

FINANCIAL RISK MANAGEMENT: A CASE STUDY OF THE 2010 WINTER
OLYMPIC GAMES IN VANCOUVER, CANADA

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ABSTRACT

FINANCIAL RISK MANAGEMENT: A CASE STUDY OF THE 2010 WINTER OLYMPIC GAMES IN VANCOUVER, CANADA

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Businesses take risks to progress a company forward, but management of that risk is essential for success. Companies can quickly identify early warning signs by creating an ever-evolving financial plan, which also strengthens the company's vision, mission, goals, and objectives. The purpose of this study was to conduct a case study in financial risk management of the 2010 Vancouver Winter Olympic Games. The organization was evaluated based on an instrument created by the researcher to examine the Vancouver Organizing Committee's financial risk management plan. The study showed that the Vancouver Organizing Committee created efficient management plans for potential risks and shaped a sustainable future for Vancouver. Program plans were structured, followed, and maintained through updated reports, and the committee recognized the importance of risk management in trade for financial gain. The committee needs to focus on researching, analyzing, and predicting future changes in the market when investing in capital.

Keywords: risk management, financial, credit, market, operational risk, Olympic Games

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Chapter 1

INTRODUCTION AND REVIEW OF LITERATURE

Background of Study

Sport events have been tradition for centuries, but financial risk in the industry has grown rapidly. Recognizing and identifying early warning signs of risk can help cut down on potential issues within the industry. Most business owners or firms in the sport event industry are there to earn revenue. Creating successful risk management strategies can also increase profit for the company. Effects of poor financial management can negatively impact their revenue stream. In order to strengthen the firm or companies financial risk management, there has to be an understanding of how to control financial risk and properly manage it.

There are three types of risk associated with financial risk management, and regulating all three is important to a company's success. Failure to manage market risk in public agencies has produced large financial problems. Industry professionals have become arrogant and mishandled stock and trades. Credit risk has increased due to numerous loan defaults, which created a domino-effect of economic issues. Problems with operational risk have also increased. Loss of capital due to mismanagement created numerous market failures, loss of respect for financial institutions, and an overall lack of confidence in the industry. For example, after the 1976 Montreal Summer Olympic Games, the city and its citizens were left with a \$1.5 billion debt that was finally paid off in 2006 (Riley, 2012, para 16). Had the Montreal Organizing Committee properly

managed their market, credit, and operational risk, they would have followed their financial plan and not gone into debt.

Controlling financial risk management is important when sticking with a budget. Many sport companies or sport events enter into debt if not properly managed. The purpose of this study was to conduct a case study in financial risk management of the 2010 Vancouver Winter Olympic Games.

Review of Literature

Research for this review of literature was conducted at the Robert E. Kennedy Library on the campus of California Polytechnic State University, San Luis Obispo. In addition to books and other resources, the following online databases were utilized: Academic Search Elite, ABI/INFORM Complete, and Business Source Premier. In this review of literature, warning signs of risk and reasons for implementing risk management strategies will be discussed. An overview of risk management will include correlating risk management groups into market, credit, and operational risk. Background information of managing financial risk will be discussed through recognizing, identifying, and addressing possible concerns, and monitoring for future financial successes.

The definition of risk and why risks are taken should be understood. Human behaviors are driven by the rewards that come from taking risks (Zaleskiewicz, 2001). Individuals thrive on them and the increased excitement of gambling on the unknown. As stated by Carey & Stulz (2005), "Taking on risk enables a firm to make profits, but it also endangers franchise values" (p. 10). Even if a firm believed taking extreme risks would

generate rewards, they have to be cautious. A firm never knows if their investment fully pays off, but properly projecting future values lower the risk of gambling with funds and losing profit.

Companies must also consider whether their company value would increase by taking on more capital. If a company decides to purchase additional capital, they must consider rate of return on investment and the risks associated with investing. Once a firm has measured their level of risk, they can decide on whether or not to maintain a current position in the market. If a firm can manage purchasing capital or letting go of an investment, they'll become more profitable (Carey & Stulz, 2005).

Guaranteeing financial security is fundamental to preventing and controlling financial risk (Zhu, Liu, Wu, & Sun, 2012). Within the financial security and risk system, there are three forms of established risk: market, credit, and operational risk (Carey & Stulz, 2005). All three types of risk are essential in ensuring financial stability. As Roe (2013) stated, "One firm's failure puts the entire financial system at risk of malfunctioning, rendering it unable to channel funds through the economy" (p. 1643). Without effectively managed risk, financial stress will continue to grow, and negatively influence the price of currency through a weakened economy.

Firms involved in the financial market, invest, trade, and sell market shares to regulate and improve their business. These firms have fierce competition and operate by different regulations, "which govern the provision, allocation, and deployment of financial capital" (Anabtawi & Schwarcz, 2013, p. 86). Large amounts of competition increase a firms' stress to buy and sell stocks, which escalate the risk of financial loss.

Updating investing employees on current industry trends improve confidence in the distribution of capital.

With financial advantages come equal amounts of risk. Fraud is always a high market risk in finance. A fraud case in 2007 stated that the Goldman Sachs Vice President, Fabrice Tourre, persuaded investors to place money in losing investments (Smith & O'Toole, 2013). Tourre “misled investors by selling them an investment product tied to mortgage-backed securities that he knew were likely to fall in value” (Smith & O’Toole, para. 1). Mr. Tourre “put together a complicated financial product that was secretly designed to maximize the likelihood that it would fail” (para. 5). In 2008, the financial crisis hit with the key cause being the housing market. Fraudulent traders like Fabrice Tourre knew the housing market would collapse due to the sale of their weak mortgage-backed securities. Tourre manipulated the market, ignored protocol and found himself in some risky business. By the year 2010, Goldman Sachs was charged with fraud by the United States Securities and Exchange Commission (SEC), and settled the case for \$550 million (Smith & O’Toole, 2013).

Fraud is an unethical business practice and very common in the financial market. To help offset unjust practices, each company needs to develop a risk management approach. Purchasing reinsurance is one way to absorb a potential loss due to fraud or other reasons (Schwartz & Esboldt, 2006). Reinsurance reduces company risk by distributing responsibility to other firms involved in the event of an insurance claim or fraudulent transaction. Another way to reduce financial market risk is by selling off risky assets at market price, lowering the risk of possessing key assets (Anabtawi & Schwarcz, 2013). The firm can then promote and buy safer, less risky, capital market purchases.

Credit is another risk related to financial management. Contracts and agreements are an important factor in determining credit hazards. If one party defaults on their loan, bond, or obligation to another group, the counterparty might also default. Evasion of payments can lead to a domino effect, which will appear as unprofessional and lose trust of any future business (Roe, 2013).

For example, First Central Savings Bank in Long Island loaned out \$5 million to Ibrahim Saleh, Main Team Hotel and Ming Chu Company in April 2007 (Jones, 2011). These three companies needed money to build a hotel called Flatiron Hotel in New York City. Without waiting for the group to pay off the first mortgage loan, First Central Savings Bank allowed Saleh, Main Team Hotel and Ming Chu Co. to take out \$3 million for a second mortgage loan in November of 2007. Both loans had payment extensions pushed to November 2009, when the hotel was scheduled to open (Jones, 2011). Construction ended up stalling due to payment defaults, and a domino effect ensued. First Central Savings Bank demanded property rights so they could put the building up for sale, and building contractors filed lawsuits against each owner in hopes of receiving their share of the construction labor. Ibrahim Saleh fled the country before pay-up time even came (para.10). In this case, both the bank and construction crew were largely impacted by default on the parties' loan obligation.

To lower credit risk, companies and firms need to be aware of warning signs. Plenty of warning signs led up to the 2008 global recession, yet banks still loaned large sums of money. In 2008 and 2009, "the banking systems became heavily exposed to highly fragile investments...building upon risky sub-prime mortgage and short-term money markets" (Hindmoor & McConnell, 2013, p. 544). Financial panic appeared

throughout the banking securitized credit markets due to these risky investments. In 2008 financial panic where highly fragile investments appeared, the need for loss protection was extremely important. Past events have shown that even firms with good financial history “have a potential to default on their financial obligations” (Bluhm, Overbeck, & Wagner, 2003, p. 11). If a company appears to have all their finances in place, an investor should still look for any warning signs of potential market drops, or sketchy mortgages.

Operational risk is the third group branching out of financial risk management. Operational management maximizes profit through efficient business practices, distributes policies and procedures, and coordinates meetings and resources. Managing a business might sound simple, but “many high profile losses in the financial industry have been traced to operational risk and management” (Chernobai, Jorion, & Yu, 2011, p. 2). As a specific example, in January of 2008, Société Générale, a French multinational bank, lost \$7.2 billion for unauthorized trading. The bank lacked internal operational control and failed to follow up on early warning signs of particular employees (Arnold, Larsen, Hollinger, O’Doherty, & Milne, 2008).

Most banks have adopted the definition of operational risk: “the risk of loss resulting from inadequate or failed internal processes, people and systems, or from external events” (De Fontnouvelle, DeJesus-Rueff, Jordan, & Rosengren, 2003, p. 6). Banks believe that a lack of internal control and structure has a significant impact on financial risk and its losses. This belief has been shown many times to be true.

Warning signs appeared during Société Générale’s period of loss, but were low priority at the time. Some warning signs can be ambiguous, coming from people who lack credibility. For example, Jerome Kerviel was a banker who ended up working the

floor for Société Générale, and lacked clearance to risk high amounts of money. For two years starting in 2005, Kerviel traded unauthorized bets way above his pay grade and stealthily hid billions of the bank's profit. Kerviel cost the bank billions when he was finally caught (Arnold et al., 2008). Société Générale could have earned financial wealth instead of losing it had previous operational risk measures been efficiently used.

A statement that came up in the Kerviel/Société Générale case was that the success of the bank and the pressure to keep performing created arrogance and disorder. “The risk controls were weak, traders were not punished for breaking rules and the inspection team was treated with disdain on the trading floor” (Arnold et al., 2008, para. 23). Company priority was focused on increasing the revenue stream, rather than creating a manageable, low risk environment, even when warning signals were extraordinary and unacceptable.

For operational risk management, other warning signs can be dismissed. Many can be dismissed due to a company or person's lack of credibility or low priority. If an issue is deemed as relatively insignificant, then something else of more importance will take its place (Hindmoor & McConnell, 2013).

Market, credit, and operational risk all play a factor into financial risk management. Companies focus on market risk and the stock market, while some focus on credit risk and bonds or loans, and whether they're safe to invest into capital. Sometimes firms focus on operational risk, through managing people and internal processes. All three types of risk play big roles in financial success and allocating funds to support the management of these risks is vital.

Purpose of the Study

The purpose of this study was to conduct a case study in financial risk management of the 2010 Vancouver Winter Olympic Games.

Research Questions

This study attempted to answer the following research questions:

1. What standards are already set in place for financial risk management practices of the Olympic Games?
2. Is the Vancouver Organizing Committee effectively utilizing established forms of financial risk management control?
3. Are all forms of financial risk management efficiently applied?

Delimitations

This study was delimited to the following parameters:

1. Information on financial risk management was gathered from organizational websites, press releases, and fact sheets from the sport industry.
2. Principles and practices of current financial risk management in sport events were analyzed.
3. The data were collected during the Winter of 2014.
4. Information for this study was gathered using a case study guide of the Olympic Games.

Chapter 2

METHODS

The purpose of this study was to conduct a case study on financial risk management of the Vancouver 2010 Olympics. This chapter includes the following sections: description of context, description of instrument, and description of procedures

Description of Context

A case study approach was conducted on the Vancouver Organizing Committee (VANOC) in relation to the 2010 Winter Olympics in Vancouver, Canada. The Olympic Movement was started “to build a peaceful and better world by educating youth through sport practiced in accordance with Olympism and its values” (Olympics, 2013, p. 1). The Olympic Games were then created based off this goal.

Winter Olympics originally began with figure skating at the Summer Games in 1908. It wasn't until 1924, when the International Olympic Committee (IOC) decided to host International Winter Sports Week, that the Winter Games were born. The IOC first hosted the games in Chamonix, France in 1924, and have since gone on to host 22 Winter Olympic Games (Chamonix 1924, 2013). Sports such as alpine skiing, bobsledding, curling, ski jumping, and speed skating are a large part of the Winter Olympics. (Sports, 2013). Within all medaling sport events, a number of nations compete to win gold, silver, or bronze awards.

Description of Instrument

The instrument utilized in this study was a case study guide developed by the researcher (see Appendix A). Research from the Review of Literature was used to inform the instrument and create topics for investigation. The instrument was established in order for the researcher to develop a clear understanding of any financial risk management techniques in order to effectively and efficiently host a major international sporting event. Through developing the instrument, the researcher established a number of points formed under three specific topics. All three topics outlined the specific areas of financial risk management that are significant in creating an in-depth analysis of the context. Both qualitative and quantitative items were included in the instrument. The researcher began by listing possible topics for analysis, and continued to add to the list during the pilot study. Several websites of other third party business articles not involved in the study were used in the pilot study in order to gauge whether the instrument could provide systematic analysis.

Description of Procedures

A case study was conducted on the Vancouver Organizing Committee (VANOC) in relation to the 2010 Vancouver Winter Olympics. The instrument utilized in the study was a guide developed by the researcher. The researcher visited the Bloomberg Businessweek website, in addition to other viable third party sources to conduct an analysis of data. The research gathered from these websites was used to find types of risk

management techniques utilized in the organization and implementation of the Olympic Games in Vancouver.

Any reliable and viable third party websites were systematically analyzed using the instrument guide. Since the majority of data was qualitative, it was organized into categories based on the three financial risk management subgroups of financial risk management. The categories of these subgroups were market risk, credit risk, and operational risk in relation to the major international sports event. Within these groups, points were formed to specify information needed in each category. Each point was expanded upon through all relevant, qualitative research found. Additional notes were added after the last category for any other relevant information related to the context.

Chapter 3

PRESENTATION OF THE RESULTS

The purpose of this study was to conduct a case study on the Vancouver Organizing Committee (VANOC) of the 2010 Vancouver Olympic Games. A case study approach was utilized to evaluate the financial risk management practices used throughout the planning and implementation process of the Games. This chapter includes the following sections: Vancouver Olympic Games background, market risk management, credit risk management, and operational risk management.

Vancouver Olympic Games Background

The City of Vancouver, Canada presented a bid to the International Olympic Committee in 2002 to host the 2010 Winter Games between February 12 and March 21, 2010. Through winning the bid, a seven year Games organization period began, starting in 2003 and leading up to the Games in 2010. Three levels of government shared the cost of these Olympic Games: Olympic sponsors, Paralympic sponsors, and the VANOC.

The Vancouver Organizing Committee played a huge part in planning and implementing the Games. As a not-for-profit organization consisting of a 20-member board of directors, all nominated by the Canadian Government, the VANOC's job was to plan, organize, finance and stage the Winter Games. Their mission was to touch and inspire souls throughout the nation by creating and delivering an unforgettable Olympic and Paralympic experience with lasting legacies, much of which was done when the VANOC created the 2010 Legacies Now non-profit. The Vancouver Organizing

Committee's vision was for Canada to grow on a solid foundation, with an expanding passion for sport, culture and sustainability, which was also accomplished.

As the Host City, Vancouver took on responsibility for delivery of competition venues, 2010 Game programs, and other key aspects and infrastructure. The City of Vancouver had many existing infrastructure already in place. The Vancouver Organizing Committee proposed and built three new venues in Vancouver and three new venues and arenas in Whistler. Other event venues simply needed renovations. Sustainability and cost efficiency was a major consideration in the building of new structures and use of previous ones.

In addition to building Game venues, Vancouver also needed assistance with hosting and promoting the sport events. The Olympic Broadcasting Services helped create new forms of media, resulting in over 25,000 hours of coverage through internet or mobile apps and nearly 32,000 hours of television coverage. In a matter of weeks, over 275 million visitors glanced over the International Olympic Committees Facebook page for the Vancouver 2010 Olympics.

Volunteers were essential to the Games' success. Over 77,000 people applied to volunteer and 75,000 accepted applicants were professionally trained, enthusiastic workers. Partners such as Coca-Cola, created an additional team of 1,250 community volunteers to help collect and recycle containers. As Coca-Cola's commitment to the Games, 100% of the bottles used during the Games would be collected and recycled. In addition to Game volunteers, athletes were also a major component to the Games. Around 2,566 athletes participated, with over 40 percent being women, and a total of 615 medals were awarded.

Another major consideration that the VANOC took into account was risk management. They did not hold back on precautions of security, safety, and money allocation. Events such as public countdown celebrations of the Games were cancelled, due to fear of violent disruptions. The City of Vancouver increased security, which in turn also increased the financial cost of the Games.

Market Risk Management

The Canadian Government reached out for Olympic Game investments, in the hopes that these Games would boost the economy and travel industry. Stakeholders were free to comment on the annual reports of the Games' progress, creating an open form of communication with investors and the VANOC. Due to the games, over 2,500 new full-time jobs were created and 300 million Canadian dollars have benefitted economic development in Vancouver.

Insurance policies were purchased and for good measure. The Vancouver Organizing Committee bought different forms of insurance, such as liability insurance that covers errors and omissions. A private health insurance policy, covering medical needs, was enacted a day before the Opening Ceremony. Nodar Kumariashvili, a Georgian Luger, died hours before the start of the Opening Ceremony after his sled hurtled off the luge track, slamming into a steel pillar. He died instantly, but due to the insurance coverage, Mr. Kumariashvili's family was greatly taken care of. The International Ice Hockey Federation (IIHF) needed a separate insurance policy from all other organizations. The IIHF insured their players in addition to other expenses Ice Hockey would encounter at the Games. The Vancouver Organizing Committee also

highly recommended visitors purchase emergency travel medical insurance. Premium rates for single visitors would lower risk and save their finances if something were to occur abroad.

Credit Risk Management

The Vancouver Organizing Committee bid \$600 million for hosting the Games. Their ending expenditure came out to around \$6.4 billion, \$5.8 billion over budget. They gave local businesses an opportunity to win contracts and develop crucial partnerships that would showcase their work and create a potential for future business. Aboriginals were also given a fair chance to win bids for construction and other Game-related jobs.

Loans were set up and donations were given prior to the start of the Games. A market loan around \$970 million was set up with Millennium Development Corporation to develop the Southeast False Creek Market Housing for the Olympic Village. Vancouver donated hundreds of tickets to the less fortunate within non-profit organizations, writing them off as tax deductible. Medical equipment like defibrillators and gauze were also donated at a value of \$3.6 million to the VANOC to use throughout the Games.

The City of Vancouver invested in each arena in the hopes that they would still be used after the Games. Seven hundred and thirty million dollars was invested through government and Olympic sponsors to host the Games, and in turn has created a sustainable environment with city assets for townspeople to use into the future. As of 2014, all Vancouver Game venues are still in use with local authorities entrusting \$110 million to the sites for maintenance and upkeep. Some operating costs at the Richmond

Olympic Oval, Whistler Sliding Centre and Whistler Olympic Park have been taken over by federal and provincial governments. Problems arose in 2008 when the developer stopped payments on a construction loan for the 1,100-unit athletes' village, due to cost overruns. The City of Vancouver is expected to lose \$300 million from the building and its poor financing, but has almost sold all its units.

Since the Games were largely paid for by the government, roughly 70 to 90 million Canadian dollars were produced in federal tax revenue, and around \$1 billion in gross domestic product were generated. The Games increased the economic growth by 0.8 percent and about 600 million Canadian dollars were spent through Vancouver's economy and inner-city businesses. Once the economy started slowing down in 2008, any financial decisions were highly speculated and analyzed.

Operational Risk Management

The City of Vancouver made sure to regulate their workforce by following health and safety regulations and implementing standards. They partnered with WorkSafeBC (British Columbia) and developed a health and safety program for volunteers, employees and contractors, ensuring that the workers were well trained. WorkSafeBC created certification and industry training programs in addition to reinforcing safe practices throughout the work place. This dramatically lowered the risk of injuries occurring prior to, during, and post event. If injuries did occur, workers felt open to report the issue right away.

The City of Vancouver used all their full-time city staff in addition to an employment of a Host City Team to plan and host the Games. Around 485 employees

were hired full-time to join the Host City Team at an estimated cost of \$2.5 million. Regulations of financial assets associated with the Games were documented in a biweekly report starting in 2003. A spending budget of the \$1.6 billion was set aside for the Games. The city was also given a \$1 billion dollar, government-funded, security budget, \$1.4 billion construction budget for new buildings, and a \$3.8 billion budget for infrastructure renovations and transit expansions.

The Olympic Games also created hundreds of new jobs and a not-for-profit organization, 2010 Legacies Now, which helps fund and support future athletes. They benefit Aboriginal athletes, at-risk youth, and athletes with disabilities. The Vancouver Organizing Committee welcomed at-risk women who were recovering addicts and abuse victims to their team. These women made victory ceremony bouquets, receiving florist experience that would be useful for future florist-type jobs.

Through different forms of risk management, the Vancouver Organizing Committee planned and implemented the 2010 Vancouver Olympic Games. They utilized financial risk management practices in order to successfully host the Olympics. Through their winning bid in 2002, the Committee created and delivered an unforgettable Olympic and Paralympic experience with lasting legacies.

Chapter 4

DISCUSSION AND CONCLUSIONS

Risk management sets a foundation for any well run organization. Managing financial risk is difficult and can be unpredictable, but if done well, can set companies up for success. This case study served as a glimpse into the workings of financial risk management and how it can be effectively managed. This concluding chapter will include the following: a summary of the study, a discussion of the findings, limitations, conclusions based on research questions, implications of the findings, and recommendations for future research.

Summary

Businesses take risks to progress a company forward, but management of that risk is essential for success. Companies with well managed financial risk can quickly identify early warning signs, that if missed, create financial issues later on. Creating an ever-evolving financial risk management plan will strengthen the company's vision, mission, goals, and objectives. Companies thrive with strong market, credit, and operational risk management plans. The purpose of this study was to conduct a case study in financial risk management of the 2010 Vancouver Winter Olympic Games.

In Winter 2014, a case study was conducted on the Vancouver Organizing Committee (VANOC) in relation to the 2010 Winter Olympic Games hosted in Vancouver, Canada. The researcher examined the company's website in-depth using a guide that was developed in the pilot study. The instrument consisted of both qualitative

and quantitative questions to develop a thorough understanding of the organization's financial risk management plan. Information was gathered and organized using the instrument. Additional notes were added about other relevant information related to the context.

Results from the study showed that the Vancouver Organizing Committee created management plans for potential risks and shaped a sustainable future for Vancouver. The committee worked with WorkSafe British Columbia to regulate health and safety concerns of their employees, contractors, and volunteers. They created 2010 Legacies Now, a not-for-profit organization with community mentors and support for athletes throughout the British Columbia region. The Vancouver Organizing Committee worked with the Canadian government and local businesses to increase their economy value through sustainably constructed assets and capital investments. The City of Vancouver and the VANOC purchased insurance policies that lowered their operational risk, personal injury obligation, and capital liability. Program plans were structured, followed, and maintained through updated reports, and the committee recognized the importance of risk management in trade for financial gain.

Discussion

Results from this study showed that through seven to nine years of planning and implementing the 2010 Winter Olympic Games, the VANOC efficiently managed their income and expenses. By spending money on essential assets and successful capital investments that had a high rate of return or pay-back period, they lowered their risk of over budgeting. This supports Schwartz et al.'s (2006) findings that a company deciding

to take on investment responsibility needs to consider rate of return. Schwartz et al. explains that the company must evaluate and understand their tolerance for risk, especially when capital investments are concerned. The study implies that creating an efficient budgeting plan and effectively managing a need versus want purchase is vital. The Vancouver Organizing Committee successfully monitored and regulated their financial assets through a biweekly report starting from 2003 (Bugalla, Hackett, & Narvaez, 2011). They made sure to spend money on essential assets, and capital investments. Included in these investments were the three main construction expenditures: the Sea-to-Sky development, the transit Canada Line, and the Vancouver Convention Centre (Clarke, 2013). All three of these capital expenditures are still regularly used and maintained. In addition to maintaining their infrastructures, the City of Vancouver should continue finding new ways to take advantage of their Olympic sized structures like hosting concerts and large scale events.

Vancouver invested in proper insurance policies such as liability insurance and medical insurance, lowering their financial risk by covering their business and investments when issues arose. When time came to use the insurance coverage, Vancouver was well prepared. They were able to deploy an insurance claim the day before the Opening Ceremonies when the Georgian Luger, Nodar Kumariashvili, died while training (Borden, 2014). Instead of worrying about a postponement of the Games, the insurance company dealt with liability coverage that went into effect and greatly compensated the family for their loss. This finding implies that budgeting for insurance and investing in the right kind of policies can benefit both the investor and the participant, even in a tragic death. This supports Anabtawi & Schwarcz's (2013) claim

that insurance reduces a company's risk by distributing responsibility to other firms involved in the event of an insurance claim. The City of Vancouver should keep up-to-date with any insurance policies throughout their facilities and be aware that benefits of lowering risk outweigh the financial burden of purchase.

The Vancouver Organizing Committee, however, did not focus as much attention on their credit risk management. As Roe (2013) stated, if one party defaults on their loan or obligation to another group, the counterparty might also default or end up with an unbudgeted amount to pay off. When the financial market scare of 2008 arose, the Olympic Village developer stopped payments on a construction loan for the 1,100-unit athletes' village, due to cost over runs. The City of Vancouver dealt with the consequences of poorly managing this credit risk and will lose around \$300 million from the buildings due to poor financing (Hui, 2014). This implies that even if firms have shown good financial history in the past, it does not mean that they won't default on their financial obligations. Even if a company seems to have all their finances in place, they should still research to look for any warning signs of potential market drops. In any future loans and investments that the City of Vancouver plans to take, they would benefit in stock market research. They might also benefit in hiring an economics consultant who can analyze and predict changes in the financial market before the city decides to dive into a plan.

This study was impacted by several limitations. Since research on this subject was restricted to online means, conclusions of this study may have been impacted through the quantity and quality of online information. The researcher was limited to a ten day data collection period for the analysis and conclusions of this study. The researcher in this

study may have also impacted the findings through subjective bias. Despite these limitations, this study provided an in-depth analysis into the Vancouver Organizing Committee's financial risk management plan for the 2010 Winter Olympic Games, and showed the importance of efficiently managing potential risks of a large scale event.

The Vancouver Organizing Committee effectively produced the Winter Olympics in the city of Vancouver, Canada. They worked with the city to implement a functional and efficient risk management plan, consisting of market, credit and operational risk management. By hosting the Olympics, Vancouver built and renovated sustainable structures that are still in use today, despite many previous run down Olympic city sites. They properly managed operational risks through contracting with the WorkSafe British Columbia organization to create a safe and healthy working environment. The City of Vancouver now runs a not-for-profit, organized during the games, to support future athletes and grow relationships through the community. In addition to these accomplishments, Vancouver did not find themselves in decades of financial debt like that of Montreal, Canada from the 1976 Summer Olympic Games (Newton, 2012). Through different management plans and implementations, the Vancouver Organizing Committee worked fluidly in creating a successful, sustainable Winter Olympics.

Conclusions

Based on the findings of this study, the following conclusions are drawn:

1. The Vancouver Organizing Committee and the City of Vancouver efficiently established their rate of return on investment when bidding for and producing the Winter Olympic Games.

2. The City of Vancouver created a sustainable environment that effectively uses the Olympic structures for different events and designed the structures for the community on a long-term basis.
3. Researching, analyzing, and predicting future changes in the market is important when taking out loans and investing in large capital expenses, which is something Vancouver should research about before planning to build in the future.

Recommendations

Based on the conclusions of this study, the following recommendations are made:

1. Offer more options for events that the Olympic Stadium hosts, which will benefit both the community and the facility.
2. Continue to offer training and mentoring programs through the not-for-profit foundation, 2010 Legacies Now.
3. Evaluate what structures are most used, and create a strategic plan to increase traffic flow in infrastructures with less use.
4. Future research should examine effectiveness of financial management in current infrastructure and maintenance of these landmarks.
5. Continue researching future market trends for recreation and leisure services, since trends like technology are always evolving.

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APPENDIXES

Appendix A

Instrument

GUIDE

Market Risk:

- A list of full time staff and responsibilities associated with jobs
- How stock and finances are handled
 - Regulations of financial assets associated with games
 - Any competition in the industry
 - Investments in relation to games
 - Insurance policies

Credit Risk:

- Contracts and bids within the games
- Loans or bonds taken due to games
- Paying off of loans and bonds
 - Capital Bond
 - Largely paid by government
- Growth or Loss of Economy (CAD – Canadian Dollar)
- Any loss protection procedures
- Percentage of spending on local based suppliers

Operational Risk:

- Workforce health and safety regulations
- Jobs the event produced
- Policies and procedures for employees
- Reprimands for fraud or illegal transactions
- Any risk management department
- Potential priorities taken over risk management
- Plans for facility use after games

YES/NO

1. Separation of alternative motives and success of Olympic Games
2. Were the Olympic Games a success
3. Able to come out of Olympic Games with profit
4. Well organized and implemented plans for building
5. Well planned location for games
6. Has everything been included in projected cost analysis sheets

ADDITONAL NOTES: