

## **Introduction**

The tremendous growth of the information and communications technologies (ICT) and its deep penetration in all areas of human activities, is profoundly reshaping the economic, societal and private life landscape of the world of today.

The issue of the Internet was actually the core reason for a theoretical division of the economy in two large categories: “new economy”, comprised of companies that apply these technological advances up to various extents, and the “old economy”, which includes all the others. It has also initiated vivid discussions and theoretical confrontations, due to the sharply dissonant perceptions of the transformational impact of the Internet on the economic activities.

The extreme standpoints of this broad theoretical spectrum are varying from oversimplified view of Internet as just one more communication channel, to a glorifying declaration that the Internet is an originator of unthinkable different, new economy and new society of 21st century, whose implications is not possible to anticipate at the moment.

Michael Porter, the so called “Strategy-guru” and Don Tapscott, the so called “Cyber-guru”, are probably the most prominent exponents of these opposite views on business consequences from the Internet applications. This paper will try to analyse some of the issues, presented in Porter’s “Strategy and the Internet” (2001) and Tapscott’s “Rethinking Strategy in a Networked World (2001b) articles, in an attempt to come to possible conclusions on their (ir)relevance.

## **PORTER AND TAPSCOTT POLEMICS**

### **Are there new business objectives and methods to achieve them?**

Porter calls for a “return to fundamentals”, stressing that there is only one arbiter of the business success: the true economic value, which is “reliably measured only by sustained profitability” (p.65). The only way to be more profitable than the average competitor is “by achieving a sustainable competitive advantage - by operating at a lower cost, by commanding a premium price, or by doing both” (p.70).

Tapscott completely agrees with these statements. The problem, according to him, is that Porter “uses these truths to prop a false thesis” (p.3), i.e. “argues that the best methods of achieving these goals, including operating within a vertically integrated structure, must be unchanged, too” (p.4).

Porter’s defence of the viability of vertical integration versus partnering is based on several arguments (p.69). Partnering with producers of complements can indirectly affect the industry profitability in either positive or negative way through their influence on the five competitive forces. Possible rising of the switching costs is the only positive example that Porter gives. On the other hand, the list of negative effects is quite longer: partnering makes the companies more alike, thus strengthening the rivalry; it distracts companies’ attention from their own strategic objectives due to the pressure to act in consonance with their partners; finally, it increases the threat of entry because the producers of complements can evolve in future competitors.

Most of the consequences of outsourcing, as another form of partnering, are also portrayed in dark colours (p.69). Porter argues that extensive outsourcing leads to supplies from same vendors and hence to increased homogeneousness of purchased inputs. This is “eroding company distinctiveness and increasing price competition”. Additional negative effects are lower barriers to entry, as the new entrant only has to assemble the purchased inputs, and also strengthened power of suppliers who are adopting the core company’s experience.

Porter agrees that the Internet technologies are easing and fostering the partnering, and also make possible the creation of “virtual enterprises” - based on “purchased products, components and services” - as the most extreme form of partnering (p.69). However, due to Porter’s resistance towards partnering, one could conclude that, in his eyes, these virtual enterprises erode industry profitability.

Tapscott’s view is completely contrary. He claims that, thanks to the Internet, “myriad new business models have emerged that are different from the industrial age template”. In principle agreeing with Porter that the term “business model” has been often used without valid criteria, Tapscott defines it as a “core architecture of a firm”, a way of deploying all relevant resources, including those outside the company’s boundaries, in order to “create differentiated value for customers”. Many companies, he says, are succeeding by keeping the focus on their core competencies and partnering in all other areas (p.5). Instead of trying to be the best in all business functions, now, thanks to the Net, they can outsource many of them to specialized suppliers around the world at almost no transaction costs. This brings enormous benefits as the suppliers, in order to stay competitive, tend to “reduce costs and increase quality and innovation” (p.6).

Tapscott points out the case of Sybel Systems Inc., which act as a “context provider”, orchestrating an extensive network of b-web partners, as a convincing example of a company that has achieved tremendous business success by applying b-web based business model (p.6). Boeing, Mercedes-Benz and IBM are another vivid examples of successful companies that do not produce their proprietary products (some even do not do the assembly). Moreover, the CEO of Boeing has defined the company not as an aircraft manufacturer but as a “systems integrator” (p.2). Tapscott also presents the opposite examples: Apple Computer Inc., Digital equipment Corporation, Prime Computer, Data General - are only few of the companies who have failed to sustain competitiveness just because they insisted on vertical integration, refusing to embrace partnering (p.7).

Tapscott even questions the notion of outsourcing, anticipating that “there will be nothing to outsource” because “there is nothing inside to begin with”. Managers of tomorrow, once the customer value proposition is defined, will just have to decide to which b-web partners to distribute the activities

that create value (p.6). In the interview given to Irsfeld (1997), Tapscott predicts that “the basic structure of the enterprise will be as a number of molecules cooperating together on networks”.

So, does the partnering enhance company’s capabilities to achieve its business objectives? Zimmermann (2000, p.3), observing the phenomenon of fragmentation or modularisation of businesses due to ICT infrastructures (so called “one product company”), argues that the companies which are concentrated on producing selected number of products or services are thus able to realize economies of scale.

Thompson and Strickland (2001, p.244), considering the key factors for successful competing in the Internet economy, stress that “outsourcing enhances organisational speed and flexibility”, allowing the company to focus on those competencies and value chain activities that it can do best.

Similarly, Tapscott (1997, p.10), claims that “as larger companies disaggregate...they gain the advantages of agility, autonomy and flexibility”.

When criticising the consequences from partnering, especially such as lower barriers to entry and erosion of company distinctiveness, it seems that Porter is somehow neglecting the fact that the business competitiveness is not only a matter of proper production or assembly of product components. What truly distinguishes the company is the knowledge and capabilities brought in by the people. Even if the technical know-how would become available to (would-be) competitors, in this fast changing world it is the leadership, proactive attitude, ability to learn, flexibility and capacity to generate innovations (representing just a part of company’s intangible assets that are extremely hardly - if at all - copied) that are becoming convincing sources of the competitive advantage. Which, again, speaks in favour of the “orchestrating” model of doing business.

In this sense, Tapscott (1997) claims that, as technology and any product can be copied, the “lifelong organisational learning becomes the only sustainable competitive advantage”.

Dent (2003, p.2) writes that, due to the marketplaces changing so quickly, the secrecy is rather penalized than rewarded. Thus, the “open systems” become “a new source of competitive advantage”.

Further, Porter’s analysis of the competitive forces such as bargaining power of suppliers and rivalry among existing competitors, somehow reveals a static approach, where an implicit premise is the unchanged logic of functioning of these forces. Yet, it is worth to question whether the incessant

invasion of new and more sophisticated forms of partnering and alliances with the suppliers and competitors will not affect their “classical” roles. Hewlett Packard CEO has said that “the company’s future success depends on its ability to build a business based on partnership”, by opening itself to and working together with “all its suppliers, all its competitors, all its customers” (Dent, 2003, p.2). Dent suggests that the increase of volume, speed and quality of business interactions will ultimately lead to a situation when “the needs, wants and expectations of shareholders, customers, employees, suppliers and regulators will become an integrated whole” (p.4).

Sammot-Bonnici and McGee (2002) write that the “increasing importance of connectivity and modularity is forcing a shift from competitive mode towards cooperative mode”.

This radical shift towards cooperation triggers the question of whether we should soon expect a “Theory of cooperative forces”?

Boulton et. al. (2000), introduced a completely new view of value creation called “Value Dynamics”, based on the primary principle that “businesses are their assets - all of them”. The authors claim that, beside the traditional physical and financial assets, it is the intangible assets such as people, brands, technology, knowledge and relationships that create value in the new economy. Thus, they add three new asset categories: employee and supplier assets (employees, suppliers and partners), customer assets (the end-users, company’s distribution channels and affiliates) and organisation assets

(leadership, strategy, culture and value, knowledge etc.). According to them, businesses learn to design business models to create value by using assets in all five categories. For instance, America Online, with virtually no physical assets, has largely used customer assets to create value. Similarly, authors consider the suppliers and partners as parts of the extended enterprise and “increasingly critical sources of value”. Furthermore, “in the new economy, the ability and skill to partner and / or ally” might even

become central to a business success. Chrysler case is quite enlightening in this regard: the company is outsourcing major parts and subsystems to individual suppliers on the basis on long-term contracts. The suppliers are included in cost-cutting discussions and technological development, and they share the financial benefits. This strategy, which is an obvious example of using supplier assets, has increased company profit by hundreds of millions of dollars annually.

Both Tapscott (1997) and Drucker (2001) write about the theory of the Nobel 1991 laureate Ronald Coase, who argued that the companies can lower cost of communication by performing the activities under one organisational framework. As the Internet now is almost nullifying the costs of communications, Drucker concludes that “the most productive and profitable way to organise is to disintegrate”.

Maybe the best clue in the ongoing “battle” about the best methods of achieving competitive advantage and sustained profitability, is given in the anecdote cited by Tapscott (1997). Namely, long time ago, Albert Einstein, “monitoring an exam for graduate physics students was told that there was a problem because the questions on the exam were the same as on the previous year’s test. That’s okay, he replied, the answers are different this year”.

### **The Internet – Evolution or Revolution?**

Porter views the Internet as an “extremely important new technology” that, regardless of its power, “does not represent a break from the past; rather, it is the latest stage in the ongoing evolution of information technology”. He almost equals the technological possibilities derived from the Internet

infrastructure with those enabled by “complementary technological advances such as scanning, object-oriented programming, relational databases, and wireless communications” (p.74). By defining the Net as just one more technology, Porter implicitly denies its potential to bring anything fundamentally new.

Tapscott vigorously rejects this derogation of the Internet. The Net, he says, “represents something qualitatively new - an unprecedented, powerful, universal medium”. Its technical capabilities are far excelling all other communication technologies, which will inevitably become integrated in Net

structure. More importantly, “the Net is becoming ubiquitous” connection technology in global terms, and in all business functions. The Net, Tapscott suggests, should be viewed as “the emerging infrastructure for economic activity” but also as “a force of social change” (p.4).

Another Porter’s misjudgement is the assumption that the Internet of tomorrow will be the same as the Internet of today, Tapscott says. Qualifying this conclusion as a nonsense, Tapscott argues that the

Internet of tomorrow will be dramatically different – similarly as “today’s Internet is (different) from the unconnected, proprietary computer networks of yesterday” (p.4).

Dent (2003, p.1) claims that “the tools of the new economy are so powerful that their application in only limited by the imagination and creativity of the people who employ them”.

Comparing the information revolution with its two predecessors: the first and the second industrial revolutions, Drucker (2001) claims that its “main effects...on the next society still lie ahead”.

Yet many of its effects are very obvious. Greatly intensified competition, virtually boundless markets, much more efficient exchange of ideas and transfer of knowledge are some of them. Meijaard (2003) writes that ICT are catalysts of many social and cultural trends such as globalisation and consumer and worker empowerment. Analysing the impact of the ITC developments on improving opportunities in knowledge management and processes of innovation, Meijaard claims that “this is probably the most important mechanism in the new economy”, which “may fuel the technological progress”.

Lohr (1999) writes that the complexity of the Internet cannot be judged solely by the number of users because each of them can “interact with others in the network in unpredictable ways, just as in a biological organism”.

Morris (1999) reports that Economist has selected three events / innovations that have most profoundly marked the twentieth century: World War I, Atomic Bomb and the Internet. Further, he

writes that the performance of microprocessor chips continue following Moore’s Law i.e. they double every 18 months, and that are many claims that this time span is getting shortened. Another law he is mentioning - the Metcalfe’s Law - states that “the power of the network increases by the square of the number of users”. According to Morris, these two laws form the basis of the communication revolution. Also, they quite well explain the enormous dose of uncertainty when trying to anticipate future ICT evolution.

Tapscott (2001b) calls the next phase of Internet development “Hypernet”: a vast global network where the products of information era, “embedded in everything from bicycles to factory tools” are converging. He uses the metaphor of the chessboard in illustrating the current stage and future development in digital technologies: “we are on the second half of the board” - the gains will continue to double with each square.

Dent (2003, p.1) writes that the digital revolution and the Internet can be viewed as “the democratisation of the information”. If the information in the information society is power, could we assume that we are entering a completely new phase of the human evolution - the democratisation of power?

Nevertheless whether we are witnessing an Internet evolution or revolution, it seems that one conclusion is inevitable: “we have to be e-relevant or we will be irrelevant” (Wong, 2000).



## **Knowledge as a new source of value**

According to Tapscott (1997), in the new economy, which is rather based on brain than brawn, the shift toward knowledge work has promoted the intellectual assets to key organisation assets. Considering Microsoft as a new economy company, Tapscott argues that it would be “ludicrous” to try to evaluate the company in terms of its physical assets (which would be a standard old-economy approach). Rather, the company has built its worldwide empire thanks to the “crania of (its) managers and employees”.

Dent (2003, p.1) suggests that while the industrial revolution automated physical labour, “the information revolution has automated brain work, or intellectual labour”. In addition, he writes that the technology “improves the productivity of brain work”, and, by creating connections, it enables more brain work possible (p.3).

Drucker (2001) claims that the knowledge is now the “key resource, and the only scarce one”, and that the knowledge workers are the “new capitalists”.

Similarly, Tapscott (1997) writes that in the old economy “the worker was alienated from the means of production” but, in the new economy, this means “shifts to the brain of the producer”.

As the knowledge is establishing as primary source of value, Kotelnikov (no date) claims that the leaders of the new economy will be those “who manage knowledge effectively”. In order to generate systemic innovative solutions, the technical know-how is not enough but gains that arise from “complex interactions between many individuals, organisations and environmental factors” are crucial.

The ICT and the knowledge economy are so closely interrelated that one could argue that without the advent of ICT, the economy of today would have been still functioning in ways not much different than few decades ago. On the other hand, the knowledge economy strongly stimulates the future ICT advances.

When considering the knowledge as a source of value, probably the most proper approach would be to understand the value in a much broader sense than purely economic one. Finally, every business is an organic part of the broader system – continuously influencing and being influenced by the values created in the other parts of the community.

## **CONCLUSION**

Several conclusions could be derived from the presented discussion: the business fundamentals have not (yet) changed: companies are in business to make money; in order to be successful, the companies must achieve sustainable competitive advantage; the ways of achieving competitive advantage are ongoing radical changes, most notably through the continuous invention of new business models that increasingly often prove to work in practice; knowledge is a new source of value that is rapidly gaining the significance of the most valuable and maybe even the only valuable source of value; the transformational power of knowledge transcends the frontiers of business community: it reshapes all spheres of the society, often in ways that are not possible to predict; the phenomena of new business models and knowledge as a source of value would not be possible by adequately developed information technology and, finally, the Net as ubiquitous connection infrastructure.

Yet, some of these conclusions are being subject to many vigorous disputes. A fully valid judgement of their relevance is certainly beyond the reach of this paper. We could only say that the Net holds an unspoken promise to take us to the world that we never knew before. Whether this world will be a better one will probably be one of the most important decision in the human history. A decision that will be taken by virtually everyone on this planet.

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