

Property Formation Process within an Institutional context

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Key words: land administration, institutions, transaction costs, property formation process.

SUMMARY

The paper generally touches upon property institutions within the land administration domain and introduces the way property formation processes might be compared among jurisdictions in respect to transaction costs generated. This paper assumes that processes are differently arranged all over the world and that countries thereby may learn from each other's experiences. It is based on a part of the PhD research "Real property processes – An explorative study of property institutions in Belarus" defended at the Royal Institute of Technology (Stockholm, Sweden) in June 2012.

Land could potentially be overused if no property rights existed. To reduce uncertainties while utilising land, formal property rights have been developed. These rights cannot exist without a legal framework facilitating property transfers on the market. Thus, institutions are specifically necessary to a property market and enhance the economic development of a country in general. If institutions do not meet the requirements of a market, economic growth is hampered.

The paper elucidates on a combination of economic results of a country, institutions and transaction costs in application to a property formation process. Specifically it deals with property formation process in three European countries (i.e. Slovenia, Sweden and Belarus) from a transaction costs perspective with the aim to identify differences among them and thereby generally enrich the theoretical knowledge in the land administration domain through their comparison. The latter is based on the transaction costs generated by this specific property formation process and relatively estimated with a focus on the stakeholders involved, their functions and interactions. Therefore, such an analysis may further be applied for proposing simplified property formation processes of a country and thereby economising on transaction costs.

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1. INTRODUCTION

To reduce uncertainties while utilising land, formal property rights have been developed. These rights cannot exist without a legal framework facilitating property transfers on the market. The latter needs institutions to enhance the economic development of a country in general. If institutions do not meet the requirements of a market, economic growth is hampered.

For the property market to operate efficiently, real properties ought to be smoothly and securely managed. For this, land is divided into separate property units recorded in a register. To be able to use land in the most efficient way, owners need various processes of property formation being in place. These processes are not separate but nested and linked with other processes in the economy through an institutional framework. Specifically, property formation processes are normally employed to form real property units. They serve as a tool for rearranging not only the legal content but also the geometry of a new real property. These processes include subdivision, partition, amalgamation and reallocation. A subdivision process can be seen as the most common for a new allocation of land.¹ The implementation of these processes generates tangible transaction costs for a society. Changing a well-established process is mainly about changing its institutional framework. Such a considerable challenge demands a political will and resources, resulting hopefully in a new process arrangement to improve economic results.

1.1 Methodological approach

This paper applies an examination of transaction costs assisting in revealing weaknesses in property formation processes and considers transaction costs as a key concept for their comparison since it directly affects the process's efficiency. The magnitude of transaction costs particularly depends on the institutional arrangements of the property processes.² This paper assumes that totally measuring the transaction costs of a property process is a complicated task with many economic indicators employed. It specifically discusses transaction costs for a particular process applied as a single whole with a focus on the specific criteria based on the stakeholders involved, their functions and interactions. It further seeks to compare the particular property formation processes through the transaction costs estimated in relative terms. This implies analysing the integrity and logic of an administrative structure of the specified property processes, while not, however, estimating direct transaction costs in terms of time and money spent by stakeholders. Specifically, it examines property formation

¹ For example, the annual number of newly formed land plots created mainly through subdivision is approximately 20 000 in Sweden, while the number of partition cases is around 300 and amalgamation is not more than 100 cases per year (Ekbäck 2009).

² The paper covers legislation of the selected countries up to 2009.

processes in three European countries (i.e., Slovenia, Sweden and Belarus). Having compared these processes, it might be possible to proceed further with possible improvements for real property processes by suggesting a new model of property formation, i.e., to economise on transaction costs.

Specifically, this paper seeks to relatively identify transaction costs, first of all, through the number of stakeholders involved as the time of a process implementation directly depends on their number. A larger number of stakeholders involved and thereby a complexity of their individual information, transferred between each other, may lead to market inefficiency with informational asymmetry among the parties concerned. The responsibilities of the stakeholders also appear to affect the transaction costs of the property processes. In particular, this concerns, for example, the involvement of state and private stakeholders along with a role of a local government body as a potential formal decision maker or as an advisor. Specifically, while taking a formal decision, the activity time normally increases due to a range of formalities mandated to be carried out. In addition, a variation of activities with their repeating character within a process is acknowledged as influencing transaction costs, as the more the activities that are repeated within a process, the longer the process that is implemented.

1.2 Choice of countries

The three selected countries, namely Slovenia, Sweden and Belarus differ in a number of ways. Specifically, they have a different degree of institutional and economic development, for example, different economic potential (e.g., GNI³ per capita). In addition, the countries' institutional organisations are also recognized as diversified from lesser efficient government (Belarus) to almost completely efficient (Sweden) (i.e., ease of doing business and government effectiveness in Table 1).

Table 1: General overview of the selected countries.

Country	Population ⁴ (M) ⁵	GNI per capita (USD) ⁴	Ease of doing business (rank) ⁴	Government effectiveness (country's % rank) ⁶
Slovenia	2.0	23 520	42	75-90
Sweden	9.3	48 930	14	90-100
Belarus	9.7	5 540	68	10-25

³ Gross national income (GNI) consists of the total value produced within a country and its income received from other countries.

⁴ World Bank Doing Business (2011) www.doingbusiness.org/ [accessed 7th March 2011].

⁵ M designates million.

⁶ World Bank Worldwide Governance Index (2009) http://info.worldbank.org/governance/wgi/sc_country.asp [accessed 7th March 2011].

While Sweden and Belarus may be symbolically placed on opposite sides of an economic development axis, Slovenia is located somewhere at a midpoint. Specifically, Belarus is in the process of the establishment of its market-oriented institutions including legislation and governance structure, whilst Slovenia with its recent affiliation with Yugoslavia and a present membership of the EU is in turn at an intermediate stage. It might be separately emphasised that the country has moved further than Belarus to market-oriented economy (Table 1) and therefore it seems reasonable to learn experience of the Slovenian property market.

In spite of the fact that Belarus (ranked 6th) is ahead of Slovenia (97th) and Sweden (15th) in registering property (i.e., a land plot with a 2-story warehouse) according to the Doing Business report in 2011 (World Bank 2011), problems still exist within the real property market in general and with property formation processes in particular.

Along with the above-mentioned differences, the selected countries have a similar historical development of legal systems in line with the Continental law system. Their legal systems belong to a Civil law tradition originating in Roman law and the centrality of the individual (Glenn 2004).

Thus, a combination of these three selected countries seeks to discover a variety of institutional solutions existing in Europe including legal ones in order to expand the theoretical understanding of property formation processes.

2. INSTITUTIONS

Institutions are often defined as “the rules of the game in a society” or “humanly devised constraints that shape human interaction” (North 1990:3). Institutions as non-technologically determined constraints affect social interactions and create incentives for social behaviour (Greif 1998). They are often identified as a combination of formal rules (can change quickly), informal constraints (can change gradually) and an enforcement mechanism. Specifically, formal rules include laws, constitutions and property rights, while informal constraints consist of sanctions, customs and traditions (North 1991). Such a combination ultimately structures human behaviour and produces valuable outcomes.

Both formal and informal rules may trigger changes in existing institutions. These changes might lead to either efficient or inefficient outcomes. Thus, institutions may be presented as a “mixed bag” consisting of those decreasing and those increasing transactions costs (North 1990). Institutions with “positive incentives” may increase economic performance and vice versa (North 1992). In particular, institutions stimulating competition, decentralised decision-making and creating incentives for obtaining new knowledge trigger economic growth. If institutions generate inefficient incentives within a system, such a system will most likely produce inefficient results. Thus, institutions define a way things must be done, while efficient institutions define productive pathways for doing things. When such institutions are absent, doing things becomes impossible or very costly. Moreover, institutions have to be mobile and open-ended in order to function smoothly and at a low cost that is adjustable to new circumstances (Furubotn & Richter 1997).

Institutions establish an incentive structure of a society for the activities carried out by the organisations (North 1996). Specifically, they create particular incentives, while organisations put efforts for their implementation within the formal legal framework. As a result, the economic results positively change, however, they may also even be reduced or stay invariable. Many countries are aware that their current low economic results are related to an inappropriately developed institutional framework (North 1990). Institutions theoretically lower transaction costs not only through reducing uncertainties but also through establishing simple and stable processes facilitating transactions (Meyer 2001).

Applied to the property market, some institutions, such as rules for securing property rights and legal frameworks for smoother exchanges on the market, reduce transaction costs, while others, such as rules establishing bureaucratic “barriers” and a weak enforcement mechanism, raise transaction costs.

2.1 Organisations

Organisations are identified as “players of the game” determined by the institutions (North 1996). Specifically, an organisation is seen as a group of people united by a common goal and acting in respect to this goal (North 1990). An organisation normally applies a wealth-maximising behaviour, i.e., it either takes decisions within the existing institutional framework or puts efforts into changing that. An organisation normally survives due to its willingness to accommodate change. In particular, organisations with worse transaction cost economizing are replaced by those with better ones. In other words, those organisations performing their tasks more efficiently will remain, while those that do not will disappear in the course of an economic development of a country (Williamson 1981).

An organisational structure of a society may consist of state and private organisations that differ in respect of the ownership right to the assets. Specifically, the managers of state organisations are not able to transfer the ownership right that in turn leads to their opportunistic behaviour, oppositely to private owners with their freedom of ownership transfer. In addition, the private organisations normally take decisions increasing efficiency⁷ and during a shorter decision-making period in comparison with state organisations. This depends, for example, on the absence of political pressure and a fewer number of the activities. The state organisations are less likely to introduce innovations reducing managerial costs (De Alessi 1983).

In some countries a municipality being a stakeholder on the property market, may operate as a state organisation with a collective decision-making process and unavoidable political influence from higher administrative levels, while in other countries a municipality may act as an independent public body where, moreover, a decision-making process may be delegated to the civil servants within a municipality (i.e., experts within particular fields of expertise). The former requires extra time due to, for example, a wider range of the formalities and thereby generates higher transaction costs. This is in contrast to a municipal decision-making process

⁷ This is not always the case in the state organisations.

delegated to an expert responsible for all the decisions taken and actions performed. In such a case, transaction costs seem to be lower due to a shorter time for decision-making. In addition, it is hardly possible for a municipality as a state organisation to eliminate political pressure and to avoid possible confrontations within a municipality. Thus, within a municipality, a specific decision-making process (i.e., collective vs. expert decision) along with a risk of political influence (if a municipality is a state organisation) may affect transaction costs.

3. TRANSACTION COSTS

Transaction costs are generally recognised as costs, divided into fixed and variable costs, generated by running an economic or social system (Furubotn & Richter 1997). Through property rights providing right holders with an ability to exercise control over a property, transaction costs might be determined as the amalgamated costs of the resources required to transfer the property rights from one party to another (Pejovich 1990) as well as the costs for establishing and maintaining the property rights (Allen 1991).

Transaction costs influence the economic performance of a country by triggering changes within institutions, normally from being less to more efficient. If the chain of activities runs properly, a process occurs frictionless and harmoniously. Otherwise, misunderstandings and conflicts normally cause delays and other malfunctions and thereby increase transaction costs. Specifically, costliness of information as well as a high risk premium increase transaction costs and therefore hinder land from being conveyed on the property market. Coordination and information flow among stakeholders also affect transaction costs of the real property processes. Indeed, the fewer the stakeholders with a smoother flow of complete information, the lower the transaction costs of a property process in general. Thus, the number of stakeholders with their information flows is another aspect of transaction costs estimation.

A change of any of transaction cost components may lead to a change in the total costs. Specifically, a modern specialised society seeks, first of all, to reduce transaction costs through a decrease of the costs of measuring the goods' attributes as well as that of an agent performance. The easiest way to do this is to establish standards that would be widely employed.⁸ However, the costs of protecting and policing are more difficult (i.e., costly) to reduce. More efficient and performed at lower cost enforcement should also be regarded as reducing transaction costs. Furthermore, the well-developed formal rules and related informal constraints also affect, to a greater or lesser extent, the transaction costs. A change of formal rules is a costly process. In particular, formal rules are designed in a hierarchy: formal rules of a higher level are more costly to change than ones of a lower level. Thus, when designing

⁸ Some activities in this direction are also being implemented in the land administration domain. For example, INSPIRE Initiative (<http://inspire.jrc.ec.europa.eu/> [accessed 10th August 2011]), the FIG Guide on Standardisation (FIG 2002), the Land Administration Domain Model (LADM) submitted to the International Organisation for Standardization (ISO) in 2009 for acceptance (http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=51206 [accessed 5th April 2011]).

rules, the costs of proving and measuring rule violations and the damages caused are always taken into account (Furubotn & Richter 1997).

3.1 Estimating transaction costs

A variety of attempts at transaction costs estimation has been undertaken worldwide on different economic levels. One of the initial attempts to express transaction costs in figures proved that in 1970, transactions made up more than 45% of the U.S. national income (Wallis and North 1986). During the ensuing years, the international scientific community has attempted to quantify the costs of property transactions on macro and micro economic levels. Specifically, the costs of the purchase of a constructed one-family house on one's own site in Finland have been calculated in monetary terms (Viitanen 2003). In the Netherlands, the transaction costs for purchasing a residential property have also been quantified (Molen 2003). In addition, an economic effect of secured property rights in the Netherlands (i.e., on a macro level) has been identified through the relationship between land administration and security of tenure, the land market and land use planning, as well as land taxation nationwide (Molen 2004).

The transaction costs (expressed in a monetary term) of property transactions with single-family homes have also been estimated and compared in a range of the countries, namely Sweden, Finland, Norway, Poland, England and USA (Lindqvist 2008). In particular, the calculation of the direct transaction costs (i.e., compulsory taxes, compulsory fees including broker and other fees) served as a basis for identifying the crucial aspects to be taken into consideration for reducing transactions costs.

The transaction costs of the property formation processes may be estimated, among others, either in terms of money (i.e., total sum of different fees and taxes as paid by the parties) or hours spent (i.e., visiting different organisations and information search), or a number of the activities performed by stakeholders. Specifically, the paper determines transaction costs of the property formation processes in relative terms, i.e., without quantifying exact sums in term, for example, of money or hours. This statement is based on the assumption that precisely measuring the total transaction costs appears to be an unrealistic task as a part of transaction costs is "hard-to measure" costs such as time spent queuing, acquiring information and corruption (North 1990).

4. PROPERTY FORMATION PROCESS

To comparatively analyse property formation processes, the paper applies the method developed within the framework of the COST Action G9⁹ (Ferlan, Sumrada & Mattsson 2007). This method is based on a comparison of formal (i.e., ontological) models of the processes developed with help of their textual descriptions.

This paper specifically presents results of the comparison of the property subdivision processes in Slovenia and Sweden with the process of withdrawal/granting of land assigned

⁹ <http://costg9.plan.aau.dk/> [accessed 10th August 2009].

for a building purpose¹⁰ in Belarus as those best matching among the existing property formation processes.¹¹

The following subdivision process of a land plot in Slovenia and Sweden is specifically investigated:

- Land plot in private ownership;
- Within the detailed plan area; and
- A new land plot assigned for building purpose.

However, in Belarus this subdivision process can hardly be examined due to the small number of land plots held in private ownership, along with the range of existing legal restrictions on subdivision of privately-owned land. In this case, a land plot subdivided from state-owned land and transferred into private ownership for a private building purpose within the area of a detailed plan is identified as the most appropriate and normally employed in practice for housing.

4.1 Modelling

To facilitate the comparison, the selected processes are regarded as open systems and, according to a system hierarchy, divided into general modules, i.e., larger blocks of work implementing a specific goal, namely: land policy control, preparation, decision and registration (Figure 1).¹² However, the order of these modules within a country may vary depending on the current legal rules. Every module aims at accomplishing a specific goal. Specifically, a land policy control module implies, for example, the compliance of a property formation process with the current planning regulations. The preparation module is mainly about the visualisation of a real property through surveying, including demarcation of the property boundaries on the ground. The decision module is distinguished as a separate module since the legal decision about the emergence of a new land plot may be taken at this stage of the process. The most important module of the process from the social and economic points of view is the registration module, as its goal is to ensure security of tenure. The latter is vital for long-term investments and efficient land development.

Within each module, a range of general activities performed by a range of stakeholders is further determined. An activity is acknowledged as an item of work normally performed by a single stakeholder and forming one step within the process (Hess & Vaskovich 2007). Thus, in the course of modelling, the main stakeholders and their corresponding activities are identified. The stakeholders are represented by state and/or private organisations and individuals directly involved in a property process. Based on transaction costs estimation, it might be emphasised that the greater the number of stakeholders involved in a property process, the higher the number of interactions between them and, therefore, the higher the transaction costs generated.

¹⁰ For example, a land privatisation process.

¹¹ To avoid confusion, these three processes are referred to as property formation processes.

¹² This model is an abstract one, not specifically reflecting a property process in any of the countries. The intention is to provide the reader with an understanding of a framework for analysis of a process.

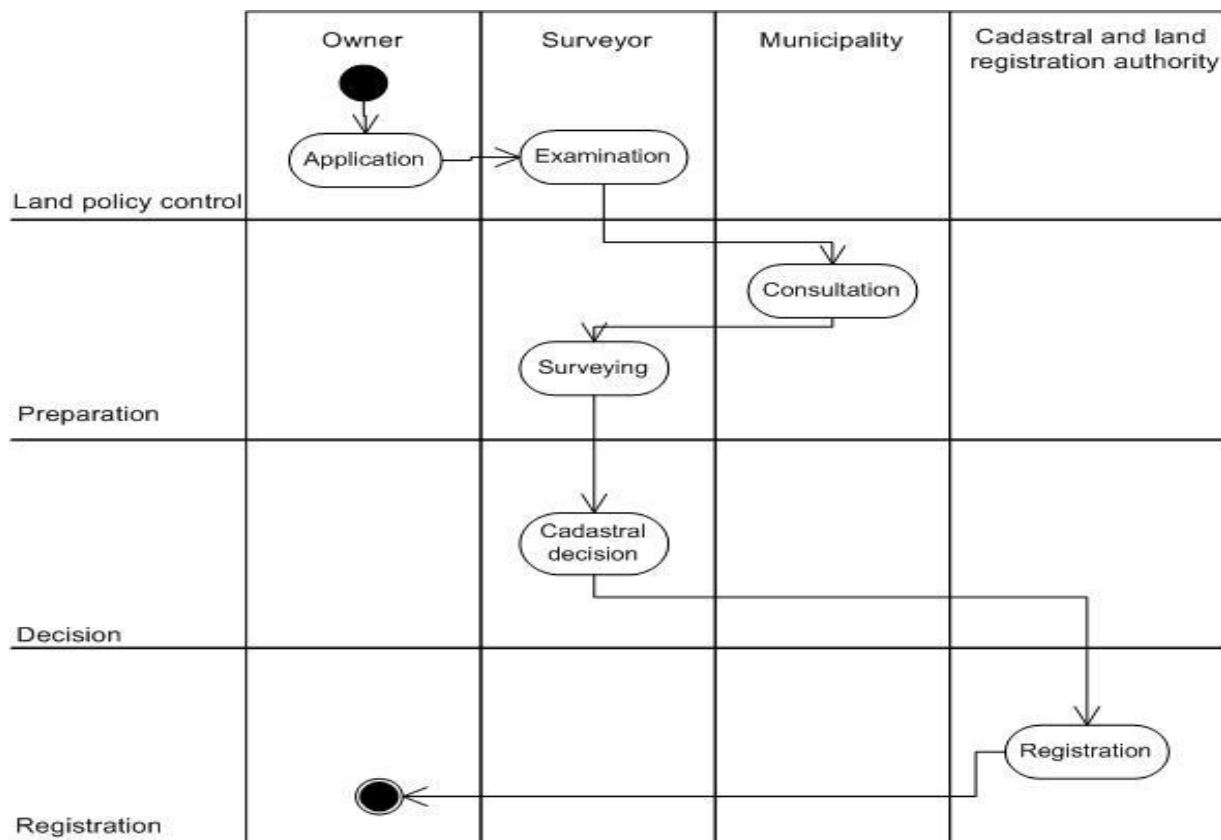


Figure 1: A modular structure of a property formation process.

Noticeably, while developing a model, there is always a risk of overloading it with insignificant details and thereby complicating further comparisons.¹³ To avoid this, activities are generalised in regard to the main goal of each module. Graphically, each activity is presented on a diagram as an oval with the name of the particular activity in it. Each process begins and ends at a specific point that is visually indicated by a dark circle on a respective diagram.

Unique ontological models of property formation processes supplemented with the corresponding text descriptions for the selected countries have been developed in accordance with the above-mentioned methodology. However, due to the paper's limitations, they are not presented here.¹⁴ This paper exclusively presents the results of general comparison.

¹³ For example, appeal procedures are omitted from this process modelling since they might shift the focus on the less significant features of a process instead of its fundamental ones.

¹⁴ For full descriptions of the selected property formation processes and their ontological models along with particular modular comparison, see Vaskovich (2012).

5. COMPARISON OF PROPERTY FORMATION PROCESSES

Comparing the Belarusian property formation process with the Slovenian (SLO) and Swedish (SWE) ones is quite an ambitious task as these three processes operate within different institutional environments. A property formation process in Belarus facilitates the transfer of state-owned land into private ownership. It normally occurs against a payment for a subdivided land plot to the former owner, i.e., the state. In SLO and SWE, the processes subdivide land into two separate land plots with the same owner.

To facilitate this comparison, the activities of each country are combined into separate boxes in accordance with a particular stakeholder performing the activity (Figure 2). In other words, the activities within one box are performed by a specific stakeholder. However, the activities performed by the applicant/owner are separately identified due to the applicant/owner's engagement in the entire process. This generalisation is assumed to facilitate the comparison of the activities performed by the same stakeholder in each country.

The comparison seeks to answer, for example, the questions of which activities within the property formation process are present in each country, which stakeholder performs them and what are their functions. Moreover, the sequence of activities is another point of interest as equivalent activities might be performed at different stages of a process. In particular, repeated activities normally increase transaction costs. The implemented comparison attempts to identify and elucidate these differences.

5.1 General comparison

The property formation processes in the three countries are generally evaluated as rather similar. This might partly be explained by the fact that the legal systems of the selected countries are to a greater or lesser extent influenced by Roman/German law. Moreover, their property formation processes are arranged in a uniform way. In particular, the countries have identical sequences of the general activities within a property formation process, such as legal control, surveying measurement and registration. However, the legal system of Belarus specifically differs due to its 70-year old Soviet history with its recent dominance by socialist laws, which influence cannot be understated.

The three processes begin with the application and are completed by cadastral and ownership registration. An applicant/owner applies for property formation since (s)he is interested in obtaining a new land plot in ownership with a unique property identifier, recorded in a corresponding registry and, therefore secured and protected by the state.

A single governmental authority in charge of cadastral and ownership registration is established in Belarus and Sweden. Slovenia, still retaining the German/Austrian legal tradition, has two separate registers, namely the land cadastre (connected with the building cadastre) and the land register. These are maintained by two separate governmental authorities, namely the Ministry of the Environment and Spatial Planning and the local courts under the responsibility of the Ministry of Justice, respectively. These two authorities are separately responsible for cadastral and ownership registration.

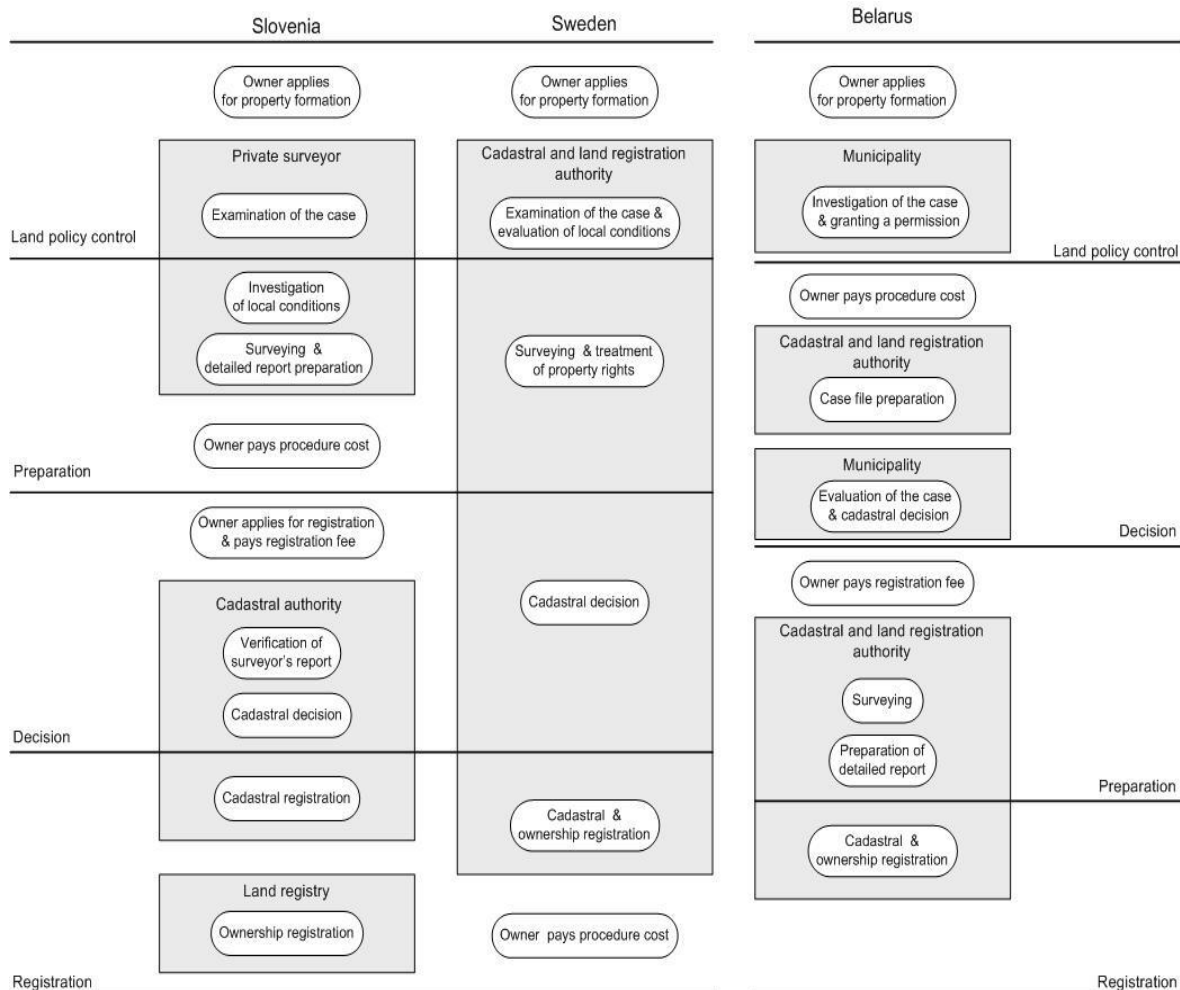


Figure 2: Property formation processes in Slovenia, Sweden and Belarus.

The sequence of the modules within the processes also differs among the countries, i.e., Slovenia and Sweden are on one side and Belarus on the other (Figure 2). In particular, the countries differ in the priority of the preparation and decision modules within the processes. While in SLO and SWE the preparation activities (including surveying) are implemented before the cadastral decision is taken, in BLR the sequence of these activities is the opposite, namely the activities of the preparation module follow the activities of the decision module.

6. COMPARATIVE ANALYSIS

The national property formation processes of Slovenia, Sweden and Belarus represent three different models of institutional arrangements. Their noteworthy differences based on a set of comparing criteria have been identified. These criteria are extracted from the following questions identified while comparing the property formation processes between the countries:

- How is a municipality involved in the process?

- Who is entitled to carry out surveying (i.e., private and/or public surveyor)?
- Is double control of process data needed?
- Who takes a cadastral decision and when it is taken (i.e., before or after surveying)?
- Which governmental authority/-ies is responsible for cadastral and ownership registration (i.e., a single authority or several)?
- When payment for a property formation process occurs (i.e., at which stage of the process)?

These criteria are intended to assist in the estimation of the transaction costs of a property formation process in relative terms (i.e., lower or higher). A relative magnitude of transaction costs as generated by the process is discussed below and estimated among the three countries (Table 2).

The municipality as local government is differently involved in the property formation processes of the selected countries. The most influential role a municipality plays is in Belarus, where it permits a case investigation in the beginning of the process and takes a formal decision about the emergence of a new land plot. In SLO and SWE, the municipality is exclusively involved as a consulting body in the process. Such an intense involvement of a municipality in BLR through taking a formal decision seems to increase transaction costs in comparison with SLO and SWE. This statement is grounded on the possible risk for delays relating to the formalities of collective decision-making and political influence from higher administrative levels. Thus, in BLR transaction costs of a property formation process are estimated as higher in comparison with SLO and SWE.

In Slovenia, the subcontracting of technical work for the forming new properties to the private sector is utilized. This particular institutional solution generates a need for the quality control of data delivered by private surveyors. Such control seems to be more expensive due to its lengthening of the process in general. In particular, data is firstly produced by a private surveyor and then this data is checked by a registrar. This in turn prolongs the process and, therefore, increases the transaction costs of the Slovenian property formation process. Thus, the Slovenian model is in a way “burdened” by the involvement of private surveyors.

The Swedish model, in contrast, is almost entirely performed by a public surveyor and therefore there is no need for time-consuming information exchange and quality control. In Sweden, a surveyor, as a public employee, is responsible for the property formation process including cadastral registration and quality control. Thus, there are normally no additional delays within a property formation process.

The potential involvement of private surveyors in Belarus also seems to delay the property formation process due to required quality control and thereby triggered information exchange. This may lead to a higher number of activities within the process and therefore to higher transaction costs in comparison with Sweden. Thus, the Belarusian model seems to be less attractive as this institutional arrangement requires additional time and therefore higher costs for a process completion in comparison with Sweden.

Table 2: Relative transaction costs of property formation process in Slovenia, Sweden and Belarus.

Country	Slovenia	Sweden	Belarus
Role of municipality	consulting/ lower	consulting/ lower	permissive/ higher
Surveying by public or private surveyor	private/higher	public/lower	both/higher
Double data control	yes/higher	no/lower	yes/higher
Cadastral decision by	registrar/ lower	public surveyor/lower	municipality/ higher
Cadastral decision (before or after surveying)	after/lower	after/lower	before/higher
Cadastral & ownership registration by	two authorities/ higher	single authority/ lower	single authority/ lower
Payment of fee (before or after transaction)	before/higher	after/lower	before/higher

The performed comparison has identified that a cadastral decision is also influential on the transaction costs of a property formation process through the specificity of the stakeholder entitled to take a decision. In Sweden, the decision is made by a public surveyor in the course of the process and therefore transaction costs are estimated as lower. In Belarus, the municipality plays a key role in taking the decision on the emergence of a new real property. The participation of a municipality as a decisive body seems to lengthen the process in BLR due to the formalities of taking a collective decision and therefore to increase transaction costs. In Slovenia, this decision is taken by a registrar upon registration when surveying is performed and all the documents are submitted to the Cadastral authority. Such an institutional arrangement seems to produce lower transaction costs in comparison with Belarus. In Slovenia and Sweden the decision is taken independently by an expert, while in Belarus such a decision is taken by a collective body, i.e., a municipality as a local political power. This thus makes it possible to conclude that transaction costs of such a decision are higher than a decision taken by an expert.

Furthermore, a cadastral decision in Slovenia and Sweden is taken after the surveying measurement. The latter in turn serves as a foundation for making this decision. Contrariwise, in Belarus surveying measurement is performed only after a cadastral decision is formally taken by a municipality. Thus, transaction costs of a property formation process in Belarus are estimated as higher since the municipality's decision might be delayed, which in turn causes delays in surveying in particular and the entire process in general. Therefore, if a decision is taken after surveying without any formalities involved (SLO and SWE), this is estimated as lowering the transaction costs in comparison to BLR where these seem to be higher.

In Slovenia, the Cadastral authority and the Land registry are in charge of cadastral and ownership registration, respectively. In Sweden and Belarus, a single governmental body, the Cadastral and land registration authority, performs both types of registration. Thus, a single authority is ultimately estimated as generating lower transaction costs, while two separate authorities responsible for cadastral and ownership registration conversely seem to invoke higher transaction costs.

The transaction costs estimation also includes a way of covering the costs of property formation as a comparing criterion. In particular, the Slovenian and Belarusian property formation processes arrange payment of the service fee prior to the implementation of an activity, which in turn stipulates higher transaction costs due to possible time delays. The Swedish process implies payment of fees after the completion of the entire process. It seems reasonable to conclude that the Swedish process of property formation from a transaction costs perspective does not allow extending the process time and therefore keeps its costs lower, while in SLO and BLR the process generates higher transaction costs.

The range of applications in Belarus is supplemented with the range of contracts concluded by the applicant throughout a property formation process. This probably increases the transaction costs for applicants through process prolongation. Specifically, an applicant concludes a contract with a surveying organisation for preparing the documents for a cadastral decision to be further taken by a municipality. This should then be followed by another contract for performing surveying measurement. And at the end, the applicant should apply for ownership registration (if this is not commissioned to a surveyor). The whole may increase transaction costs for an applicant. Thus, a single contract or even a single application recognised as a contract and made at the beginning of a property formation process might be a more efficient solution from a transaction costs perspective.

7. CONCLUSIONS

The Swedish property formation process looks more advantageous from the transactions costs perspective among the three compared countries as it is almost entirely implemented by a public surveyor responsible for the creation of the new property including any mistakes that might occur. Such an institutional arrangement generates lower transaction costs. The Belarusian property formation process is oppositely acknowledged as the lesser advantageous with higher transaction costs due to the municipality's intervention and a combination of private and public surveyors with additional quality control and information exchanges as seen from the results of the comparison with the property formation processes in Slovenia and Sweden.

Specifically, the municipality, as a collective decision-making body, plays a decisive role within the property formation process in Belarus by issuing permission to form new land plots and by taking cadastral decisions. This research, based on an international comparison, has proposed transforming this role of the municipality into a consulting one with total responsibility for local planning. This proposal is intended to reduce the process times and thereby transaction costs. This entails a significant institutional change and its implementation

requires a political will.

The role of a public surveyor in Belarus has been proposed to be expanded by empowering public surveyors with a higher responsibility. This may reduce transaction costs, for example, due to the absence of repetitive transfers of information among stakeholders. Thus, a general conclusion might be to broaden the duties of a public surveyor in particular and the Cadastral and land registration authority in general and simultaneously to limit the participation of municipalities in Belarus.

The transfer of the activity of taking a cadastral decision from the registrar to a public surveyor has been postponed due to the insufficient training of today's Belarusian surveyors in legal questions. An increase in the responsibility of surveyors requires the corresponding adjustment of the surveyors' education in accordance with the demands of the profession. Currently, surveyors in Belarus are mainly trained in technical subjects, while their legal and economic training can be seen as deficient. Changing existing practices and thereby introducing institutional changes is necessary to modify the corresponding educational programmes.

Thus, this paper touches upon policy issues that might be taken into consideration by policy-makers. It concerns, first and foremost, the responsibilities of the stakeholders such as a municipality and a surveyor. Obviously, these issues belong to the sphere of the government as they affect national policy on land. For implementing these changes, a range of governmental decisions need to be taken. However, there is a risk that some of those decisions would be quite unpopular and might meet the invisible resistance from a bureaucratic apparatus. Moreover, it seems unrealistic to implement all the above-mentioned changes only through formal decisions, even if a political will is persuasive. It remains to be seen whether the society in Belarus is prepared to delegate a larger authority to an individual public expert (i.e. a surveyor) who is intended to ensure the public interests. To act on the behalf of the society, surveyors should also have appropriate educational background with deep knowledge on legal and economic issues, especially in respect to real properties. Therefore, for changing the real property processes, changes in education of surveyors should also be taken into consideration.

These changes may generate a range of problems. First and foremost, it concerns a possible resistance of bureaucratic apparatus against redistribution of the responsibilities between the municipality and the public surveyor. Besides, a diminishing role of municipality might lead to a decreasing control over land distribution and the property formation process in general. This in turn may cause inefficient land distribution, favouring some individuals while forming new real properties and risks of reducing trust in the government and growing informal property market. Besides, these changes should be widely accepted by the general public who should also have trust in the government. In case of a rapid introduction of the proposed changes, there is a risk that they would be opposed and thus gradually disappear.

Obviously, all the advantages and disadvantages of the proposed changes should be carefully considered prior to decision-making while reforming the property formation process in

Belarus in order to minimise or escape the above-mentioned potential problems and bottlenecks. It might be concluded that to change the property formation process seems to be a challenging task, especially if taking into account the historical development of Belarus, including its path-dependence.

In summary, having proposed these changes, the research has not provided clear answers on the question of how to overcome all the obstacles. One of an acceptable solution might be seen in a diligent control of the state supplemented by a wide explanation of the changes for people in general and the professional communities in particular. On one hand, these changes are aimed at reducing bureaucratic formalities of the process and thereby decreasing the processing time. On the other hand, they might increase a risk of, for example, taking incorrect decisions by public surveyors.

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BIOGRAPHICAL NOTES

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