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Evaluation of Regional Policy from the Viewpoint of the Locational Behaviour of Firms

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“EVALUATION OF REGIONAL POLICY FROM THE VIEWPOINT OF THE LOCATIONAL BEHAVIOUR OF FIRMS”

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1. Introduction

Membership in the European Union has had significant effects on the development of Finnish regional policy. The contents of the national regional policy was influenced already beforehand and as a member Finland was included in the EU's regional policy (Niittykangas ja Tervo 1995; Tervo 1996). Along with EU, Finland is making more and more use of an evaluation process aiming at a greater effectivity of resources. However, the evaluation process is at times rather formalistic and bound to statistics. In addition, evaluation is perhaps too much tied to the objectives laid down in the programme documents. The evaluation process should leave room for a critical examination and, if needed, questioning of these objectives.

This article is based on a study by the Centre for Economic Research at the University of Jyväskylä School of Business and Economics. The aim of the study was to evaluate the possibilities of the new regional policy for influencing investments and/or directing them to the target areas of the regional policy (Silander, Tervo, Niittykangas 1997). The study differs from other, 'official' evaluation studies that are currently being carried out. The study is not so much based on the objectives laid down in the programme documents and on their formalistic evaluation, but rather on determining, through substantiated analysis, which issues seem to be important from the viewpoint of regions and how these important issues are addressed by the programme documents of regional policy.

The evaluation is based on the simple idea that in order to flourish regions need firms. The mobility of investments between countries and regions is becoming more and more free. For example, 30 per cent of the small and medium-sized manufacturing enterprises which we interviewed in our study had either moved to another location or expanded to another

neighbourhood and an additional 15 per cent had considered moving or expanding (Silander et al. 1997, p. 119). As a consequence of increased mobility the investment and location decisions of firms have even greater effects on regional development.

The aim of the evaluation is therefore to examine regional development from the viewpoint of entrepreneurship, and hence the potential effects of regional programmes are evaluated from the viewpoint of the locational behaviour of firms. The study consists of three phases. The aim is to determine

- 1) which factors affect the locational behaviour of firms - “the demand for locational factors”
- 2) the characteristics of the provinces as location environments of firms - “the supply of locational factors ”
- 3) how the regional policy programmes has taken into account the region’s needs of improvement of the locational characteristics - “improving the incidence of the demand for and supply of locational factors”

The first phase links this study to the traditional, empirical location studies, which have been carried out in large numbers in Finland as well as in other countries. Therefore the principal points of interest are the factors affecting the locational behaviour of firms. Examination is based on previous studies and firm interviews.

In the second phase the regions are evaluated on the basis of their current characteristics as locations for firms. A region’s attractiveness for mobile investments is determined by the region’s industrial infrastructure and attraction factors, that are also targets of regional policy. Examination is based on the analysis of previous studies and statistical data, and it forms the basis for the evaluation of the significance of regional policy in both the EU and national level as a potential factor affecting the locational and investment behaviour of firms.

The third phase links the study to the examination of the Finnish regional policy programmes. Finland became a member of the EU in the beginning of 1995, which standardized the practices

of regional policy. The research data consists of the compiled single program documents (SPD). The regional policy is examined through three regional objective programmes of the EU, the Objective 2, 5b, and 6 programmes, and through four provincial programmes. The provinces (NUTS 3) in question are Keski-Pohjanmaa, Keski-Suomi, Pohjois-Savo and Uusimaa. In addition, the data includes information collected by interviewing entrepreneurs in the above-mentioned provinces.

2. The evaluation process

The intention of the evaluation process is to examine the demand for and supply of locational factors and the incidence of these two, and this examination provides the evaluation framework for the analysis of regional policy programmes.

The demand for locational factors

Empirical location studies have usually approached the problem of the choice of location by evaluating the significance of locational factors. The locational factors have been outlined and categorized in several ways. Generally, the locational factors may be defined as factors or conditions that affect the choice of a firm's location.

In Finland one of the most recent comprehensive location study was carried out by Littunen in 1991. For that study 246 business executives were interviewed, 201 of which represented manufacturing enterprises and 46 business services. The interviewed firms were located in different types of regions around Finland. The firms were selected from the size-group of 10-499 employees.

Since the data for Littunen's study was available, we refined it further. In order to get a comprehensive picture of the locational preferences of small and medium-sized enterprises, seven 'locational criteria' were formulated from the study's 45 locational factors. Factor analysis and other empirical location studies, such as those by Eriksson (1995) and Ernst & Young (1992), were used in the classification. The seven locational criteria that were formulated and the connected locational factors are:

1. Business factors

proximity to customers; expanding markets; availability of sites; proximity to raw materials; possibilities for cooperation between firms; proximity to subcontractors; available premises; pure driving water; purification of industrial effluents

2. Cost factors

costs of land; costs of premises; level of labour costs; energy costs; level of building costs; municipal tax rate

3. Labour factors

availability of labour force; educational level of labour force; professional skills of labour force; productivity of labour force; stability of labour force

4. Infrastructure

good transportation & logistics services; proximity to railways; proximity to a port; proximity to an airport; quality of telecommunications

5. R&D environment

proximity to research services; proximity to educational services; proximity to universities; proximity to technological institutes; proximity to vocational colleges; proximity to information and consultation services

6. Living environment

opportunities for leisure activities; pleasant surroundings; good cultural services; good municipal housing situation; good day-care situation; familiar neighbourhood; management's home district; developing neighbourhood

7. Grants and attitudes

municipal financial assistance; good regional policy subsidies; pro-entrepreneurial attitudes of local government; cooperative development of industries between local governments; availability of premises

A weight was calculated for each of the seven locational criteria in order to determine the locational preferences of the SMEs. The weights were calculated from the data by ignoring other than those mentioned extremely important locational factors. This was done in order to find out which locational factors were considered 'critical' by the firms (cf. NEI 1993), factors that may be regarded as having primary importance for the location and investment decisions. After this a total score was calculated for each locational criterion, which was then proportioned to the mean value of the locational criteria. The weights that illustrate the

locational preferences of the firms in 1991 are presented in figure 1 (bars in black).

Labour factors are the most important locational criterion, which was expected after reviewing the previous studies. Also business factors have significant effects on the choice of location. However, findings showed that few of the interviewed SMEs consider the R&D environment a critical locational factor.

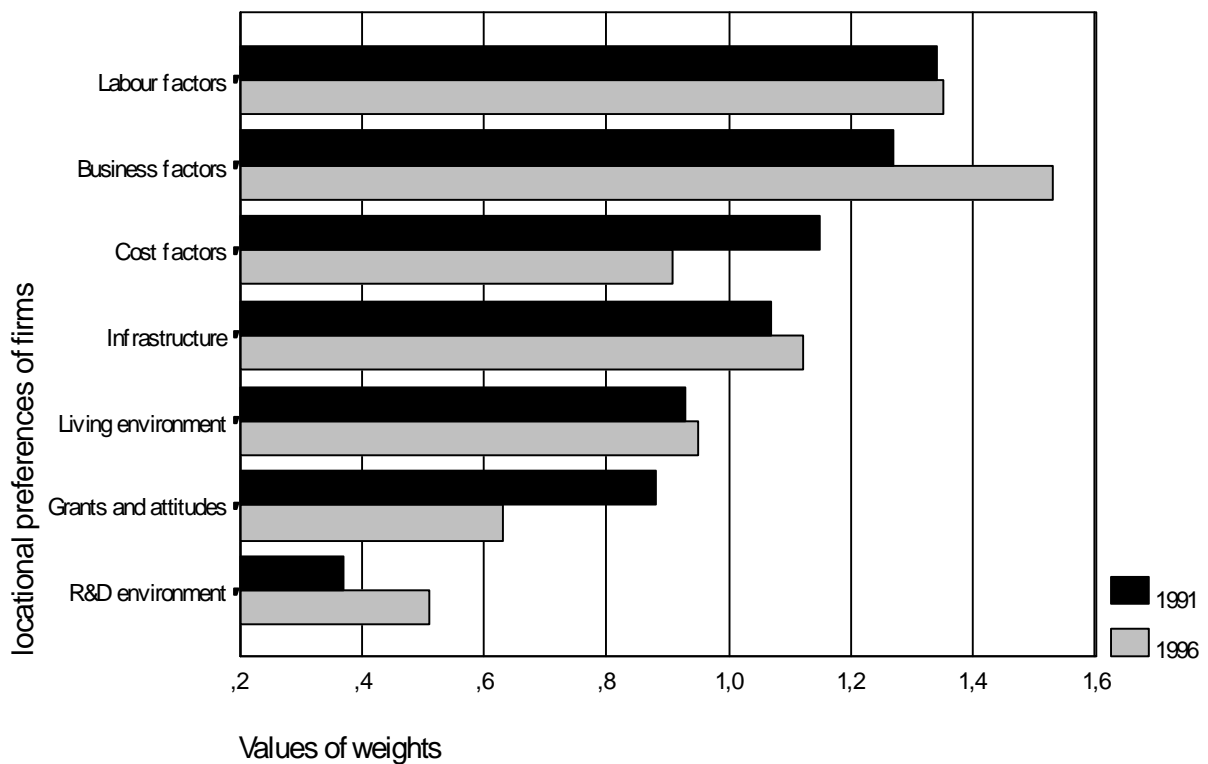


Figure 1. The locational preferences of firms in 1991 and 1996

The preferential order of the seven locational criteria outlined above applies to the early 1990s. In order to get information about possible changes that have occurred in the locational preferences during the 90s, we interviewed 150 business executives in autumn 1996. The aim was not, however, a complete mapping of the locational factors, but rather to confirm the results of previous studies and get information about possible changes in the locational behaviour of firms.

The interviews were targeted on small and medium-sized manufacturing and business services enterprises and they were conducted by phone. 120 manufacturing enterprises and 30 business services enterprises were included in the interviews. The sample differs from Littunen's study especially as far as the selection of target regions and the size of the interviewed firms are concerned, which calls for caution in making comparisons between the results of this study and those calculated from Littunen's data. Firms employing less than 10 people make up 45 per cent of the interviewees, whereas these so called microfirms were excluded from Littunen's sample. The interviews were conducted only in four provinces (Uusimaa, Pohjois-Savo, Keski-Suomi and Keski-Pohjanmaa), whereas Littunen's findings were weighted in a way that the sample approximately corresponded to the SMEs of the entire country. It must be noted, however, that the selection of provinces with the greatest possible variety in firm location environments represents the whole country relatively well, at least as far as small and medium-sized manufacturing enterprises are concerned. The aim was to get a sample that represents the internal distribution of businesses in the selected provinces and the EU's objective regions as accurately as possible.

The current locational preferences of the SMEs were analysed in a manner similar to Littunen (1991). The analysis differed from Littunen's in that in the interviews the firms were asked about the importance of locational factors on the basis of the above-mentioned classification for seven locational criteria instead of 45 locational factors. The interviewers, however, clarified the contents of each group of locational factors as they were presented above. Another difference was connected to the scale that was used. Instead of the scale from 1 to 5 that has been used in previous studies, we used a scale from 4 (weak) to 10 (excellent). The calculation of weighting coefficients was also different: by taking into account only the grades 9 and 10 (the latter of which was weighted by two), the aim was to determine the 'critical' locational criteria.

Figure 1 presents also our findings on the locational preferences of SMEs in 1996 (bars in grey). The findings show that labour factors are still a significant locational criterion for SMEs. For manufacturing enterprises labour factors are still slightly more important locational factor than business factors. The importance of business factors has, however, clearly increased, and it is especially important to business services enterprises. The significance of cost factors has decreased, which parallels the findings of the NEI study (1993) that covered the whole Europe.

The significance of infrastructure has slightly increased and living environment has outstripped cost factors in importance. Possibilities for various financial and other types of assistance has lost some of its importance. This may be a result of changes in regional policy and the decreased importance of cost factors. The increased importance of R&D environment is an expected trend of development. None the less, the R&D environment is still, in comparison to other criteria that were examined, the factor with least direct influence on the location decisions of firms.

The supply of locational factors

The supply of locational factors, ie. the attraction of provinces as locational areas measured by statistical information, has been illustrated with the same locational criteria as the demand for locational factors above. The problem is to get relevant information about the characteristics of regions as far as these locational criteria are concerned. Indeed, not all the needed information is available. For example, regional statistical data on the cost factors that was relevant for this study was not available. The locational characteristics of the regions were evaluated with statistical information similar to that used by Mikkonen (1994). Some of the variables were taken directly from that study.

The supply of locational factors, or the regional profiles of the provinces as locational environments, is illustrated with the following variables:

1. Business factors

- * population potential
- * tax revenue per capita
- * the change in tax revenue from 1983 to 1992
- * readiness of the region's production structure for internationalization
- * number of cluster branches

2. Cost factors

(- no regional variables)

3. Labour factors

- * educational level of the population

4. Infrastructure

- * the total score for infrastructure

5. R&D environment

- * number of institutional units describing R&D environment

6. Environment

- * environmental score

7. Grants and attitudes

- * regional policy subsidies

The locational preferences of the firms were taken into account in the overall evaluation by weighting the scores of addend variables above by those values of weights presented earlier in figure 1. Thus the findings should illustrate a province's attractiveness as targets for investments and locational choices better than unweighted results.

Measuring the attractiveness of regions is neither easy nor unambiguous. The results of the regions as locational choices are strongly affected by actual characteristics and the criteria that are used, including their weighting in relation to each other. Various studies have led to different results on the attractiveness of Finnish regions especially because they have emphasized different issues in the evaluation. Therefore, these reservations should be kept in mind in the following examination of the results of various provinces as location environments.

3. Provinces as location environments

Figure 2 presents the findings of the analysis on the attractiveness of provinces. The findings are presented using the weights of Littunen's (1991) research data as well as the weights calculated from the data we collected.

Predictably Uusimaa, which includes the capital area of Finland, is superior to other provinces. The second place of Pohjois-Pohjanmaa is not surprising either, since Oulu region is well-known as a dynamic area where new firms are born and located. Attention is also drawn to Etelä-Pohjanmaa, which is placed last as regards the locational characteristics of the province. Thus, as a target area for mobile investments, Etelä-Pohjanmaa seems to be unattractive, despite the fact that the province is the most small-business-dominated region in Finland.

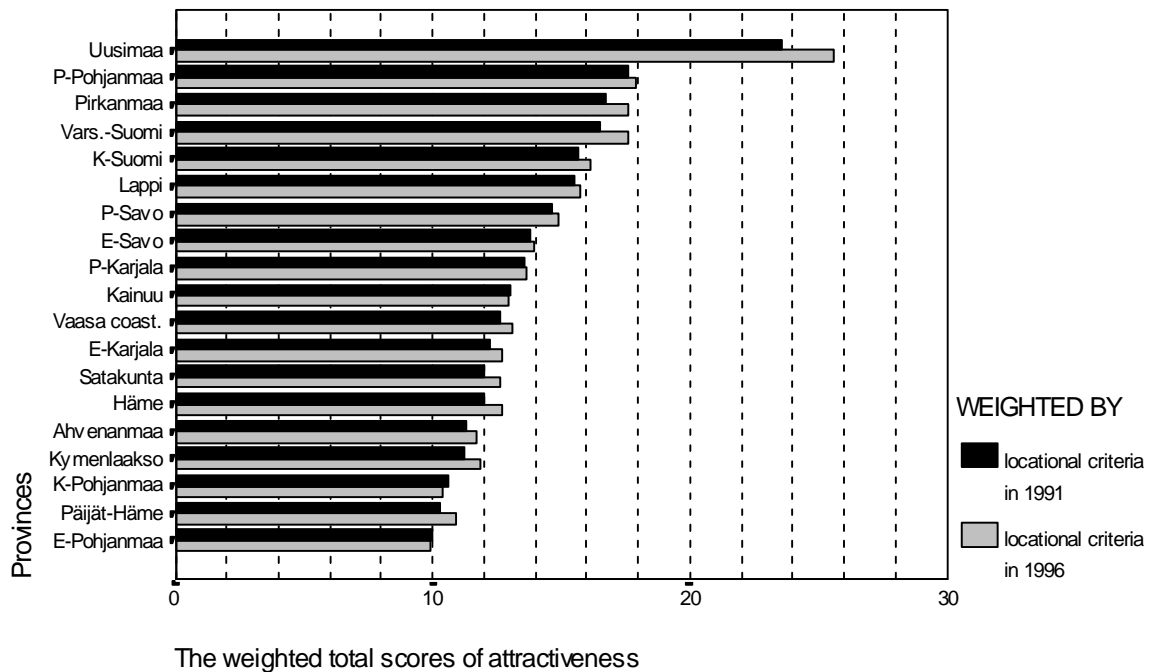


Figure 2. The attraction of provinces as locational units for firms

Changing the weighting coefficients to correspond to the data from 1996 instead of 1991 does not induce remarkable differences in the results. The first nine provinces are in the same order and Uusimaa's status as Finland's most attractive province is even stronger. The regions that move to a higher position are Vaasa coastal region, Kymenlaakso and Päijät-Häme.

As was expected, the status of the examined four provinces as locational regions varies. Therefore the selection of provinces for the study was in this respect successful. Uusimaa was included in the study chiefly as a reference region. Keski-Suomi and Pohjois-Savo represent provinces slightly more attractive than average. The findings show that Keski-Pohjanmaa represents provinces whose locational characteristics are weaker than average.

By most locational criteria *Uusimaa* is in a class of its own when compared with other provinces. Only the scores for the 'living environment', and 'grants and attitudes' are below the national average. Poor environmental result can be explained by the region's agglomerational disadvantages, such as crime and pollution. The results of the firm interviews parallel the locational criteria analysis to a large extent. Entrepreneurs in Uusimaa give more credit especially for the business factors and R&D environment in their region than the entrepreneurs in other provinces give for their corresponding locational factors.

As regards the total score, *Pohjois-Savo* is in the leading group, but the province's success is relatively uneven with different locational criteria. Obvious strengths of the province are larger-than-average supply of skilled labour, and the R&D environment that is placed sixth among the Finnish provinces. Also the province's regional policy subsidies may be considered a strength, since they may be considered to affect the location decisions of firms that have already made the decision of a location outside central areas. The most obvious weakness of the region is the infrastructure. *Pohjois-Savo* is in the fifteenth place as far as infrastructure is concerned. The weaker-than-average infrastructure is manifested also by the results of the firm interviews. The region's business factors are one weakness that the regional policy can do little about. The region's business factors are characterized by the small size of markets and their only minor expansive tendency, and the small number of cluster branches. The living environment of the province is in the average level.

Keski-Suomi is placed fifth as regards the total score for the locational criteria. *Keski-Suomi* succeeds relatively well in each category of locational characteristic. This uniformity can be seen as the province's strength in comparison with the other provinces - there seem to be no obvious 'bottlenecks' in the way of regional development. Another strengths of *Keski-Suomi* are the sufficient supply of skilled labour, quality of infrastructure, R&D environment and living environment, better-than-average business factors regardless of small-sized market, and better-than-average potential for 'grants and attitudes'. According to the firm interviews, however, the entrepreneurs of the region consider the business factors of the province rather weak, but on the other hand, they consider the living environment excellent. Firm interviews also revealed that *Keski-Suomi*'s offerings fall short of the expectations of the region's entrepreneurs.

In the total scores composed of all the locational criteria, *Keski-Pohjanmaa* is one of the weakest provinces. None of the locational characteristics seems to be a source of attraction in *Keski-Pohjanmaa*. The only thing that might attract firms into the region is the possibility for various kinds of subsidies. It must be noted, however, that many of the variables describing the locational criteria correlate heavily with the size of the province, and thus result in the undervaluation of a small province. Therefore, the firm interviews provide slightly more positive a picture of *Keski-Pohjanmaa*'s attractiveness, even when the expectations of the

region's entrepreneurs are not met with any of the locational criteria. The entrepreneurs of the province consider that the region's business and labour factors match the average level of other provinces, and that the cost factors and infrastructure are slightly better than the average. The R&D environment, living environment and the possibilities for various types of subsidies are regarded instead as being below the average.

4. Regional programmes as the creators of locational advantages

The new regional policy is programme-based, ie. each region has compiled one or more programmes that put together the region's aims and strategies for development into policies and measures. The provinces have a central role in the practical implementation of the programmes.

All of the EU's objective regions in Finland have their own programme entities that were examined in this study with the framework that was formulated. The examination of the four target provinces focused on the programmes with emphasis on the development of the whole province. The basis of evaluation was formed by the locational criteria used in the study. Also the data from firm interviews was used. Attention was also paid on which issues the endeavours to develop regional business activity emphasized, in other words, whether the aim was to influence the birth of new firms and entrepreneurship, regional targeting of Finnish investments, or to draw foreign investments into the region. What follows are some overall observations on the programmes, but detailed discussion is not provided here.

Generally, the regional policy programmes are characterized by broadness, poor targeting, and also certain lack of courage. This is partly due to lack of time in compiling the programmes and partly to willingness to leave all options open. There is, however, the strive for scrupulous adherence to the principles of the EU's regional policy. The programmes directed to the EU's various objective regions may seemingly differ from each other, but their contents are quite similar. The policies of the EU's regional programmes may be summarized under three headings: strengthening entrepreneurship, increasing the level of know-how, and the environment.

The evaluated programmes concentrate on developing the birth of new firms and entrepreneurship, and on improving the region's own existing firms. This choice of policy is consistent with the EU's regional policy that is based on the idea of growth 'from below' and relies heavily on the possibilities of SMEs. However, it may be difficult to induce growth and an endogenous, selffeeding development process in regions that lack entrepreneurial tradition. Politics do not lead to fast results, and even the benefits as a whole may be minor in many regions. Politics work best in regions that already have the prerequisites to make use of new possibilities, whereas in regions that need most help the chances for politics to succeed are poorest.

The desire for foreign investments is not manifested in the programmes, although this desire may be seen in the background of the programmes. Neither do the programmes 'fish' for direct foreign investments, with the exception of Uusimaa's programme. Although direct investments have been scarce outside Helsinki region, this path for growth should not be excluded from the activities within regional policy in other parts of Finland. Different regions should actively seek for investments from firms that would not be hampered by the peripheral location, or that might even benefit from it.

The regional development programme of Uusimaa is a relatively consistent whole with international character. Uusimaa's programme does not put as much emphasis on the birth of new firms or entrepreneurship as the programmes of other provinces. The province's status as the capital region places it on a different level as a target area for mobile investments than other Finnish provinces.

Pohjois-Savo's development programme emphasises entrepreneurship and the development of the existing firms of the region. The programme is characterized by independent initiative. The emphasis in the development of industries is laid on forest, metal and food industry. Much attention is paid also on the development of know-how, innovations, and infrastructure. The analysis of locational criteria gives support to these areas of emphasis.

In the light of the analysis Keski-Suomi's programme should emphasize business and labour factors. The development of labour factors is indeed firmly targeted. Business

factors, on the other hand, get too little attention. In this province the regional programme meets the demand for the locational criteria by strong industries. In addition to labour factors, the infrastructure and R&D environment are clearly manifested in the programmes, so results may be expected from the implemented policy as far as the investments generated in the region or coming from outside sources. The programme can be characterized as dynamic.

In Keski-Pohjanmaa the need for development is evenly distributed between all locational factors. In this province, however, special attention should be paid to the development of labour and business factors. This is also well realized in the programme. The programme is characterized by optimism.

Of all the Finnish Objective programmes, the Objective 2 programme is relatively firm-centred, and thus it may have rather great importance for the location decisions of firms. Some of the measures are directed to beginning firms and the activation of start-ups, and some of them to the development of preconditions of already operating firms. On the basis of the examination's criteria it is indeed the various firm subsidy actions that are emphasized most. More emphasis could have been put on the improvement of R&D environment and infrastructure and the development of the operating environments of firms in general, because the locational significance of these factors is increasing.

The emphasis of the Objective 5b programme is clearly, and perhaps too strongly, on the development of R&D environment and living environment. On the other hand, the firms of the Objective 5b region consider the R&D environment too weak. Considering the significance of locational criteria for the location decisions, the programme should focus more on the development of labour factors and infrastructure.

The resources of the regional policy of the Objective 6 region should as well be targeted more on the development of infrastructure and business factors, especially networks. The labour factors have received a lot of attention. The programme of the Objective 6 regions could be improved by paying more attention on the development of the operating environments of firms in general.

5. Conclusions

Entrepreneurship and new investments form the basis for regional development. There are three levels on which they can be influenced through regional policy: the targeting of foreign investments, the regional targeting of national investments, and the promotion of local entrepreneurship. The examination of regional programmes showed that especially entrepreneurship and independent initiative are now emphasised in the programmes. These two are seen as the keys to regional development in both the national and EU's regional policy. The objective is to initiate an endogenous development process by the regional policy subsidies. It seems that less attention has been paid on how to improve the target areas in order to make them more attractive options for mobile investments.

The article and the study examined the locational preferences of firms, and the characteristics of Finnish regions in relation to the locational factors. The findings showed that the locational preferences have changed a little over the years, even though certain basic outlines have remained unchanged. The findings also showed that the provinces differ as locations for firms, although this is not evident in the programmes of different regions.

The programmes are characterized by poor targeting, which indicates that the regions are somewhat at a loss how to initiate the desired endogenous growth process. It has been thought, rather, that by getting involved in as many things as possible, the chances for getting rewards are bigger.

This has partly arisen from the planning practices of regional policy. The aim of all-encompassing and loosely formulated programme documents has been to enable the financing of all possible development projects during the programme period. Nevertheless, the progress from wish lists should have ended closer to a plan-of-action-style programme document with explicit statements on how the development aims are strived for by combining resources. This would have made it possible to locate the resources that are critical to development and identify the central shortages of resources.

Bibliography

Eriksson S. (1995) Yrityksen toimintaympäristön arviointimalli: Pohjois-Suomi pkt-yritysten toimintaympäristönä. Oulun yliopisto, Oulun yliopiston taloustieteen osaston tutkimuksia 35, Oulu.

Ernst & Young (1992) Regions of the new Europe: a comparative assessment of key factors in choosing your location.

Littunen H. (1991) Yritysten sijaintitekijät ja hyvä toimintaympäristö. Jyväskylän yliopisto, Keski-Suomen taloudellinen tutkimuskeskus julkaisuja 109, Jyväskylä.

Mikkonen K. (1994) Kansainvälistyvän Suomen alueelliset menestystekijät. Vaasan yliopiston julkaisuja. Tutkimuksia 190. Maantiede 33. Vaasa.

Netherlands Economic Institute (NEI) in cooperation with Ernst & Young / Commission of the European Communities (1993) New location factors for mobile investments in Europe - Final Report. Brussels, Luxembourg.

Niittykangas H. & Tervo H. (1995) Integraatio, aluekehitys ja aluepolitiikka. Hallinnon tutkimus 14:320-327.

Silander M., Tervo H. & Niittykangas H. (1997) Uusi aluepolitiikka ja yritysten sijaintikäyttäytyminen. Keski-Suomen taloudellinen tutkimuskeskus julkaisuja 142, Jyväskylä.

Tervo H. (1996) European integration and development of the Finnish regions. In Alden J. & Boland P. (eds.) Regional development strategies: a European perspective, s. 224-236. Jessica Kingsley Publishers, London.