

ICT industry and resources based analysis of maintenance SME in the Central Europe

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Abstract

Highly competitive situation in Information and Communication technology (ICT) maintenance industry requires a precise analysis of all important factors and carefully defined company strategy which addresses each of these aspects. This paper presents a resource based analysis of family run SME, operating in IT parts and consumables market. In order to understand this complex view, it first describes the company background. It briefly presents the industry key success factors and company strategy of the SME. The value chain analysis helps to name the main organization's capabilities and evaluates them in terms of costs and customer willingness to pay. Resource audit provides an analysis of key company tangible, intangible and human resources. The outcome of this audit shows that most of SME resources are of an intangible nature. Contrary to the higher mobility of today's resources, intangible resources of SME such as company reputation, culture and strategic business relations, are mostly immobile and inimitable. Based on the audit all key resources and capabilities are appraised by their strength and importance relative to closest rivals. Results are presented in graph which recognizes the key strengths (family run business related) and weaknesses (IT and finance). The results of the resourced based analysis lead to recommendations for changes in order to create and retain competitive advantage.

Key words

ICT, resource based analysis, resources, capabilities, strategy, SME.

Anotace

Vysoká konkurence v sektoru servisu a podpory informačních a komunikačních technologií vyžaduje zevrubnou analýzu všech spolupůsobících faktorů a jim odpovídající kvalitní firemní strategii. Obsahem tohoto příspěvku je zdrojová analýza společnosti z kategorie malých a středních podniků (MSP) působící v oblasti distribuce náhradních dílů a spotřebního materiálu. Definice klíčových faktorů úspěchu odvětví a jejich porovnání se strategií podniku, spolu s vyhodnocením hodnotového řetězce vytváří rámec pro vyhodnocení strategické pozice MSP. Výsledkem provedené zdrojové analýzy dostupných zdrojů a schopností MSP je skutečnost, že většina těchto zdrojů je nemateriální povahy. Oproti typicky vysoké mobilitě dnešních zdrojů jsou zdroje MSP, jako je pověst společnosti, její kultura a strategické obchodní vztahy většinou imobilních a nenapodobitelných. Výsledky zdrojové analýzy jsou oceněny v závislosti na jejich strategické váze a relativní důležitosti vzhledem k nejbližší konkurenci. V návaznosti na těchto výsledcích jsou definována doporučení pro úpravu firemní strategie tak, aby byla i v budoucnu zachována vysoká konkurenceschopnost MSP.

Klíčová slova

ICT, zdrojová analýza, zdroje, schopnosti, strategie, MSP

Introduction

Resource based analysis will be carried on a business with background in IT products distribution. Analyzed SME is a family run company founded in 2003 as a spin-off of medium

IT after sales service company. "SME represent 99% of all European companies and approximately 66% of jobs in the private sector. As the driving force of the enterprise sphere, growth, innovations, competitiveness and employment, they are the true heart of the European economy" (Havlíček et al.;

2008). The original idea was to benefit from the existing business relations to the full extent. Since a multi-manufacturer service center cannot be active in sales to keep its independency, a new distribution company was founded. Exploiting the outstanding relationship of its managers with the key contacts, it has shortly developed intense cooperation with major computer manufacturer. SME has always been very customer oriented company with good sense for business opportunities. It helped the manufacturer with startup of their re-introduced printer business and recently supports the major change its business model (direct to channel and retail).

SME benefits from the long order processing and lead times of the centralized European logistics

which in Czech Republic very often reach 2 weeks. In consumables and spare parts this constitutes a major problem for the customer and very often results in their decline from the preferred IT equipment manufacturer. SME provided a clear concept which led to big improvements in major key performance indicators (KPI) in a very short time. This has won SME a reputation of fast solution maker. In the meantime SME has been recognized not only locally in the Czech Republic, but also on the European level.

Both distribution and retail channels depend heavily on the e-commerce concept. While a certain percentage of the end users still prefer in-person shopping at the retail store, distribution relies mainly on e-commerce.

Industry Key Success Factors

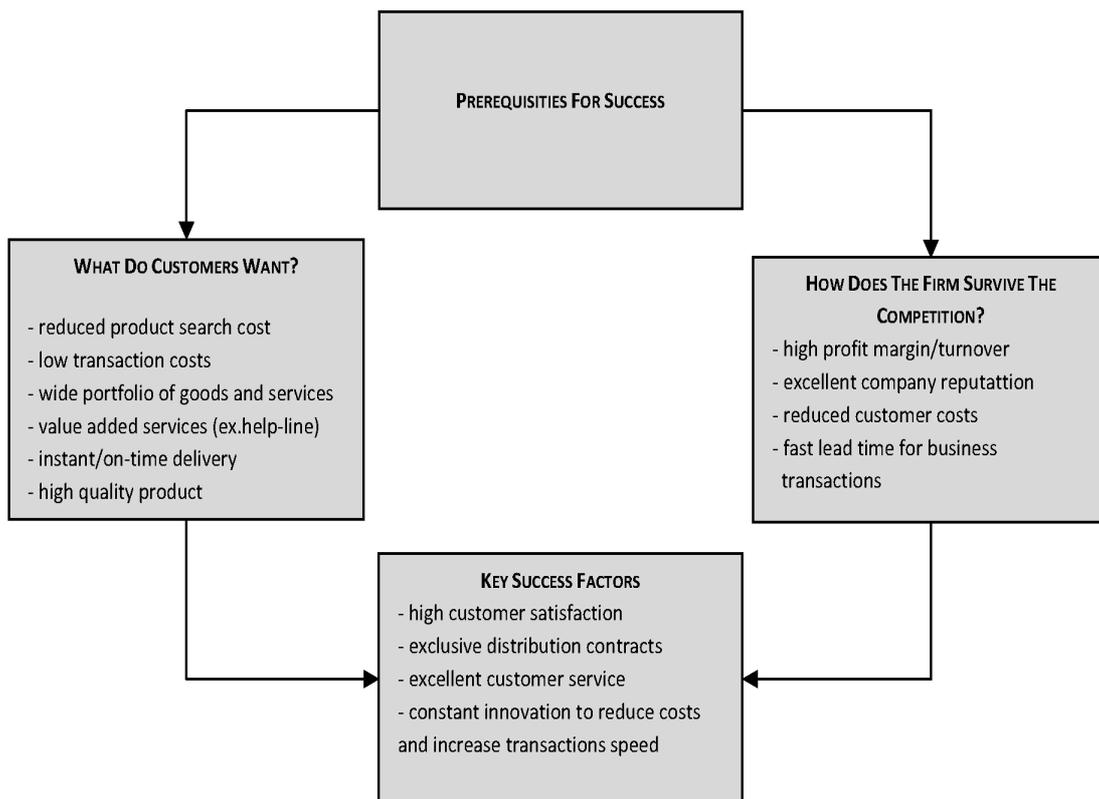


Figure 1: Key Success Factors for the Retail and Distribution Industry (Grant, 2008).

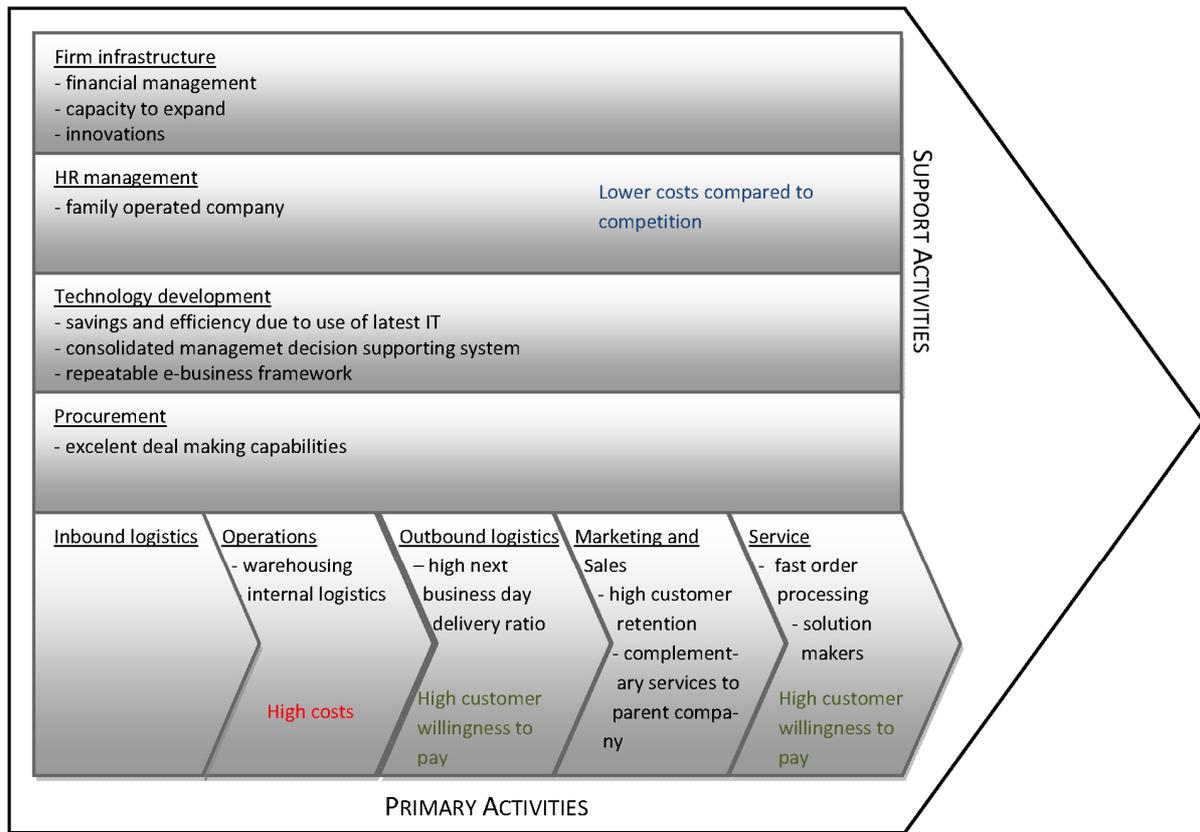


Figure 2: Value Chain of SME (Based on Porter, 1985).

Value chain analysis

Analysis of value chain points out the main organization's capabilities.

Analysis confirms SME value chain corresponds with the original Porter's model with emphasis on Support activity - Technology and Primary activity - Marketing and Sales.

From a financial perspective, in order to widen it's the profit margin (Ghemawat, 2001), SME may consider further speeding up the order processing lead time and delivery times and lower the costs of logistics. Although this is widely adopted aspect of the distribution service, family run company such as SME, can bring in the little extra which will then make the difference and will be appreciated (and paid for) by the customer. With high costs for warehousing and internal logistics the option could be external logistics solution, perhaps outsourcing to specialized logistics company.

Resources and capabilities

We have determined SME resources and capabilities. They are:

In order the resource or capability should provide a competitive advantage, two conditions must be met: Scarcity and Relevance (Grant, 2008). SME operates in a business with low entry barriers, high power of both customers and suppliers and fierce competition. The main resources which comply with the criteria above are:

- Company reputation
- Company culture of family run company
- Dedication, loyalty and motivation
- Openness to new knowledge
- Fast adaptability to changes
- Long term relationship with major IT manufacturers
- Fast order processing
- High customer retention ration
- Complementary services to parent company

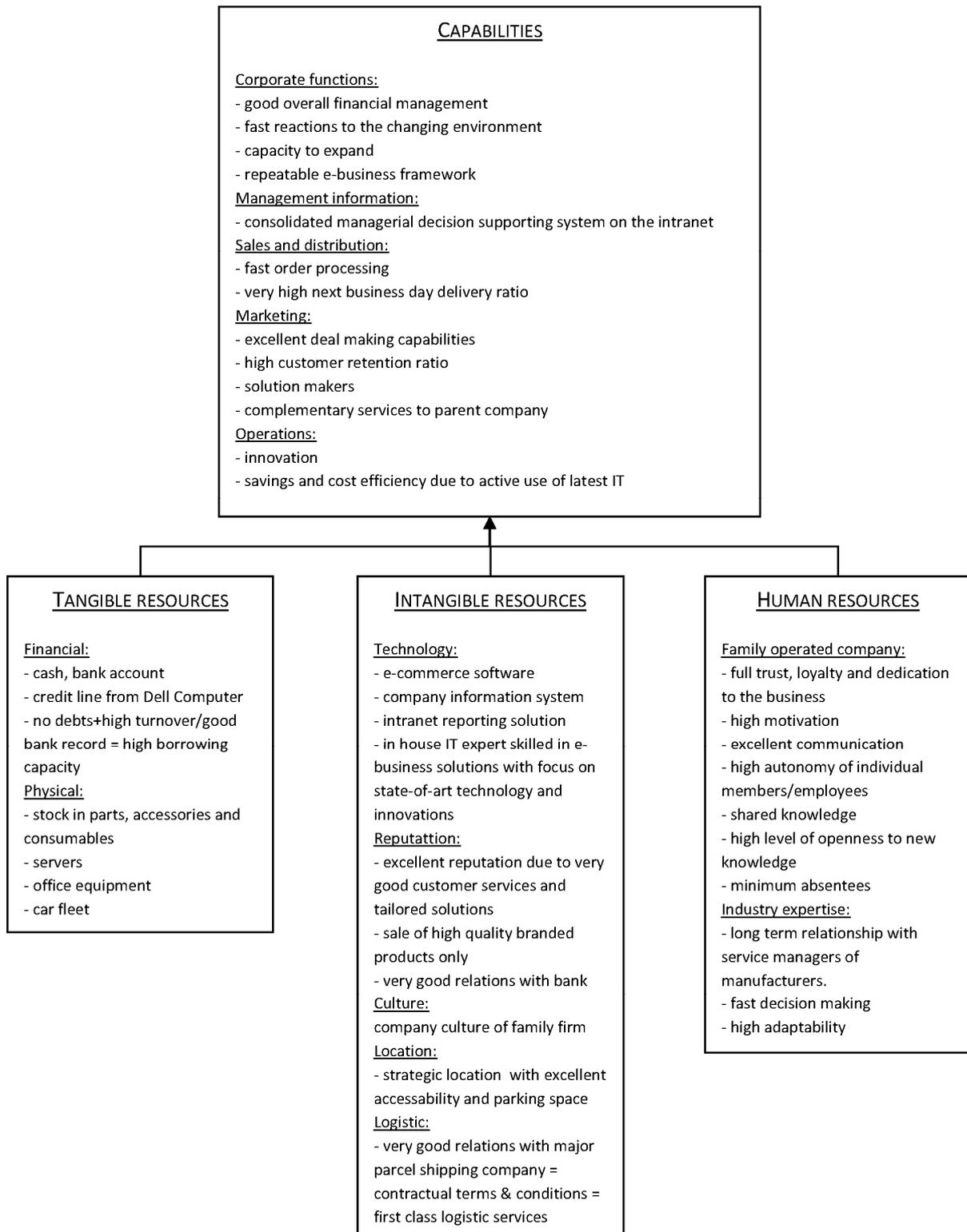


Figure 3: Capabilities and Resources of SME (Based on Grant, 2008).

Discussions can be carried on the scarcity of certain resources and capabilities. Fast order processing has been adopted by major distributors. However, small, family run business can always prove much more invention and through high dedication make the important difference.

In order to maintain the once established competitive advantage, these resources and capabilities must fulfill the requirements of Durability, Transferability and Replicability. As we can clearly see, the most of the selected resources and capabilities above are based on the individual

and social qualities of family members, their business expertise and various complementary skills. These may stand and fall with these individuals. In opposition there is the Company reputation which can show certain momentum and resistance to aging effects. Since the organizational capabilities together with complementary resources are not easy to transfer (Grant, 2008) we can conclude on low transferability of the selected resources and capabilities. Long time relationship with major manufacturers based on personal level is main resource which cannot be easily and fast replicated. Fast adoption of over the time built resources and capabilities, very often brings very high disproportionate adoption costs. Also resources and capabilities based on company culture of a family run company are unique and as such hard to imitate.

As a family run company SME has little problems with appropriating the returns to competitive advantage. Company profits are directed according to the agreed strategy to support further growth, expansion and innovation. This may however be an important point once the company reaches the moment when it will need to hire employees outside of the family.

We have learned that:

- Most of the SME resources are of intangible (intangible and human) nature.
- The profit earning potential comes from sustainable established resources and capabilities based mostly on family individuals' qualities, which as such are hard to imitate, but their durability in long term is disputable.

Resources and capabilities appraisal

To identify key strengths and key weaknesses we need to evaluate their relative importance in conferring the sustainable competitive advantage which is the source of the superior profit. Secondly, we will compare these strengths and weaknesses against the competitors.

While some points of the appraisal can be evaluated according to the available reports, they do not "always portray accurately the financial situation of an organization since financial instruments, such as derivatives, are often accounted for 'off-balance

sheet' and, hence, mask the true financial position of the organization." (Grant, 2008)

The appraisal is subjective and expresses the point of view of the author.

Using the outcome of the appraisal above, we can present the results in the following table, listed by the relative strength and strategic importance of individual resource or capability.

Most of the SME resources and capabilities are positioned at the right top quadrant, which represents the focus of the company to high ratio of usage of its potential.

Two key weaknesses fall into IT category – Decision supporting systems and Intranet reporting. These weaknesses have their origin at the beginning where SME was established as an extremely low overhead company with low initial investment. Both weaknesses can be addressed by increased investment into IT. Third weakness is of financial nature. In order to support future growth, SME needs additional financial resources. One of the possibilities is to leverage the good relation with the bank and zero debt. Another possibility is re-defining the flow and distribution of the company returns.

On the edge of the scale we can find the E-commerce software. In order to emphasize the online aspect of its business and fully exploit the e-commerce opportunities. SME should consider outsourcing of this resource to specialized company which can run the system using dedicated IT personnel and focused industry expertise.

As we can see, office equipment and car fleet are the superfluous strengths. SME has very little use of these resources. While there is little SME can do with the office equipment, it should consider redefining the logistic processes to benefit more from the strong car fleet either by savings on the outsourced parcel service or by introduction of new added value services. With respect to the expertise of the existing specialized logistics companies the recommendation to SME would be to reduce the car fleet and use the extra resources elsewhere.

Based on the identification of the key strengths, SME should fully exploit all the resources and connected capabilities based on the family nature of

Resources/Capabilities		Code	Importance	Relative strength	
Tangible res.	Financial	Cash, bank account	R1	6	3
		Dell credit line	R2	6	9
		High borrowing capacity	R3	5	6
	Physical	Stock	R4	7	9
		Servers	R5	6	5
		Office equipment	R6	3	5
		Car fleet	R7	3	7
Intangible res.	Technology	E-commerce software	R8	6	5
		Company IS	R9	6	3
		Intranet reporting	R10	6	5
		IT expert, latest technology	R11	7	6
	Reputation	Reputation	R12	9	8
		Sale of branded good only	R13	7	7
		Good bank relations	R14	6	6
	Culture	Family company	R15	9	9
	Location	Strategic location	R16	8	7
		Accessability and parking	R17	6	7
Human res.	Logistic	Low cost, First class logistic services	R18	7	6
	Family operated	Loyalty and dedication	R19	8	8
		Motivation	R20	8	8
		Communication	R21	8	6
		High autonomy	R22	4	9
		Knowledge	R23	8	6
	Industry expertise	Relationship	R24	9	8
	Decision making	R25	8	7	
	Adaptability	R26	8	7	
Cababilities	Corporate functions	Financial management	C1	7	5
		Reactions to changing environment	C2	8	7
		Capacity to expand	C3	6	7
		Repeatable concept	C4	6	6
	Management information	Intranet DSS	C5	7	3
	Sales and distribution	Order processing	C6	8	9
		Fast delivery	C7	8	7
	Marketing	Deal making	C8	9	8
		Customer retention	C9	8	7
		Solution making	C10	9	8
		Complementary services	C11	9	9
	Operations	Innovation	C12	8	7
		Cost efficiency	C13	8	9

Table 1: Appraising SME resources and Capabilities (Based on Grant, 2008).

the company. Major resource of competitive advantage of family run company is its organizational culture and dedication to the entrepreneurship.

Entrepreneurship in family firms is supported by a culture that values new knowledge acquired from customers, suppliers and competitors (Morris, 1998).

Loyalty, communication and information sharing, together with reduced overhead and management costs plus openness to the changes and new knowledge provide the competitive edge over the competition.

„Looser, decentralized organizations, in which autonomy and coordination through mutual adjustment is viewed as legitimate, will be more

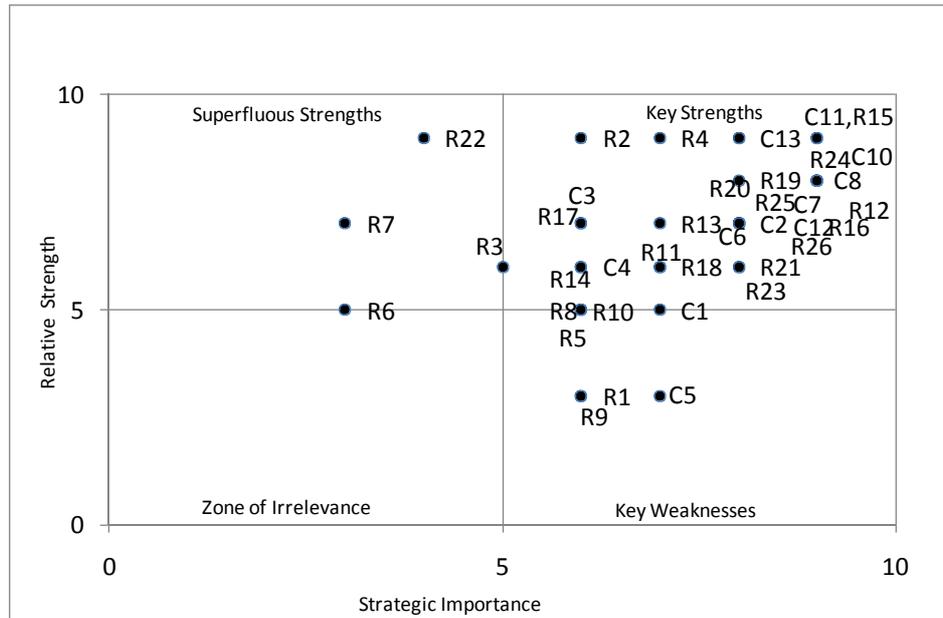


Figure 4: Appraising SME resources and Capabilities (Based on Grant, 2008).

sensitive and responsive to changing conditions.“
(Kanter, 1983)

Complementary services to the parent company and Relationship with major IT companies are the other key strengths. In the industry these two capabilities, if fully deployed, may increase the competitive advantage and generate more business opportunities. We can define Deal and Solution Making and Cost efficiency as Core Capabilities of SME (Prahalad and Hamel, 1990).

Conclusion

Based on the findings above SME should re-define its strategy, so by the time, when the initial resources brought in by the parent company will be exploited, SME would keep the competitive advantage. This is how the SME strategy should look like:

- Retain and build the profile of the smart company, close to the major IT manufacturers.
- Fully exploit the potential brought in by the nature of the family run company.
- Distribute the returns in favor of finance of the further growth, supported by innovation of the IT systems. (This can be also achieved by outsourcing part of the technology).

The unique expertise in the territory of the Central and Eastern Europe with its shared history, cultural and national specifics provides an important competitive advantage to be considered and that is the capability of repeatable business concept. This can be even empowered by the possibility of low cost transition to other territories where the ongoing process of transformation and development of the local economies represents an important strategic alternative.

SME has full potential to match the strategy to the rapidly changing environment of this central European region. High autonomy of its partners together with decision making capabilities represent the ultimate prerequisite for flexible adjustments of company capabilities in order to keep the competitive advantage. Organizational structure of the family run company supports creativity and search for new business opportunities in many terms. „The evolutionary path the firm can go is often rather narrow“ (Teece et al, 2001). In case of SME the obvious suggestion of the path is the history in IT after sales service and complementary business. This does not have to be necessary true. We have already mentioned that the e-business framework of SME can be easily repeated. That, together with the natural entrepreneurship of the family run company, means that SME can restructure its business in a very different way, industry and/or market.

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References

- [1] Grant R.M. (2008): Contemporary Strategy Analyses. Blackwell Publishing. Oxford. ISBN: 978-1-4051-6309-5.
- [2] Havlíček Z., Šilerová E., Halbich Č. (2008): E-business solutions and the open source software for the small and medium size enterprises. *Agricultural Economics*. 54 (3): 102–107
- [3] Kanter R.M. (1983): The change masters: Innovations for productivity in the American corporation. Simon and Schuster. New York. ISBN: 0671428020.
- [4] Morris M.H. (1998): Entrepreneurship Intensity. Quorum Books. Westport.
- [5] Porter, M.E. (1985): Competitive Advantage. Free Press. New York.
- [6] Prahalad C.K., Hamel G. (1992): The Core Competence of the Corporation. *Harvard Business Review*. May – June 1990. Boston.
- [7] Segal-Horn S. (2004): The Strategy Reader. Blackwell Publishing. Oxford. ISBN: 978-1-4051-2687-8.
- [8] Teece D. et al. (2001): Industrial and Corporate change. Volume 10. Issue 4. Oxford University Press. Oxford. ISSN: 0960-6491
- [9] Tesař Š. (2008): Trendy v oblasti servisu zobrazovacích periférií. Think Together 2008. Praha. ISBN: 978-80-213-1755-0
- [10] The Open University (2009): Competitive and Corporate Strategy. The Open University. Milton Keynes. ISBN: 978-0-7492-1503-3.