AN APPLICATION OF QUALITATIVE RISK ANALYSIS AS A TOOL ADOPTED BY PUBLIC ORGANIZATIONS FOR EVALUATING "GREEN PROJECTS"

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Abstract

This paper intends to explore the application of Qualitative Risk Analysis in evaluating the risk level associated with several public projects based on urban and peri-urban agriculture as a model of sustainable development of a territory. Therefore, urban agriculture is seen as an experimental model through which we can analyze the interaction between local institutions and citizens, as well as being a marketing tool to promote sustainability aspects linked to the territory. To this end, after a bibliographic review on the Qualitative Risk Analysis and the involvement of stakeholders in decisions relating to the public sector, a valuation of certain projects on the theme of urban and peri-urban agriculture, advanced by the local public Administration will be shown. The analysis proceeds with the classification of projects according to defined risk categories and their graphical representation through probability-impact matrix. The matrix shows that the data scores and the ranking vary significantly for each of the different projects involved. In this respect, the main purpose of this paper is to reveal how the success of a marketing policy based on the concept of sustainable marketing for promoting the territory depends, in many cases, not only on the characteristics of the territory analyzed, but also on the level of "riskiness" associated with the projects. Consequently, the empirical results of the paper can be a guide for public organizations, dealing with a plurality of projects but with limited resources, to assess and to prioritize projects using the level of "riskiness" as a criterion. Furthermore, economic resources could be directed to manage projects after taking into account the relevant risk ranking.

Keywords: Risks Analysis, Sustainable local development, Sustainable marketing, Urban and peri-urban agriculture.

JEL Classification: O22, Q1, P32, Q51

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Introduction

In this article, urban agriculture is used as a marketing tool, used by the government, for the revival, in a sustainable key of the local economy, in line with what happens, for years now, in many European contemporary cities (D'Amico et al., 2013). This paper analyzes the strategy, developed by a public organization, in particular that of the Municipal Authority of Messina, based on urban and peri-urban agriculture projects, to achieve a sustainable economic development of the territory. With this aim, the proposed methodology is based on the evaluation of the risk level associated with the different projects proposed by the local public Administration. The selected method is the qualitative risk analysis conducted through the evaluation of local stakeholders or Local Support Groups. Therefore, after identifying the projects that the local authority intends to develop and making use of risk analysis, we defined the risks associated with them to assess the degree of actual feasibility, as well as costs associated with them due to the degree of risk exposure identified (D'Amico et al., 2014; Lanfranchi et al., 2014; Di Trapani et al., 2014). The results of the research show a classification of projects according to the defined risk categories and their graphical representation through a probability-impact matrix. The analysis also proves how conditions related to aspects of infrastructure, socio-economic and cultural rights existing in an area are not always able to guarantee the simultaneous achievement of all projects. The paper aims to reveal how the success of a marketing policy based on the concept of sustainable marketing for promoting the territory depends, in many cases, not only on the characteristics of the territory analyzed, but also on the level of "riskiness" associated with projects. The paper is ideally organized into two parts. First of all, a literature review on the risk analysis and on the involvement of stakeholders in public decisions in addition to an examination of the method of qualitative risk analysis as a helpful instrument to evaluate the risk level in the presence of stakeholder evaluations. Then, the need was to demonstrate the contribution of literature in the involvement of stakeholders' expectations in public decisions (in particular the technique of brainstorming) and on the opportunity to develop effective relations with them as part of the community. The second part has contemplated an empirical study on the application of qualitative risk analysis in order to evaluate the risk level of different projects proposed by a local public Administration. The paper demonstrates that, this approach can be useful to assess and to prioritize projects using the "risk" as a criterion. Most public organizations have limited resources to manage all risks equally in all the projects. To overcome this problem, public organizations can assess and prioritize the risk level of each project, and manage them on the basis of risk level. For the development of that phase, in this paper, the evaluations of the members of the Local Support Group (LSG), were taken into consideration. In this light, the results are discussed and the conclusions are presented.

1. Background. Stakeholders and Risk Analysis

1.1 A risk definition

The risk of a project can be defined as the "*ability to not be able to pursue one or more of the objectives aimed at and agreed upon*" (Bernstein and Peter, 1998). One possible definition of risk is "*a possible event in the future (...) which, when it occurs, will result in relapse, negative or positive, of the project*" (Cooper and Chapman, 1987). In common

speech, the term "risk" is used almost exclusively to indicate adverse events, we shall classify risk as "*an event or unfavourable condition that may occur during the project, with possible direct or indirect consequences on the project itself*". It is noted that the concept of risk is associated with a characteristic of pure probability: a risky event is only when there is uncertainty about its future occurrence, but it is believed that the definition is not completely exhaustive, consequently the concept of statistic "expected value" should be introduced: defining the risk (ρ) an amount proportional to the value of the damage (impact) caused by a problem multiplied by its probability (likelihood) of occurrence. The combination of the two variables determines the weight or size of each exposure or risk (risk exposure) that expresses the damage that could result because of the risk and therefore the level of priority (ranking list) with which it is managed. The causes of risk can be classified in terms of their origin, or can be divided into internal (endogenous) or external (exogenous).

1.2 The qualitative risk analysis to evaluate the projects' risks

The analysis presented in this paper makes use of the qualitative risk (Pappalardo et al., 2014). The qualitative analysis of risk is based on assigning values to general variables inherent to risks which can sometimes be based on subjective assumptions, especially where there is the inability to obtain additional information or their retrieval is too demanding compared to the importance of risk (Lanfranchi et al., 2014). The qualitative method, rates the magnitude of the potential impact resulting from a threat on a scale such as high, medium and low. This method can allow the public organizations to measure all potential impacts, whether tangible or intangible. According to D. Frame "*The qualitative approach recognizes that experience coupled with hunches and good judgment enable people to develop insights that they cannot develop if they are constrained by the requirement that they work only with measurable phenomena. (...) This is particularly true with a range of situations, including first-of-a-kind experiences, circumstances where politics reign, and situations where outcomes are determined through negotiations*" (Frame, 2003). We assume that risk is a function of a) the likelihood of a given threat and b) the resulting impact on the organization. This means that risk is not a single factor or event, but rather it is a combination of factors or events or threats that, if they occur, may have an adverse impact (in this case) on the public organization. As exposed, the main aim of a qualitative risk analysis, is to identify risks with low, moderate or high significance for a given project and provide information for the subsequent stage of the risk assessment process, i.e. risk evaluation. The value of likelihood and consequences of a specific event are given by description. D. Frame, gives such qualitative methods as: scenario building, the likelihood-impact matrix, attributes analysis, Delphi forecasting. In general, in the entire risk management process, following the identification of risks, the risks are assessed, which means that the most significant risks, as well as the risks which are less important for the project, are indicated. This can be done by using different methods such as Brainstorming, this heuristic method was created by A.F. Osborn. It involves, in particular, the assembling of a group of people, who are presented with a specific problem that needs to be solved. These people express ideas, of how to solve the problem they are able to come up with and these ideas are written down. In the final stage, a host needs to sum up the ideas by conducting an analysis and evaluating all of them. The basic assumption behind the brainstorming method is the fact that even the most unrealistic ideas cannot be criticized

during the discussion (Osborn, 1969). It is commonly submitted, in the risk management literature, that part of the project risk management process requires the analysis of identified risks in terms of their potential consequences and probability of occurrence. This allows risks to be ranked for management priority.

1.3 Benefits of stakeholder involvement in the public sector decisions: a literature review

Based on a review of the literature, we find that, within the public sector, there is a growing challenge for government to meet community and sectorial expectations and to develop effective relations with stakeholders that will further organizational objectives and policy outcomes. Decision makers decide to involve stakeholders in public decision-making for a number of reasons. They bring useful and relevant knowledge to the decision-making process; there is more likely to be stakeholder acceptance of the decisions, even if those decisions do not necessarily reflect individuals' desired outcomes; and, to respond to changing community and sectorial expectations. In this context, Feldman and Khademian (2002) argue that managers within the public sector are responsible not only for policy outcomes but also for the suitability of the relationships they create and support. Governance in the public sector, they argue, consists of "multiple and reciprocal relationships that constrain and enable actions taken in a policy arena" (Feldman and Khademian, 2002). Public managers, they say, play a key role in determining the nature and quality of these relationships (Migliore et al. 2015; Lanfranchi et al., 2014). Whilst Feldman and Khademian do not use the word stakeholders, it is clear that the relationships they are talking about are relationships with stakeholders. "It is important for public managers to think about the relationships they are building, the capacity of these relationships to further democratic objectives, and their ability to accomplish policy goals" (Feldman and Khademian, 2002). The reasons for stakeholder involvement, both within the private and public sectors, have been described within the literature as substantive, instrumental or normative. The substantive argument proposes that involving stakeholders generates better decisions – they have access to information that might not otherwise be available; they can bring local knowledge and practical experience; they can ensure that social and cultural values are taken into consideration (Wynne, 1992; Wheeler and Sillanpaa, 1997; Migliore et al., 2014). From an instrumental point of view, stakeholder involvement means that the decisions are more likely to be accepted by all involved, even if they don't necessarily reflect individuals' desired outcomes. Involving stakeholders results in greater transparency and accountability of the decision-making process. Syme et al, (1999) have argued that "local procedural justice issues, particularly those pertaining to public involvement for local people in decision-making, were significant determinants of judgments of the fairness of the decisions" (Syme et al., 1999). Finally, there is a moral or normative argument for stakeholder involvement in decisions that affect them and their communities. It can be argued that this is achieved through the process of representative democracy "*all governments need to consider these questions of more effectively tapping community aspirations and enabling deeper community involvement in a range of public policy issues*" (Beierle, 2002; Beierle and Cayford, 2002). Whether for better informing decision-making, for legitimating decisions or for improving transparency, stakeholder involvement helps satisfy both the "*technocratic requirement for the best decisions*" and the "*pluralistic requirement for the inclusion of the norms and values (...) in the decision-*

making process" (Glicken, 1999). In this light, evidently, stakeholders are relevant to the overall risk analysis process. They can be the source of relevant information and knowledge for the risk assessment process; their involvement in a timely, transparent manner should ensure that the decisions are more likely to be accepted and supported; and finally their involvement addresses the democratic principle that provides for people to have input in decisions that will affect them. Under these circumstances, to define the stakeholders becomes imperative. According to Freeman, stakeholders are "*any group or individual who can affect or is affected by the achievement of the organization's objectives*" (Freeman, 1984). Clarkson proposed stakeholders are those who are voluntary or involuntary risk-bearers (Clarkson, 1995). Eden and Ackermann present a slightly different definition. For them, stakeholders can only be groups or individuals with the power to directly affect the organization's future, either by supporting or constraining its purpose (Eden and Ackermann, 1998). Those arguing for a more inclusive definition, propose that the interests of the nominally powerless must be taken into account, within a comprehensive stakeholder approach (Bryson, 2004). Others authors have argued that the stakeholder concept can also cover the non-human world (Glicken, J., 2000), proposing that the natural environment is a stakeholder in and of itself, given that the natural environment can affect and is certainly affected by organizational activity (Grimble and Wellard, 1997; Starik, 1995; Foster, 1997).

2. The analysis. Context and projects definition

2.1 Context analysis

The province of Messina covers an area of 3.247,3 km^2 (12.64% of the Region) and about 649.824 inhabitants (12,99% of regional population), in 280.324 households and a population density of 200,1 inhabitants per km2, in 2011. The area has a predominantly mountainous morphology. It includes the territories of 108 municipalities: 53 municipalities are considered as mountainous and represent 59% of the population; while the other 55 municipalities generally situated in the hilly areas have a population of close to 41%. In the 2011 Census, the City of Messina had a population of 243.262, with a land area of 211,2 km^2 and a population density of 1.151,6 inhabitants per km^2.

2.2 System Complexity

The system was analyzed through the identification of some trends considered useful to develop clear diagnosis and derive from them practical and solid directions. The trends affecting the current and future opportunities and risks associated with the territory and, with it, the companies operating in it (Ungureanu 2008).

Positive **Opportunities**	**Negative** **Threats**
Social Trends: – High environmental quality and socio-cultural identity, the presence of conditions able to maintain social and	*Social Trends*: – Ageing of the population and depopulation.

Positive **Opportunities**	**Negative** **Threats**
economic cohesion. – Existence of suitable conditions for typical crops and products obtained with organic farming. – Existence of traditional activities that use ancient crafts. – Presence of typical/traditional local products, especially in interior areas. – Presence of agricultural traditions of the territory.	– Depopulation of villages and the exodus of young people. – High unemployment. – Distrust of economic operators to experiment with new forms of local development.
System Trends: – In hilly areas, the presence of acceptable levels of accessibility for the population to urban centres with essential services. – Potential for processing and marketing of local food products. – Increasing number of farms involved in receptivity and tourist services (i.e. agritourism). – Presence of beach tourism in coastal areas, that can be integrated with ecological/natural/rural tourism. – Richness of the natural, historical and cultural heritage, the presence of uncontaminated natural environments, opportunities to practice sports and outdoor recreation.	*System Trends*: – Fragmentation of farms and the tendency to abandon farming. – Lack of enterprises and/or enterprise dynamism. – Lack of skills in agriculture. – Lack of sensitivity and concern for the environmental and cultural heritage present within the area by residents and institutions. – Poor marketing activity. – Presence of small firms that constitute risky endeavours. – Difficulty of access by public transport. – Prevalence of beach tourism in the local tourist proposal. – Lack of promotion of the local products at international and national levels.
Politics: – Alignment with the regional strategy of development, with European funding opportunities: grants and programmes.	*Politics*: – Political direction that often does not align with the goals of project. – Lack of funding to expand the agricultural sector.

2.3 Description of the Projects

Project 1	**The Food City Brand** - The Project is a part of the City Brand Strategy aimed to involve food producers and restaurants, but also food events, festivals, food fairs, local farmers markets or any activities which involve food in order to support the city's urban farming production and, in general, every local food product.
Project 2	**The Sustainable Food City Council** - The Project is a network of public and private organizations in the City, strongly active to promote food that is both good for people and for the environment.
Project 3	**The Online Food Platform** - The platform aims to become a global reference point that facilitates the sharing of information to support the city's urban farming production and linkages between stakeholders including public bodies, communities and the private sector**.**
Project 4	**Educational Projects** - These projects will have the aim to provide students with a complete gardening education that they can use to further their own involvement in urban agriculture.
Project 5	**Urban and peri-urban Agriculture Projects -** Its aim is to develop sustainable urban and periurban agriculture in the City and its surroundings, through the increase of local food production, but also the increase of capacities of the producers, who are supported in this endeavor by their associations and public institutions that encourage local development.
Project 6	**The Agri-Food Cultural Centre -** The Project provides agriculture information and advice to farmers, ranchers, fishers and the agriculture industry on topics ranging from crop and livestock production to new research and technology, regional programs, and farm business management, with the aim to encourage sustainable economic development in the City.

3. Methodology

The research approach and methodology consists in the application of the qualitative risk analysis, through the involvement of local stakeholders representing the Local Support Group (LSG), to debate and to evaluate the potential risk associated with the different projects, highlighted above. The proposed methodology, identifies, on the basis of the above review of literature on the stakeholder analysis, the process and the role of stakeholder involvement in the public sector decisions and outlines risks associated with the different projects. In this respect, the methodology identifies stakeholders to involve in the qualitative risk analysis, this constitutes the basis for the identification of the main risk categories, distinguishing between internal and external risks. The next step was to associate the risk factor to the projects, for the development of this phase, the evaluation of the members of the LSG, were taken into consideration. Finally, through the technique of brainstorming the LSG expressed an evaluation by assigning a score to the different

projects on the basis of the values of the likelihood and of the consequences of the associated risks. On this basis, a projects' risk matrix has been determined, and an evaluation of the risks associated with the projects has been conducted.

3.1 Identifying stakeholders

An initial list of 18 stakeholders was proposed as a Local Support Group. This list included farmers, government committees, farmer organizations, government agencies (Local and State) and research institutes. In order to better respond to these challenges, the process of synergy creation was articulated in several steps: a) understanding the actors: their strategies, visions and interests and how they interact with the territory; b) identifying themes along which to establish a dialogue; c) supporting the negotiation process amongst the actors in order to enter a possible socio-territorial pathway (Sgroi et al., 2015; Tudisca et al., 2015). In this light, further organizations (consumers groups, associations, citizen) were added to the list through this process of stakeholder nomination. The complete list consisted of 41 specific organizations, plus a number of additional categories of organizations/individuals that had been identified: policy makers, trading partners, hobby farmers, State park agencies, private conservation reserve managers and land councils. We used the occasion of the workshop to make a discussion with the stakeholders as the basis for providing further data for the risk analysis. The workshop agenda included a presentation by a representative from the different (public and/or private) bodies involved. Each presentation was followed by a discussion. Some of the issues raised in the discussion are taken into consideration in terms of consequences: the role of agriculture for enhancing the image of the territory; the bureaucracy; the access to international trade (or in many cases to local/national markets); etc (Crescimanno et al., 2014; Androniceanu and Drăgulănescu, 2012). This constitutes the basis for the identification of the main risk's categories, distinguishing between internal and external risks (table no. 1).

Table no. 1: Risk's categories (internal and external risks)

Internal Risk	External Risks
System Complexity: – Lack of an adequate logistics system for delivery of goods – High Investment Costs ***Time/Schedule:*** – Some schedule constraints exist but won't affect completion date – Difficulty to schedule commitments – Multiple schedule constraints ***Site Characteristics:*** – Major Infrastructure – Minor infrastructure – Property: Municipal property/Private property	***Politics:*** – Lack of policies and procedures – Unforeseen regulatory requirements ***Technical Conditions:*** – Technological changes ***Socioeconomic Conditions:*** – Economic crisis – Market or operational risk – Price fluctuations – Corruption ***Partnerships:*** – Constant partner motivation (a culture where actors trust and encourage each other).

Internal Risk	External Risks
Technology: – Lack of proper technological knowledge or inadequate user education, e.g. the use of the internet or e-commerce – Incomplete information made available by partners ***Funding:*** – Resources identified, committed and under control – Insufficient Funds – Detailed estimate not yet validated – Conceptual level estimate ***Political Bureaucracy:*** – Permits, regulations and procedures ***Number of Lead Actors:*** – Different number of people involved – Community and stakeholders not recognizing the activity as a project – Probable problems with team members	

3.2 The application of the qualitative risk analysis

According to the aim of this paper, this approach can be adopted by public organizations, dealing with many projects, to assess and prioritize projects using risk as a criterion. Most public organizations have limited resources to manage all risks equally in all the projects. To overcome this problem, public organizations can assess and prioritize the risk level of each project, so that an appropriate level effort can be applied to the management of those projects. In particular, resources could be directed to manage projects with the higher risk ranking. For the development of this phase, the evaluations of the members of the LSG, were taken into consideration (Lanfranchi et al., 2014). To start, the participants in the workshops (or the members of LSG) had to compile a categorized list of threats. The participants had to identify different threats unique to the circumstances of their environment (table no. 2). After the complete list was compiled, they had to rank the projects taking into account only of the reasonably anticipated threats. This had to be done by focusing on specific characteristics of the project in relation to each of the threat categories.

Table no. 2: Risk Ranking and Projects Involved

Risk Factor	Risk Description	Projects Involved	Risk Factor	Risk Description	Projects Involved
Complexity	Lack of an adequate logistics system for delivery of goods	• Project 6 • Project 4 • Project 5	Funding	Resources identified, committed and under control	• Project 3
	High Investment Costs	• Project 6		Insufficient Funds	• Project 6
Time/ Schedule	Some schedule constraints exist but won't affect completion date	• Project 1		Detailed estimate not yet validated	• Project 1 • Project 4
	Difficulty to schedule commitments	• Project 6 • Project 4 • Project 5		Conceptual level estimate	• Project 6 • Project 5
	Multiple schedule constraints	• Project 6 • Project 5	Political Bureaucracy	Permits, regulations and procedures	• Project 6 • Project 5 (in the case of municipal property)
Site Characteristics	1 site and facilities- Major Infrastructure	• Project 6		Permits, regulations and procedures	• Project 1 • Project 4 • Project 5 (in the case of private property) • Project 2
	4 or more sites or facilities - Minor infrastructure	• Project 4 • Project 5	Number of Lead Actors (Internal and external)	1	• Project 1 • Project 4
	Property: Municipal property/Private property	• Project 6 • Project 4 • Project 5		2-3	• Project 5
Technology	Lack of proper technological knowledge or inadequate user education, e.g. the use of the internet or e-commerce	• Project 3		3 or more	• Project 6 • Project 3 • Project 2
	Incomplete information made available by partners	• Project 3		Community and stakeholders not recognizing the activity as a project	• Project 4 • Project 3
				Probable problems with team members	• Project 6 • Project 5 • Project 2

Once these steps were completed, we had the information needed to determine a) the likelihood that a threat would take place, and b) the resulting impact on the analyzed public organization. The purpose of these steps is to assist the selected public organization in determining the level of risk and prioritizing risk mitigation efforts. In this light, we considered the "Likelihood of occurrence" as the probability that a threat will happen. The participants in the workshops (or members of LSG) considered each potential threat and vulnerability combination and rated them by likelihood (or probability) that the combination would occur. Ratings such as high, medium and low and numeric representations of probability were used to express the likelihood of occurrence. In particular to rate risks as: high, medium and low, we considered, for example:

- **High Likelihood** – a high probability exists that a threat will happen. This might be due to the existence of multiple project or organizational deficiencies, such as the absence of an adequate logistics system for the delivery of goods (due to geographic location), or high investment costs, or insufficient funds.
- **Medium/Tolerable Likelihood** – a moderate probability exists that a threat will happen due to the existence of a single project or organizational deficiency, such as the site characteristics related to the nature of the property (public or private) in realizing projects of urban gardens.
- **Low Likelihood** – a low probability exists that a threat will happen due to the existence of a single project or organizational deficiency, such as the nature of permits or procedures required to kick off projects.

Taking these considerations into account, once that the risks have been identified, through the support of Local Support Group, they have been classified and put into a Risk Rating Matrix. The Risk Rating Matrix identifies risks and places them on a coordinate system, where one axis shows the values of likelihood of a risk event and the other axis shows the consequences that the event may cause. By placing every risk separately on the coordinate system we have specified the size of its likelihood and consequence. We determined the scale for both these values on our own on the basis of the values expressed by the stakeholders involved in the LSG. The simplest scale is a three-degree one in which the values of the likelihood and the consequences are referred to as low, medium and high. After placing all the examined risks we arrived at the so-called risk rating matrix, which is a risk map. In order to make it clearer, the colours of traffic lights, in particular: red, yellow and green, have been used (table no. 3). The fields marked in green identify the low likelihood risks but with different consequences or the risks with low consequences but different likelihoods. When constructing the matrix these risks are regarded as least harmful for the public organization. The fields marked in yellow, for instance, identify risks with low or high likelihood and moderate or major consequences. The risks, which are located in the red field are critical for the public organization. These risks should be handled, in accordance to the scope of this paper, by policy makers as priority ones because their likelihood is high and consequences highly significant.

Through the technique of brainstorming, the LSG has expressed an evaluation by assigning a score on the basis of the magnitude of impact and on the likelihood level, according the following table no. 4.

Table no. 3: Risk rating matrix

Consequence	Probability				
	Remote	Highly Unlikely	Possible	Probable	Almost Certain
Critical	High	Very High	Very High	Very High	Very High
Significant	High	High	Very High	Very High	Very High
Major	Tollerable	High	High	Very High	Very High
Moderate	Low	Tollerable	Tollerable	High	High
Minor	Low	Low	Tollerable	Tollerable	Tollerable
Insignificant	Very Low	Low	Low	Tollerable	Tollerable
Negligible	Very Low	Very Low	Low	Tollerable	Tollerable

Source: Adapted from Knight, 2010

Table no. 4: Impact Analysis and Likelihood score risk

Impact definition	Magnitude of impact	Score
Very High	High impact/High probability	From 9 to 10
High	High impact / Medium probability Medium impact / High probability	From 7 to 8
Tollerable	Medium impact / Medium probability	From 5 to 6
Low	Medium impact / Low probability Low impact /Medium probability	From 3 to 4
Very Low	Low impact /Low probability	From 1 to 2

Likelihood level	Score
Very High	81-100
High	61-80
Tollerable	41-60
Low	21-40
Very Low	0-20

In the table a rating of 61-100 indicates a high likelihood of not meeting the target, whereas a rating of 0-60 indicates that there is a good chance that the target will be met.

4. Results and discussion

This methodology allowed us to rank the projects according to the scores assigned by LSG through the technique of brainstorming (table no. 5). In particular, the participants in the workshop, had to express a score taking into account the risk categories as shown in the table no. 2 and using the values as shown in the table no. 4, in order to rank the different projects in relation to the risk.

Table no. 5: Ranking of projects' risk

Project	Probability	Consequence/ Impact	Degree of risk exposure
Project 6	89	92	*90,5*
Project 5	65	68	*66,5*
Project 4	41	36	*38,5*
Project 3	37	30	*33,5*
Project 2	22	21	*21,5*
Project 1	20	16	*18*

Table no. 5 provides the total score both of the risk impact (consequence) and the probability that it occurs. In the graph (figure no. 1), the degree of risk exposure (obtained from the sum of the two variables considered) is also shown.

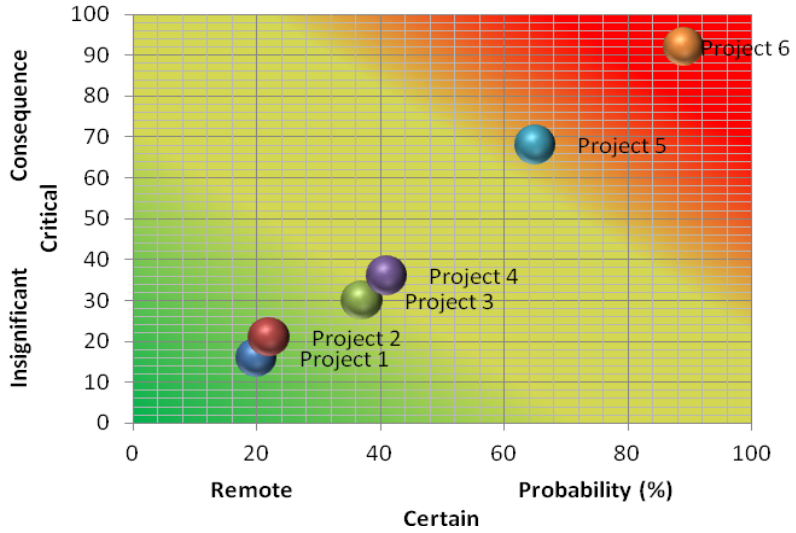

Figure no. 1: Projects' risk matrix

Using the risk rating matrix (as indicate in table no. 3) as a model, we built a risk matrix for the project risk evaluation.

The graph (figure no. 2) shows the relative levels of the project risk so that the major sources of risk can be easily identified.

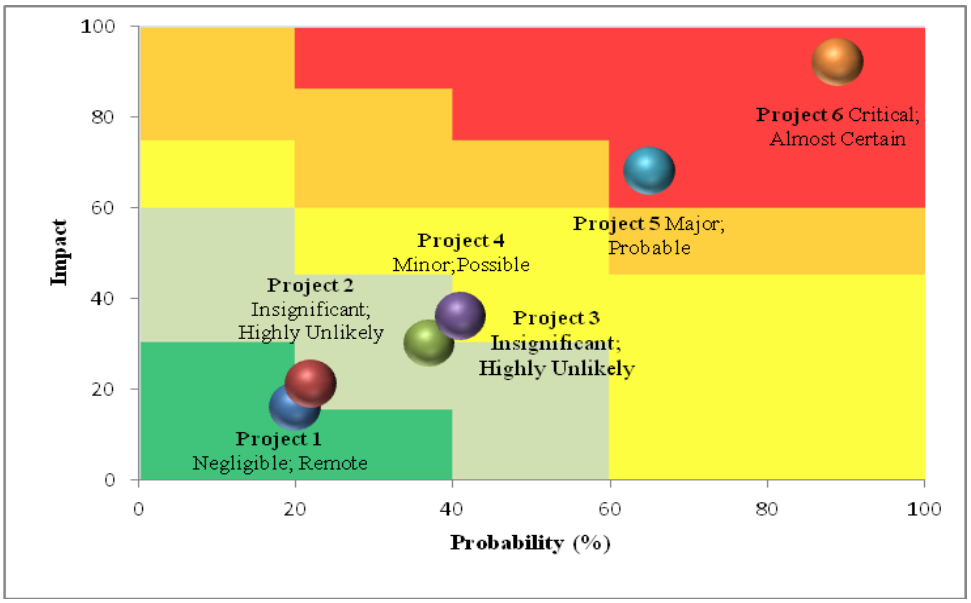

Figure no. 2: Final risk rating

After the above analysis, some evaluations of the projects analyzed that could be taken into consideration by the public organization, in order to implement local development strategies, are shown (Lanfranchi et al., 2014). The following considerations specified, also, the costs associated with the risk management of the projects, in particular:

- **Project 1**: both levels present a value defined as "very low" in this case we can consider a level impact as "negligible", and a probability of risk occurrence as "remote". This project results easily handled within the normal course of operations and with no additional costs.

- **Project 2**: the level impact is "insignificant" and a probability of occurrence is "highly unlikely". It reveals that there is some disruption within the normal functions. Manageable risk with a minimum estimated cost.

- **Project 3**: the level impact is classified as "insignificant", with a probability of occurrence "highly unlikely". The considerations, on this Project, are the same as for Project 2.

- **Project 4**: the level impact is "minor", the probability is classified as "possible". In this case, a resource reallocation, will probably be necessary. This could require moderate costs to manage the associated risk (we refer to estimated cost).

- **Project 5**: the level impact is considered as "major" and a probability of occurrence as "probable". For this project, operations result severely disrupted, and a significant risk of failure of part of the project is possible.

- **Project 6**: the level impact is "critical", with a probability of occurrence "almost certain". Significant concerns exist for the project realization and the risk of not meeting the target is considered as very critical.

The matrix shows that the data scores and the rankings vary significantly for the different projects involved. In this regard, the results reveal how the success of a marketing policy, based on the concept of sustainable marketing in promoting the territory depends, in many cases, not only on the characteristics of the territory analyzed, but also on the level of "riskiness" associated with the projects. This demonstrates that every project is unique, having unique goals and poses risks to its significant elements. This is true in particular if the conditions and uncertain events occur, and it turn generate project risks that may affect the project objectives. Naturally, as a consequence, in the management of new projects, potential risks can be solved based on the experience obtained from other projects. The literature shows that there is not a "collection of lessons" (see Hilson and Hulett, 2004) drawn from various projects to overcome certain types of risks or to resolve difficult situations, each organization has to face the challenges of every different project. The results of this research prove that the risk management based on the evaluations of stakeholders can become a very useful tool take positive measures to minimize the consequences of the risk materializing and also suggests that a qualitative understanding of stakeholder risk perception could play an important role in striving towards a sustainable and long-term risk management. In accordance with Wideman M.R., but also with the "Practice Standard for Project Risk Management", this research outlines that there are many advantages, in the use of the qualitative risk analysis in projects: it can serve to reduce apparent complexity; enhance the organisational process assets; allow the organisation to prioritise the project risks for further analysis (e.g., quantitative) or risk

response; reflect the organisation's level of risk tolerance; assist in developing a relative weight of project objectives that reflects the organization's priorities in terms of time, cost, scope and quality for the project; assist the creation of an overall project priority list of risks created by the risks' priority in respect to individual objectives. Therefore, the findings of this study prove that much of the above outlined by the researches can be used comprehensively, when a public organization manages public projects, as well as investment projects. Taking into account that every project is different and the decisions at which a project should be undertaken, depending on the situation and specific needs, have to be made on a case-by-case basis.

Conclusions

In this study the capacity of public organizations (Public Authority, Chambers of Commerce, etc.) to develop projects to enhance the local development (in this case, a sustainable development of the territory in consideration of the nature of projects involved and evaluated) was analyzed. The process described, in this analysis, was formulated by running workshops with relevant stakeholders that constituted the Local Support Group in which specific project risks were identified. Risks have been assessed by qualitative methods (Asciuto et al., 2015). The study demonstrates that to obtain information, in a descriptive way on risk, public organizations can adopt qualitative methods of evaluation that are agreed upon and that can be easier explained to others, especially when they use the technique of brainstorming. The literature review shows that this approach was used, above all, for the evaluating and the managing of investment projects (see Korombel A.) or the entrepreneurial risk, which in most cases, is assessed by qualitative and quantitative methods. In the environmental field, where the risk perceptions are known to differ between experts and community, particularly when these risks are associated with radiation, nuclear power, or nuclear waste, the risk analysis is used to assess the relevance of the substantial contamination (of some substance or pollution) to the health and livelihoods of the local population with the goal of informing remediation activity through a combination of quantitative and qualitative risk assessments (see Kajenthira A et al.). In this respect, the main limitations of this approach regard the fact that qualitative assessment results are usually descriptive and do not imply an exact quantification of risk. The qualitative assessment often provides support for further investigation of the quantitative, but can also provide information needed for risk management. The success of the evaluation is given by the way it is documented and the summarizing of the data to be processed. However, for the purpose of this paper, a qualitative assessment is preferred to quantities for several reasons, because it gives the perception of speed and ease of implementation; appears to be more accessible and easily understood by the public organization and by the community; there is insufficient data to make a quantitative assessment. Though numerical data is preferred in making decisions, the qualitative evaluation results satisfy a range of needs. The principles of assessment are the same and apply uniformly in the evaluation methods to ensure continuity from data collection. Therefore, a risk profile achieved by qualitative methods can be easily improved further by a quantitative assessment given that it is interesting and useful to public organizations. That does not mean that the results of qualitative investigations do not provide enough information. Conversely, as demonstrated, assessment of qualitative risk can capture different perspectives. The findings of this research show that a qualitative risk analysis can

contribute to identifying the currently available data, the uncertainty of the data, the probable magnitude of the risks associated etc. In this regard, the findings of this research study cannot be broadly generalized on the basis of the pre-existing literature. However, the empirical results of the paper can constitute the basis of a guide for public organizations, that often deal with many projects and have only limited resources, to assess and to prioritize projects using the level of "riskiness" as a criterion, and it also suggests that a qualitative understanding of stakeholder risk perceptions can play an important role in striving towards a sustainable and long-term risk management. In this respect, the article concludes with a practical example of the use of probability-impact matrix or the risk matrix as it is known in literature. It recognizes that risk management could be one of the competences of the public organizations able to promote an effective and efficient allocation of resources for the management of project risks.

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