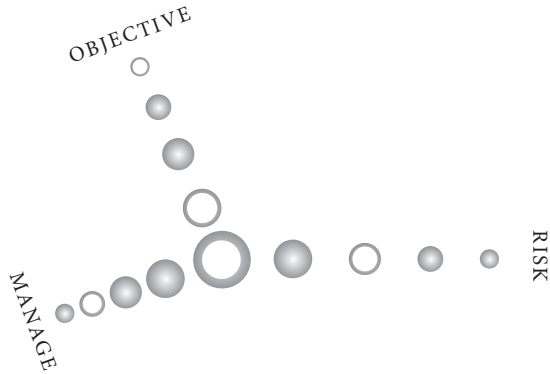

Risks in large scale projects management: Case of industrial parks development in Albania

Arbina Sotoni,* Arjan Qefalia,** Ezmolda Barolli***

Lecturer & Researcher, Faculty of Economy, Tirana University, Albania
*Dr. , @: *arbina.totoni@unitir.edu.al*
**Doc. Dr., @: *arjan.qefalia@unitir.edu.al*
*** Dr., @: *ezmolda.barolli@unitir.edu.al*

Abstract

Risks and uncertainties are present in all projects, particularly in large and complex projects. Risks can have a strong influence on all phases of projects including feasibility study, design, planning, construction and even marketing and operation phase.

This paper focuses mainly on the particular risks that associate large scale projects, which usually involve immense capital investment, long term government commitment and long construction and operational periods. Large scale projects are complex in term of political, legal, technical, design and organizational aspects, which make them more uncertain and difficult to control compared to conventional projects. So, due to their particular nature and complexity, risk management is more important and significant in complex and large scale projects than conventional projects.

Through a vast literature review this paper aims to identify the most common risk factors associated with large scale projects and also, in order to investigate their realism, it analyses the case of development of Industrial Park projects in Albania, which undoubtedly fall under the category of large scale projects. Data collection is achieved through interviews with some of the major stakeholders in IP development. Taking into consideration the strategic importance of industrial estate development in Albania and the problems similar initiatives have faced in the past, impeding their implementation, the prior identification and management of the risks that can endanger the implementation of similar actual and future initiatives, becomes a necessity.

Key Words: Project Management, Risk Analysis, Industrial Park

JEL Classification: G32, M10

1 Introduction

All projects are affected by risks and uncertainties, which can have a strong influence on all phases of projects including feasibility study, design, planning, construction and even marketing and operation phase. Risk exposure may arise from the possibility of economic, financial or social loss or gain, physical damage or injury, or delay. It may also be caused by changes in the relationships between the parties involved in the supply, ownership, operation and maintenance of assets for public or private purposes. (Cooper et al., 2005).

Risk management processes are designed to assist planners and managers in identifying significant risks and developing measures to address them and their consequences. This leads to more effective and efficient decisions, greater certainty about outcomes and reduced risk exposure.

Sometimes organizations undertake projects which usually involve immense capital investment, long term government commitment and long construction and operational periods, that are considered large scale projects. Large scale projects are complex in term of political, legal, technical, design and organizational aspects, which make them more uncertain and uncontrollable compared to conventional projects. (Nazari and Beheshti, 2010)

Three aspects of large projects or programmes make risk management desirable (Cooper et al., 2005):

- Their size implies there may be large potential losses unless they are managed carefully, and conversely large potential gains if risks are managed well.
- They often involve unbalanced cash flows, requiring large initial investments before meaningful returns are obtained. In these circumstances, and particularly for assets with potentially long lives,

there may be significant uncertainty about future cash flows, due to changing economic conditions, advances in technology, changing patterns of demand for products or services, new competition, or varying operating requirements. For projects with significant social or environmental implications, the benefits may not all be readily measurable in cash terms and social values may change during the life of an asset. Factors like these must be assessed and managed to ensure the capital investment is worthwhile.

- Large public sector projects may involve a degree of private sector participation, either in the form of direct private sector investment or involvement in the through-life operations of a government-owned asset. This may require an additional focus on risk, particularly to identify and manage any residual risks for Government.

So, in other words, due to their particular nature and complexity, risk management is more important and significant in complex and large scale projects than conventional projects. Some authors go even further, considering that "large scale project management IS risk management" (Charette, 1996).

This paper aims to identify the most common risk factors associated with large scale projects with a particular focus on estate development projects. The case of Industrial Estate development projects in Albania, with its past and present initiatives, falls under this focus, and is therefore analyzed, due to its strategic importance.

The analysis consists in: highlighting the problems similar initiatives have faced in the past (that have impeded their implementation); the identification of the major risks that can endanger the implementation of similar actual and future initiatives; exploring some risk management techniques to reduce the overall risk of project failure.

2 Methodology

The methodology used in this study, apart for a vast literature review, consists mainly in qualitative research methods. Since this paper is focused on risk factor identification for a particular type of project such as large scale estate development projects, as literature agrees (Newell, 2002; Verzuh, 2003), etc., the following ways can be used to discover and identify risks: documentation reviews, brainstorming sessions, Delphi technique, nominal group technique, Crawford slip, expert interviews, checklists, analogy. The method chosen was analogy with similar projects and expert interviews.

Interviews have been conducted with 14 experts, among which high rank executives of METE[1], director of METE unit responsible for Industrial Parks development, METE experts for IP[2] development, State Aid and Trade Policy, representants of programs

1 METE: Ministry of Economy, Trade and Energetics

2 IPs: Industrial Parks

offering assistance in this field, such as UNDP office for Trade Promotion, and also former executives of former National Unit for Free Zones development. The interviews were individual face-to-face, consisting of half-structured and open-ended questions.

Through the interviews we tried not only to prepare a list of most relevant risk factors, but also to evaluate their impact and probability, in order to discuss the most appropriate technique of risk management for each situation.

3 Risk factors associated with large scale estate development projects – A literature review

Risks in large estate development projects are arisen by several factors. Nazari and Beheshti (2010) identify the following risk categories for large scale projects: political/ legal risk factors, financial risk factors, economic risk factors, technical risk factors, design risk factors, management risk factors, resources risks and logistics risks.

Regarding large estate development projects, as defined by Morrison (2007), Gehner, et al. (2006) and Clarke (1999) list Social, Technological, Economic, Environmental and Political factors or "STEEP" factors. For example, risks in this kind of project have been considered in relation to the separation of design from construction, lack of integration, poor communication, uncertainty, changing environment and increasing project complexity and economic changes such as inflation and deflation, regional economic crises including greater competition in this business. Thus, risks and their consequences must be considered and should not be underestimated, since those risks will impact overall project management processes, in regard to project programme delay, project cost overrun and the usage of the property, which cause a huge lost in project income.

Khumpaisal and Chen, (2009) use the STEEP factors for risk criteria identification, including the five major criteria, but they expand the analysis with 33 sub-criteria. This is summarized in the Table 1 below, which classifies both quantitative and subjective risks.

Table 10.1 — *Risks Assessment Criteria for the real estate development. Source: Khumpaisal and Chen (2009).*

Risks	**Risk Factors**	**Evaluation method**
Social Risks	Workforce availability	Degree of Developer's satisfaction to local workforce market
	Community acceptability	Degree of benefits for local communities
	Cultural compatibility	Degree of business and lifestyle harmony
	Public hygiene	Degree of impacts to local public health and safety

Technological Risks	Site conditions	Degree of difficulties in site preparation for each specific plan
	Designers and Constructors	Degree of Developer's satisfaction to their performance
	Multiple functionality	Degree of multiple use of the property
	Constructability	Degree of technical difficulties in construction
	Duration	Total duration of design and construction
	Amendments	Possibility of amendments in design dhe construction
	Facilities management	Degree of complexities in facilities management
	Accessibility and Evacuation	Degree of easy access and quick emergency evacuation in use
	Durability	Probability of refurbishment requirements during buildings lifecycle
Environmental Risks	Adverse environment impacts	Overall value of the Environmental Impact Index
	Climate change	Degree of impacts to use and value due to regional of climatic variation
Economic Risks	Interest rate	Degree of impacts due to increment of loan rate
	Property type	Degree of location concentration
	Market liquidity	Selling rate of same kind of properties in the local market
	Currency conversion	Degree of impact due to exchange rate fluctuation
	Demand and Supply	Degree of regional competitiveness
	Purchaseability	Degree of affordability to the same kind of properties
	Brand visibility	Degree of Developer's reputation in specific development
	Capital exposure	Rate of estimated lifecycle cost
	Lifecycle value	5 year property depreciation rate
	Area accessability	Degree of regional infrastructure usability
	Buyers	Expected selling rate
	Tenants	Expected annual lease rate
	Investment return	Expected capitalization rate
Political Risks	Political Groups/Activists	Degree of protest by the urban communities
	Commercial Tax Policy	Rate of commercial tax impact
	Local Tax Policy	Rate of Council local tax
	Council Approval	Total days of construction, design approval process by city council
	Licence Approving	Total days of licence approval process

Another study of the best practices in Industrial and Business Parks Development

in the SEE Region[3] conducted by FIDIBE[4] in 2010, identified the following as the most important risk categories that affect this kind of large scale project, in order of importance: insufficient operational income from provision of services; weaknesses of management; organizational risks; lack of premises for new tenants; investors stop to provide additional funding; technology transfer related objectives not met; changes in the surrounding municipality; lack of awareness; competition with other industrial/business parks; risk related to the act of God; other operational risks; other financial risks.

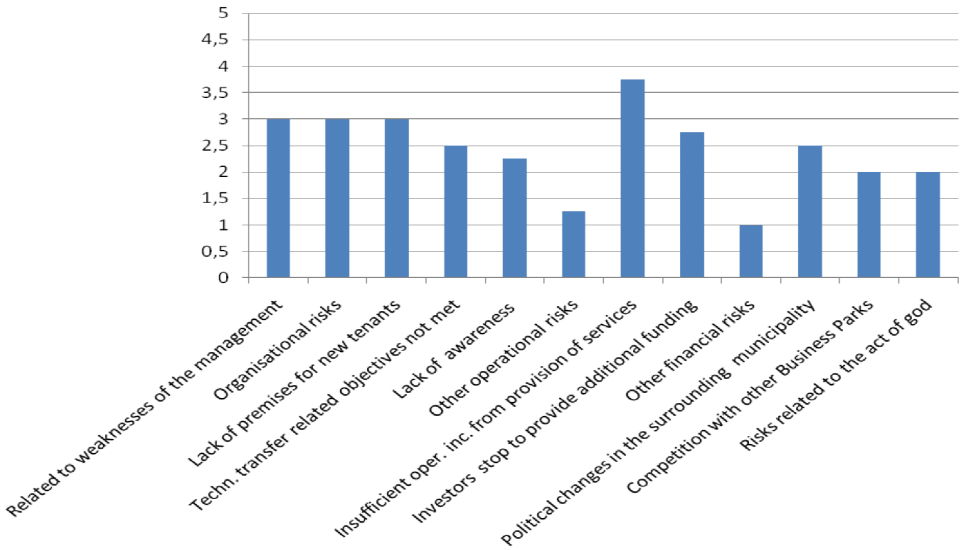

Figure 10.1 — *Main Industrial & Business Parks Risks. Source: Answers form Best Practice providers, Manual of IBPs in the SEE Region, FIDIBE, 2010*

Comment: the risks could be classified between 1-5, where 5 was given to the most important risks.

3 The study was funded by the European Union and co-funded by the Hungarian Government in the framework of the South East Europe Transnational Cooperation Programme

4 FIDIBE – Development of Innovative Business Parks to Foster Innovation and Entrepreneurship

4 Risks in Industrial Estate development projects – Case of Albania

4.1 Overview of the Industrial Estate development in Albania

The development of industrial estate in Albania through Economic Zones creation is an initiative that has started nearly 20 years ago. In spite of this, the real work started only after the creation of the National Unit for Free Zones development (in respect to Law no.8072, 15.2.1996 regarding "Free Zones"). The first identified area was in Durrësi, in approximity to the city and the sea, in a surface of 20 ha, in a very favorable geographical position. It was near the gate of the 8th Corridor connecting West and East, in a region where the World Bank was focused with large strategic projects. In collaboration with the World Bank, at the same time with this initial project, were conducted several studies for 2 other zones in Durres, 5 zones in Tirana, 1 zone in Vlora, and 3 zones in Elbasan. Feasibility studies were completed for all these zones and also were prepared development and construction projects. The National Unit for Free Zones conducted by it's own initiative studies concerning zones in Gjirokastra (Kakavija) and Shkodra, and also, other studies that aimed the revitalization of existing industrial areas such as those in Elbasani, Durrësi, etc. But these efforts along with foreign investor's interest, came to an end with the crisis of year 1997.

This initiative was revisited again in year 2000, with the introduction of a new improved law (*no.8636, date 6.7.2000*) regarding Free Zones, which exempted foreign investors from profit taxes for a 10 year period. The new measure succeeded in attracting again the attention of a considerable number of foreign investors and European financial institutions like EBRD[5].

But again, after just 6 months from the new law approval, the Albanian Parliament abolished the 10 year tax exemption, as a consequence of strong pressures from IMF[6], which doubted in the ability of Albanian authorities to control efficiently the trafficking of goods in and out of the zones.

The process stopped again until 2006, when the National Unit for Free Zones development was dismissed and replaced by a Directorate for Industrial Parks Development near METE. On 19.07.2007 another law was approved (no. 9789 "For the creation and operation of Economic Zones") almost totally changed. Actually speaking, there exist 7 Economic Zones with the status of Industrial Park approved, of which 2 have been identified and proposed by METE structures (the zone of Spitalla – Durrës and the zone of Elbasani – former metallurgic plant brownfield), and the other

5 EBRD – European Bank for Reconstruction and Development.

6 IMF – International Monetary Fund.

5 are unsolicited proposals from private investors or local government.

Table 10.2 — *Industrial Park Projects in Albania. Source: METE*

Zones and location	Proposal	Destination	Investment Value
1. Shëngjin Industrial Park, surface 3.2 ha	"ATX International"	Industrial and Commercial Center. Light manufacturing industry.	17,054,152 € 1400 - 3000 jobs
2. Koplik Industrial Park, surface 61 ha	AIIOA	Industrial and Commercial Center. Confections manufacturing. Commerce. Services.	16,374 jobs
3. Spitallë, Durrës Industrial Park, surface 850 ha	METE	Industrial and Commercial Center. Commercial and manufacturing activities.	109 million ALL for feasibility project
4. Shkoder Industrial Park, surface 130 ha	Shkodra Municipality	Revitalization of brownfield (Former Wire factory, Cigarettes factory, Electromechanical plant, Wood processing factory)	5.3 million USD
5. Vlorë Industrial Park, surface 125 ha	"Idea Vlora"	Industrial Center. Light manufacturing, food processing.	20,819,797 € 18,586 jobs
6. Elbasan Industrial Park, surface 254.7 ha	METE	Revitalization of former industrial metallurgic plant area.	41 million ALL for feasibility project
7. Durrës Proposal for "Free Zone" at Durrësi Port	KURUM Steel Co Sh.p.k.Tiranë	Ship repair activities. Construction of new vessels.	7.3 million € 600 jobs
8. Vlorë Proposal for "Free Zone" and containers port at Triport, Vlora	"ZumaX LTD"	Containers	1.7 billion €

4.2 IP projects in Albania – risks and risk management

The research in order to investigate the major risks that can endanger the IP initiative in Albania, was based on a careful literature review, on the study of best practices and cases similar to Albania, on the analysis of the chronology of events in the past and present of IP initiative in Albania and especially on experts consultation, that produced the following list of risks and some ways to manage them:

- **Lack of publicity or public awareness** - If public money is used for the park's establishment and financing, and if its marketing is poor – which

implies that the activities of the industrial park will lack visibility, certain interest groups may question the importance and sense of the operation. In this case, politicians could cut political and financial support. In order to avoid this situation, a proper marketing campaign should be conducted, including the publishing of success stories and favorable statistics in the local media. Actually in Albania, METE represents the government interests in these projects (as instruments to attract FDIs, to foster research and innovation, and to promote economic growth) and has identified and proposed the two most important areas for development, but since the renewal of this initiative in 2007, the PR activities for IPs have been very poor. The IP theme has been rarely mentioned in media and METE has failed to create even an official web page to promote the initiative and inform potential investors.

- **Financing problems** - Industrial Parks represent medium-term investments, meaning that they may need 3-8 years to reach a breakeven point, and even more to reach sustainable success. If there is not sufficient financial support during this period, then financial problems will arise, which can cause disruption of the operations. This can be avoided by using development models like Public Private Partnerships, by providing extra funding by external sponsors, or by refinancing bank loans. The PPP model will be used in the development of Spitalla IP, Durres.
- **Losing sight of overall aim** - In order to ensure certain revenues, or just because there are no proper candidates, IPs might select tenants which do not have the relevant technology or an innovative profile. So it becomes a simple real estate project that will soon lose support from sponsors. To avoid this, there should be a careful evaluation and decision of what should be the proper selection criteria for choosing new tenants and performance evaluation criteria for existing tenants. This would ensure the concentration inside IPs of tenants that correspond to the required business profile. Although METE is the promoter of the initiative in Albania, it has only set general objectives to achieve through IPs without yet specifying any selection or performance criteria.
- **Risks related to IP owners or sponsors** - This can be also considered political or personal risk. If there is a political or personal change on the owner's/sponsor's side during the implementation or operation phase, it may change the level of support (financial, professional) for the project. To prevent support withdrawal or reduction, politically balanced supervisory bodies should be formed. Also, in case of change of owner / sponsor, success should be reported to the new decision-maker on time and every contract, service and work agreement should be documented properly. Regarding the situation in Albania, one of the largest risks regarding IP projects is the lack of sufficient and constant

political support from the Government as the main sponsor. Although when spoken of, it is considered of great importance, this initiative for years has gone in and out of the focus of the governments, which has caused the constant delay of the kick start of the projects.

- **Land or building selection/purchase risks** - The presence of hidden legal, technical problems with the selected land/building can cause lots of extra effort and investment needed, or can impose the selection of a new location. We can mention here the unclear property situation in Albania. In Spitalla, Durrës, the area of the IP project is state owned, but occupied by illegal constructions; in Shkodra, the area of the former Industrial Area part of the revitalization project, is fragmentized among small businesses that have long term concession contracts with the Albanian government; other industrial and infrastructure projects in Albania have faced tremendous difficulties with the cost and timing of the expropriation process. This requires strong legal and technical carefulness before purchasing/selecting the specific location.
- **Construction risks** - The quality and timing of the construction may lag behind expectations, which can cause delay in the launch of the IP, or can prohibit tenants to move in at all. This means extra investment will be needed and also new tenants should be found to replace the original ones. This explains the importance of a proper selection of construction companies and strong contractual guarantees against poor quality and delays in project timing. The lack of transparence that accompanies at times the selection of construction companies for large contracts with the government in the case of Albania can increase construction risks, since it does not guarantee the best choice of the construction company.
- **Risks associated with human resources** - Fraudulent behavior from employees or poor performance can cause internal effects like financial loss, or external effects like lower service level (the lack of expertise in management and especially project management in Albania). This kind of risk can be reduced by developing professional employee selection techniques and internal control and monitoring practices.
- **Economic risks** - A change in the business climate due to significant economic changes in the whole country, region or in the targeted sector (such as the actual global economic crisis, the slowing of economic growth in Albania, etc.), can endanger the position of IPs. Their decline can be due to the decline of tenants' solvency and the decline of rent rates and profitability.
- **Competitive risks** - The establishment of new nearby parks could attract away existing and potential tenants. So, tenants could move out, and rent rates would be under pressure, causing profitability to decline. This can be avoided by improving effectiveness, reaching economies of scale and/or increasing service levels by additional investments and

improving marketing actions to attract clients. It is a fact that all SEE countries are trying to attract FDIs with similar strategies like IPs. All Albania's neighboring countries have developed or are in the process of developing industrial estate projects that raise competitive risks for IPs in Albania and can cause decline of tenants solvency and the decline of rent rates and profitability.

- **Risks related to the local community** - The nearby communities can oppose the establishment of the IP because of the increase in traffic, noise, perceived pollution or other environmental unwanted effects. We can mention here problems in the IP of Spitalla with illegal occupants of the area to be developed, protests of local community in Vlora against the construction of the container port and an energetic park in a strategic touristic area, etc. Protest escalation against operations, can force decision-makers to decide against location or to intervene in various forms (local regulation etc.). An environmental and social impact assessment, public hearings and targeted PR[7] actions should be carried out for the prevention of these events.

5 Conclusions and recommendations

Risks and uncertainties can have a strong influence on all phases of projects. Especially large scale projects, which are complex in term of political, legal, technical, design and organizational aspects, can suffer larger and more uncontrollable risks and uncertainties compared to conventional projects.

Three aspects of large projects or programmes make risk management desirable: their size, their requirements for large initial investments before meaningful returns are obtained, and their complexity in terms of involvement of private and public sectors.

Risks in large projects are arisen by several factors. The most common factors are social, technological, economic, environmental and political factors or "STEEP" factors.

Specific risk factors for large projects of estate development in order of importance are: insufficient operational income from provision of services; weaknesses of management; organizational risks; lack of premises for new tenants; investors stop to provide additional funding; technology transfer related objectives not met; changes in the surrounding municipality; lack of awareness; competition with other industrial/ business parks; risk related to the act of God; other operational risks; other financial risks.

Regarding the development of industrial estate in Albania through Economic Zones and IPs development is not a new initiative. It has come into and out of the

7 PR: Public Relations

political focus several times in the last two decades. The lack of political and economic stability, an unstable, fast changing legal and regulatory framework, and severe problems with property rights are the main factors that have put an end to the interest of foreign investors for IP development in the past.

Actually we can speak of a renewal of IP initiative with seven Economic Zones with the status of IP approved. There have been conducted several feasibility studies, but no real work has started yet for location development. The interviews with IP professionals identified the following as the most important risk categories for IP projects in Albania: Lack of publicity or public awareness; financing problems; losing sight of overall aim; risks related to IP owners or sponsors; land or building selection/ purchase risks; construction risks; risks associated with human resources; economic risks; competitive risks; risks related to the local community.

The most emergent areas that call for energetic action from the Government are the lack of publicity or public awareness – very poor IP marketing; risks related to IP owners or sponsors – lack of a constant focus on the initiative; land or building selection/purchase risks – unclear property situation; competitive risks – slow development process in comparison with competing neighbors.

6 References

Adair, A., Hutchison, N., "*The reporting of risk in real estate appraisal property risk scoring*", Journal of Property Investment and Finance, Vol.23, No.3, (2005).

AIIOA, "*New Opportunity for Business in Albania: "Industrial District of Koplik*", (2007).

Charette, N.R., "*Large scale project management is risk management*", 1996

Clarke, J., C., Varma, S., "*Strategic Risk Management : the New Competitive Edge*", Journal of Long Range Planning,, Vol. 32, No. 4, (1999).

Cooper, D., Grey, S., Raymond, G., Walker, P., "*Project Risk Management Guidelines - Managing Risk in Large Projects and Complex Procurements*", Wiley (2005).

FIDIBE, *Development of Innovative Business Parks to Foster Innovation and Entrepreneurship in the SEE Area*, 2010.

Flanagan, R., Norman, G., "*Risk management and construction*", Blackwell Science, (1993).

Gehner, E., Halman, J.I.M., Jonge H., "*Risk management in the Dutch real estate development sector: a survey*", Proceedings of the 6thInternational postgraduate research conference in the built and human environment, University of Salford, UK, (2006).

GTZ, "*Project Proposal: Industrial Park Durrës as a Public Private Partnership*", (2008).

Khumpaisal, S., Chen, Z., "*An analytic network process for risks assessment in commercial real estate development*", Journal of Property Investment Finance, vol.27 No3,(2009).

Kurth, U., GTZ, "*Revitalization of the Industrial District in Shkodra: Situation and First Steps to Revitalization*", (2006).

MEPP, ISPM, General Industry Directorate of Albania, "*Technical, Economical and Legal Aspects in the Transformation of ex Industrial Areas in Industrial Parks*", (1999).

METE, "*Project Evaluation Report – Industrial Park Shëngjin, Lezha*", (2008).

Nazari, A., Beheshti S., "*Risk Analysis Based Model for Super Projects Pre- Appraisal*", 24th IPMA World Congress, (2010).

Newell,M.,W., Project Management Professional, AMACOM (2002).

Rebiasz Bogdan, "*Fuzziness and randomness in investment project risk appraisal*", Computers & operations research 34 (2007).

Thorburn, A., Coombes, R., EC-UNDP Trade Liberalization and Promotion Project, *An outline industrial property development road map for Albania,* (2006).

Totoni, A., "*Economic Zones – Real opportunity for Economic Development and Growth*", PhD thesis, University of Tirana, Albania, (2009).