

E-business in emerging economies: a comparison of Turkish and Romanian multimedia companies

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Abstract. The emerging economies have participated, albeit less than advanced market economies, in the new electronic modes of conducting business. This paper draws on a study of the multimedia industry which focuses on two developed (Canada and England) and two emerging economies (Turkey and Romania). Issues include: the nature of work (both process and outputs); employee characteristics; skills shortages; and organizational success factors. This paper addresses issues relating to work organization in e-businesses in Turkey and Romania. Based upon the experiences of 21 Turkish and 20 Romanian companies, the former emphasise technical skills more regarding the skills needed by individuals to be successful, skills in demand and skills shortages in the industry but Turkish companies are readier also to emphasise creativity, business and interpersonal skills. Companies in both countries attributed their success largely to technical competence and business acumen but again Turkish companies also stressed the importance of creativity.

1. Introduction

Business and employment have been radically affected since the 1990s by the increased application of electronic technologies and the evolution of digital markets. While these developments have been particularly evident in the advanced industrial economies such as the USA and the UK, the spread of electronic technologies has been truly global and has included the so-called emerging economies. It has been argued furthermore that emerging economies may be in a position to leap-frog traditional evolutionary steps in economic and business development and move directly to digital forms of business [1].

Nevertheless it would be an error to underestimate the gap existing between the advanced economies and emerging economies such as Turkey and Romania. Developments in the emerging economies are handicapped by the lesser availability of personal computers, domination of English/American language and culture on software, the generally lower familiarity with information technologies, constraints on access to the latest software and hardware and a lesser level of demand 'pull'. There are also substantial differences in GDP per

capita between advanced and emerging economies and these are reflected in major disparities in electronic infrastructure as evidenced, for example, by Internet Service Providers (ISPs) per head of population.

Table 1. Contrasts between advanced and emerging economies

	USA	UK	Romania	Turkey
GDP per head in PPP (1995)	100	71.4	16.2	20.7
1000 pop per ISP*	34	163	747	2736

*Internet Service Provider

Sources: [2] and [3]

The provision of electronic services in emerging economies is moreover handicapped by institutional factors, for instance, the non-availability of credit cards in Bosnia-Herzegovina [4] and limited awareness of the potential benefits of the new digital technologies (for example, Slovenian hoteliers' apparent disregard of the Internet as a source of competitive advantage as reported by [5]). A study of Romanian publishing companies identified a lack of resources (hardware, staff knowledge and the support of business partners) as an impediment to the development of electronic publishing [6]. Many of the economies of Central and Eastern Europe are in addition still coming to terms with the problems of post-communist transformation as well as grappling with the challenges of the new electronic technologies.

The aim of this paper is to investigate issues relating to work organization in e-businesses in two emerging economies, Romania and Turkey by comparing and contrasting the situation of multimedia companies in the two countries. Multimedia companies were selected as the focus of this paper because they create and provide many of the tools required to carry out e-business, for example, websites, CD-ROMs, DVDs and digital cards. This study forms part of a research project on the global multimedia industry. The project was started to investigate national differences in companies developing multimedia products and services for use by companies involved in e-business and the implications for company performance.

2. Aims and methodology

The aims of the multimedia industry study are to:

- identify the characteristics of multimedia organizations;
- identify organizational strengths and requirements;
- identify how organizations view industry development over the next 5 years;
- identify organizational strategies for the next 5 years;
- compare the multimedia industry and multimedia organizations in a range of countries.

For the purposes of the study, the multimedia industry has been defined as a new industry based on information technologies and integrating a range of traditional and new modes of communicating data. Thus it involves the convergence of computing, telecommunications and interactivity.

Data for the study have been collected by questionnaire administered via email, telephone or in a face-to-face situation. The mailed questionnaire/interview schedule incorporates data on the background of the companies, their views on the industry and its challenges and the factors which they see as keys to success. The interview schedule/questionnaire also allows

respondents to express their views in their own words and these areas are subsequently post coded. The Romanian sample consists of 20, the Turkish sample of 21 companies.

3. Company characteristics

A large majority of companies in both countries (18 in Turkey and 19 in Romania) have fewer than 20 employees, with 5 Turkish and 3 Romanian companies having 5 or fewer employees. 76% of the Turkish and 85% of the Romanian companies were established in the last 10 years. 35% of the Romanian and 55% of the Turkish companies have been founded in the last 5 years. The main activity of Romanian companies is the provision of websites (55%) or CD-ROMs and websites (30%). Turkish companies are primarily providers of CD-ROMs and websites (67%) with a further 19% solely building websites and 10% CD-ROMS.

In Romania companies tended to view their output largely as a service (16 companies, with one further company regarding itself as a provider of both products and services). By contrast in Turkey, though service provision was still predominant, only 8 companies regarded themselves as service providers, with a further 9 regarding themselves as providing both products and services. In both countries project-based work was the major mode of activity, although this was more marked in Turkey, where 14 companies described all or most of their work as project based, with only one company reporting no project-based work. In comparison in Romania 10 companies had all or most of their work project based. However, 5 companies reported having no project-based work.

With regard to the profile of the workforce, most employees were employed on a full-time permanent basis although a majority of companies also used temporary employees. The majority of youngest employees in both countries were in their twenties. With regard to the oldest employees, in Romanian companies these were in their forties and fifties, compared to Turkish companies where they were in their thirties and forties. Overall the Romanian companies had an older age profile than their Turkish counterparts. This may indicate that Romanian companies are relatively more established than Turkish ones. This view is supported by the fact that the majority of shortest serving employees had worked in Romanian companies for between one and 2 years, compared with less than one year in Turkey and that the largest group of longest serving Romanian employees had been with their companies for between 6 and 10 years, compared with 3 to 5 years for the corresponding Turkish group.

4. Knowledge and skills

As a new industry, multimedia draws upon skills previously the domain of graphic artists working in print mode, as well as the programming abilities and software knowledge of computer scientists. Many companies in the industry are small and are started by those trained in such areas, together with others without such a formal background but with a lively interest in the potential opened up by modern PCs and the Internet. In addition to the need for technical and/or creative skills, business skills are increasingly required as enterprises grow, together with the ability to interface with a widening customer base and understand the diverse demands for multimedia products and services.

The multimedia companies in the Turkish and Romanian samples are typically small companies. They see their businesses as expanding in the next five years and this brings with

it an awareness of the need to attract new talent. Asked what they see as the key skills required by an individual to be successful in this industry, all the Romanian companies and 67% of the Turkish companies cited technical skills. When it came to other types of skill, however, the Turkish companies saw the need for a wider mix of skills than the Romanian companies, citing for instance "design and advanced programming knowledge, project management, promotion and product management", "technical knowledge and personal relationship skills", "innovation, experience and marketing" and "education, experience, presentable, creative". Notwithstanding a clear focus on technical skills Romanian companies also mentioned creative and business skills such as "sensitivity in expressing ideas on the web", "aesthetic appreciation", "knowledge to establish client demands" and "awareness of company targets". Nevertheless, the Turkish companies were more likely also to emphasize creative skills married with technical skills to produce attractive and innovative products and services and the business skills needed to grow a business, like marketing and project management. They also highlighted the interpersonal skills needed both to become an effective team player within a growing company, together with the ability to interface with customers drawing out from them their particular business needs for multimedia products and services (see Table 2).

Table 2. The number of Turkish and Romanian companies citing different types of skills needed by an individual to be successful in the multimedia industry.

Companies	Technical Skills	Creative Skills	Business Skills	Interpersonal Skills
Turkish (n=21)	14	15	8	11
Romanian (n=20)	20	5	2	3

When asked what were the key knowledge and skills within their organization, there was rather greater agreement amongst companies in both countries about the attributes on which they relied. Technical skills were again the most frequently cited in both countries but the Romanian companies also saw themselves as relying on business and to a lesser extent creativity and interpersonal skills, although again the Turkish companies were more focussed on creativity than companies in Romania (see Table 3).

Table 3. The number of Turkish and Romanian companies mentioning different types of key knowledge and skills in their companies

Companies	Technical Skills	Creative Skills	Business Skills	Interpersonal Skills
Turkish (n=21)	15	14	5	8
Romanian (n=20)	14	6	9	2

Some Turkish companies also mentioned experience, for example "experience - we're seen as an old company for this sector", another mentioned their "technical substructure, innovation, research and development" and others cited the quality of their staff "having experienced and qualified staff" and "our most important key factor is our team's service ability". Similarly, Romanian companies mentioned factors such as "experience obtained through practice and international exchanges" and their "well trained people".

The companies were also asked about the types of skills most in demand in their part of the industry and here once again the Romanian companies concentrated most on technical skills, whereas the Turkish companies saw a greater demand for creativity and interpersonal skills (see Table 4).

Table 4. Types of skills seen as most in demand within the company's industry segment

Companies	Technical Skills	Creative Skills	Business Skills	Interpersonal Skills
Turkish (n=21)	12	12	3	10
Romanian (n=20)	18	6	3	0

Companies in both countries did not see a particular demand for business skills within the industry. This may be due to the fact that the main challenge is currently seen as being technical rather than commercial. In Romania new companies have frequently been founded by former directors of state-owned companies who rely on their former knowledge of and contacts with customers and suppliers. At the same time they employ a relatively young labour force. Some Turkish companies for instance saw business skills as part of a particular profile needed in the industry: "a staff who has product knowledge, sales notion, well trained and good looking", "education, experience, development, co-ordination", "promotion and software knowledge". Others concentrated on technical skills like "specialist in Microsoft, Cisco, SCO, Novell", or "Internet focused content and software development skills", "monitoring new development and adaptation". A number of the companies also mentioned the need for innovation and adaptation in a fast moving industry, for instance "innovation, observing new developments and adaptation". Others mentioned the problem of staff turnover in this new industry and saw the need for loyalty from staff and business ethics too: "innovative, monitoring new developments, loyalty, honesty", "will not transfer (poach) other firms' staff". Business skills mentioned by Romanian companies included "communication with clients and marketing".

Within their own organizations the demand for technical skills was apparently stronger amongst Romanian than Turkish companies, whereas more Turkish companies cited a demand for business or interpersonal skills. In both countries the skills that were least in demand in the companies were creative skills (see Table 5). This pattern may be because the skills in least demand are already well represented in the companies and/or that there is a greater availability of people with design training compared with other backgrounds or that creative skills are not regarded as particularly important.

Table 5. The skills seen as most in demand within the Turkish and Romanian companies

Companies	Technical Skills	Creative Skills	Business Skills	Interpersonal Skills
Turkish (n=21)	5	3	9	10
Romanian (n=20)	16	5	6	3

When asked about skills shortages in their companies, none of the Turkish companies were short of people with technical skills but this was a problem for some of the Romanian companies, although more reported a shortage of people with business skills. Over half the

First		2	9	2	8		
Second		2	4	9	4		
Third			2	3	3		
Total mentions		4	15	14	15		

Table 9. Romanian companies' success factors

Order of mention	Number of companies						
	Commitment	Client focus	Technical competence	Creativity	Business acumen	Reputation	Other
First	1	2	8	2	7		2
Second	1	3	2	2	2	1	
Third		2					
Total mentions	2	7	10	4	9	1	2

5. Conclusions

The development of e-business in emerging economies depends in part on the competence of the multimedia companies providing essential tools. Companies in Romania and Turkey recognize the importance of technical skills, although Romanian companies appear excessively focused on technical skills to the detriment of business and interpersonal skills and creativity. As is typical of a new industry, the supply of available skilled individuals lags behind industry demand. Clearly, increasing the supply of skilled employees (by means of the education system and firms themselves) would assist the future expansion of e-business. These results will benefit companies and educational providers by giving greater insight into company strengths and weaknesses and training needs in different economic contexts. For the project team a major benefit has been working with international partners and gaining greater knowledge of the challenges facing an emerging industry in different countries.

With increasing demand for e-business in the advanced economies, the emerging economies offer opportunities for sub-contracting. As well as cost benefits, the recognition of the need for technical competence provides a sound basis for carrying out work for firms in the advanced economies. Such a relationship between e-businesses in the advanced and emerging economies would benefit e-businesses in the advanced economies and also the further development and expansion of e-business in countries such as Turkey and Romania.

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