needs and respond to them in an adequate way. According to several experts, SMEs should act like a transfer point of customer demands, instead of a transfer point for existing products.

Innovative approaches to meet customer needs are very limited

The experts agree upon the notion that SMEs leave many chances to respond to customer needs and wants. Innovation in order to become a more valuable supplier for the customer hardly occurs. However, businesses that are creative and open minded for change, do not need to cooperate. According to one of the experts, these type of businesses have the right customer focus and eagerness to adjust their products.

This subsection has made clear that most SMEs cooperate due to efficiency arguments. Cooperation is the last step in a process, in which other options have already been tested, like trying to accomplish things yourself or by purchasing things on the market. According to several experts, SMEs should be made more aware of the chances and advantages of cooperation in creating new products or services or adjusting more adequately to customer needs.

4.2.2 *Types of cooperation*

Purchasing organisations to reduce costs

The type of cooperation depends heavily on the objective of setting up a cooperative structure. As been mentioned in the previous subsection, it looks as though many SMEs in retail business are part of a purchasing organisation. These situations are characterized by stability, few risks and formal contracts. Usually this type of cooperation concerns long lasting agreements with several businesses within the value chain. On the one hand it creates a certain kind of security, but on the other hand it decreases the flexibility of the businesses. Innovative processes related to purchasing organisations are very rare.

Flexible networks create many opportunities

The experts agree that other types of cooperation could also be valuable for SMEs, especially when they intend to meet changing customer needs. In that respect networking is the central issue. Businesses should seek more opportunities and take more advantage of each others' strengths, knowledge and possibilities. An essential element in a network is related to the openness and dynamics; anyone should be able to enter or leave the network at every moment. It is however important never to lose sight of the

customer and to dedicate all initiatives and contributions to enhance customer satisfaction.

Cooperation on certain themes

Networks can be set up in different ways. On a local level businesses can operate within a network to combine marketing activities or they can develop a common service to customers. Although these kinds of networks are often ad hoc, businesses are focussing their attention to their customers and are offering convenience. Very often this cooperation is concentrated around a certain theme ("a wine merchant and a cigar merchant organise special evenings in order to present their products; the theme of the evening is the 'good life'."). On the internet this is represented with many portals. Next to this theme-centred cooperation, also sector-crossing horizontal relations are more common. Finally, the role of the network can change from a social function to a more high-grade, business function to exchange knowledge or to develop a new product.

The realisation of horizontal cooperation is still often difficult. According to one of the experts, entrepreneurs are still not used to collaborating with their competitor. Another expert notes that older entrepreneurs are more reluctant to cooperate than younger entrepreneurs; education is an influential factor.

Cooperation and strategy

All experts agree on the assumption that strategic focus influences the cooperative behaviour. One expert suggests that a different strategic choice can result in a different set of people within the cooperation. Here we will summarise the main results.

Price policy

Within this strategic focus vertical cooperation is likely to be favoured. The partners in this type of cooperation are often familiar with each other, which can be translated in a more stable relation. It generally concerns low-risk cooperation as a result of this familiarity. Next to vertical relations, horizontal relations can prove to be important. It often concerns structural cooperation like for example a purchasing combination. The entrepreneur can be characterized as a follower, regarding cooperation in order to deal with changing customer needs.

Customisation

Within the customer focus, cooperation is aimed at convenience, which is often translated into local clusters and new possibilities (combining cigars and wine). Many companies in this strategic focus appear to be in a marketing niche (horizontal, cross branch). The company is probably the initiator to meet customer needs.

Mass individualisation

In case of mass individualisation or product innovation, the entrepreneur and the marketing department are most likely to be the driving forces behind the cooperation. This strategic focus can be characterised as a supply push, when it concerns the development of (new) products for customers in general. However, when a company emphasises its capabilities rather than specific products, the customer is often the initiator of cooperation (generally B2B). In many cases, one company is more dominant. Within cooperation the entrepreneur is expected to be comparatively dependent, based on trust and financial input.

The process of finding a suitable partner is uncertain and lengthy. Especially because most innovation processes include a financial input and high risks. The relationship will be less formalised in first instance, but will soon get a more formal character. Contractual agreements are always necessary, especially because the commitment of SMEs is often lacking.

table 6 characteristic cooperation under different strategies

<i>Price policy</i>	<i>customisation</i>	<i>Mass individualisation</i>
Vertical	Horizontal, cross industry, local clusters	Horizontal, cross industry and vertical
Formalised, dependent	Independent	One dominant party, dependency, trust, social
Logistical partner	(niche) marketing	Entrepreneur (and marketing)
Stable process	Convenience	Uncertain process
Reducing transaction costs	Optimising entrepreneurial climate	Synergy (knowledge and resources)
follower	initiator	Initiator

Source: EIM, 2002.

5 Conclusions and implications

5.1 Introduction

In chapter 2 and 3 we have formulated five hypotheses:

Hypothesis 1:

SMEs are confronted with changing customer demands that are uncertain and unpredictable.

Hypothesis 2:

SMEs are aware of changing customer needs and are willing to respond.

Hypothesis 3A:

In case of a price policy strategy, SMEs seek strategic cooperation with a focus on vertical relations. The cooperation is long term, formal and stable.

Hypothesis 3B:

In case of a customisation strategy, SMEs seek operational cooperation, with a focus on horizontal relations. The cooperation is long term, informal and dynamic.

Hypothesis 3C:

In case of a mass-individualisation strategy, SMEs seek strategic cooperation, horizontal or vertical. The cooperation is based on trust, flexibility and is project based.

Based on quantitative and qualitative data chapter 4 has presented the main results. In this last chapter we will draw conclusions by testing the three hypotheses and shed some light on the opportunities SMEs have to meet changing customer needs. At the same time we will give some indications how SMEs could improve their responsiveness to their turbulent environment by making a better use of several types of cooperation.

5.2 Validation hypotheses

Hypothesis 1: SMEs are confronted with changing customer demands that are uncertain and unpredictable

SMEs seem to be quite aware of changes in their environment, particularly with respect to changing customer demands. A vast majority considers the environment to some extent turbulent. This notion is also reflected in short product cycles, in particular in the retail sector, and customer demands to deliver goods and services more rapidly. Although there are differences between sectors, businesses in general perceive that customer needs are changing and are becoming more individualistic. It should be noted however that particularly in retail food customer demands are still mainly driven by supply itself as a majority of customers are not able to specify their own wishes.

Based on empirical evidence we may conclude that hypothesis 1 cannot be rejected and is generally confirmed.

Hypothesis 2: SMEs are aware of changing customer needs and are willing to respond

Our results reveal that many businesses are putting quite some effort in trying to meet customer needs. A vast majority offers after sales services or adjusts their product during the selling process according to the customer needs. Eight out of ten businesses state that they meet the needs of individual customers by tailor made production. Although the retail sector perceives relatively more turbulence, their responsiveness is

lagging behind compared to other sectors. An important reason for this is that, according to several businesses, customers do not specify their needs. One might doubt whether businesses are acting pro-actively in identifying changing customer needs and adjusting their products or services. Experts are of the opinion that many businesses (retail in particular) are rather reactive in their response and are more led by efficiency motives than by enhancing customer satisfaction.

Based on the empirical evidence we may conclude that hypothesis 2 should be rejected as the hypothesis implies that SMEs are proactively adjusting their assortment and services to (latent) customer needs.

Hypothesis 3A: In case of a price policy strategy, SMEs seek strategic cooperation with a focus on vertical relations. The cooperation is long term, formal and stable

Cooperating is a very common strategic choice for SMEs. Especially businesses in the retail sector are used to have close relations with other businesses. As many businesses – retail in particular – have a strategy based on efficiency and short term profit, many of these businesses cooperate in a purchase organisation. Purchasing combinations are characterised by long-term contracts, formal relations and stability. This kind of cooperation is useful in order to reduce costs. However, this incentive to cooperate cannot be considered as a pro-active manner of responding to changing customer needs. Push factors instead of pull factors are determinate for this choice of cooperation. Nonetheless, as we considered a price policy strategy as a certain way of reacting on changing customer needs, we may conclude that hypothesis 3A is accepted.

Hypothesis 3B: In case of a customisation strategy, SMEs seek operational cooperation, mainly with a focus on horizontal relations. The cooperation is long term, informal and dynamic

The amount of businesses that are cooperating due to other motives than efficiency is very limited. Many businesses – in retail as well as in other sectors – put forward that they are offering services to customers, particularly in marketing and sales. At the same time most of them are not willing to cooperate with their 'competitors' to meet customer needs. A few businesses however look for cooperation with others, for example with businesses in the neighbourhood (cross sectoral cooperation). This type of cooperation is very often concentrated round a certain theme, and characterized by informal relations and ad hoc initiatives.

We may conclude that hypothesis 3B needs to be rejected, based on the empirical evidence.

Hypothesis 3C: In case of a mass-individualisation strategy, SMEs seek strategic cooperation, horizontal or vertical. The cooperation is based on trust, flexibility and is project based

Many businesses state that they are offering customers a 'tailor made' product or service in order to meet their changing needs in a pro-active way. It is not clear however what is meant by these tailor made production and to what extent cooperation with other businesses is needed. Based on the empirical evidence we can state that SMEs hardly cooperate having adopted a mass-individualisation strategy. They often have problems assessing the advantages of cooperation and are of the opinion they can do a better job themselves. In some cases this strategy holds, but making use of the expertise of others in flexible networks seem to be more worthwhile and needed. The conclusion is that hypothesis 3C needs to be rejected.

5.3 Implications

The objective of this study has been formulated as 'how do SMEs perceive and respond to a turbulent environment?'. We have explained a turbulent environment as an environment in which customer needs are rapidly changing. Based on this interpretation, we are interested to what extent SMEs perceive these changes in customer needs and in what ways, particularly focussing on strategy and cooperation, they respond to these changes.

The main conclusion of this research is that SMEs cooperate mainly to reduce costs, but they hardly invest in other relations in order to meet customer needs more adequately. SMEs do not realise the advantages of seeking cooperation in order to share means and expertise in delivering a custom or tailor made product or service to their customer. In particular a strategy based on offering tailor made products, requests a certain kind of cooperation with suppliers, competitors or even with clients. With respect to the suppliers SMEs often lack countervailing power, which is an obstacle for cooperation. SMEs in retail are unable to convince their suppliers of the need to respond quickly to change. Regarding the clients, one might question whether customisation or even mass-individualisation strategy are really demand driven. Research does not raise the impression that SMEs really know what their customers want and need. On the contrary, some businesses do not adjust their products to changing customer needs, as customers do not ask for it.

Earlier in this report we stated that one of the main characteristics attributed to SMEs is their flexibility and their possibilities to adapt quickly to their changing environment. Due to their close connection with the market – retail businesses in particular – SMEs should be able to respond quickly to changing customer needs. Taking the research results as the main indicator, we may conclude that SMEs are hardly making use of these potential strengths. So far, they are too much concerned with keeping prices low, instead of also paying attention to latent customer needs.

Having a more outside orientation would create more opportunities for cooperation with other businesses. Changing the mindset that horizontal cooperation is being in league with competitors would be very useful in creating this orientation. Sectoral organisations could have a role to play here. They could promote cooperation among their members, show them the advantages of cooperation and make them more aware to identify the real needs and wishes of their customers.

Another important element in stimulating the outside orientation could be the identification of good practices. Several businesses are member of formal or informal networks to exchange experiences. These platforms could be used to promote cooperation by paying attention to businesses that already profited from cooperation. Good practices and role models will certainly help SMEs to make better use of their strengths and work more closely together with other businesses in order to meet (latent) customer demands more adequately.