Chapter 19.

Bound to grow through knowledge accumulation and networking – case study of Megatrend Zrt

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19.1. Introduction

According to rich and growing empirical literature, one of the main deficiencies of Hungarian SMEs is their low growth potential.[*] They are not growth oriented, unable and unwilling to move beyond stage one in their life cycle.[1] They adopt a traditional attitude of non-reinvesting but taking the profit out of their small, family managed ventures (Czakó *et al.*, 1995; Laky, 1998; Major, 2003).

Survey results underline the strong influence of cultural factors (Kuczi, 2000; Szerb-Ulbert, 2002) including behavioral features rooted in the socialist era[2]

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[1] Following Adizes (2004), we refer to stage one of the corporate life cycle as infancy. In this stage, the idea has already been translated into a product. The main challenge ahead is growth and market expansion. The organization is still entrepreneurial: the firm is directed by the owner and founder. Transition to professional management is still ahead. Self-financing is the main form of financing. See e.g. Kimberly-Miles (1980); or the recent overview of classical and contemporary literature on corporate life cycles by Adizes (2004).

[2] Socialist entrepreneurs were in a sense similar to the Schumpeterian entrepreneurial ideals. A thick layer of citizens (according to estimates, in the early 1980s approximately two thirds of Hungarian families) earned at least some of their income in the second economy (*Galasi-Szirácz*ky, 1985). These entrepreneurs have thus become capable to understand something about the functioning of the market, about autonomous decision-making and about risk-taking. They have become capable to learn, adjust, and innovate. Their mentality however differed from that of the Schumpeterian capitalist entrepreneurs. Second economy participants had a stable job in the state sector, they utilized the resources, and the assets (raw material and production equipment) of their SOEs, which exempted them from the dominant part of the risk capitalist entrepreneurs take. Further-

among the main explanatory factors of entrepreneurs' reluctance to expand activity and drive the company ahead, along the usual growth path.

Alongside to their lack of dynamism in terms of sales, employment and productivity growth, Hungarian SMEs also feature various other deficiencies. They operate below minimum efficient size[3]; they are unable and unwilling to invest into and accumulate intangible assets and they are not innovative.

As opposed to this gloomy general picture, the results of field investigations carried out in Hungary (in the frame of the KEINS project[4]) have supported the hypothesis that knowledge-based entrepreneurs and companies (KBEs; KBCs) are different from average Hungarian entrepreneurs and SMEs in many respects.

Dissimilarity is first of all related to above-the-average knowledge intensity, i.e. to the fact that KBCs' most important asset is knowledge. This becomes

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more, their activity satisfied a huge existing demand the centrally planned sector could not meet. They thus faced little demand constraint, and little competition. The constraints they faced were of a different character: state regulations *aimed mainly at restricting expansion*. By relaxing some restrictions on private enterprises following 1982, the government aimed at increasing consumption and at reducing the gap between demand and supply. Private enterprises were thus considered as complementary and not contradictory to the socialist system *provided their expansion remains below a predetermined threshold*. It was thus acceptable to increase private consumption using the income raised from private entrepreneurship – market supply being the only limitation of this endeavor. On the other hand, corporate growth was restricted by several regulations, since it was considered contradictory to socialist principles. The mentality of increasing entrepreneurs' consumption rather than reinvesting profit has become deeply rooted and survived even after the change of the regime. All this is very much different form Schumpeterian entrepreneurs whose key feature is a relentless strive for growth.

[3] Although in advanced economies firms are frequently larger than their hypothetical efficient size (size being determined among others by the features of the production technology) SMEs of relatively underdeveloped economies often face the opposite problem: market constraints or rather their market acquiring deficiencies as well as capital market imperfections make them operate below the efficient size. (See Antonelli (1988) industrial organization economics; Artner (2005) about Hungary, Surdej (2000) about Poland)

> *Although according to textbook theses the likelihood of survival is minimal if the gap between the existing and the minimum efficient size is persistently large, many of the Hungarian micro and small enterprises contradict this textbook case: they are dragging on, on the edge of bankruptcy and/or market exit for long years, unable to grow. This gives rise to considerable policy concern, because the exit rate, i.e. enterprise death rate is also high (which has to be added to those, dragging on without growth and profit). Enterprise birth and death in industry was 4,262 and 6,647 respectively in 2003. The corresponding data for services was 47,589 and 50,127 respectively. Consider Portugal's respective data for comparison (a country of similar population size): 2,678 versus 2,327 in industry, 10,853 versus 7,545 in services.* (Source: *European Business Facts and Figures 1995-2005*. Panorama of the European Union. European Commission, Eurostat, 2006, p. 20)

Enterprise death rate as a percentage of the population of active enterprises was 10.73 in Hungary in 2003 and 4.26 in Portugal in 2002 (Eurostat).

[4] Knowledge Based Entrepreneurship: Innovation, Networks and Systems (KEINS), European Commission 6th Framework Programme, Co-ordinator: Professor Franco Malerba, CESPRI, Bocconi University.

manifest in above-the-average R&D ratio and in above-the-average values of various other indicators (number of researchers employed, patents etc.).

Difference between KBCs and average SMEs (ASMEs) is conspicuous in terms of the former group's performance, capabilities, and prospects. KBCs were found to be willing to reinvest profit, accumulate knowledge and various other items to be added to the stock of their intangible assets. They were able and willing to engage into systematic corporate development based on a vision and regularly updated strategic plans. This behavioral difference was well reflected by their growth and employment figures.

Another apparent element of KBC-ASME difference can be identified in terms of KBCs' diversified portfolios of both domestic and international collaborations. Unlike ASMEs' networks restricted mainly to vertical relationships (customers and suppliers), KBCs are characterized by a tight network of industry–university linkages including both research and educational institutions.[5] They also possess diversified relations with domestic and international NGOs, research funds, business, and scientific associations.

The company selected for the detailed case study exemplifies a number of typical KBC features. At the same time, it exhibits various industry-specific characteristics that generally apply to companies engaged in computer systems design and development. Its growth and performance improvement will therefore be analyzed with the help of the following guiding questions:

» Which are the main explanatory factors of the company's high performance? Drawing on Gibb-Davies (1990) classification of the explanatory factors of SME-growth, we investigate whether the company's success story can be explained mainly with the help of a

1. personality dominated approach,
2. organizational development approach,
3. business management approach,
4. sectoral i.e. industry-specific approach?

» Which are the key factors of competitiveness and constraints of growth?
» How does network building influence the evolution of the company's performance?

Following a careful study of publicly available information on the company, semi-structured interviews took place in April 2007, with two senior representatives: the entrepreneur, founder, and CEO of the company, Imre K. Szabó and with László Jakab, the director of the controlling department. The compilation of the case study was substantially facilitated by various corporate documents made

[5] Compare it with Inzelt (2004) about the weakness of industry-university linkages in Hungary and the slow evolution in this respect.

available by the director of the controlling department, summarizing data about the company.

The rest of the paper is organized into four sections. Section 19.2 presents the company and describes the founder's background. Section 19.3 is dedicated to its history and evolution as well as to the characteristics of the demand for the company's products and services. Section 19.4 investigates Megatrend's vertical and horizontal relationships, and analyzes its networking efforts. Section 19.5 provides a final overview.

19.2. The firm and its founder

Megatrend is a domestic-owned, medium-sized company with 120 employees and sales amounting to € 6 million in 2006. It is specialized in the design, development, and operation of information systems supporting the operational and management processes of enterprises, public administration, and government.[6] According to IDC[7] survey results, Megatrend's market share in enterprise resource planning (ERP) systems is the third largest in Hungary, preceded only by SAP and Oracle.

Megatrend's ERP system 'Infosys' is used in 60% of the Hungarian food industry. It has developed industry-specific ERP solutions for other industries as well, and possesses long reference lists in the chemical and plastic industry, pharmaceutical industry, forest industry, light industry, in construction and in agriculture, as well.

Alongside to its ERP system Megatrend is also specialized in public sector solutions. Its integrated public sector system provides support, as well as analytical and monitoring tools for the administrative functions of centrally financed institutions, public (state and local) administration organizations. Its product portfolio also comprises a data security audit system – a tool designed for the full monitoring and controlling of computer related activities centrally, supporting data security officers' and IT risk managers' functions (with references including the Nuclear Power Plant in Paks, the State Privatization Agency or the Hungarian Tax Authority). Beside ready-made solutions it also undertakes customized development of mission-critical applications e.g. in the financial sector. It develops e-business and e-government applications.

Product related services include not only implementation, support and after sales services (e.g. education and remote management), but also security technology audit and the IT expert outsourcing.

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[6] Megatrend was the first Hungarian-owned company to acquire ISO 9001:2000 quality certificate.
[7] IDC is a global provider of market intelligence, advisory services, and events for the information technology, telecommunications, and consumer technology markets.

The company's products have been awarded various prizes. International recognition is demonstrated by the CeBit 2006 prize of its security audit system: the European Seal of Excellence in Multimedia. In Hungary Megatrend was honored by the IT Business Leadership Award in 2005 (in medium-sized company category), and by Innovation Grand Prize in 2004.

Imre K. Szabó (hereafter Imre), the founder, owner, and CEO of the company graduated in 1982 from the Szent István University of Gödöllő[8] (its name was at that time: Hungarian University of Agricultural Sciences).

He studied business administration in the frame of an academic program that included also comprehensive accountancy and information technology curricula. Following graduation, he applied for a fellowship announced by the Hungarian Ministry of Agriculture and Food Industry that allowed participation in an international exchange program. The American partner of the Ministry was the National FFA Organization (Future Farmers of America). Imre worked for a year in a winery in the U.S. The owner of the winery, Bob Wollersheim had worked as an electrical engineer on several early SSEC (Space Science and Engineering Center) spaceflight hardware projects. It was in this farm, Imre could first work with an IBM PC.

He managed to lengthen his stay in the U.S. by half a year due to a fellowship aimed at studying informatics at Wisconsin University. Thereafter he worked for various IT firms in New York.

This was a good start to learn about frontier level technology as well as about IT- and ERP-related business in practice. Furthermore, he earned a lot by Hungarian standards which allowed him to accumulate start-up finance for an own KBC. Following his return, Imre founded his IT company in 1986 – in an organizational form common that time in the socialist era, a so called economic work community (GMK), with the aim of developing an up-to-date enterprise information system. Development took two years and its costs were financed both by the founder's savings and with income generated from hardware import, distribution, and system integration.

19.3. Evolution of the company

Hardware import and system integration was one of Megatrend's core activities in the late 1980s and early 1990s. System integration was at that time much more knowledge-intensive than today, requiring more skill and value added by the distributors and integrators. The opening Hungarian market was flooded by a multitude of hardware products. Corporate investors in information technology

[8] Gödöllő is a small town 30 km from Budapest.

had to face at that time all the teething problems of the new technology: non-compatible hardware elements, non-functioning software because of non-compatible hardware, which made investment particularly risky.

Megatrend's value added was the careful design and configuration of the systems they implemented at their customers, facilitated by the owner's systematic testing of IT-technology related new products. Every year, Imre spent one or two months in the U.S. surveying and testing new hardware products and identifying the ones, that – alongside to their technological novelty also bear the promise of business return. International fairs and professional journals also added to the entrepreneur's knowledge stock.

Net sales as well as the number of employees were growing rapidly up to a threshold of ~ USD 1 million of net sales[9] and to 10-12 employees in the early 1990s. In 1993, Megatrend changed its organizational form and became a limited liability company. The development of the ERP system was completed by the end of the 1980s (state-owned enterprises were among the first customers) but the annual number of ERP projects started to grow substantially only in the mid-1990s. The technological orientation of the founder is well-reflected in his insisting on offering only frontier-level solutions. Megatrend was the first (in Europe!) to switch from command-line (CLI), to graphical user interface (GUI).[10]

This technological perfectionism had a serious drawback, as well: since they abandoned the outdated CLI technology, they neglected the benefits to be drawn from a carefully managed endgame strategy (see e.g. Harrigan, 1980; Ghemawat-Nalebuff, 1998) which promised substantial income and a large customer base[11] for local competitors (e.g. Mikro Volán Elektronika) for at least half a decade thereafter! Nevertheless, the exponentially increasing demand of the mid-1990s (a business opportunity Imre identified so well in the mid-1980s in the U.S.) concealed this 'strategic mistake' – as this decision is now labeled by the CEO. The annual number of projects grew from 10 in 1996 to 24 in 1998 and peaked with 25 in 1999. The evolution of performance indicators is documented in table 19.1.

The table shows a clearly discernible rupture in the growth trend of the number of projects in 1999, with employment flexibly following suit.

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[9] Calculating with an exchange rate of 1 USD = 80 HUF (in 1992).

[10] The new Windows-based system was launched in 1994 and was honored by Compfair prize.

[11] Note that implementing an ERP system is to some extent deterministic i.e. the technology has substantial lock-in effects. It makes the switching to another system (to another software infrastructure) prohibitively expensive since the implementing firms have to carry out organizational changes: adjust their organizational structure and their business process so that they match with the logic of the system.

Table 19.1. The evolution of Megatrend's performance indicators

Year	**Net sales** (HUF million)	Employment	Number of projects
1996	400	65	10
1998	1200	160	24
1999	1300	210	25
2000	1340	135	15
2002	1500	130	9
2004	1600	110	10
2006	1500	120	15

Source: Megatrend documentation, rounded numbers.

However, labour productivity increased substantially since revenues did not diminish: the dropping number of projects still delivered a moderate growth in net sales. The rupture after 1999 can partly be explained by global trends (as documented in several editions of OECD Information Technology Outlook there was a sharp global decline in both ICT investment and consumption beginning in 2000), but the early saturation of the Hungarian ERP market at a relatively low diffusion level is country-specific.

Nevertheless – anticipating an increasing cost competition in their target market for ERP systems (medium-sized companies) – Megatrend's mid-term strategy prepared in the late 1990s clearly identified the necessity of diversification of both the product portfolio and the customer base. By the time of the sudden fall of the demand, the development of their system designated for the public sector had already been completed.

There were a number of positive signs predicting a spectacular business success and a rapid diffusion of the newly developed integrated public sector system. Firstly, its launching coincided with the intentions of the Hungarian government to develop its IT infrastructure and invest into related software elements. Secondly, the flexibility of Megatrend's system is higher than the competitors' average, which makes it more suitable for the turbulent environment of the Hungarian setting, characterized by frequent legal and regulatory changes. Thirdly, compared to the solutions of the key multinational actors in this segment, their system is highly price competitive (its costs amount to about one tenth (!) of the ones of MNC competitors' similar solutions) and implementation time is much shorter (one fifth of that of MNC competitors).

Nevertheless, in the early 2000s Megatrend lost a series of public procurement tenders and noticed that usually bids of far higher prices were the ones that won. It turned out that the 'costs per economic value' reasoning that applies in the private sector has to be complemented with a multitude of other factors to make the products persuasive under public sector conditions. The initial failures

have prompted the entrepreneur to learn more about the functioning and the decision-making process of the public sector. Following a two-year post-graduate course, in 2004, Imre acquired a lobbying and government relations diploma at Corvinus University (Budapest University of Economics). Formal education contributed to acquiring a systematic overview about public sector mechanisms, factors that motivate decision-makers,[12] as well as about ways, methods, tricks and techniques – mastered by MNC actors – these mechanisms can be influenced.

Meanwhile, the company (operating from 1999 on, as public limited company) undertook substantial investment into marketing, brand, and corporate image building, and into the accumulation of intangible capital. It added new products to its portfolio (applications in the financial sector, e-business applications, electronic administration solutions, and the data security audit system).

As one of the most important steps to ensure further growth, the company started international expansion to achieve economies of scale. A logical first step of internationalization in the ERP segment is regional expansion in neighboring, relatively less developed markets, where competition is still less intensive than in Hungary or in advanced economies and market dynamism is at the same time higher.[13]

Megatrend set up an international division responsible for developing, marketing and supporting international versions of 'Infosys'. The first, Romanian version (fulfilling language, legal, professional and accounting requirements) was completed in 2002. Romanian consultants were employed to provide information about local legal and accounting requirements, about technical features

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[12] As opposed to private sector companies' unambiguous profit maximization drive, public sector decision-makers are guided by two (often-conflicting) motivations: cost minimization and risk avoidance. The latter factor makes them opt for MNCs' much more expensive solutions. It is also risk avoidance that makes them claim, that

> *public sector is so special that competition for IT solutions provision should be restricted (!) to actors that already have substantially long reference list in this sector.*

[13] This direction of internationalization is a segment-specific (ERP) feature of the software industry. Internationalizing companies in this segment target the relatively less developed countries, since advanced economies' ERP market is already saturated. (According to AMR Research's latest report (*Market…*), although ERP market still grows in revenue, the most conspicuous features of the market is consolidation and concentration. Most large, and a rapidly growing share of medium-sized organizations have already implemented ERP systems in advanced economies. This finding is also supported by Radosevic (2006) who found that Central and East European software firms' entry opportunities in the packaged software segment and in product development are far inferior to the ones in other segments e.g. customization, maintenance, services etc.

As opposed, the key technology market for the representatives of some other high-tech industries, e.g. for biotechnology firms in less developed countries, are advanced economies in general, and the U.S. in particular.

of selected local industries as well as about language issues.[14] Recognizing the exceptional dynamism of the Romanian market, Megatrend set up a Romanian subsidiary in 2002. Further localized versions included systems designated for Ukrainian, Serbian, and Slovakian settings (always with the help of local consultants). Negotiations are going on concerning projects in Vietnam and the management team is surveying potential business opportunities in other developing countries as well.

The main clients abroad are manufacturing companies in the food, textile, wood and construction materials industries as well as some wholesale and retail firms (IT and agricultural machinery). Given the low mobility of the Hungarian workforce, Ukrainian and Slovakian implementation projects are carried out by the employees of Megatrend's Romanian subsidiary.

International expansion was facilitated both by Megatrend's systematic market research and marketing efforts and by its existing local contacts. A rapidly increasing number of Hungarian companies are engaged in outward direct investment (Antalóczy-Éltető, 2002; Inotai, 2005). Hungarian companies that implemented Megatrend's Infosys have obviously chosen the same system for their subsidiaries abroad.

Megatrend is currently at a threshold where its growth trend may take an upward turn. The company may enter a new high-growth-phase again after a couple of years of moderate but stable growth. It has accumulated a sizeable stock of intangible assets that allows (nearly) simultaneous product launches in a number of countries. Its competitive advantage lies in a noteworthy lead time of its high quality products as well as in its extensive stock of complementary assets (organizational routines that allow short system implementation, and localization, knowledge of both enterprises' and public sector's needs etc.)

High growth means return on capital in excess of the costs of capital. This is possible in the increasing returns setting of the knowledge economy in general and in this segment of the high-growth IT-industry in particular. Consider the textbook example for increasing returns: Development of the first copy of a new software solution amounts to a couple of millions of dollars. The costs of the second and additional copies are no more than one or two dollars a copy, comprising the costs of the CD-ROM and of packaging. As for the costs of localization i.e. the development of new and new country-specific versions of 'Infosys' the distribution of fixed and marginal costs is not so extremely skewed. Nevertheless they are still only a fragment of the original development costs, while the size of the opening market can even exceed that of the original version's market (like in the Romanian case). Internationalization has thus clear multiplier effects.

[14] Megatrend also prepared an eight-page Romanian language brochure that explains and details the benefits of Infosys.

However, entering a high-growth phase through internationalization requires substantial financial resources. Although the introduction section detailed several differences between KBCs and ASMEs, KBCs face similar constraints as ASMEs in this respect. Their constraints are in some case even higher, given that the most valuable part of their assets is intangible which limits the opportunity of collateral-based lending.

If the economic value of intellectual property in general of software in particular is not recognized by banks, the problem of limited financial resources can in principle be overcome by attracting external equity finance. So far, Megatrend has not been particularly successful in this respect. The external resources it could mobilize were restricted to a HUF 130 million (€ 500,000) investment into its Romanian subsidiary (in 2004), by Corvinus International Investment Ltd. a state-owned development finance institution set up to co-invest with Hungarian companies abroad. Megatrend also applied for co-investment by the Venture Capital Fund for Information Technology. The Fund was established in 2002 with state resources to promote IT-related export. Megatrend's application was rejected with the claim that "software export is an area that is prohibitively risky for the Fund to co-invest into".[15] In sum, if no solution can be found for the present acute financial constraints Megatrend's substantial growth potential cannot be exploited.

Is survival as a domestic niche producer a viable alternative? Megatrend's present market position is threatened to be eroded. It has to wage war on two fronts: rapidly growing new small firms in the ERP segment force Megatrend into an intensifying cost-based competition. At the same time, the key MNC actors whose target market has so far been restricted to large companies are increasingly venturing into Megatrend's niche market of medium-sized companies.

A Catch-22 situation: Megatrend has to grow above a certain threshold size to be considered a trustworthy partner in public sector projects, but without such projects it cannot accumulate sufficient savings to finance growth and attain the threshold size. Accumulated profit ought to be reinvested into product development and market expansion (i.e. investment into intangibles), but without investing into tangible assets that generate no earnings (e.g. headquarter building) banks remain unwilling to assist market expansion with collateral-based loans.

When growth both through foreign acquisitions and through generic expansion is hindered by limited financial resources, the strategic solution at hand is growth through networking (alliances). The next section focuses on Megatrend's linkage building strategy, regarding collaborative links both as an instrument

[15] In 2002 and 2003 the Fund's activity was minimal, tenders were announced but there were no accepted investment proposals. In 2004, the Fund decided positively on four hardware-related proposals.

that contributes to acquiring complementary knowledge resources, and as an institutional platform for political influence building.

19.4. Growth through networks and alliances

Due partly to industry-specific characteristics Megatrend is embedded in a highly diversified economic and social network, with relations going much beyond simple supplier-customer interactions.

In fact, in a knowledge economy the sharp distinction between vertical and horizontal networks can no longer be unambiguously applied. Input-output relations are intertwined with interactions aimed at joint knowledge creation, which blurs the vertical–horizontal dichotomy. The integration of customer relationship management (CRM) and knowledge management (KM) into what is referred to as customer knowledge management (described by Gibbert *et al.*, 2002) is a good example demonstrating the merging of vertical and horizontal dimensions.

Megatrend's customer relations support the claim that in a knowledge-economy vertical interactions increasingly incorporate horizontal elements like trust-based partnerships, long-term perspectives, joint knowledge inputs by suppliers and customers, lack of hierarchical coordination. Preparing industry-specific versions (with industry-specific technical, legal, and regulatory parameters) of the ERP system requires customers' collaboration at least in terms of information provision. Furthermore, customers supply additional relevant information, including management know-how, or additional business opportunities in the sense of industry-related needs, tendering possibilities etc. Information exchange occurs on the occasions of both formal and informal meetings. Formal meetings with customers and other stakeholders include:

- Conferences organized by Megatrend to present new developments of the ERP system.
- Conferences organized by business associations, public authorities, professional journals, universities etc. on specific business opportunities; ways to solve SMEs' financing needs; SME situation and perspectives in general; new promotion programs; first results of joint research projects etc.
- Meetings of professional and lobby associations. Imre is member of the presidency of the Hungarian Association of IT companies, member of the National Association of Entrepreneurs and Employers, of AHEAD ASIA Asian–Hungarian Economic Association for Development, and he is one of the founders of the First Hungarian Lobby Association.

Informal meetings with customers and stakeholders[16] are also good issue-raising opportunities. They include events organized and sponsored by the company, like family programs with sport and other competitions for kids, wine tasting as well as various cultural programs.

Megatrend's horizontal network includes seven institutions of tertiary education, in the case of which 'Infosys' is included into the academic curricula. Furthermore, it participates in two 'center of excellence' programs including research departments of universities and other strategic industrial partners. One of the programs is coordinated by the Budapest University of Technology and Economics and the project aims at developing e-security solutions, while the other program (R&D in the food chain) is coordinated by Corvinus University. Megatrend's contribution to this latter program is the development of various IT-solutions for the food industry. Since both centers of excellence incorporate research institutions as well as several representatives of the related industries, participation in the centers' projects provides many additional opportunities for networking.

This systematic networking effort recalls the results of *Collins-Clark* (2003) field investigations concerning the impact of top management team's social networks on the firms' performance. As expected, the authors found a strong relation between firm performance and the size and diversity of top management team's network. However, in Megatrend's case the large and diverse network of the firm is related not to the *top management team*, but more or less to one single person, to the CEO. This is the only factor reflecting "family management" features – remaining from the early years of the company's evolution.[17]

This situation is bound to change in the near future as a result of a recent decision[18] to create a position of president, alongside to that of a CEO and attract a key personality for this post from a MNC. The new president will bring along

[16] Important stakeholders are public authority officials (representatives of Ministries, regional authorities, NGOs, research funds e.g. the director of the National Office for Research and Technology, experts and consultants of both of governing and opposition parties, journalists, representatives of the Hungarian intellectual elite etc.

[17] There was a gradual shift from family management to professional management. Initially the founder was the only manager with functions including both market building, CRM, product development, strategy building, and supervising. The first milestone in the process of building a professional management team was in 1994 with the nomination of a director responsible for product development. Additional managers have been gradually nominated for functions such as hardware procurement, marketing, administration, quality control etc. and for the management of the various business units. The founder is currently trying (for the second time) to withdraw from day-to-day operation and attract an innovative manager for the post of the CEO.

[18] Alongside to changes in the corporate legal forms, in the past decade several consecutive organizational changes have been decided upon. Proactive decisions were adopted in order to turn the original lean organizational structure into a more complex one, so that the firm's organization become more suitable for the coming high-growth phase.

his own economic and social network to be added to Megatrend's existing one. The company lays emphasis on involving other members of the management team into network building as well, partly with the help of a systematic training program aimed at improving communication and management skills.[19]

Dense economic and social networks coupled with informal personal ties reflect the entrepreneur's recognition that both product- and country-specific features make his company's business environment much distinct from the abstract 'perfectly competitive market' with anonymous transactions, i.e. where the identities of buyers and sellers are unimportant (Cowan, 2005).[20] Growth and business development in this industry is highly influenced by the entrepreneur's ability to develop and accumulate social capital, since only network interactions can mitigate the wide variety of market failures that characterize the business environment they operate in.

19.5. Conclusions

Megatrend's case illustrates a wide variety of textbook theses related to knowledge economy, high-tech entrepreneurship, and networks.[21]

As for entrepreneurship, the founder's story is a good example for the way an entrepreneur identifies a business opportunity, how he starts his business, manages growth and how the organization passes through distinct sequences of changes.

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[19] Megatrend recently won a tender announced by Human Resource Development Operational Program of the National Development Agency with the help of which it provides comprehensive technical, language, project management and communication and other trainings to its employees.

[20] The exceptional importance of trust in this segment of the software industry can be explained not only by the fact that ERP systems process confidential enterprise data. ERP systems have a comprehensive impact on implementing organizations. They alter the culture, the processes, and strategies of the organizations as well as most individual employees' tasks. It is not surprising therefore, that some business units and managers resist these changes. Top-level executives' sustained support in driving the implementation process ahead requires a high level of trust between the two parties. (Davenport, 2000) Trust is crucial also because the benefit the ERP system yields is not securely predictable. The usefulness of the product can be verified only with a substantial delay following its purchase. Consumers have limited information on most of relevant product details, and the whole process involves considerable risks (Scott-Vessey, 2002), which all make transactions more trust-based than in the case of pure market-transactions.

[21] Section three of this paper highlighted the company's networking activity. Networks were interpreted as agents' interactions in a socio-cultural-institutional and economic context that facilitate learning, enhance knowledge flows, provide access to complementary resources and boost business development. However, Megatrend's early field of specialization (system integration in the teething period of the new technology) also exemplifies another field of network economics: compatibility, interconnection, and complementarity of goods.

The company's evolution demonstrates how the interaction of technology, organization and management determine both the product potential (Tunzelmann, 1989) and the corporate performance. In this sense we can claim that each element of Gibb-Davies (1990) classification (for the perspectives of SME-growth) apply to Megatrend's success story. An important explanatory factor is the founder's personality: his creativity and his relentless strive for business and technological achievements. He is visionary and risk taking, able to identify trends and emerging opportunities. A highly important success factor was that he managed to transfer his exceptional commitment to other members of the management team.

As for the other elements of Gibb-Davies' classification, as it emerged from the foregoing, organizational development, and business management factors were also relevant explanatory factors of growth. Megatrend's organization was undergoing organic development. Its complexity increased gradually, and decisions about changes concerning new corporate legal form, new organizational design, new divisions, new leadership structure etc. were taken in time.

As for industry-specific explanatory factors of growth, the timing of their entry into the expanding ERP market and the solution to finance the development phase with revenues from distribution and system integration activities have to be emphasized. Nevertheless, the gradual abandoning of these latter activities to concentrate on core competence was equally important.

One of the key factors of their current competitive advantage is the ability to combine and synthesize in-house and distributed external knowledge sources in a continued product development process. *Technical and professional expertise should however be coupled with systematic network development efforts* given the high importance of trust and social capital in the software industry in general and in this segment in particular. Although high quality is considered the key element of their competitiveness, competitive pricing, and quick implementation also figure high among factors of their competitive advantage.

The case also provides evidence for the claim, that above and beyond a certain revenue threshold, internationalization is a prerequisite for business success also in this segment of the software industry. As shown by Radosevic (2006), activities related to other segments of the software industry, e.g. support and programming services; maintenance etc. are easier to be internationalized. In the case of designing and developing packaged software and/or customized solutions, sales by local companies in less developed countries are dominantly local market-oriented. Megatrend's case provides a lesson that complements Radosevic's finding: eventually high-performing local ERP producers will face a growth ceiling. They either are trapped into – contested and therefore eroding – domestic niches, or develop organizational and marketing capabilities for international expansion.

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