



PROJECT MANAGEMENT IS A TOOL OF FUNCTIONAL AREAS AND A SYSTEMATIC PROCEDURE TO IMPLEMENT A WEEDING EVENT: A CASE STUDY

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Abstract: This paper summarizes the arguments and counterarguments within the scientific discussion on the issue of a chronological step which leads to the phase or status change in the project management. The main purpose of the research is the wedding event in the start to the end of the activities and the event is represented by a node in the network. Systematization of the literary sources and approaches for solving the problem that an event is a specific instant of time which makes the start or end of an activity and event consumes neither time nor resources. It indicates that an activity is the actual performance of the task and requires time and resources for its completion. The relevance of this scientific problem decision is that project management is a tool of functional areas. Investigation of the topic a systematic procedure to implement a weeding event in the paper is carried out in the following logical sequence on project management: Methodological tools of the research methods were a couple of years of research. The object of research is the chosen company that carried out the processes of a wedding project at Toronto Metropolitan University, Canada, because namely they derived this event as a project. The paper presents the results of an empirical analysis on mathematical calculations which showed that were perfect in graphically. The research empirically confirms and theoretically proves that it is the work required to complete a couple of specific tasks: determine your event goals and objectives, visualize the event, draw up a budget, develop a timeline, put the plan into action, double-check the project plan, evaluate the event. The results of the research can be useful for a wedding event cycle consists of five stages: plan, organize measure, analyze and share.

Keywords: budget, schedule, risk, communication, purchase.

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1. Introduction

Wedding is an event between two parties and it is a major project for the families of the prospective bride and groom. Somewhere it is a half life plan by launching a common point for both. It is important to delegate in persons wedding responsibilities to someone who can perform them effectively a wedding planner as well as an event manager.

2. Introduction

In order to deliver project value, the success criteria should be well defined. Evaluating the project success criteria might be a practice of consciousness as a product [1]. The three key factors that can define project success include the following: a. The Iron Triangle (Cost + Scope + Time), b. Realized Benefits, c. Stakeholder satisfaction [2]. The four major criteria to measure a project's success are time, cost, quality, and scope and it could be defined as 10 success criteria: Scope of the project, schedule, budget, client goals, deliverables, quality ensured, team goals, risk management, documentation, resource capacity [3].

Project approval requires a couple of important factors: Assigned project manager, executive roles, responsibility, and authority level. Name and authority of the sponsor or another person (s) authorizing the project charter. They should have concepts of project constraints: cost, scope, quality, risk, resources, and time [4].

A. Communication Plan Template

A.1. Team Members

Name	Role	Toronto Metro University E-mail	Phone
М	Project Manager	pm@torontomu.ca	416-979-5001
F	Communication Manager	cm@torontomu.ca	416-979-5002
А	Event Manager	em@torontomu.ca	416-979-5003
R	Finance Manager	fm@torontomu.ca	416-979-5004
Ad	Risk Analysis Manager	ram@torontomu.ca	416-979-5005
G	Project Coordinator	pc@torontomu.ca	416-979-5006

Source: Yeates School of Graduate Studies, Toronto Metropolitan University, Canada.

A.2 Role Definitions

A2.2.1 Project Manager

- Ultimately accountable for successful delivery of the project
- Organizes Team
- Resolves conflicts within team
- Staying on schedule
- Assessing risks
- Leading Quality Assurance

A2.2.2 Communications Manager

- Ensure on time submission of assignments
- Set up team meetings
- Regular communication with team members
- Main contact with professor when necessary

A2.2.3 Event Manager

- Researching and securing event venues
- Negotiating quotes and agreements with vendors
- Networking with vendors for future events





- Brainstorming ideas for event to ensure flow and quality of overall event
- Communicating with other project managers about vendor and supplier needs
- Coordinating an itinerary for date(s) of event

A2.2.4 Finance Manager

- Plan, organize, and execute financial tasks and projects for the organization
- Develop and implement plans for budgeting, forecasting, and reporting
- Ensure the company's profitability, liquidity, and solvency

A2.2.5 Risk Analysis Manager

- Reviewing potential risks and interferences
- Create detailed plans to avoid any risk
- oversee security to prevent issues
- Develop and carry out backup plans in case of an emergency

A2.2.6 Project Coordinator

- Plans and reports on project documentation and capable to be multitasking
- Coordinates team with leadership skills
- Performs analytical and problem solving concepts
- Maintains stakeholder registers [14]

A2.3. Deliverable Primes

Table 2. Deliverable Primes

Deliverable	Prime
1.Project Charter	М
2.Scope statement and WBS	G
3.Gantt chart and milestone schedule	F
4.Project budget including S-curve and supporting estimates	R
5.Project quality plan	А
6.Risk management plan and risk assessment	A1

Source: TRSM, Toronto Metropolitan University, Canada.

A2.3.1 Logistics

2.3.2 Regular Meetings

- Meet at least 2 times a week
- Time is around 1 hour
- Communicate on a consistent basis through emails, WhatsApp group chat

2.3.3 Out-of-Cycle Communications

- First way of communication is through text message followed by email
- Will respond within 24 hours of original communication





3. Project Charter

3.1 Description

The goal of this project is that our European based company will be planning, organizing and hosting one of our wealthiest weddings at a 5 star rated and niche wedding venue in Toronto, ON while accomplishing our celebrity clients needs. To explain, we will deal with multiple requirements and responsibilities for our clients such as finding venues, buying or creating decorations, personal grooming stylists, food and beverages, safety, entertainment and performances. This is just some of the tasks needed to be completed but as this wedding holds many objectives to be met, our team will work extensively with our third-party partners to discuss budgets, and make arrangements for florists, caterers, decorations and more. This project will be signed off by our management team. The deliverables needed are creating a project charter and scope statement that states the main objectives and the team involved. In order to ensure deliverables will occur on time, a Gantt chart will be used to demonstrate the project's milestone timeline. This project is set to start being planned by Sept 29th, 2022 to the final date, September 29th, 2023.

3.2 Purpose

To begin, the purpose and objective of this project is that our company will be planning, organizing and hosting one of the wealthiest weddings at a 5 star rated and niche wedding venue while accomplishing our celebrity clients needs. We want to increase our revenue by approximately 900, 000 dollars this year by utilizing this opportunity working with celebrity clients. Carrying out this large, highly anticipated wedding successfully will influence our future client relationships as it will differentiate us from other competitors and will strengthen our reputation. It will provide an opportunity to expand our customer base into the North American market and to explore more opportunities in the offering of multiple event planning services that do not include just weddings. To add, our team will plan this wedding smoothly by communicating regularly with partners, scheduling and maintaining budgets every day in order to make sure on the deadline, all goals are met.

3.3 Resource Requirements

In order for the PM to undertake the Mr. and Mrs. Flores' event will require a budget of 5 million dollars. The project has been defined as a high scale celebrity wedding, and third party partners have been consulted to undertake preparations, as well as estimating gaps and forecasting demand. We can confidently set a budget of five million knowing we will not exceed this cap and provide the clients with their dream wedding. One hundred thousand dollars will be inquired as company debts. For this project we will be working with third party partners to complete the wedding. This means labor costs will be high as we must pay for things such as decorators, florists, entertainment, performances, and security. Given our plan we will not need to undertake any equipment and material debts as we will be delegating those debts to the third party partners [13]. The budget summary includes decorators, florists, entertainment, performances, security, stylists, caterers, and the venue all as a grand total of five million dollars. Budget constraints are not too much of a worry for this project as these are highly established clients willing to go above and beyond for their wedding no matter the cost. Yet we have established a cap of five million as a restraint.

3.4 Milestone Schedule

Milestone Schedule - The Project should be completed within a 12 month time frame

Start date: September 29, 2022

End date: September 29, 2023

Schedule includes 8 major milestones

- 1. Determining the budget
- 2. Finding a location / venue
- 3. Book Security Company
- 4. Secure wedding insurance
- 5. Book photographer / videographer





- 6. Book caterer for food
- 7. Book honeymoon
- 8. Obtain marriage license `

Milestones #1-4 will happen in the first 3 months of the project, #5-7 will happen within months 4-8 of the project, and #8 will happen in the final 3 months of the project. Milestones #2-4 will mark about half of the budget being used. It is to ensure successful completion of the project. In order to deliver project value, the success criteria should be well defined. Evaluating the project success criteria might be a practice of consciousness as a product. The three key factors that can define project success include the following:

a. The Iron Triangle (Cost + Scope + Time), b. Realized Benefits, c. Stakeholder satisfaction [2].

The four major criteria to measure a project's success are time, cost, quality, and scope and it could be defined as 10 success criteria: Scope of the project, schedule, budget, client goals, deliverables, quality ensured, team goals, risk management, documentation, resource capacity [3].

Project approval requires a couple of important factors: Assigned project manager, executive roles, responsibility, and authority level. Name and authority of the sponsor or another person (s) authorizing the project charter. They should have concepts of project constraints: cost, scope, quality, risk, resources, and time [4].

3.5 Stakeholders

The key stakeholders involved in the project are the clients / sponsors; Mr. & Mrs. Flores, the bride and groom who will be funding the project. They are the highest priority stakeholder as this is who the wedding festivities and planning are for. Another key stakeholder are the immediate parents of the Flores' who are investing their time and support during the planning process. It's vital to consider their satisfaction.

Next, a key stakeholder is the project manager. The project manager is ultimately accountable for the delivery of the project outcomes and is there to ensure it is a success. Consequently, holding a great share of responsibility of quality assurance and overseeing sub-projects, communication and timelines. Moreover, as part of this shared responsibility the team members of the project including communication manager, event manager, finance management, risk analysis and project coordination/scheduling are internal stakeholders. What's more, various vendors that are vital to the delivery of the final wedding day are external stakeholders to consider. There must be internal project coordination such as time management structures, reporting processes of vendors and suppliers to ensure that it works with the project scope and timeline as well. Other stakeholders could include the wedding party such as the groomsmen and bridesmaids that are part of the big day for the clients and might become integral as the date gets closer. The clients may change their mind or bring their wedding party for meetings and as creative outlets. Therefore, adjusting the project scope and keeping in communication is key in the creative delivery of this project.

3.6 Risks

Circumstances of chaos and interruption are considered risks in event planning projects [12]. They disrupt the planning stage and the event itself, leading to an unsuccessful project. Wedding planning projects include common risks such as issues with vendors, time constraints, budget issues and creative differences with the client. Aside from the common risks surrounding a wedding, there are security risks associated with celebrity clients due to their fame and high status. paparazzi or other unwelcomed guests are a risk that will put the clients in danger during the event. Vendors and third-party businesses are the backbone of any wedding event. Issues that arise due to vendors can deteriorate the project entirely. These businesses provide catering, decorations, entertainment, and other important services during the big day. vendor risks include delays with the order, inability to accommodate for allergies, technical difficulties and many more. Time and budget are common project management risks. Weddings are no different. There is a clear deadline in weddings, typically down to the minute. time and budget management risks include delays, unmade payments, late arrivals, etc. A wedding is a personal and sentimental day for clients so emotional risks are expected. Minor creative differences during planning may lead to major risks on the big day. The term bridezilla is often used to describe clients with extreme tastes that interfere with wedding planning. While it is a priority to carry out the client's vision, it can also be a major risk if their vision





contradicts budget and time restrictions. It is the event planners' responsibility to ensure guests are seated, vendor payments are made in full, the decor is arranged, and everything is according to the client's wishes. These responsibilities can become risks if the project is mismanaged.

3.7 Evaluation Methods and Acceptance Criteria

The success for the project could be explained by numerous factors. It can be measured by reviewing project scope, evaluating project specifications, analyzing the project budget, and reviewing stakeholder and internal team satisfaction. The six important factors might be used for a project success: a. To collect customer feedback, b. To review project specifications, c. To ensure budget compliance, d. To coincide schedule requirements, e. To meet internal team satisfaction, f. To fix up quality measurements [1].

The project success criteria refer to measurable terms of what should be the outcome of the project segmented as deliverables and it should be acceptable to the end user, customer, and the stakeholders. Another sense, the project success factors consist of activities or elements that are required and it contains specific project goals, deliverables, tasks, costs, risks and deadlines [4]. 2.0 Scope Statement and WBS

4. Project Scope Statement

To begin, the goal of this project is to plan, organize and achieve a celebrity wedding in Toronto, ON, an untouched area in our business expertise as our company is European. The characteristics of our business is event planning and management, we will hold all responsibility from location booking to catering. All aspects of the quantifiable criteria are to achieve this wedding in a year, increase revenue by 900,000 dollars, and maintain the schedule in order to ensure the budget is not passed.

4.1 Product acceptance criteria

	Notes:
Product Acceptance Criteria	Project scope will contain project objectives, project boundaries,
Provide budget	project assumptions, initial organization, schedule milestones, product definitions, project consultants, fund availability and project deliverables [1]
Wedding Date Established	
Guest List	
Venue Found and Booked	
Decorations up to Standards	
Catering (Entrees, Wedding Cake) (Chosen by Clients)	
Photography Services	
Rentals (Performance, DJ)	
Invitations Sent Out	
Rehearsal Provided	
 Exclusions and project approval 	T

Table 3. Product acceptance criteria

Source: Schulich School of Business (SSB), York University, Toronto, Canada.



1. Determining the budget

It is important to figure out the costs of the actions we intend to take such as for booking, and purchasing decorations and more. This will all be included in our budget provided to the client in order for them to make a clear and comfortable decision with what we put on the table. This is a major first step as this budget acceptance puts constraints and expectations on the project.

2. Finding a location / venue

This deliverable is going to be done based on what the clients want, if they want a beach wedding, a beach venue is what we would find. This is important because booking venues especially for a celebrity wedding, risks of competitiveness among other event companies is taken into consideration [11].

Ambrosia Design would like to get the first option venue provided by clients to increase satisfaction.

3. Book Security Company

It is best to have the best, high rate security company present at the wedding venue at risk of paparazzi or threats due to the large number of guests present. Ambrose strives to ensure that our clients feel safe and secure.

4. <u>Secure wedding insurance</u>

This is an important step for the clients as it will ensure that any unexpected financial loss will be made up such as illnesses, cancellations, theft of wedding gifts or personal items.

5. <u>Book photographer / videographer</u>

Ambrose will need to hire photographers of the clients request as many already have their own personal photographer and videographer such as media content managers. It is important the company chooses the client's preference or the best photographer that is well established and experienced for the events of the celebrity wedding.

6. <u>Book caterer for food</u>

As this wedding is one of the largest events planned by Ambrose, there will be maintenance of different accommodations in terms of food. There will be guests who are vegetarian, vegan, who may only eat kosher or halal foods. It is essential that all menu foods are what the clients request and tested by them as well.

7. Book honeymoon

As our clients expect our company to also book the honeymoon location for them, this is an important step to ensure satisfaction, go above and beyond just the wedding event expectations and establish a strong relationship with the clients.

8. Obtain marriage license

Last, the essential step is to obtain the marriage license that will all in one prove that the clients are legally married and is evidence to any questions. This license ensures visa approvals, ensures social security, claiming life insurance or pension, succession of property and more [6].

Project requirements and deliverables:

-Start up funding by the sponsor/ owner to cover the feasibility studies and operational expenses

-Financial and technical capability: Potential and practical experiences towards risk and quality to obtain perfect deliverables [10].

Project deliverables: Venue for Wedding ceremony, reception venue, party for wedding, Cater for official, Wedding card and colors, list of guest, invitations with schedule, Wardrobes, Wedding ceremony, food service, baked goods, entertainment, decoration, marriage license, Execute wedding ceremony and Execute wedding reception.

4.2. Work Breakdown Structure (WBS) [2]





WBS			Description	Responsible	Deliverables
0			Mr and Mrs Flores Wedding (Sponsor)	М	Signed agreement
1.0			Venue		
	1.1		Research potential wedding venues	А	Convenient Venue
	1.2		Tour and select venue for wedding	F	Marriage proposal
	1.3		Hire security company	R	Outsourcing
	1.4		Hire wedding decorator	G	Interior decoration
2.0			Bridal		
	2.1		Select photographer and videographer	R	Photo Session
	2.2		Hire wedding attire stylist	A1	Attire
		2.2.1	Shop for Grooms attire (suit, shoes, ect)	G	Shopping-G
		2.2.1	Shop for brides attire (dress, heels, veil, ect)	A1	Shopping-B
	2.3		Hire Makeup and hair stylists	А	Spa services
	2.4		Search and choose bouquet	G	Spacious
	2.5		Tailoring, modeling and fitting	R	Officiant
	2.6		Hire entertainment (Fireworks, DJ) etc	F	Wedding band
3.0			Food		
	3.1		Hire caterer	G	Caterer grading
	3.2		Create menu	F	Food Service
		3.2.1	Cook wedding meals and orders	F	Dishes
	3.3		Check up food ingredients with qualities	A1	Backed food
	3.4		Distribute flatware and silverware	А	Reception Item
	3.5		Choose drinks to be provided	R	Refresh item
	3.6		Wedding cake tasting and ordering	М	Snacks
4.0			Marriage		
	4.1		Purchase all inclusive honeymoon vacation	G	Honeymoon
	4.2		Civil and religious marriage licenses	М	Marriage license
	4.3		Design wedding cards	A1	Wedding colors
	4.4		Identify relatives, friends and create a list	R	Guest list
	4.5		Mail invitation cards	А	Date and schedule
	4.6		Wait RSVP, flower, ring pillow	М	Wardrobes

Table 4. Work Breakdown Structure (WBS) [2]

Source: Faculty of Liberal Arts and Professional Studies, York University, Toronto, Canada.





5. Gantt Chart and Milestone Schedule

5.1 Gantt Chart

WBS	Description	Start Date	End Date	Predecessors	Resources	PERIOD ONE PERIOD TWO			PERIOD THREE									
						1234	5678	9 10 11 12	13 14 15 16	17 18 19 20 21 22	23 24 25 26 27	28 29 30 3	1 32 33 34 3	35 36 37 38	39 40 4	41 42 43 44 4	5 46 47	48 49 50 51 52
1	Venue																	
1.1	Research potential wedding venues	10/3/22	10/31/22		Anniya													
1.2	Tour and select venue for wedding	10/3/22	10/31/22		Fiona													
1.3	Hire security company	11/1/22	11/30/22	1.1, 1.2	Rima													
1.4	Hire wedding decorator	11/1/22	01/15/23	1.1, 1.2	Gazi													
2	Bridal																	
2.1	Select photographer and videographer	1/9/23	01/30/23	1.3	Rima													
2.2	Hire wedding attire stylist	2/6/23	03/20/23	2.1	Adeeba													
2.2.1	Shops for grooms attire	2/13/23	03/20/23	2.1	Gazi													
2.2.2	Shop for brides attire	2/13/23	03/20/23	2.1	Adeeba													
2.3	Hire makeup and hair stylist	3/26/23	04/10/23	2.4	Anniya													
2.4	Search and choose bouquet	3/20/23	3/26/23	2.2, 2.2.1, 2.2.2	Gazi													
2.5	Tailoring, modeling and fitting	3/20/23	4/20/23	2.2, 2.2.1, 2.2.2	Rima													
2.6	Hire entertainment (Fireworks, DJ etc.)	5/1/23	5/14/23	2.5	Fiona													
3	Food																	
3.1	Hire caterer	1/30/23	3/30/23	2.1	Gazi													
3.2	Create menu	1/30/23	03/30/23	2.1	Fiona													
3.2.1	Cook wedding meals and orderves	3/23/23	3/30/23	2.2, 2.2.1, 2.2.2	Fiona													
3.3	Check up food ingredients with qualities	3/23/23	3/30/23	2.2, 2.2.1, 2.2.2	Adeeba													
3.4	Distribute flatware and silverware	3/16/23	3/23/23	2.2, 2.2.1, 2.2.2	Anniya													
3.5	Choose drinks to be provided	3/1/23	3/30/23		Rima													
3.6	Wedding cake tasting and ordering	3/1/23	3/30/23		Maham													
4	Marriage																	
4.1	Purchase all inclusive honeymoon vacation	5/1/23	5/15/23	2.5	Gazi													
4.2	Civil and religious marriage licenses	7/1/23	8/1/23	4.3, 4.4, 4.5	Maham													
4.3	Design wedding cards	5/15/23	6/1/23	4.1	Adeeba													
4.4	Identify relatives, friends and create a list	5/15/23	6/1/23	4.1	Rima													
4.5	Mail inviation cards	5/15/23	6/2/23	4.1	Anniya													
4.6	Wait RSVP, flower, ring pillow	7/14/23	8/1/23	4.3, 4.4, 4.5	Maham													

Figure 1. 1 Gantt Chart

Source: TRSM, Toronto Metropolitan University, Canada.

5.2 Schedule

Milestone Schedule - The Project should be completed within a 12-month time frame

The project contains three periods. Period one begins from September 29th 2022 and ends January 20th 2023. Period two begins January 21st 2023 and ends April 30th 2023. Period three begins May 1st 2023 and ends September 29th 2023. About half of the total cost will be spent by the end of period one.

Start date: September 29, 2022

End date: September 29, 2023

Schedule includes 8 major milestones

1.	Determining the budget	October 1, 2022
2.	Finding a location/venue	October 31, 2022
3.	Book Security Company	November 30, 2022
4.	Secure wedding insurance	December 29, 2022
5.	Book photographer/videographer	January 30, 2023
6.	Book caterer and food	March 30, 2023
7.	Book honeymoon	May 15, 2023
8.	Send out invitations	June 1, 2023
9.	Obtain marriage license	August 1, 2023

Gantt chart explains project scheduling and estimates time for WBS structures. It might use to plan work around deadlines and allocate resources perfectly. Project managers use Gantt charts to maintain a bird's eye view of a complete project. It defines the start and end dates of tasks, milestones, and dependent tasks, course of actions time to time etc.



6. Project Budget

6.1 S-Curve

Prepare the project budget and display it as a S-Curve, as discussed in Modules 3 and 6. To do so, you need to match the budget and schedule plan during the time periods of the project. The following sample table helps you prepare the s-curve [5].

Period	Task	Contact	Cost	Completion Date
1	Venue	F	\$20,000	October 31 2022
1	Security	R	\$1,000	November 30 2022
1	Decorations	G	\$1,500	January 15 2023
2	Photographer and Videographer	R	\$5,000	Jan 30 2023
2	Entertainment	F	\$11,000	Feb 1 2023
2	Bridal stylist	Ad	\$5,000	March 20 2023
2	Grooms stylist	G	\$5,000	March 20 2023
2	Caterer Meal	F	\$8,400	March 30 2023
2	Caterer Orders	F	\$4,200	March 30 2023
2	Caterer drinks	R	\$3,150	March 30 2023
2	Baker	М	\$1,500	March 30 2023
2	Makeup and Hair stylist	А	\$2,000	April 10 2023
3	Honeymoon	G	\$35,000	May 15 2023
3	Invitations	А	\$2,100	June 1 2023
3	Marriage License	М	\$160	August 1 2023
Total			\$105,010	September 29 2023

Table 5. S-Curve

Source: TRSM, Toronto Metropolitan University, Canada.





Table 6. Budgeting schedu	les
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Periods	Packages	Task	Contact	Rate	Cost	Completion Date
1	А	Venue	F	0	\$20,000	Oct 31 2022
1	А	Security	R	0	\$1,000	Nov 30 2022
1	А	Decorations	G	0	\$1,500	Jan 15 2023
2	В	Photographer and Videographer	R	0	\$5,000	Jan 30 2023
2	В	Entertainment	F	1	\$11,000	Feb 1 2023
2	В	Bridal stylist	А	1	\$5,000	Mar 20 2023
2	В	Grooms stylist	G	1	\$5,000	Mar 20 2023
2	В	Makeup and Hair stylist	А	1	\$2,000	Apr 10 2023
2	С	Caterer Meal	F	\$40 per 210	\$8,400	Mar 30 2023
2	С	Caterer Orders	F	\$20 per 210	\$4,200	Mar 30 2023
2	С	Caterer drinks	R	\$15 per 210	\$3,150	Mar 30 2023
2	С	Baker	М	1	\$1,500	Mar 30 2023
3	D	Honeymoon	G	1	\$35,000	May15 2023
3	D	Invitations	А	\$10 per 210	\$2,100	June 1 2023
3	D	Marriage License	М	1	\$160	Aug 1 2023
	Total				\$105,010	Sep 29 2023

Months	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
% Completed	19%	1%	0%	6%	10%	26%	2%	33%	2%	0%	0%	0%
Cumalative %	19%	20%	20%	26%	37%	63%	65%	98%	100%	100%	100%	100%



Source: Chamg School, Toronto Metropolitan University, Canada.

6.2 Supporting estimates

Show the supporting information that was used to create the project budget. This can be presented in the following table; the estimate for each work package (e.g., level 1 or level 2 activities) spread across the time period for the project (the S-Curve is taken from the total of the columns of this table). Remember the S-Curve is a cumulative graph. Note that this is where you need the schedule of the tasks to use in your budgeting.

Work Package	Period 1	Period 2	Period 3	Total
Work Package A	\$22,500			\$22,500
Work package B		\$28,000		\$28,000
Work package C		\$17,250		\$17,250
Work package D			\$37,260	\$37,260
Total	\$22,500	\$45,250	\$37,260	\$105,010
Cumulative Total	\$22,500	\$67,750	\$105,010	

Table 7.	Work	Package	Time	Profile	(Can	be also	used for	s-curve)
					- · · ·			

Source: SSB, York U.

Table 8.	Work	package	and	cost	amount
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Work Package	Quantity	Rate	Costs	Fixed costs	Total
Work Package A Venue	0	0	0	\$22,500	\$22,500
Work package B Bridal	0	0	0	\$28,000	\$28,000
Work package C Food	210	\$40	\$8,400	\$1,500	\$17,250
	210	\$20	\$4,200		
	210	\$15	\$,3150		
Work package D Marriage	210	\$10	\$2,100	\$35,160	\$37,260
Total	\$840	\$85	\$17,850	\$87,160	\$105,010

Source: Ivey School of Business, University of Western Ontario, Canada.

Work packages and deliverables are specific and cannot be overlapping. Activities and budgeting are scheduled with time frame.

7. Risk Assessment

7.1 Risk Management Plan

This Risk management plan describes how risks will be assessed, managed, and controlled for your project. It is a process document and does not list risk events. For this project the risk management plan should answer the following questions:

7.2 Risk scoring

What scoring and interpretation methods will be used for the type of qualitative and quantitative risk analysis being performed? (See Module 9)

For this project, the qualitative analysis will be used to identify, categorize and respond to risk. We will also be using a Failure Mode and Effect Analysis (FMEA) to identify and prioritize risk. The FMEA identification method determines where a project may fail, delectability, cause, likelihood, cause, as well as the severity of potential consequences. In our FMEA model, the following steps will be used [9]:

- 1. List scenarios of project failure
- 2. List potential consequences + severity of each failure on a qualitative analysis





- 3. Isolate the cause of potential failure + its likelihood (Measured on a scale of 1-10 where 1=remote failure, 10= high chance of failure)
- 4. Estimate how detectable failures can be (1=certain detection, 10=uncertain detection of failure)
- 5. Risky priority number is determined by multiplying the risk severity with the likelihood of occurrence and the delectability
- 6. Determined how to reduce risk by sorting risk priority numbers from highest to lowest

In order to score the risks, the probability of each risk's occurrence and its overall impact on the project's objectives, we will assess by assigning ratings in the chart below. Using the scale in the Rating Likelihood Matrix, probability will be measured ranging from 0.1-0.9. Low probability will be 0.1 and very high probability will be 0.9. The impact of the risks will be measured using the scale shown in the Rating Impact Matrix, ranging from 0.05-0.8, where 0.05 is very low impact and 0.8 is high impact.

Ordinal	Likelihood	Cardinal
Very High	>80%	0.9
High	60% - 80%	0.7
Medium	40% - 60%	0.5
Low	20% to 40%	0.3
Very Low	<20%	0.1

Source: Yeates School of Graduate Studies, Toronto Metropolitan University, Canada.

Table 10. Rating Impact Matrix

Ordinal	Cardinal
Very High	0.8
High	0.4
Medium	0.2
Low	0.1
Very Low	0.05

Source: Yeates School of Graduate Studies, Toronto Metropolitan University, Canada.

7.3 Risk Prioritization

How are risks prioritized according to their potential implications for meeting project objectives? (See Module 9)

The risks are prioritized based on severity, impact and likelihood of occurrence. If they are highly likely to interfere with the project then they will be the first priority. Likewise, the risks that are unlikely to interfere with the project will be resolved closer to the project date, the wedding day.

To prioritize the risks outlined in section 5.1.4, we will be using the Probability Impact Matrix (P-I Matrix) shown below. Risks with scores 0.01-0.04 (the green area) are considered low risks. Risks with scores 0.05-0.14 (the yellow area) are considered moderate risks. Risks with scores 0.18-0.72 (the red area) indicate high risks. Subsequently, the risks will be assessed in order of the high risks (red area), then moderate risks (yellow area), and lastly, the low risks (green area).





Table 11. The Probability Impact Matrix (P-I Matrix)

Probability	Risk Score =P × I						
0.9	0.05	0.09	0.18	0.36	0.72		
0.7	0.04	0.07	0.14	0.28	0.56		
0.5	0.03	0.05	0.10	0.20	0.40		
0.3	0.02	0.03	0.06	0.12	0.24		
0.1	0.01	0.01	0.02	0.04	0.08		
	0.05	0.10	0.20	0.40	0.80		
	Impact						

Source: Yeates School of Graduate Studies, Toronto Metropolitan University, Canada, Canada.

7.3.1 Resources

The risk management team will include middle and top management from within the company. The team will be further enriched by outsourcing expert contractors for the purpose of technical risks associated with operation, machinery, design and maintenance [8].

7.3.2 Categories

What are the risk categories that will be used for the project? (Find an example in slides of Module 9)

Project risks will be categorized as internal and external. Internal tasks will be further broken down into technical, schedule, legal, Human Resources, cost, External tasks will be further broken down into sponsor/customer, and external and miscellaneous tasks will fall under "other".

7.3.3 Risk Identification

Complete the table below, for 10 risk events

Id	Risk	Description	Туре	Category	Probability	Impact
[Sequ ence numb er]	[Risk title]	[Brief description of the risk event[[Opportunity or Threat]	[Based on section 5.1.5]	[A description of the probability of the risk occurring]	[A description of the impact of the risk]
1.0	Security Issue	issues that require private security for client's protection (unwelcome guests, paparazzi, other interruptions)	threat	human resources	less likely since this is first priority in risk management	high impact and severity because clients are celebrities
2.0	Catering	issues with caterers (food vendors do not accommodate for allergy/dietary restrictions, food goes cold, not enough food, undelivered food and etc)	threat	other	not likely but still possible. catering will be secured months in advance	severe due to the fact that food is important at events and many guests expect it
3.0	venue issues	issues at the wedding location (not enough space for all guests, difficult to find or reach or navigate)	threat	other	with proper planning, this is avoidable and unlikely since the client and project manager will visit the venue beforehand to ensure everything goes smoothly	high impact because the wedding cannot happen if the venue is non functioning
4.0	time management	issues with the schedule and timed events (decorations arrive late, vendors arrive late, guests arrive late, client's attire/clothes are late or things are off schedule)	threat	schedule	likely since it is not possible to plan with 100% accuracy	moderate impact, minor delays maybe fine if they do not throw the entire project off schedule

Table 12. Risk Events





5.0	technical difficulties	issues with technology/electronics (lighting, microphones, displays, speakers, presentations and other tech do not function as intended)	opportunity	technical	unlikely since all devices and slideshows will be tested before the event	minor impact that will not interrupt project however it may upset the client oe it may present better alternatives
6.0	financial issues	issues surrounding money and finances (vendor payments not made, budget constraints, wedding is over budget)	threat	cost	unlikely because payments will be made before the event or legal terms (paying in installments) will be agreed upon during planning	high impact because almost all aspects of the project will be at risk if payments are not made on time
7.0	creative differences	conflict due to differing opinions (client's vision is unattainable, last minute changes made by bride or groom, miscommunication between client and our company)	opportunity	sponsor/custo mer	likely because client can change their minds or their vision at any given moment	high impact because the project's purpose relies on client satisfaction and how they feel about their "big day"
8.0	environment	issues with the weather/climate (weather related problems, guests may be uncomfortable if weather is not right, rain or other unwanted weather)	threat	external	highly likely because this risk is difficult to anticipate and prepare for.	high impact depending on severity of the environment. wedding maybe held indoors due to rain or unexpected weather however major events (hurricanes, tornadoes, or earthquakes) are a huge risk
9.0	alcohol liability	incidents surrounding the serving of alcoholic drinks during the event (host liquor liability)	threat	legal	unlikely because the project manager and client can protect themselves from being held liable	high risk because alcohol related liabilities often involve lawsuits
10.0	medical emergencies	In case of injuries or bodily harm or accidents. Injuries to guests, vendors, decorators or members of the wedding party.	threat	legal	likely since it is difficult to anticipate injuries or prepare ahead of time	very high impact since the injured person may take legal action and/or interfere with the event.

Source: Yeates School of Graduate Studies, Toronto Metropolitan University, Canada.

7.3.4 Qualitative Analysis

Complete the table below with the risks sorted by risk score, highest first [7].





Table 13. Risk vs Probability	
-------------------------------	--

Id	Risk	Probability	Impact	Score
[Sequence	[Risk title]	[As per section 5.1.2]	[As per section 5.1.2]	[Probability x Impact]
number]				
1.0	Security Issue	0.2	0.40	0.08
2.0	Catering	0.1	0.40	0.04
3.0	venue issues	0.1	0.40	0.04
4.0	time management	0.5	0.20	0.10
5.0	technical difficulties	0.3	0.10	0.03
6.0	financial issues	0.3	0.80	0.24
7.0	creative differences	0.6	0.40	0.24
8.0	environment	0.7	0.80	0.56
9.0	alcohol liability	0.4	0.40	0.16
10.0	medical emergencies	0.5	0.80	0.16

Source: Ivey School of Business, University of Western Ontario, Canada.

Risk Categories: 0.0 (no probability) and 1.0 (certainly)

Very Low (0.05) Low (0.10) Moderate (0.20) High (0.40) Very High (0.80)

7.3.5 Risk Response

Complete the table below, for 10 risk events

Id	Risk	Response	Revised Prob.	Revised Impact	Revised Score
[Sequence	[Risk title]	[Opportunity: Exploit, Share,	[As per	[As per section	[Revised
number]		Enhance, Accept	section 5.1.2]	5.1.2]	Probability x
		Threat: Avoid, Transfer,			Revised Impact]
		Mitigate, Accept]			
1.0	Security Issue	avoid	0.1	0.2	0.02
2.0	Catering	avoid	0.05	0.2	0.01
3.0	venue issues	avoid	0.05	0.2	0.01
4.0	time management	mitigate	0.5	0.2	0.1
5.0	technical difficulties	exploit	0.1	0.1	0.01
6.0	financial issues	mitigate	0.1	0.4	0.04
7.0	creative differences	accept	0.6	0.4	0.24
8.0	environment	avoid	0.4	0.4	0.16
9.0	alcohol liability	transfer	0.4	0.2	0.08
10.0	medical emergencies	avoid	0.3	0.4	0.12

Table 14. Risk Responses

Source: Faculty of Education, University of Windsor, Canada.

Remember all risk events with a risk score less than the risk threshold for the project should be accepted.

8. Conclusions

Wedding project depends on event activities, vendor performance etc. The final achievement is to complete the wedding to the specifications, personal identifications of the couple and provide them congenial, cooperative, and enjoyable and happiness with stress free wedding. Professional communication would be considering a cornerstone skill for confirming stakeholders' expectations. Both wedding event planning and traditional corporate projects have paramount opportunities for timelines, recaps, milestones, meeting notes etc. It has best fit with good negotiating, budget savings and highest number of deliverables. In sum up, a wedding project has recommendations for honeymoon, realization, rebellion, understandings, reassessment, reunion, explosion, compromising, and completion.

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Appendix: Case Study

Project management analysis in the internetforecasting industry

Owen P. Hall, Jr. and Kenneth Ko wrote this case solely to provide material for class discussion. The authors do not intend to illustrate either effective or ineffective handling of a managerial situation. The authors may have disguised certain names and other identifying information to protect confidentiality.

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Bob Phillips, director of operations at B&W Systems, was put in charge of an important project. This assignment was the result of a recent B&W board meeting in which Grace Johnson, the vice-president of marketing, had presented a new product concept — Forecasto. This cloud computing forecasting system was specifically designed to meet the needs of small- and medium-sized organizations. Johnson indicated a price point in the \$200 range. Her primary concern was timing. Specifically, once the competition found out about the product there could be several additional entrants into this potentially lucrative market. The board meeting concluded





with the chief executive officer tasking Phillips to look into the implementation of Forecasto in a timely manner and report his findings to the board at the next meeting.

Background

B&W Systems designed and distributed a variety of management software products through the Internet and retail outlets like Best Buy. The company was considering the development of an Internet-based forecasting system. This system was designed specifically for the new start-up and small business owner. Phillips, after consulting with the technical staff and reviewing historical efforts, had developed the task descriptions, time estimates and immediate predecessor (IP) relations (see Exhibit 1). Phillips planned to use existing software components during the development phase as a means of keeping project costs and the overall time frame within bounds. Nevertheless, multiple task time estimates were formulated due, in part, to the inherent uncertainties associated with software development.

B&W's management team had established a 35-week completion time for this effort. A preliminary assessment by Phillips indicated that some of the project tasks would need to be shortened to meet the management deadline of 35 weeks. Accordingly, the project manager had prepared a set of task-crashing estimates (see Exhibit 2). Phillips knew that this was an important project to manage and that he would have to do a thorough analysis for the board. He needed to estimate the completion time and budget forthe project. Furthermore, he knew that he would need to determine the probability that the project couldbe completed within the deadline of 35 weeks.

Phillips knew that the board would want to know the minimum expected time in which the project could be completed and the probability of completing the project in this time. In addition, Phillips wanted to assess the additional costs for reducing the project time to the required 35 weeks, and which specific taskscould be crashed to achieve this milestone. He thought that there could be some potential issues thatmight cause the market assessment to take longer than expected. Phillips wanted to investigate the impact on the crashing solution if the expected time for task B (market assessment) was increased from seven to nine weeks. He had thought of an idea that could decrease development time significantly. Therefore, Phillips also wanted to see the impact on the crashing solution if the expected time for task D (development) was decreased to seven weeks.

The management team would certainly want to see the crashing cost function at the next board meeting, so Phillips had to produce that as well. He was curious to discover whether or not the crash cost curvewas non-linear.

Phillips had taken a course on project management in business school. He was eager to use some of the techniques he had learned, such as the Program Evaluation and Review Technique (PERT), project crashing and linear programming, to do the analysis on this project. He only had one week to complete the analysis, thus he was eager to get started.





Task	Description	Most optimistic	Most likely	Most pessimistic	IP
А	Requirements	2	3	4	-
В	Market assessment	4	7	10	A
С	Design	5	6	9	A
D	Development	6	7	16	С
Е	Testing	7	9	10	D
F	Revising	4	5	6	B,E
G	Documentation	3	6	10	D
Н	Quality assurance	2	4	7	C,E
Ι	Pricing	2	2	2	В
J	Production	3	4	14	F,G,H,I
K	Distribution	2	3	4	J

Exhibit 1. Project description and time estimates (weeks)

Source: Ivey School of Business, University of Western Ontario, Canada & funded by government Ontario.

Task	Normal costs (\$)	Crash time (weeks)	Crash costs (\$)
А	10,000	3	10,000
В	20,000	6	25,000
С	15,000	5	30,000
D	45,000	6	65,000
E	10,000	8	20,000
F	15,000	4	18,000
G	20,000	4	30,000
Н	10,000	3	15,000
Ι	5,000	2	5,000
J	40,000	5	50,000
K	15,000	2	25,000

Exhibit 2. Project crash data

Source: Ivey School of Business, University of Western Ontario, Canada

Questions & Solutions:

1. What is the estimated completion time for this project? What is the estimated budget? What is the probability that the critical path can be completed in 37 weeks?

Answer:







Paths	Most optimistic (a)	Most likely (m)	Most pessimistic (b)	Completion Time (Tr)
A-B-I-J-K	13	19	34	20.5
A-B-F-J-K	15	22	38	23.5
A-C-D-G-J-K	21	29	57	32.33
A-C-D-E-F-J-K	29	37	63	40
A-C-D-E-H-J-K	27	36	64	39.15
A-C-H-J-K	14	20	38	22

Table 1 A. Number of Paths

 $T_r = (a + 4m + b)/6$

For A-C-D-E-F-J-K, $T_r = (29+4x37+63)/6 = 40$ weeks,

Similarly, for A-C-D-E-H-J-K, $T_r = (27+4x36+64)/6=39.15$ weeks

A-B-F-J-K= (15+4X22+38)/6=23.5 weeks

A-B-I-J-K= (13+4X19+34)/6=20.5 weeks

A-C-H-J-K= (14+4X20+38)/6=22 weeks

A-C-D-G-J-K= (21+4X29+57)/6= 32.33 weeks

A-C-D-E-F-J-K is the critical path and estimated completion time = Time for critical path= $T_r = 40$ weeks

Table 2 A. Project crash information per week for getting budget

Task	Normal Costs (NC) (\$)	Crash Time (CT) (weeks)	Crash Cost (CC) (\$)	Normal Time (NT) (weeks) (a+4m+b)/6	Variance [(a-b)/6] ²
А	10,000	3	10,000	3	0.1111
В	20,000	6	25,000	7	1.0
С	15,000	5	30,000	6.33	0.4444
D	45,000	6	65,000	8.33	2.7777
Е	10,000	8	20,000	8.33	0.25
F	15,000	4	18,000	5	0.1111
G	20,000	4	30,000	6.17	1.36
Н	10,000	3	15,000	4.17	0.69
Ι	5,000	2	5,000	2	0
J	40,000	5	50,000	5.5	3.3611
K	15,000	2	25,000	3	0.1111
Total	205,000			40*	7.1665*



\$ sciendo

Estimated budget= Total normal cost= \$205,000

*For critical path, A-C-D-E-F-J-K= 3+6.33+8.33+8.83+5+5.5+3=39.99 weeks=40 weeks

Variance =(Standard deviation)^2= (0.1111+ 0.4444+2.7777+.25+0.1111+ 3.3611+0.1111) =7.1665

So, Standard deviation = 2.677

Probability that critical path would be completed in 37 weeks,

 $P(t \le 37) = p(z \le (37-40)/2.677) = p(z \le -1.12) = 0.1313$ (From normal distribution table) = 13.13%

2. What is the minimum expected time in which this project can be completed?

Total Crash time for 5 paths according to Table-2:

For path A-C-D-E-F-J-K, $T_c = 3+5+6+8+4+5+2=33$ weeks.

Similarly, for path A-C-D-E-H-J-K, $T_c = 3+5+6+8+3+5+2=32$ weeks.

For path A-C-D-G-J-K, $T_c = 3+5+6+4+5+2=25$ weeks

For path A-B-F-J-K, $T_c = 3+6+4+5+2=20$ weeks

For path A-C-H-J-K, $T_c = 3+5+3+5+2=18$ weeks

For path A-B-I-J-K, $T_c = 3+6+2+5+2= 18$ weeks

Minimum expected time can be completed this project=33 weeks

3. Suppose the management wants to finish the project in 35 weeks. Which specific tasks do you recommend crashing in order to achieve this milestone? What is the additional cost for reducing the project time to the required 35 weeks? You should list the order of activities to be crashed, the duration of the crash, and the additional cost.

Answer: Specific tasks for crashing:

- 1. F, 1week, lowest cost on the critical path duration 39.17 weeks
- 2. H, 0.17 weeks as it is now on the critical path, duration 39 weeks
- 3. D, 2.33 weeks lowest cost on the critical path, duration 36.67 weeks
- 4. K, 1week, lowest cost on the critical path duration 35.67 weeks
- 5. C, 0.67 weeks, lowest cost on the critical path, the amount needed to get 35 weeks.

Additional cost: The additional cost for reducing the project time to the required 35 weeks be=\$41,216.

Table 3 A. Calculations for crash additional cost:

	Critical	Normal Time	Normal	Crash Time	Crash	Cost/week (\$)	Crash	Additional
Task		(NT) (weeks)	Costs	(CT)	Cost		(week)	cost (\$)
		(a+4m+b)/6	(NC) (\$)	(weeks)	(CC) (\$)			
А	1	3	10,000	3	10,000			
В		7	20,000	6	25,000	5,000		
С	1	6.33	15,000	5	30,000	11,250	0.667	7,500
D	1	8.33	45,000	6	65,000	8,571	2.333	20,000
Е	1	8.33	10,000	8	20,000	12,000*		
F	1	5	15,000	4	18,000	3,000	1	3,000
G		6.17	20,000	4	30,000	4,615		
Н		4.17	10,000	3	15,000	4,286	0.167	716
Ι		2	5,000	2	5,000			
J	1	5.5	40,000	5	50,000	20,000**		
K	1	3	15,000	2	25,000	10,000	1	10,000
Total			205,000				5	41,216





*2nd highest and **1st highest (didn't consider); only lowest crash cost should be considered for required weeks.

4. What is the impact on the crashing solution if task D can start 2 weeks before task C is finished? Answer: When task D starts two weeks before task C this means task C & task D have 2 weeks overlapping schedules.

Again, considering expected time as completion time:

C-D path has =6.33+8.33=14.66 weeks (Normal time). If task D can start 2 weeks before task C is finished, then C-D path will take =14.66-2=12.66 weeks

Actually, C-D path decreases by 2 weeks.

Then project completion time without crashing= 40-2=38 weeks

The impact on the crashing solution:

- 1. F, 1week, lowest cost on the critical path, duration 37.17 weeks
- 2. H, 0.17 weeks as it now on the critical path, duration 37 weeks
- 3. D, 2 weeks lowest cost on the critical path, duration 35 weeks.

Table 4 A. The impact of crashing solutions

Task	Critical	Normal Time	Normal	Crash Time	Crash	Cost/week (\$)	Crash	Additional
		(NT) (weeks)	Costs	(CT)	Cost		(week)	cost (\$)
		(a+4m+b)/6	(NC) (\$)	(weeks)	(CC) (\$)			
Α	1	3	10,000	3	10,000			
В		7	20,000	6	25,000	5,000		
С	1	6.33	15,000	5	30,000	11,250		0
D	1	8.33	45,000	6	65,000	8,571	2	17,142
Е	1	8.33	10,000	8	20,000	12,000		
F	1	5	15,000	4	18,000	3,000	1	3,000
G		6.17	20,000	4	30,000	4,615		
Н		4.17	10,000	3	15,000	4,286	0.17	729
Ι		2	5,000	2	5,000			
J	1	5.5	40,000	5	50,000	20,000		
K	1	3	15,000	2	25,000	10,000		0
Total			205,000				3	20,871

So there are no need to crash C and K, cost increase will be \$20,871.