Örebro University
Örebro University School of Business
Project work
Sirajul M. Islam
Mathias Hatakka
VT15/2015-08-27

Risk management in IT Start-up projects. A case study of Inkubera at Örebro Science Park, Sweden

Bukenya Charles

1988/03/13

Abstract

Risk management and 'routine-based reliability' is considered fundamental to IT project performance. As noted in the successive CHAOS reports by the Standish group , many IT projects continue to fail, many incur cost overruns , cancelled objectives and off schedule delivery. While high profile projects in established IT companies have also failed, Start-up company projects tend to fail more. While there are many reasons for IT project failure, poor Project Risk Management (PRM) accounts for many failures. Through analysis of IT start-up projects at Inkubera, Örebro Science Park, this paper gives an insight into Project Risk Management in IT Start-Up companies which is largely unknown in existing research.

To explore the process of Risk management, interviews were conducted with stake holders in the projects studied, a literature study on the subject was also conducted. The findings are presented using the (Project Management Body of Knowledge) PMBOK Risk Management Process Model. The results show that a mix of tools and processes are used for risk management in IT Start-ups and project teams have mixed attitudes towards formal Risk management methods.

Keywords: Risk Management (RM), Project Risk Management (PRM), Risk, IT Start-Up, Risk Assessment, Risk Management Process, Contingency plan PMBOK

Introduction

For a long time, academics and practitioners, have been concerned with management of Risk in IT projects. According to Wirick, D. (2013), risk management is the identification, assessment, and prioritization of risks (defined in ISO 31000 as *the effect of uncertainty on objectives*) followed by coordinated and economical application of resources to minimize, monitor, and control the probability and/or impact of unfortunate events or to maximize the realization of opportunities.

"Risk management is not a technique, but rather a framework, within which potential courses of action may be reviewed, judged and evaluated in terms of risks and opportunities" (Mohamed and Shahid, 2009, P. 560). Therefore RM should not

be looked at as a solution to risk but rather as a framework that facilitates finding good responses to risk occurrences.

IT project failure has increasingly been associated with the failure to actively manage risk (Nelson, 2007). Marcelo et al. (2014) says that one of the main reasons for such outcome is that project managers do not know how to deal with risks. Risk, as simple as it may sound, may be very complex when it comes to project management. This is because of its subjective and diverse nature. Technology, Cost, Time and management risks are some examples of what risks can be described as in IT projects. In other projects you can also find political, environmental or financial risks (*Maarten and Robbert, 2012*). The most intriguing factor about risk in IT projects is that they are usually very inter connected. For example crushing of a computer can be a technology risk but it may mean schedule extension and cost overrun to purchase a replacement (*Maarten and Robbert, 2012*). Therefore Project Risk Management is very important to ensure success of IT projects. Terry (2012) argues that Adequacy of an up-to-date risk management plan is key to any project success.

Risk management's objective is to assure uncertainty does not deviate the endeavour from the business goals. While risk management is a widely researched discipline in project management, there has been little attention to Risk management in IT start-up companies. A *start-up company* or *Start-up* is a business in the form of a company, a partnership or temporary organization designed to search for a repeatable and scalable business model (Blank, 2012). These companies, generally newly created, are in a phase of development and research for markets. The term became popular internationally during the dot-com bubble when a great number of dot-com companies were founded (Blank and Dorf, 2012). Due to this background, many consider Start-ups to be only tech companies, but as technology is becoming a normal factor, the essence of Start-ups has more to do with innovativeness, scalability and growth.

By their nature, start-up companies lack proper organization structures and access to funding which is inconsistent with the ".....well bracketed episodic probes that characterise formal project risk management methodologies" (Lim, W. et al., 2011, P.416). Most Risk Management Processes have been designed with assumption of established business models or companies, there is no Risk management Process designed to accommodate the challenges of start-up company projects which include

lack of business models and markets, lack of access to funds, lack of organisation structures and staff. According to Bhide (1992) Investors prefer solid plans, well-defined markets, and track records. In fact Marcelo et al. (2014) explains that management practices that are effective in established companies are often ineffective and even destructive when applied to innovative projects because of high levels of uncertainty inherent in these projects. Thus Start-Ups being exposed to even greater risks which can adversely affect their success. As Marcelo et al. (2014) argues that understanding the innovative project characteristics and the uncertainty nature that permeates them is critical for developing appropriate management practices, therefore this study has been undertaken to explore;

-How do IT Start-ups Implement Project Risk Management?, (Tools, processes and methods).

The study is aimed at giving an insight into Project Risk Management in IT Start-Up companies which is largely unknown in existing research.

The Case study: Inkubera (Start-Up Incubation Centre in Örebro)

Inkubera is an incubation Centre for Start-up technology based projects in Örebro region, Sweden. Started in October 2006, it was an initiative by a number of organizations in both the private and public sectors in Örebro region to support start-ups and entrepreneurship in the county of Örebro. On behalf of the region's private and public sectors, Inkubera was started with the important task of providing a coordinated support to the development of new companies, with a focus on innovative technologies and knowledge, and with clear growth potential. Innovation Bridge in Uppsala, now ALMI Incubation, was one of the initiators in addition to the regional owners. Inkubera started with Örebro region support to produce new viable companies which could eventually grow profitably - achieve a more efficient and faster commercialization of innovations, ideas and R & D - reducing risk and increase the growth rate of new business - to allow exchange of experiences between entrepreneurs and scientific and commercial networks - creating a structure and business know-how for the new company's long-term development - creating more knowledge-intensive jobs in the region and thereby increase the welfare of people in the region.

Organisation structure of Inkubera Incubation Centre

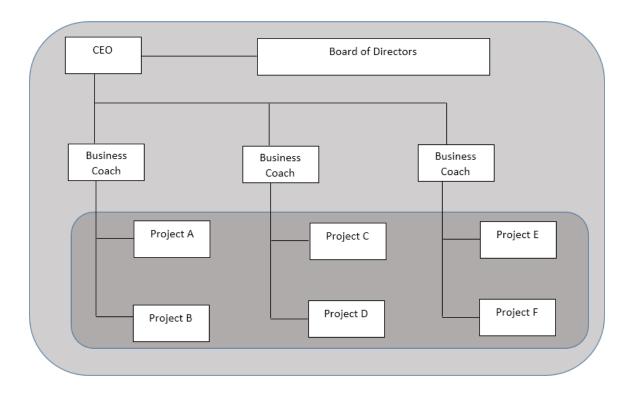


Fig 1: Organisation structure of Inkubera

Inkubera is made up of various business coaches who all report to the CEO. The CEO is responsible for the overall management at Inkubera. Each business coach is assigned one or more Start-up projects to assist in their development. Each project has its independent team with a project leader. Business coaches work at least 4 hours per week with each project. The core role of a business coach is to provide assistance to projects in terms of management practices, self-organisation, business development and risk management. Inkubera provides office space, financial assistance and technical assistance to projects it works with but each project is independently owned by the project team. The project team is also the inventor of the project idea. Inkubera is specifically an incubation lab for IT Start-up projects.

Methods

This study is based on a qualitative case study approach. Merriam (1988) defines qualitative case study as an intensive, holistic description and analysis of a single entity, phenomenon or social unit. Case studies are particularistic, descriptive and heuristic, and rely heavily on inductive reasoning in handling multiple data sources."

A literature review and Interviews are the main methods for data collection. A total of five field Interviews were conducted with different participants at Inkubera. Semi-structured Interviews were selected to keep the Interview process more open while an Interview guide (see appendix 1) was used to keep focus on the main themes as in regard to the objectives of the study. The interview guide was designed basing on the PMBOK risk management framework. The themes and sub-themes in the framework were used to generate relevant questions in the interview guide.

To understand the process of Risk management at Inkubera. Participants were selected depending on their roles at Inkubera. A total of five participants were selected for the Interviews. These represent all the major roles involved in a project at Inkubera, i.e.

All interviews took on average 40 minutes each. The Interviewer introduced the study and purpose for the Interviews. Semi-Structured Interview guides were used but follow up questions would be asked in order to explore deeper on a particular interesting statement mentioned by the interviewee. Interviews were recorded with consent of the Interviewees, the recordings were later used for reference in the data analysis process.

A review of relevant literature was also conducted. The PMBOK Risk Management Process framework was used to identify relevant terms and themes that were used as search terms for literature. Different sources of literature were included to enable good triangulation of data. Books, journal articles, periodical reports and conference proceedings were the main sources of literature used in the study. The literature search especially for articles was first limited to the web of science basket of journals to ensure

quality of literature, but however due to the limited number of articles found, the

search was expanded to an open search. In fact Webster & Watson (2002) advise that

In order to conduct a high quality and relevant literature review that covers large

number of papers the search should not be limited to a set of journals, research

methodology or a geographic region. Journals and databases searched include;

Journals

-European Journal of Information systems.

- International Journal of Project Management

-Journal of the Association for Information Systems

- MIS Quarterly

Databases

-ProQuest

-Google Scholar

-Web of science

-Science direct

-ORU summons

Terms used in the literature search include Risk Assessment, Risk Management, Risk

Identification, Risk Control, Contingency planning etc.

Data is mainly analysed by inductive analysis due to the qualitative nature of the study.

Inductive data analysis is a deliberation to derive meaning from data, concepts and

themes in order to arrive at logical conclusions (Thorne, 2000). This process involved

coding, interpreting and pattern recognition of key themes in the study. Key themes

were identified according to the PMBOK risk management framework and other

terminology identified in literature which are used to represent the key themes of the

study. Interviews were transcribed to enable easy extraction of all relevant information

during the data analysis.

The Literature Review: Towards a conceptual framework

Conceptual framework

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To understand the concepts involved with Project Risk Management, a Project Risk Management Model by Project Management Institute (2004) is used. The PMBOK Risk Management framework which is widely adopted in the field of Risk Management, identifies four critical stages of Risk Management in a project. i.e.

- i.) Risk Identification
- ii.) Risk Assessment
- iii.) Risk Response development and
- iv.) Risk Response Control

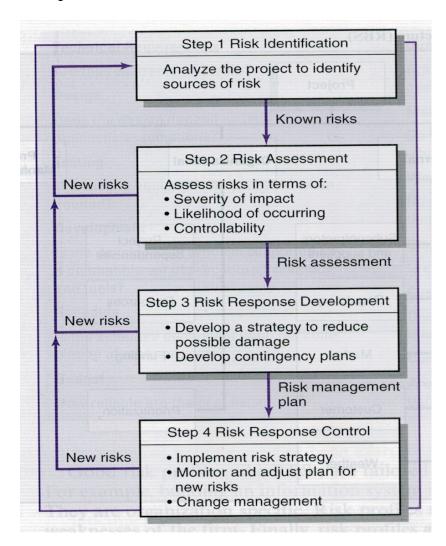


Fig 2: The PMBOK Risk Management Process (Larson and Gray, 2011)

The conceptual framework is used to identify themes that are relevant to the study of project risk management. These are then used to formulate terminology that is used in organisation of the literature review and development of tools like Interview questions that were used to collect data about the case study.

The field of IT Project Risk Management has accumulated a high volume of literature over the years, e.g. Saarinen and Vepsalainen (1993), Larson and Gray (2011), Lim et al. (2011), but however there has not been many prior studies about Project Risk Management (PRM) in IT Start-Up companies. PRM is a very linear process that requires well organised business models, organisation structures and funds to implement (Lim, W. et al, 2011). Such conditions are not always available in many Start-Up companies (Bhide, 1992). Much of the available literature is centred on the four stages of Project Risk Management. I.e. Risk Identification, Risk Assessment, Risk Response development and Risk Response Control.

Risk Identification

The project management process begins by trying to generate a list of all the possible risks that could affect the project. (Larson and Gray, 2011). PMBOK states that risks can include both threats and opportunities that IT project managers need to assess.

"Using unproven productivity boosting software is a risk taken in the expectation that the work will be completed more quickly and with fewer resources" Project Management Institute. (2004, P.11)

The above scenario could be considered a risk opportunity. Therefore the risk identification process must be able consider all risks not only negative risks. The Project Management Institute (2004) has developed a Risk Breakdown Structure (RBS) that can be a useful tool in Identifying risks in an IT projects.

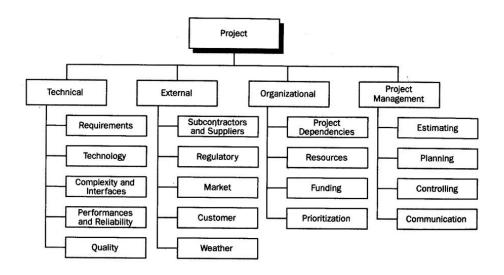


Fig 3: The Risk Breakdown Structure (Larson and Gray, 2011).

The RBS is used to identify the project areas from which risks may arise. Different project context may have varying RBS as may be agreed by stakeholders in each project. But one major importance of the RBS it reminds the project team of possible Risk areas rather than identifying Risks according to perceptions through brainstorming sessions which may increase personal bias in the risk identification process. (Mohamed and Shahid, 2009).

Other scholars have suggested Risk profiling as another useful tool for Risk Identification. A risk profile comprises of questions that address traditional areas of uncertainty on a project. Good risk profiles, like RBS are tailored to the specific project in question (Larson and Gray, 2011). While formal methods and tools are important in the risk identification process, stakeholder involvement is key to effective Risk Identification.

Much time and effort must go into managing relationships with stakeholders and getting them to accept unplanned circumstances. (A. De Meyer, et al., 2012)

Risk Assessment

Not all risks deserve the same attention. Some risks have higher probability of occurrence and a high impact on the project in case of occurrence. These kinds of risks deserve to be attended to by managers (Larson and Gray, 2011). Risk assessment can

be defined as the process of stratifying risks according to their level of impact and probability of occurrence in a project. Risk Assessment methods have been divided into two domains. I.e. Qualitative Risk Assessment and Quantitative Risk Assessment. "Quantitative methods produce numeric exposure estimates for risk. With quantitative techniques the interval between the resulting numbers and the ratio of the resulting numbers is used to interpreted or rank the different risk items". (Maarten and Robbert, 2012, P.11). For both qualitative and quantitative risk assessment, various techniques are proposed to help assess the probability and impact of risks on IT projects. Some common techniques in literature include;

Scenario Analysis: This uses a list of probable risk events for which impact and probability indices are developed to evaluate likelihood of the event to occur and the consequences on the project performance. This can be represented in the form of a risk assessment form (Larson and Gray, 2011).

Risk Event	Likelihood	Impact	Detection Difficulty	When
Interface problems	4	4	4	Conversion
System freezing	2	5	5	Start-up
User backlash	4	3	3	Postinstallation
Hardware malfunctioning	1	5	5	Installation

Fig 4: Sample risk assessment form. (Larson and Gray, 2011).

For the purpose of impact and probability analysis, different tools are used. These include traditional statistical analysis methods like, Net Present Value to assess cash flow risks in projects, Program Evaluation and Review Technique (PERT), S-Curve etc. However *Maarten and Robbert (2012, P.12)* argue that "given most projects are unique...., it is unusual to find relevant statistical data with which probabilities or probability distributions can be quantified" which is in line with Marcelo et al. (2014) school of thought that some uncertainty types cannot simply be solved through an

analytical approach. Such as: a number of events, random combinations, may contribute to an unexpected result.

Risk Response development

After the risk assessment process, risk events are categorised according their level of severity (low, medium, high). The criteria for these categories are defined by the requirements for a specific project (*Maarten and Robbert*, 2012).

"Risk response development refers to the selection and implementation of the optimal corrective strategy for the risks identified. The appropriate risk mitigation action varies with the level of risk". (Ennouri, W. 2013, P.291). At its base, Sébastien (2009) suggests that good risk management needs to be rooted in appropriate mitigation controls. Several risk mitigation strategies have been proposed by different studies. One popular risk mitigation strategy is contingency planning. According to Project Management Institute (2004), a contingency plan is an alternative plan that will be used if a possible foreseen risk event becomes a reality. The contingency plan consists of a set of actions that will reduce or mitigate the negative consequences of a risk event. "There is usually a trade-off to be made between the magnitude of the risk and the resources needed to reduce that risk to an acceptable level" (*Maarten and Robbert, 2012, P.14*). Contingency funds are usually set aside to cover risk events if they occur.

Risk Response Control

Having good risk mitigation strategies and analysis is one thing and implementing them is another. As literature suggests that many managers tend to fail to implement these strategies properly leading to poor project performance or even failure (Elmar et al., 2013). Core to the whole process of risk management is a manager who knows what to do and when to do it. Risk Response control is about project managers taking appropriate measures to ensure success of the process of risk management. Marcelo Et al (2014) identifies some key principles for managers in the risk response control process. These include; facilitating communication about risks with all stakeholders, facilitating self-organization and the risk team adaptability, incorporate the investigation of uncertainties in projects plus flexibility and ability to respond to changes as they occur. But overall managers should make sense.

"Sense making is the process by which organizations and individuals work out uncertainties, ambiguities, changes and problem situations generating inventions and new situations that end up in actions that lead to problem solution and environmental stability". (Marcelo Et al, 2014, P.15).

Results

This section presents the results from the interviews which gives an understanding how IT start-ups at Inkubera implement Risk Management in their projects. The results are presented according to the four phases of Risk management as explained in the PMBOK framework for Risk Management Process.

Risk Identification

Risk Identification is the first phase for every Start-up project at Inkubera. One project leader said that "At the inception of the idea, we start taking consideration of the major functional risks". Each project is evaluated through an internal form which represents different risk areas for the project. One business developer noted these to include "market competitiveness, Innovativeness of the project, patenting, financing and team focus".

However another project leader noted that while Risk Identification is more rigor in the beginning, he says that "Risk identification and risk management generally is an integrated iterative process in every stage of project development at Inkubera". All participants agreed that they are liable to take greater risks due to their nature as startups. The CEO said "Our work is to take risks, though calculated risks". On the tools and methods used for risk identification, it's a mixture between formal and Informal methods. Formal tools mentioned to be used at Inkubera include NABC (Need Approach Benefit Competition) framework which is used by one of the project leaders. Other methods mentioned included research, discussions, expert review and personal judgement. One project leader noted that "expert review is a very critical tool used to avoid personal bias" especially for technical risk areas. A business coach explained that there is a general tool concerning risk assessment that has been developed on a national level – Affärsrisker (business risks) that they work with. But she noted that

"We don't use it actively/methodically in this form because it's quite complex and time-consuming. Through a number of questions this framework/tool assesses the business risks within the following areas — Business model, Finance, Team/competence (genomförande), Market, Technology etc."

This is an example of the general effort at Inkubera of trying to adjust formal tools to fit into the Start-up environment.

Risk Assessment

Like in risk Identification, risk assessment is quite an integrated process in all business development phases for start-up projects at Inkubera. Each project leader takes responsibility for assessment of risks involved in their project and devise response plan. One administrator said that "We don't own the project, we let them (referring to project leaders) take responsibility while we play a supportive role". The Inkubera management provides a business developer/coach to each project to guide them on the business processes including risk management. However while there are various tools used in the risk assessment process, one business developer noted that "we let the process to be more flexible" which was confirmed by one project leader that "It's been more of unstructured risk analysis process, where we sit and discuss..." Another project leader said that "formal methods are a bit rigid yet we want to be able to respond to situations accordingly". However several formal risk assessment methods are still used at Inkubera especially in critical phases in the project development like Initiation, Product Testing and market rollout. One project leader noted that they plan to use Failure modes and effects analysis (FMEA) framework since they are planning to enter the product testing phase. Other tools used at Inkubera include (TEMO) Team Economic Management Organization which is used to assess how the team is working together, how economic resources are being utilized and how the project is managed. "This helps us to be aware of where risks are likely to occur on a particular project" noted the manager. Expert reviews are also still used in the risk assessment process. Some of the high risk areas for Inkubera projects that were identified by different participants include

- -Market mismatch due to market changes
- -Delivering on time

- -Team competences and focus
- -Cost overrun

Risk Response Development

According to one business coach, there is no general risk response strategy at Inkubera. Solutions to risks are generally discussed among project teams. One noted that

"Since the start-up teams are small, it's not a problem to discuss and find a solution when a risk becomes a reality, but also we get experts to support the teams when they are faced with a particular risk or problem".

Different methods are used to solve risk situations when they occur. For example one project leader said that they would reduce on the project output ambition if they incurred a cost overrun. Another said "relocation of funds from one project area to another can be done". On schedule risks, one project leader said that "we always put buffer time in our schedule so we can adjust when we experience a delay". However a business coach noted that schedule overrun was a common risk in many start-up projects at Inkubera. Generally there is no general risk response strategy that is followed when responding to risks but rather responses to risk occurrences depend on the particular circumstances from project to project.

Risk Control

Risk control process is more integrated in the general duties of project managers at Inkubera. A business developer said "we look at this process more from the perspective of where we want to be in terms of success factors and what we need to do to get there". A project leader said "we have not had a meeting to discuss risk management, it's more embedded in what we do every day". On stakeholder involvement, one project leader said that "we inform the management when we feel we need their input on a particular issue, but we also are always working with a business coach who is part of the management 4 hours a week, so they are certainly aware of whatever is going on". The CEO also holds regular meetings with the

management board where external risks that affect the projects e.g. funding, politics etc. are discussed.

Discussion

According to the results from this study, it is evident that it is a challenge for start-ups to integrate formal risk management models into their management practices. Therefore many decide to use a mix of both formal and informal methods. This is consistent with (Lim, W. et al, 2011) and Bhide, A. (1992) assertion that PRM is a very linear process that requires well organised business models, organisation structures and funds to implement, such conditions are not always available in many Start-Up companies. This shows a need to develop a unified model for risk management in IT-Start Up companies. The study also shows that while start-up projects are reluctant to fully integrate formal risk management methods, when it comes to critical phases of the project like Product testing, Initiation and market rollout, formal methods are preferred to assess risks that can affect the project. For example in one of the projects studied, mostly informal methods were used to assess risks during the development phase but when it came to product testing, they intended to use a formal risk assessment method to ensure they understood all risks involved in the phase. This can be explained by Cleden (2012) theory of trade-offs and affordability in Risk Management. He says RM is expensive and time consuming to gather missing Information, explore different paths, model future scenarios and to put contingency plans in place, but when the stakes are high and project objectives demand it, IT project managers will implement formal Risk Management. The perception towards formal risk management models e.g. when one participant says that "formal methods are a bit rigid..." proves a need to develop a more flexible framework for managing risks in IT start-ups which also proves Marcelo et al (2014) hypothesis that "management practices that are effective in established companies are often ineffective and even destructive when applied to innovative projects because of high levels of uncertainty inherent in these projects". Another important fact highlighted in this study is that while teams try to assess risks, they themselves could be the first risk. For example team competences and focus was identified as one major risk area in Start-ups at Inkubera. Very few existing Risk Management frameworks mention team competence and focus as a risk area and therefore as a result many managers over look

this as a potential risk area and thus focus on financing, time, technical and market competitiveness as the only major risk areas for IT start-up projects. This study has also confirmed IT projects are liable to take greater risks in a start-up environment than those in established companies as also noted by Marcelo et al (2014). While different tools and methods are integrated in the general management of Start-up projects at Inkubera, there was an absence of a general Risk Mitigation Strategy for responding to risks. One participant said the reason why they don't design a specific strategy was to allow creativity when dealing with situations. This school of thought disregards Mohamed and Shahid (2009, P.560) proposition that "Risk management is not a technique, but rather a framework, within which potential courses of action may be reviewed, judged and evaluated in terms of risks and opportunities" besides (Sébastien, 2009, P.28) assertion that "at its base, good risk management needs to be rooted in appropriate mitigation controls".

Conclusion

In the Introduction of this paper, we explore a question: How do IT Start-ups Implement Project Risk Management? (Processes, tools and methods). Through a literature review and Interviews, the main findings to the above question are that IT start-ups use a mix of tools and process and methods to manage risks. These processes, tools and methods are a combination of both formal and Informal RM methods, Formal methods tend to be used at the critical stages in the projects while Informal methods are used in the daily risk identification, assessment and response. IT start-up projects tend to have a negative attitude towards structured formal risk management practices due to their un-flexibility. It's also been understood that by their inherent nature, start-up projects tend to have high risk tolerance.

The findings from this paper give insight into the Risk Management in IT start-up projects however it should be noted that all Start-up projects examined in this study operate in an incubation environment in Sweden. While some findings can be used to generalise to IT-start up projects, Start-up projects operating in different environments may be inapplicable. It's also worth noting that all data that was used to analyse the case studies was obtained only through Interviews, other data collection techniques could be used for better data triangulation.

The main theoretical contribution of this study is to build on knowledge into the processes, methods and tools for Risk management in IT start-up projects. The practical contribution is that the data presented in this study can be used for development of better management practices in IT start-ups specifically towards risk management.

This study recommends that further research should be conducted on developing a unified framework for managing risks in IT Start-up projects. Also Risk Management in IT start-up projects outside incubation environments should be investigated to get a clear picture of risk management in IT start-ups.

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APPENDICES

APENDIX I: Interview Guide

Örebro University

Department of Informatics

Masters in Information Systems

Interview guide for a Masters Project study by Charles Bukenya.

Background questions

- 1. What is your position and role at Inkubera?
- 2. What is your experience and area of expertise

Risk Identification

- 1. What phase of the project do you usually identify possible risks in a project.
- 2. Are risks something you fear and plan for or it is something you take on as a challenge as it comes.(pro-active or reactive)
- 3. What percentage of time is devoted to risk research in the project?
- 4. How do you identify risks?

Examples

- i. Through meetings
- ii. Brain storming
- iii. Research
- iv. Consulting
- v. Expert judgement
- vi. SWOT analysis
- vii. Documentation reviews
- viii. Diagramming techniques
- 5. Whose role is it to find risks?

Risk Assessment

- 1. What phase of the project do you usually assess for risk
- 2. What experience do you have with risk assessment methods?
- 3. What do you think are the major source of risks for projects at Inkubera? examples
 - i. Market competitiveness
 - ii. Technology
 - iii. Funds/cost
 - iv. Schedules and delivery on time
 - v. Lack of staff
 - vi. Lack of prior experience

- vii. Quality
- viii. Any others
- 4. What tools do you use to ensure you assess and track all possible risks? examples
 - i. Risk profiles
 - ii. Risk Breakdown Structure
 - iii. Scenario analysis
 - iv. Quantitative analysis (e.g. ROI, NPV
 - v. Expert judgement
 - vi. Probability and Impact matrix

Risk response development

- 1. What risk response methods do you have in place for projects For example.
 - i. Alternative plan (contingency plan).
 - ii. Contingency funds in case of cost over run
 - iii. Schedule buffers
- 5. How do you handle risk tolerance in projects? What risk is too big a risk and what risks are tolerable?
- 2. How likely it is that lack of funds will make you take even greater risks. For example selecting service providers, technology and marketing. What impact can this have on the project performance? How does it affect risk tolerance in projects

Risk control process

- 1. To what extent is Risk Management engaged in management of IT start-up projects at Inkubera.
- 2. Who is responsible for risk management for each individual project?
- 3. How do you engage stakeholders in the risk management process
- 4. What percentage of funds on average is devoted to the risk management process in projects?

5. Does the company's risk reporting provide management and the board information they need about the top risks and how they are managed?

END