

STUDENT VERSION

APPLY CRITICAL THINKING FOR COMPLEX PROBLEM SOLVING

Section 1: Defining the complex issue	5
Section 2: Systematic decision-making	7
Section 3: Decision review	9

Student name:	Eve Green
Assessor:	Alice Lim
Date:	2 February 2022
Business this assessment is based on:	Case study
Documentation reviewed as preparation:	 Simulation pack Strategic plan 2020-2022 Finance Authorisation Policy and Procedures Privacy Policy and Procedures Performance Management Policy and Procedures Documentation Policy and Procedures
Job role:	Operations manager
Stakeholders:	CEO, Supplier, Marketing manager, financial manager
Numeric/Financial data:	Assets, liabilities, equity, income, expenses, and cash flow



Section 1: Defining the complex issue

Provide business overview

Provide an overview of the business, including:

- name of business
- description of what the business does (e.g., key functions, vision)
- your job role within the business (or the role you're assuming if you are basing this assessment on the case study).

Worlducation is a social start-up that manufactures tablet computers for primary school students. They not only focus on the hardware, but they also have a competitive team creating software, content and activities to better engage and educate the students.

Worlducation aims to change the way children learn at school by implementing artificial intelligence technology that can follow up on each child's progress and adjust to their needs as they learn, creating the optimal path learning experience.

My job role within the business is an operations manager.

Outline complex issue

Describe the complex issue associated with the business, including:

- a brief outline of the issue
- who the stakeholders are and how they are associated with the issue?
- analysis and presentation of numeric and financial data illustrating the complex issue (attach to this section of the portfolio)
- two objectives when pursuing solutions
- three advantages of solving the issue.
- three risks involved in pursuing solutions.

The issue that the organisation face currently is due to the Covid-19 pandemic. Since Covid-19, there are several factories that has been closed due to the government policies and restrictions. Due to this, only some of the tablets are completed.

The stakeholders are:

- CEO, CEOs are responsible for managing a company's overall operations. This may include delegating and directing agendas, driving profitability, managing company organisational structure, strategy, and communicating with the board.
- Supplier, a supplier is a person or business that provides a product or service to another entity.
- Financial manager. Financial managers generally oversee the financial health of an organisation and help ensure its continued viability.

In 2019, Worlducation generated a revenue of \$35 million, a net profit of \$7 million and net cashflow of \$4 million. They budgeted revenue of \$45 million for 2020, net profit of \$9 million and net cashflow of \$5 million. However, following the unprecedented growth in demand and disruptions to the supply chain, management now projects 2020 revenue will amount to \$55 million, net profit of \$5 million and net cashflow of negative \$3 million. The decrease in profit was a result of the disruption to the manufacturing process and the associated solutions implemented by Management.

Objectives when pursuing solutions:

- To be well led, high performing, profitable and accountable.
- Continue building deeper customer relationships

Advantage of solving the issues:

Better thinking: During team problem-solving process, a person

- might think of certain solutions which can be used to solve such issue for a temporary basis.
- Better risk handling: It might seem a bit confusing for people that when it comes to risk, more people can handle a higher amount of risk. And that is very true because when a group person tries to handle the severity of the risk, it is quite possible that they can grow better in their professional outputs.
- Better communication: Problems can be solved in a better way
 with proper communication between people. And when it comes
 to a team or a group of persons, then it is easy to understand
 that they can communicate better as compared to others.

Risks involved in pursuing solutions:

- Strategic risk refers to the internal and external events that may make it difficult, or even impossible, for an organisation to achieve their objectives and strategic goals.
- compliance risk is the threat posed to a company's financial, organisational, or reputational standing resulting from violations of laws, regulations, codes of conduct, or organisational standards of practice.
- Financial risk is the risk that a business will not be able to meet its debt repayment obligations, which in turn could mean that the potential investors will lose the money invested in the company.

Legislative and organisational requirements

Establish the legislative and organisational requirements related to the complex issue, including:

- a summary of the relevant legislation
- a summary of the associated organisational policies and procedures

Summary of the relevant legislation

- Anti-discrimination law: It ensures that no one is denied their rights because of factors such as race, colour, sex, language, religion, political or other opinion, national or social origin, property or birth. This will help people to work together to innovate more things
- Fair work act: employee will feel at ease with this law in place and will work harder together.

Summary of associated organisational policies and procedures

- Finance Authorisation Policy and Procedures. All finance transactions as noted in this policy are to be authorised by the noted authorised person prior to the transaction being undertaken.
- New Supplier Policy. All new suppliers to the business must be reviewed and accepted in accordance with this policy to ensure that the supplier service is aligned with the business objectives.

Calculate resources

Calculate the resources required for the solution development process

The resources required for the solutions development process are:

- People (Work Resources)
- Capital (Cost Resources)
- Material Goods (Material Resources)

Prepare presentation

(Presentation.pptx)

Use the work done in this section to prepare a presentation of scope of your issue to present to relevant stakeholders.

Use any appropriate format (e.g., MS PowerPoint).

Attach the presentation to your portfolio.

Email

Email invitation to a Project Planning meeting

To: Alice_CEO@gmail.com

From: Eve@gmail.com

Subject: Meeting

Dear Alice,

Good morning. I write you this email to inform you that I have arrange a meeting in the company next Monday at 9:00 am to discuss together and identify a complex issue. I hope you can come to the meeting.

Best regard,

Eve.



Section 2: Systematic decision-making

Generate alternative solutions for your issue

Summarise the outcomes of your meeting with the stakeholder, including:

- an outline of two critical thinking techniques used to generate solution alternatives with other stakeholders (attach proof e.g., mind map to this section of your portfolio)
- List of two to three alternative solutions.

Two critical thinking techniques used to generate solution alternatives with other stakeholders:

- Observational skills are the starting point for critical thinking.
 People who are observant can quickly sense and identify a new problem. Those skilled in observation are also capable of understanding why something might be a problem.
- Inference is a skill that involves drawing conclusions about the information you collect and may require you to possess technical or industry-specific knowledge or experience.

Solutions:

- Establishing a second manufacturing facility (estimated cost \$5 million)
- Outsourcing manufacturing to a third party (lost margin of \$200 per unit sold or \$2 million per year assuming 10 000 units are sold)

Evaluate alternative solutions

Evaluate each identified solution to establish their feasibility. Include:

- success criteria
- constraints
- evaluation of each alternative against the criteria and constraints
- List of all feasible options

Establishing a second manufacturing facility

- Success criteria: Cost. This factor measures the total cost of the project against the expected budget that stakeholders establish at the beginning of a project.
- Constrain: The cost of establishing a second manufacturing facility might be huge.
- Evaluation: The cost of establishing a second manufacturing might be just behind the budge, but the benefit it brings to the organisation is bigger than the disadvantage at the first stage.

Outsourcing manufacturing to a third party

- Success criteria: Cost. This factor measures the total cost of the project against the expected budget that stakeholders establish at the beginning of a project.
- Constrain: We don't know the quality of the product manufactured by a third party and we cannot fully control the manufacturing process.
- Evaluation: The cost of outsourcing might be smaller but the disadvantage it brings might be bigger than the advantage.

In order to compare feasible solutions, first we have to define all of the alternatives, then analyse it. Ask questions, to create a complete image of each alternative. Make a result sheet and define the pros and cons and make your choice.

Proof of comparison:

Establishing a second manufacturing facility (estimated cost \$5 million)

Compare feasible solutions

Use one appropriate tool/technique to compare all feasible alternatives with one another. Include:

 a description of the tool or technique used

- proof of your comparison
 (e.g., table, financial analysis etc)
- an assessment of bias in your decision-making (actual or perceived)

Choose the best solution for your complex issue

Choose the best alternative and explain:

- Why did you choose it?
- How does it meet the legislation and organisational policy requirements?
- Are there any risks associated with your solution?
- What are the advantages of the chosen solution?
- Resources required

Prepare a brief

Use the work done in this section to prepare a brief to share your proposed solution with key stakeholders (use "Brief outline" template if applicable).

Email invitation to a Stakeholder meeting seeking approval Outsourcing manufacturing to a third party (lost margin of \$200 per unit sold or \$2 million per year assuming 10 000 units are sold)

Confirmation bias. We have an instinctive inclination to do what makes us feel good, so we often only listen to or respect the data that aligns with our own viewpoints. This leads us to reject any information that opposes our beliefs.

The best solution for the complex issue is establishing a second manufacturing facility. With a single manufacturing facility, should the facility become unavailable because of s disasters such as a major, flood, earthquake or hazardous material release, your business may not be able to operate.

If something is important to the success of your business, then it should be documented in your employee handbook. The idea of documenting policies—especially creating them from scratch—easily overwhelms employers when they try to craft the perfect policy language on the first draft.

There are some risks associated with the solutions.

The advantage of the chosen solution is with a second facility, that facility could continue to produce product and with the addition of overtime could extend operating hours to cover most, if not all, of the production not available from the second facility.

The resources required is a land (to build the manufacturing facility), workers, money.

(Brief.docx)

To: Alice CEO@gmail.com

From: Eve@gmail.com

Subject: Brief meeting

Dear Alice,

Good morning. I write you this email to inform you that I have finished developing the brief document and I want to invite you to a meeting tomorrow morning at 8.00 am in the company's meeting room. I want to present the brief to all of the stakeholders during the meeting.

Best regard,

Eve.



Section 3: Decision review

Develop a feedback register

(Feedback Register.docx)

Develop a feedback register to record feedback from stakeholders.

Incorporate feedback (Refined Brief.docx)

Use the feedback from your meeting with stakeholders to refine your project brief.

Attach the refined brief and completed feedback register to this section of your portfolio.

Seek approval **Email**

Use an appropriate format to seek approval to implement your proposed solution

To: Alice_CEO@gmail.com

From: Eve@gmail.com

Attach proof to this section of

Subject: Approval

your portfolio.

Dear Alice,

Good morning. I write you this email to ask for your approval to implement the proposed solution that we have all already discuss during the meeting. Looking forward to your reply.

Best regard,

Strength:

Eve.

Self-evaluate your performance

(Self-evaluation.docx)

people.

Perform a self-evaluation:

- Complete the selfevaluation checklist (add as an attachment).
- List your strengths and weaknesses.
- Identify areas needing improvement.

improvement.

Attach the completed self-

Weakness:

 Technical skills involve skills that give the managers the ability and the knowledge to use a variety of techniques to achieve their objectives.

The human or the interpersonal skills are the skills that present

Planning is a vital aspect within an organisation. It refers to one's ability to organise activities in line with set guidelines while still

the managers' ability to interact, work or relate effectively with

remaining within the limits of the available resources such as

• These involve the skills managers present in terms of the knowledge and ability for abstract thinking and formulating ideas.

Areas needing improvement:

time, money, and labour.

Attach the completed selfevaluation (Self-Evaluation checklist) to this section of your portfolio.

BSCRT611 PROJECT PORTFOLIO

 Time management. The better people can multitask, meet deadlines and manage their time, the more productive they will be at work. Good time management skills can also make their job less stressful, providing them with more time to work on projects and career development opportunities they are passionate about.