Do organisational factors support creativity and innovation in Polish firms?

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Abstract

Purpose of this paper
Martins and Terblanche (2003) developed a theoretical framework of the organisational factors that support creativity and innovation, and the current study provides an empirical test of this framework.

Design/methodology/approach
Based on a review of existing literature on national culture and previous research into Polish organisations, we developed hypotheses as to the likely position of Polish organisations on these four dimensions. These predictions were tested via a survey of Polish managers from a diverse range of companies.

Findings
The key findings related to ownership – partly or fully foreign-owned companies operating in Poland appeared to be much more enabling of creativity and innovation than their wholly Polish-owned counterparts.

Research limitations/implications
Nicholson (1999) suggested that Polish businesses would benefit greatly from the adoption of at least some Western methods, but that there would be significant constraints to their adoption. Our research strongly supports this, but being based solely on a Polish sample, requires further research in order to be able to make direct comparison between firms in Poland and firms elsewhere.

Practical implications
One conclusion of this study is that Polish organisations can draw significant benefits from further effective assimilation of western management philosophy and methods.

Originality/value
This paper contributes to the growing literature on organisational determinants of innovation, and on the transfer of Western methods to the transition economies of Central and Eastern Europe. It offers insights of interest to managers in Polish businesses and to potential investors in Poland.

Keywords: Innovation, creativity, organisational learning, organisational culture, Poland, western management methods.

Paper Type: Research paper
Introduction
The aim of the article is to establish the extent to which Polish organisations facilitate innovation and creativity. We adapted a framework developed by Martins and Terblanche (2003) to examine four key dimensions - strategy, structure, support mechanisms and behaviour - and surveyed Polish managers to identify how different organisations score on these dimensions. The results are examined against the backdrop of previous surveys and qualitative studies of Polish organisations. Nicholson (1999) noted a distinct difference among Polish-based organisations in terms of their adoption of western methods, and we have therefore compared fully Polish-owned companies and partly or fully-foreign owned companies operating in Poland to determine the impact of western management practice on organisational learning capability. On the basis of this analysis, we consider the scope for further assimilation of these methods by Polish companies seeking to compete on innovation (developing new products, processes and systems) and creativity (generating new ideas and insights).

Since 1989, Poland has been undergoing rapid, major change in all aspects of social, political and economic life. Equally rapid learning and unlearning has been a necessity spanning all levels of the society – from the state through the organisation to the individual. In the first two years of the transformation alone, the changes included a tenfold increase in interest rates, the introduction of a mass privatisation programme, the establishment of over a million new ventures, as well as a collapse of traditional export markets (Hartog et al, 1997). As a result of numerous economic and political reforms, Poland was able to achieve an average GDP growth of 4.4% over the past decade and became a member of the European Union in 2004. This relative economic and political success would appear to indicate that these learning processes have been to a significant extent efficient. However, given the demands of the knowledge economy and intense global competition, Poland is faced with the need to continue to learn at a rapid pace just to prevent the widening of the gap in economic development that still separates it from Western European countries. Polish high-technology exports in 2003 amounted to only 3.1% of all manufactured exports (The World Bank Group, 2005), which compared to e.g. UK (25.8%) clearly indicates that there are still significant learning challenges ahead for Polish businesses, especially in the area of innovation. It is therefore worth exploring to what extent Polish organisations are supportive of innovation and creativity, processes increasingly identified as important sources of competitive advantage.

Organisational learning?
We suggest the subject matter of this article might be discussed in two contrasting ways – as being about organisational learning and learning organisations, or as being about innovation and creativity, and the organisational cultures that support or inhibit these processes. Martins and Terblanche (2003) use the latter approach, but in doing so work with a slightly unusual and very broad definition of organisational culture. They argue that organisational culture is shaped by strategy, structure, support mechanisms and behaviour, and that these factors influence the organisation’s ability to stimulate innovation and creativity. Whilst we concur with the latter point, it is clear that in general organisational culture would not be seen merely as a product of strategy, structure etc. Watson (2002) argues that it is more useful to think in terms of a process-relational perspective, in which no ‘factors’ are seen as pre-eminent (or preceding) but instead interact in terms of organising and managing work. In that context, it is useful to think in
terms of the various attributes of the organisation which might enable or inhibit innovation and creativity. The literature on organisational learning and the learning organisation offers considerable insights into this issue, and we will now turn to a consideration of these ideas.

The terms learning and adaptation are widely used in the literature, although both are used by different authors to refer either to behavioural adjustment to circumstances (Cyert and March, 1983) or more complex processes involving cognition and understanding (Chakravarthy, 1982). Moreover, other authors use the terms to signify different levels of the same phenomenon, with learning being the higher-level phenomenon, within which adaptation can be subsumed, being viewed as simple defensive adjustment (e.g. Hedberg, 1981). Hedberg’s conceptualisation of learning and adaptation as different levels of complexity of the learning process is a useful distinction, firmly rooted in the organisational learning tradition of recognising the multi-level nature of learning in general and organisational learning in particular (e.g. Argyris and Schon, 1978; Flood and Romm, 1996; Snell and Man-Kuen Chak, 1998).

Fiol and Lyles (1985) suggest we might distinguish between lower- and higher-level learning:

**Lower-level Learning**: Focused learning that may be a mere repetition of past behaviours – usually short term, surface, temporary, but with associations being formed. Captures only…adjustments in part of what the organisation does.


Fiol and Lyles (1985: 810)

This classification is clearly consistent with both Hedberg (1981) and Argyris and Schon (1978).

Higher-level learning is the main concern of this study, which focuses on the exploration side of the exploitation–exploration distinction proposed by March (1991), where exploitation refers to the capability to take effective action based on existing organisational knowledge, and exploration refers to the search for new knowledge, new solutions and new opportunities.

We can therefore see that higher-level learning, whilst not simply synonymous with innovation and creativity, clearly incorporates these processes. On this basis, we might expect that factors found to be enabling of higher-level learning will therefore be enabling of innovation and creativity, and it is to a consideration of these factors that we now turn.

**What factors influence innovation and creativity?**

Fiol and Lyles (1985) distinguish four forces or factors which “affect the probability that learning will occur”: 

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corporate culture conducive to learning, strategy that allows flexibility, an organisational structure that allows both innovativeness and new insights, and the environment. (Fiol and Lyles, 1985: 804)

In his review of the literature, Dodgson (1993) suggests eight elements that can either facilitate or inhibit learning - strategy, structure, the uncertainty of the environment, the value attributed to learning by the organisation, new technologies, resource allocation policies, individual behavioural characteristics and group dynamics. Martins and Terblanche (2003), looking specifically at factors which stimulate innovation and creativity, suggest five factors: strategy, structure, support mechanisms, behaviour and communication.

It can be seen that there is a fair degree of congruence of findings regarding the factors which influence organisational learning. These can be summarised as: organisational culture, strategy, structure, procedures, resources (including technology and training), and the stability of the environment. A further synthesis is possible, resulting in a classification into environmental, cultural, strategic, structural and infrastructural influences. We will consider each in turn, in terms of how they shape the learning process.

Environment
As far as the influence of the environment is concerned there is general agreement among researchers that the more turbulent the environmental circumstances, the more incentivised the organisation is to learn and the greater the benefits in terms of long-term survival and profitability. However, this is only true up to a point - as Fiol and Lyles (1985) note, in extremely uncertain external circumstances, organisations cease to learn at the higher, cognitive level and concentrate on mere adaptation by trial-and-error. This may be particularly relevant to Poland, since the considerable turbulence during the early transition period might have meant organisations were operating solely at this trial-and-error level of learning.

Culture and Behaviour
A culture supporting higher-level learning would be rooted in the values of creativity, innovation, expertise, self-development, knowledge sharing, mutual trust and appreciation of diversity. For these values to take effect, they would have to be not only held by the organisation members but also acted on, i.e. manifested in people’s behaviour (Argyris and Schon, 1978).

The literature provides the following profile of the culture of a learning organisation: it is a “community of commitment” (Senge, 1992), providing a safe environment of trust, understanding, acceptance, and dialogue (Crossan, Lane and White, 1999; Romme and Witteloostuijn, 1999). It is an egalitarian and interactive work environment where everyone’s ideas are given equal consideration (Romme and Witteloostuijn, 1999), where superiors are ‘servant leaders’ (Senge, 1992) – open to ideas, supportive of experimentation and understanding in case of failure – and where not only results but also creative action (Ford and Ogilvie, 1996) is rewarded. Teamwork is a common and appreciated mode of working (McGill et al, 1993; Hill, 1996) and diversity of backgrounds, cognitive styles and opinions is encouraged and cultivated (Argyris and Schon, 1978).
For the purposes of our survey, we have emphasised the behavioural aspects of culture, since these are more amenable to measurement but can obviously be taken as a strong indication of organisational culture (Hofstede et al, 1990).

**Strategy**

Strategic orientation defines the context for organisational learning and sets the direction for the search of new knowledge and opportunities. A strategy that is supportive of learning will be market and customer oriented (McGill et al, 1993) and place an emphasis on quality and service rather than efficiency and productivity. In this way organisational members are motivated to seek information from the outside (from customers, suppliers and competitors) to inform their innovativeness, and will be encouraged to experiment and take risks (McGinnis and Ackelsberg, 1983; Lawson and Samson, 2001). The effectiveness of the strategic influence on organisational learning processes will of course depend on how well strategic objectives are communicated and how well they are aligned with the professional and personal goals of the organisation members (McGill et al, 1993; Lawson and Samson, 2001). At the same time a certain freedom of interpretation of strategic goals is facilitative to learning – individuals are likely to take more initiative when they feel empowered to define their own agenda (Ulrich et al., 1993; McGinnis and Ackelsberg, 1983).

**Structure**

A flat, decentralised, flexible structure is generally considered to be supportive of creative action and innovativeness (Hedberg, 1981; Meyer, 1982; Nonaka, 1994). Within a decentralised structure, information flows more freely in all directions, and interfaces with other functions are more easily worked as points of cooperation rather than divisive barriers to be overcome. This in turn facilitates cross-functional teamwork and dissemination of ideas (Garvin, 1993). A flat structure facilitates decision making both by granting more autonomy to all members of the organisation and by making access to superiors easier (Martins and Terblanche, 2003). Structural flexibility in terms of employee influence on work organisation, task prioritisation and procedures creates opportunities for individuals to take initiative and innovate (Hill, 1996). Job rotation schemes and networking opportunities are conducive to knowledge sharing and integration.

**Support Mechanisms**

This covers all support mechanisms a company can utilise to operate in a well-coordinated, effective way. It includes procedures and policies, technology, training schemes and other resources. An example of a policy supportive of learning might be a recruitment policy oriented towards ensuring diversity of the work force (Brodtrick, 1997). Employee evaluation procedures based on appreciation for creativity, initiative and innovation coupled with intrinsic rewards such as increased autonomy or opportunities for personal growth are a powerful instrument in the promotion of a learning culture (McGill et al, 1993; Martins and Terblanche, 2003). Information systems ensuring good communication and access to information are an obvious asset in terms of learning facilitation as are well-designed training schemes oriented not only at in-depth expertise development but also social skills and broad professional development (Martins and Terblanche, 2003; Hill, 1996).

**Summary**
Based on open systems theory (Bertalanffy, 1950; Katz and Kahn, 1966) it is posited here that organisations are to a considerable extent a product of the interaction of all the above listed aspects of the organisation. This is also consistent with the Martins and Terblanche (2003) framework. This framework has been adapted for the purposes of the present study in the format presented above, i.e. encompassing the four dimensions of strategy, structure, support mechanisms and behaviour.

An organisation’s capacity for higher-level learning is a matter of degree (Argyris and Schon, 1978). The above mentioned determinants can be present within an organisation in different configurations and in varying degrees of strength or development. It is therefore proposed that by measuring the extent to which organisations ‘measure up’ to the ideal types on each of the four dimensions outlined above, it should be possible to assess the extent to which an organisation is enabling of innovation and creativity.

The organisational learning capabilities of Polish organisations
Having identified four key dimensions which appear to influence organisational learning, we now turn to a consideration of how Polish organisations might be expected to be positioned on these dimensions, drawing upon previous research on national and organisational culture in Poland.

The idea that organisational culture is influenced by the wider national culture of the organisation’s environment is of course closely associated with Hofstede (1980). The five dimension framework for national culture proposed by Hofstede (e.g. Hofstede 2002, Hofstede and Bond 1988) has been widely used by researchers from diverse backgrounds, and can be seen to have relevance to the present study. There have been two major studies of Polish national culture using Hofstede’s (1980) method. A survey by Nasierowski and Mikula (1998) used Canadian respondents as a point of comparison. The study took into account only the four original dimensions, omitting long term versus short term orientation. Inspired by the then imminent European Union accession of Central and East European countries, Kolman et al (2003) conducted a survey of four Central European countries – among them Poland – using Hofstede’s methodology. The study used Dutch respondents to calibrate the scores. The results of both surveys are shown in Table 1:

Take in Table 1

There are some discrepancies between the studies; however the general direction for Poland on each dimension is consistent.

To date there have been very few attempts to study Polish organisational culture – most probably due to historical circumstances related to the socio-economic system under which Poland was governed until 1989. The culture studies conducted in Poland before 1989 (e.g. Sarapata, 1977; Hirszel, 1983; Holstein-Beck, 1987) are of dubious scientific value as they are permeated with the ‘politically correct’ attitude of that time. Of the studies that have been done after 1989 only a few are of relevance to the present paper and provide some fragmented insights into Polish organisations. Yanouzas and Boukis (1993), in their paper on transporting management training into Poland, point out that Poles, compared to Americans, are more likely to join together against the “common enemy”. Jankowicz (1994) describes Polish attitude towards authority as “idiosyncratic”
– although respect is formally paid to superiors, it is not necessarily a manifestation of the real attitude to those in power. Strong attachment to autocratic management style and outward manifestations of authority has been noted by several researchers including Hickson and Pugh (1995), and Jankowicz and Pettitt (1993).

Nicholson (1999) classifies Polish companies into three categories: state owned, joint ventures with western partners, and ‘the new Polish way’. Based on interviews with 50 managers, he draws a comparison between these categories. The most striking observation resulting from this comparison is the enormous difference between the state-owned companies and the new Polish entrepreneurial companies. While the state owned enterprises are characterised by strong hierarchy, centralisation and bureaucracy, as well as reactive, conservative, and complacent attitudes, ‘the new Polish way’ businesses are aggressive, flexible, opportunity driven, capable of rapid transformational change, and eager to copy western management methods. Our study did not find the same three way distinction, and we might speculate that these ‘new Polish way’ companies become more like traditional Polish organisations as they grow and become more structured and bureaucratic. Consistent with this, Wojnicka (2004) suggests that innovation in Poland is actually decreasing.

The picture of Polish organisational culture that emerges from these surveys and qualitative studies of organisational culture in Poland is not very optimistic with regard to the potential of Polish organizations for stimulating innovation and creativity. A typical Polish organization would be characterised by a highly authoritarian leadership style, centralised decision making and rigid functional structure. The relative importance of status and its outward manifestation would result in difficulties in spreading ideas either vertically or horizontally throughout the organization, with superiors protecting their claim to be right and functional departments safeguarding their position relative to each other. Employees, far from feeling empowered, could be expected to resist change and avoid the risk of taking autonomous action. While teamwork could be expected to develop easily, informal groups would be likely to espouse the “us versus them” mentality resulting in passive resistance towards the authoritarian leader. Moreover, teams would be likely to suffer from a groupthink syndrome as a result of low tolerance for diversity typical of high uncertainty avoidance.

**Hypotheses**

On the basis of existing literature, we propose four hypotheses about the nature of Polish organisations with respect to the four key dimensions which underpin organisational learning:

**H1 - Strategy:** Poland has a relatively low score on long term vs. short-term orientation, and Polish companies have been operating within a highly turbulent environment since 1989, an environment which has only recently started becoming more predictable. Given that changes in the managerial mentality will require time to catch up with changes in the economic environment (Martan, 1993), it is predicted that Polish-owned companies will score lower on the strategy dimension compared to foreign-influenced companies.

**H2 - Structure:** Features of the old command economy are still present in those Polish organisations currently or formerly state-owned (Nicholson, 1999). Moreover, Poland is relatively high in terms of power distance and uncertainty avoidance. It is therefore
predicted that Polish companies will score lower than foreign-influenced companies on the structure dimension.

H3 – Support Mechanisms: Poland’s very high scores on uncertainty avoidance and power distance would seem to be unfavourable for this dimension, however the zest with which Polish companies have been copying western management methods (Nicholson 1999) may serve to counteract these effects. The difference might therefore be lower than expected, but it seems likely that any gap will have narrowed, rather than closed. We therefore predict that Polish organisations will still score lower than foreign-influenced organisations on this dimension.

H4 - Behaviour: The high scores of Polish managers on uncertainty avoidance, power distance and masculinity, and the supporting evidence from other studies (Jankowicz and Pettitt, 1993; Jankowicz, 1994; Hickson and Pugh, 1995) imply that behaviour in Polish organisations should not be favourable to creativity and innovation. It is unlikely that the low score on individualism would be enough to counterbalance these forces. It is therefore predicted that Polish companies will score lower on the behaviour dimension compared to foreign-influenced companies.

Methodology
The study set out to investigate the extent to which Polish organizations are supportive of organisational learning. To this end a survey was conducted among Polish managers to measure their perceptions of how their organisations perform on the key dimensions which influence organisational learning.

A questionnaire using a seven-point Likert-type scale was developed based on the literature review. The questionnaire consisted of forty items, ten items per dimension, with equal weights assumed for each dimension. The four dimensions corresponded to the four dependent variables: strategy, structure, support mechanisms, and behaviour. Nine of the forty statements of the questionnaire were reverse coded. The following are examples of the statements from the questionnaire, each beginning with the phrase “In my organization…”: “developing new products and services to solve customers’ problems is a strategic priority” (strategy dimension); “cross-functional teams are a common mode of work” (structure dimension); “employees have an influence on how much and what sort of training they receive” (support mechanisms dimension); “one is not supposed to contradict one’s superiors” (behaviour dimension). The full survey is shown in the appendix.

The study was conducted on an opportunity sample of 67 Polish managers, all of whom were Executive MBA students at leading Polish Business Schools. The return rate was 100%, but three questionnaires were incomplete. Respondents were asked to rate the extent to which they agreed or disagreed with the forty statements in respect of their own organization (from 1 = “I strongly disagree” to 7 = “I strongly agree”), thus the survey measured perceptions of the respondents rather than their attitudes, which was a deliberate strategy adopted in order to maximize the “objectivity” of responses. Additionally, using a four-item multiple choice questionnaire the respondents were asked to provide information on the independent variables: organisational size, the nationality of ownership, state-ownership history and their position in the organization.
The main grouping variable was ‘nationality of ownership’ as we were seeking to compare Polish companies, defined as those without any foreign influence, with ‘foreign-influenced’ companies, including joint ventures and subsidiaries of international corporations. In addition, data was gathered on size, history of state ownership and respondents’ position in the organisation. The latter was included to enable screening for possible bias predicted on the basis of the findings of a study by Block (2003), who reported a significant correlation between managers’ assessment of the organizational culture and the number of levels they were removed from line employees.

A pilot study was conducted with five respondents from an organization familiar to the first author, making it possible to compare the pilot results with her evaluation of the organization. The researcher’s predictions were borne out by the results of the pilot study. The small sample size for the pilot study precluded testing the reliability of the questionnaire scales, and this was therefore done after the survey had been carried out, with the use of Cronbach’s coefficient alpha. Treating each of the 10-item scales as a separate questionnaire allowed an analysis of the internal reliability of each scale (Churchill, 1990; Clark-Carter, 2004). The results indicated several items were outliers, and these were ignored in the subsequent data analysis, reducing the questionnaire to 32 items, with 8 items in each scale:

Take in Table 2

Most researchers consider an alpha of 0.70 to be an acceptable criterion for adequate scale reliability (Oakshott, 2001).

**Findings**
The profile of respondents is shown in table 2 below.

Take in table 3

Using Levene’s Test for Equality of Variance, data distribution was found to approximate to normal thus enabling the use of an independent samples t-test for analysis of the data. Prior to analysis of the effect of the main independent variable (nationality of ownership), the data was analysed to identify whether there were any significant effects associated with size and history of state ownership. In both cases the only significant differences were on the Structure dimension:

Effect of size: \( t = 2.162, df=62, p<.018, \text{mean difference of } .67179 \)

Effect of history of state ownership: \( t =-2.182, df=61, p<.017, \text{mean difference of } -.58135 \)

In the case of size, the effect is unsurprising – larger organisations will almost inevitably need to adopt more formal structures. In the case of history of state ownership, we noted above that Polish organisations were traditionally highly formal and structured, so it is not particularly surprising to find this legacy in organisations with a history of state ownership. It is, however, an interesting finding – the vast majority of organisations in this category had been privatised, so it is noteworthy that this radical change to the organisation’s status appears not to have significantly shifted its characteristics in terms of structure.
For ‘nationality of ownership’ as the independent variable, the following results were obtained:

Take in table 4

It was noted above that position in the organisation can produce a bias effect as to how the organisation is perceived (Block, 2003). For the present study, it seems reasonable to suggest that middle managers will have a more accurate picture of how the organisation functions in practice on each of the four key dimensions, so the data was re-analysed excluding the ‘executive’ respondents (owners and top management). The revised analysis yielded the following results:

Take in table 5

Both tables indicate the same pattern, fully supporting the predictions made on the dimensions of Strategy, Structure and Behaviour, where there are statistically significant differences, but not for the Support Mechanisms dimension, which shows no significant difference. Table 5 shows much greater differences and much higher levels of statistical significance. In this table the Support Mechanisms dimension approaches statistical significance, which is consistent with our suggestion that the rate at which Polish organisations are copying Western management methods (Nicholson, 1999) has narrowed but not closed the gap between Polish and western organisations in this area.

**Discussion**

The results of the survey support three of four predictions derived from the results of previous studies of Polish culture, and in particular those studies based on Hofstede’s indices. The differences are statistically significant and the effect size is substantial. Strategy, structure and behaviour have been confirmed to be less supportive of creativity and innovation in Polish organizations compared to organizations influenced by foreign ownership. This indicates that Polish organisations are less supportive of higher level learning functions than western organisations (see figure 1 below). Yet this finding stands in stark contrast to the evidence of considerable progress made by the Polish economy through the transformation period and subsequently.

Take in figure 1

There are a number of possible explanations for this apparent contradiction. Firstly, it could be that rapid learning has indeed been happening but not of the higher-level type measured by the questionnaire. It is possible that the main focus of learning in Polish organizations has been on gaining functional expertise and copying western management methods (Nicholson, 1999) rather than on their own innovation and creativity. Secondly, it may be that the Polish environment has been so turbulent that what may be taken for higher-level learning is in fact high-rate adaptation characteristic of trial-and-error behavioural adjustment described by Fiol and Lyles (1985). A third interpretation is that the survey’s assumption of equal distribution of weights among and within the four dimensions should be reconsidered. It is possible that Polish organizations’ excellence on certain aspects of some dimensions compensates for their shortcomings on other aspects of the same or different dimensions, especially if a given dimension in itself has a greater bearing on facilitating creativity and innovation than the
remaining ones. At a more general level, the results suggest that neither Polish nor foreign-influenced companies are very supportive of higher-level learning functions, such as creativity and innovation. The scores on none of the dimensions exceeded 5 points on a scale from 1 to 7.

Given the stress laid on the importance to the Polish economy of improving its performance on innovation (e.g. Wojnicka, 2004) these findings raise the question of what Polish organisations might do to close the gap on western companies. Note that this is a macroeconomic issue – at the level of the individual company quite different considerations may apply. It may be that the two types of company are operating in quite different contexts and/or with very different constraints. For example, without the financial backing of a larger parent company, it may be entirely appropriate for a Polish-owned company to focus on adaptation, rather than higher-level learning. It seems likely however that Poland’s accession to the EU has significantly altered this context, making it more important for Polish companies to be able to compete on the basis of product, process and technology innovation. This analysis is consistent with the European Commission’s strategy on regional development, which identifies innovation as the primary source of competitive advantage for European SMEs in the face of mounting global competition (European Commission DG Regional Policy, 2002).

Methodological issues and implications for further research

There were some issues raised by the design of the questionnaire. Selecting items for the questionnaire proved more difficult for Support Mechanisms than for the other dimensions, as this represents more of a ‘mixed bag’ of attributes – communication, reward and HRD systems. However, it is quite possible that the other dimensions are also multi-faceted. The Cronbach alpha values clearly indicate the scales have high internal reliability, however it would be important to identify the loading on each individual item through factor analysis, which would require a much larger sample size. The question of the relative magnitude of the effect of the four identified factors also calls for further attention from researchers. Establishing this relationship would allow for a refinement of the questionnaire to produce a more precise instrument for measuring the various effects these factors have on organisational learning.

The present study examined those attributes identified within the literature as enabling of innovation and creativity. It would be valuable to be able to establish a clear link with outcomes – can organisations which score highly on these attributes be clearly seen to be more innovative and creative? This is of course difficult to operationalize, and an alternative approach would be to make transnational comparisons as, at the level of national economies, it is possible to identify between-country differences in performance on innovation (Radosevic, 2003). Logically then, organisations from innovative economies ought to score higher than organisations from less innovative economies, and this finding would both support the theoretical framework proposed and to some extent validate the questionnaire.

An interesting avenue of research would be a comparative survey of Polish and Western European organisations using the same questionnaire to determine to what extent Polish organisations differ in higher-level learning from foreign organisations not operating in the Polish environment. This sort of study should bring more definitive answers to the questions posited in this paper. In the context of the recent expansion of the European Union, using the survey developed here to undertake a comparative study
of organisations in former Soviet Bloc countries could bring some insight into the progress made by companies in these countries against the backdrop of their different pathways to economic and political transformation and would give researchers a valuable tool for estimating the different challenges they may face in developing their economies within the European business community.

Conclusions
In the context of Poland’s recent accession to the EU, it has to be concluded that Polish companies are not equally well-equipped for competing on innovation and creativity as their western counterparts. There is however some cause for optimism in our finding that foreign-influenced companies in Poland score more highly in terms of factors supportive of innovation and creativity. This clearly indicates that it is possible for companies operating in Poland to develop these capabilities. Selmer and DeLeon (1996) suggest that employees within foreign subsidiaries come to adopt the parent company’s work values and thereby their working practices. This suggests that the challenge for Polish-owned companies is to develop their innovation and creativity potential in the absence of such an influence, through further effective assimilation of western management philosophy and methods.

This article has provided a first empirical test for the theoretical framework proposed by Martins and Terblanche (2003), and the findings indicate strong support for their conceptualisation of innovation and creativity as an emergent property of organisations facilitated by various factors. The framework holds considerable promise for further research, and for guiding management initiatives aimed at stimulating innovation.

References


Appendix: Survey Items

(Those items removed after Cronbach's alpha analysis are shown in italics)
1. All employees have a thorough understanding of the company's mission and vision.
2. The vision and mission are focused on the future.
3. The vision and mission are strongly market oriented.
4. Developing new products and services to solve customers' problems is a strategic priority.
5. The gap between where we are and where we want to be is regularly analysed and discussed.
6. Top management does not prescribe the details of how strategic goals are to be realised.
7. Personal goals of the employees are consistent with organisational goals.
8. Quality is the main emphasis reflected in the organisational goals.
9. Organisational goals are strongly oriented towards effectiveness.
10. There is a strong sense of purposefulness of the goals at all levels of the organisation.
11. The organisational structure is flat.
12. The organisation is composed of highly specialised functional departments.
13. Decision making processes are formalised and standardised.
14. Flexible work arrangements (e.g. job rotation, flexible hours, job sharing) are possible.
15. All the employees have formal job descriptions which they are expected to adhere to strictly.
16. Employees have autonomy in organising their work and determining their own procedures.
17. Decisions are taken at the lowest possible level.
18. A lot of importance is attached to the development and support of team-work.
19. Cross-functional teams are a common mode of work.
20. Work-teams are diversified in terms of members’ expertise, skills and personalities.
21. Intrinsic rewards (e.g. increased autonomy, improved opportunities for personal growth) are a significant part of the motivation system.
22. Employees are rewarded for fault-free, efficient work.
23. Experimenting and generating ideas is appreciated.
24. Everyone has access to all the information they need.
25. New employees are selected for similarity of background and personality to the existing staff.
26. It is difficult to obtain resources for projects that involve above-average risk.
27. The training provided is focused on functional expertise rather than on social skills.
28. Employees have an influence on how much and what sort of training they receive.
29. Promotions are awarded in recognition of exceptional creativity, initiative and innovation.
30. If I want to devote special attention to a project of interest to me I have to do so in my own time.
31. Mistakes are ignored or covered up.
32. In case of failure there is an investigation to find out who is to blame.
33. All ideas are given a fair consideration.
34. Personnel are encouraged to talk and learn from one another.
35. Everyone is motivated to keep their knowledge and skills up to date.
36. Individuals are allowed to take risks as long as they do not harm the organisation.
37. Conflicts are resolved through constructive discussion.
38. We try to challenge the way things have always been done and look for a better way.
39. One is not supposed to contradict one's superiors.
40. The work environment is highly competitive.
Table 1: Polish national culture expressed in terms of Hofstede’s dimensions

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<tr>
<td>Power distance</td>
<td>72</td>
<td>62</td>
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<tr>
<td>Individualism – collectivism</td>
<td>56</td>
<td>55</td>
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<tr>
<td>Uncertainty avoidance</td>
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<td>85</td>
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<td>Masculinity – femininity</td>
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<td>87</td>
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<td>Long versus short-term orientation</td>
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<td>45</td>
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Table 2: Cronbach alpha coefficients for each dimension

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Cronbach alpha</th>
<th>Items omitted</th>
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<td>Strategy</td>
<td>.909</td>
<td>6, 9</td>
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<tr>
<td>Structure</td>
<td>.745</td>
<td>12, 13</td>
</tr>
<tr>
<td>Support Mechanisms</td>
<td>.717</td>
<td>22, 25</td>
</tr>
<tr>
<td>Behaviour</td>
<td>.832</td>
<td>32, 36</td>
</tr>
</tbody>
</table>

Table 3: Sample split by category

<table>
<thead>
<tr>
<th>Dimension</th>
<th>t</th>
<th>df</th>
<th>p (significance, 1-tailed)</th>
<th>Mean Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategy</td>
<td>-2.076</td>
<td>62</td>
<td>.021</td>
<td>-.68596</td>
</tr>
<tr>
<td>Structure</td>
<td>-2.138</td>
<td>62</td>
<td>.018</td>
<td>-.60161</td>
</tr>
<tr>
<td>Support Mechanisms</td>
<td>-1.382</td>
<td>62</td>
<td>.086</td>
<td>-.37749</td>
</tr>
<tr>
<td>Behaviour</td>
<td>-2.007</td>
<td>62</td>
<td>.025</td>
<td>-.59284</td>
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</table>
Table 4: Comparison of Polish and foreign-influenced companies, all respondents

<table>
<thead>
<tr>
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<th>df</th>
<th>p (significance, 1-tailed)</th>
<th>Mean Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategy</td>
<td>-3.028</td>
<td>49</td>
<td>.002</td>
<td>-1.11993</td>
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<tr>
<td>Structure</td>
<td>-2.965</td>
<td>49</td>
<td>.003</td>
<td>-.91144</td>
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<tr>
<td>Support Mechanisms</td>
<td>-1.631</td>
<td>49</td>
<td>.054</td>
<td>-.50145</td>
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<td>Behaviour</td>
<td>-2.204</td>
<td>49</td>
<td>.016</td>
<td>-.74204</td>
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</table>

Table 5: Comparison of Polish and foreign-influenced companies, excluding Top Management and Owner respondents

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Polish-owned</th>
<th>Foreign-influenced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategy</td>
<td>4.81</td>
<td>3.69</td>
</tr>
<tr>
<td>Structure</td>
<td>4.21</td>
<td>3.29</td>
</tr>
<tr>
<td>Support Mechanisms</td>
<td>3.91</td>
<td>3.41</td>
</tr>
<tr>
<td>Behaviour</td>
<td>4.36</td>
<td>3.62</td>
</tr>
</tbody>
</table>

Fig 1: Comparison of Mean Scores for Polish-owned versus Foreign-influenced companies (excluding Top Management and Owner respondents)