Soviet Influences on Latvian Attitudes Toward Information Technology

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As the countries of Eastern Europe and the Baltic region move from centrally planned economies to market-oriented systems, their information system structures are undergoing radical transformations. Under the Soviet economic and management model the free flow, or sharing of information, existed only when it served the purpose to shape society and even then it was subject to distortions and fabrication. Individual initiatives, risk-taking, and the embracing of technology change were not encouraged. Those individuals who grew up and worked under this type of model have a frame of reference that influences their participation in the emerging economies and information technologies of the region. This paper examines the developing information technologies and transformations in one former Soviet controlled country, Latvia. It considers how the Soviet economic and management model has influenced information system development in Latvia. Such influences need to be understood by Western firms entering into joint ventures, not only in Latvia, but also in other former Soviet-controlled countries.

By most international measurements of computer development, including computers per capita, computer power in millions of instructions per second (MIPS), and computer industry development potential (CIDP), Russia has lagged significantly behind countries in North America, Western Europe, and the country of Japan. When MIPS per capita are indexed against the United States (with a value of 100), Russia was rated at 0.66 in 1985, 3.46 in 1995, and is projected to be only 7.32 in the year 2000. (Palvia, Palvia & Zigli, 1992; Petska-Juliussen & Juliussen, 1996). Not only is Russia "information poor" because of severe hardware, software, and network deficiencies, but it is also a society that lacks an appropriate "information culture." That is to say, Russian society lacks those values, habits and behaviors that encourages the sharing and free flow of information both within and between organizations (Chepaitis, 1994).

Eastern Europe countries have only fared slightly better in their computer development. For instance, Poland’s MIPS per capita was indexed at 1.31 in 1985, 6.11 in 1995, and is projected to be only 11.51 in the year 2000. However, with the central controls of the former U.S.S.R. now lifted, many of the newly independent countries of Eastern Europe and the Baltic region are emerging as fast developing countries in terms of both their economies and computer resources. One such country is Latvia. Its emerging information technologies and the attitudes of Latvians towards such technologies, are the focus of this paper.

In particular, this paper will focus on how the Soviet model of central control has shaped Latvian attitudes towards the use and sharing of information technology. The development of a survey, used to ascertain such attitudes, will be presented. The responses to that survey will then be examined in terms of Latvian perceptions of equity in the distribution of information resources, the degree of their participation and involvement in the development and implementation of information systems, their overall satisfaction with such systems, and their perceptions of information sharing both within and external to their work environment.

Latvia, A European Crossroad

Situated on the great Northern European Plain, between its Baltic neighbors Estonia to the north and Lithuania to the south, Latvia has historically served as a bridge between Eastern and Western Europe. It has been a trade corridor for Germanic and Slavic traders, a religious mosaic of Western Latin Christianity and Eastern Orthodoxy, and during this century, a political battleground between Fascism and Com-
munism (Liulevicius, 1995). Today it serves as an economic bridge between the fast growing open-market economies of the European Unity and the sluggish transitional economy of Russia.

Over the past 800 years, Latvia has had only two periods of true independence, 1920 to 1940 and 1991 to the present. It has historically been politically dominated by a number of countries, including Poland, Sweden, Germany and more recently by the former Soviet Union. This latter domination left Latvia with an economy centered on outmoded heavy industries and a displaced workforce composed mostly of ethnic Russians without citizenship. Native Latvians constitute slightly less than 52% of the population and in many major cities, including the capital of Riga, they are actually in the minority. However, it is within this native Latvian population that one is most likely to find entrepreneurs and open-market advocates. In conjunction with many Scandinavian and other European and American partners, these economic reformers are transforming the economy of Latvia and revolutionizing the use of information technology (Klose, 1996; Reardon, 1996).

The Soviet Management Model

The typical individual trained in the Soviet management model was taught that it was more important to be ambitious, obedient and ideologically correct that it was to have talent. Individual initiatives were not encouraged. The penchant for following orders led to a great deal of inexperience in risk taking. Shortcomings were “regarded as a sign of systemic failure and no individual carrier(d) any personal responsibility for anything” (Neimanis, 1997, p. 113). Among workers, there was a general desire for equality of rewards and the security of one’s position, irrespective of one’s efforts. There was generally little concern as to the quality of goods and services provided and technological change was never embraced or welcomed (Neimanis, 1997).

The most sought after group of managers/workers, by domestic entrepreneurs and foreign firms desiring to do business in the former U.S.S.R, has been those individuals 35 years of age and younger. This group has had minimal exposure to the Soviet model and generally considers communism, and its concepts of equality, as obsolete values of the previous generation. They equate capitalism with personal financial success (Neimanis, 1997). This younger generation also tends to be “more educated, more open (to change), and more cosmopolitan, as well as more disillusioned and cynical” (Harris & Moran, 1991, p. 493).

This disparity in managerial/worker attitudes based on age differences can also be expected to carry over into attitudes towards information technology. If indeed there are age-based differences, then firms desiring to invest in the emerging economies of former Soviet block countries must be prepared to detect and address such differences when implementing their information technology (IT) strategies. This study strives to assist such firms by investigating attitudinal differences towards various constructs that impact on information system success. While the constructs selected have been studied by other researchers, little of that research has been done outside of the open market economies in which the constructs were developed. This research study investigates managerial attitudes toward user involvement, user participation, equity, and equity sensitivity, in the transitional economy of Latvia as it moves from a centrally planned to a market-oriented environment.

The Constructs of the Study

A number of research studies have been conducted to determine the factors that influence information system success. One of the most widely used surrogates for measuring information system success has been the user satisfaction variable. DeLone and McLean (1992) cite 33 journal articles for the period 1981 to 1987 that address empirical studies of user information satisfaction. Drawing from some of the more recent studies on user information satisfaction (Barki & Hartwick, 1994; Joshi, 1992; Kappelman & McLean, 1994) and equity issues (King & Miles, 1994; King, Miles & Day, 1993), a number of constructs have been selected for this study. The constructs impact on successful information system outcomes by influencing user information satisfaction. Those constructs, user involvement, user participation, equity, and equity sensitivity are discussed in more detailed in the following sections. In addition, the construct of information sharing is analyzed.

User Involvement: User involvement is the subjective psychological state of an individual during the development and implementation stages of an information system. Barki and Hartwick (1994) believe that there are two dimensions to this construct. One dimension, user attitude, “should be used to refer to a psychological state reflecting the affective or evaluated feelings concerning a new system” (p. 62). The other dimension is user involvement, which is defined as “the extent to which a user believes that a system is both important and personally relevant” (p. 62). This approach is very similar to Kappelman and McLean’s (1994) research, where user involvement is viewed from both a process and system perspective.

Because of the resistance of individuals trained in the Soviet model to embrace change, it might be expected that their level of involvement in the development and implementation of information systems would be low. This would be particularly true if they perceived the change brought on by the technology as threatening the security of their position and/or the status quo of their work environment. Using the number of years of work experience as an indicator of the degree to which an individual has been ingrained with the Soviet model of economic and management practices, it is hypothesized that:

H1: As the number of years of previous work experience increases for a Latvian, the less likely they are to be