

**KIT713**

**MULTI-PERSPECTIVE  
ICT PROJECT**

# **OPPORTUNITIES IDENTIFYING & RANKING**

**PTEM★GIC**

**Hobart, May 2020**

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## EXECUTIVE SUMMARY

This report was commissioned to identify and rank the problems and opportunities of PTE Magic, an English center located in Hobart, Tasmania. PTE Magic was founded in March 2018 and is currently the leading Vietnamese PTE training institution in Tasmania.

This report is created based on an overall understanding of the business from the Operating context report conducted in January 2020. Because of the limited resources of the company, this report aims to help PTE Magic identify the significant areas and opportunities so that PTE Magic could seek for ICT solutions to boost its performance, using a structural and logical approach. Following this report, further recommendations for selected issued will be proposed in the following Recommendations report.



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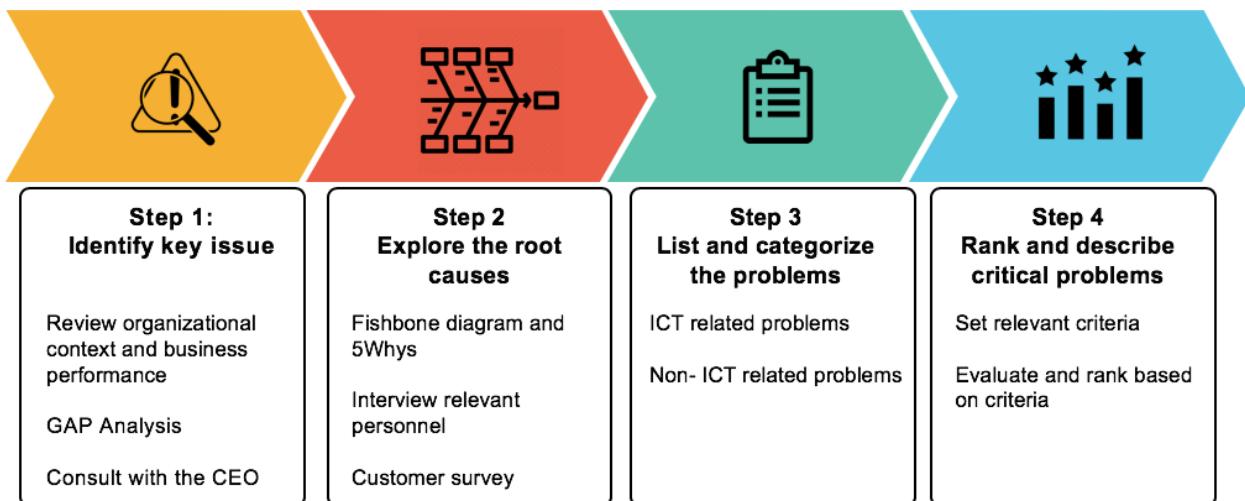
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## INTRODUCTION

Following the organizational operating context report, this document will report the process of identifying and ranking the problems and opportunities for PTE Magic Hobart. Information used in this report is mainly obtained through interviews, websites and company performance report of PTE Magic Hobart. This report will pay particular attention to the customized methods used to explore and prioritize the issues and opportunities of the business. The report consists of 2 main parts: Problem identification and prioritization, and Opportunity identification and prioritization. In each section, the analyzing procedures will be introduced; then the related matters will be identified and ranked based on multi-criteria assessment. Finally, detailed descriptions of high priority problems and opportunities will be discussed in depth.

## A. PROBLEM IDENTIFICATION AND PRIORITIZATION

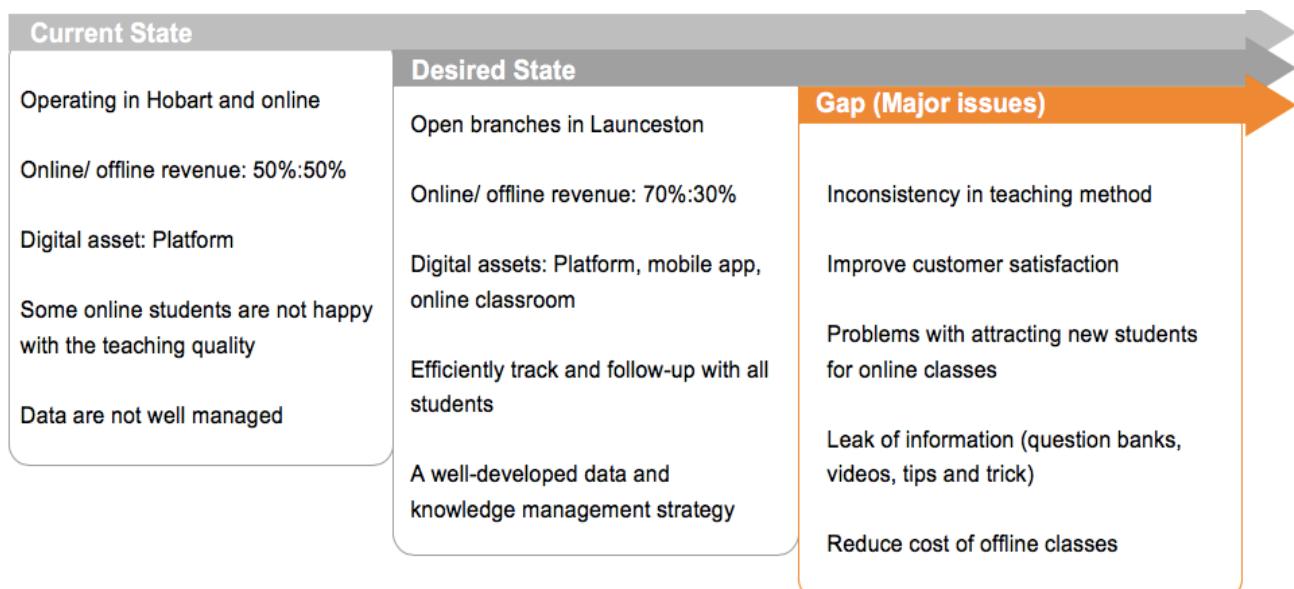
Problems are defined as anything that is currently preventing PTE Magic from performing better and achieving its business objectives. Therefore, it is crucial to identify, categorize and prioritize the issues prevalent in the business so that the company can allocate its limited resources to tackle the most critical problems. In this report, we developed a procedure that allows PTE Magic to define the major issues, explore the sub-problems (root causes) and rank the problems:



*Figure 1. The process of identifying, categorizing and ranking problems*

### Step 1: Identify the key issues

GAP analysis is performed, based on information from the organizational context report and consulting with the CEO. Five key problems that slow business growth are identified as below:

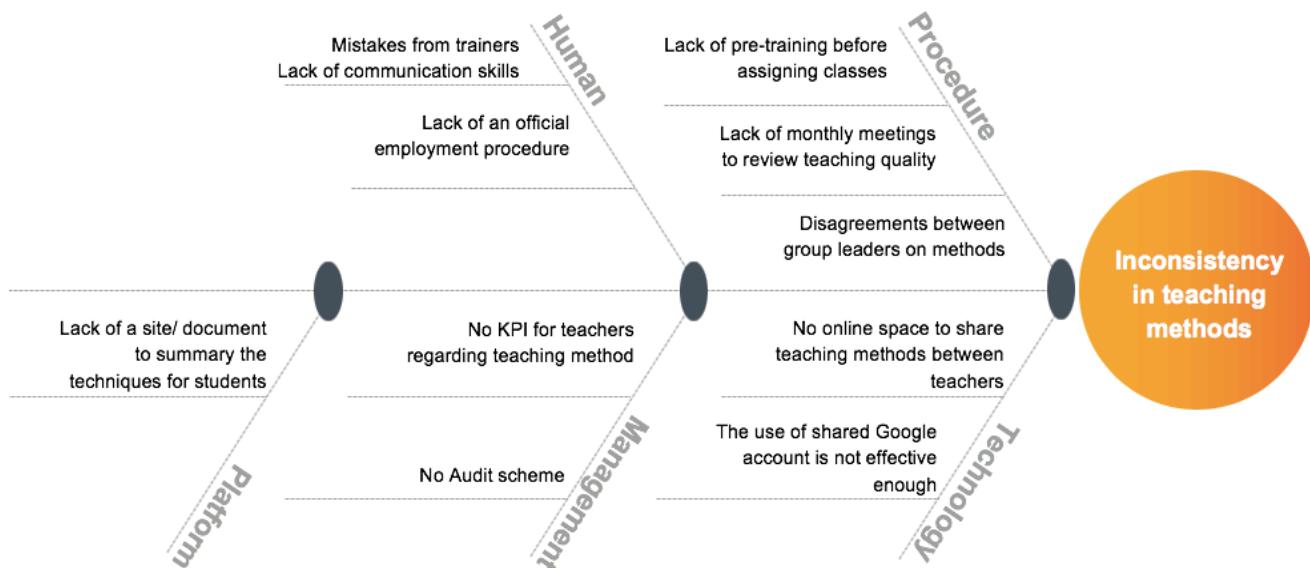


*Figure 2. The process of identifying, categorizing and ranking problems*

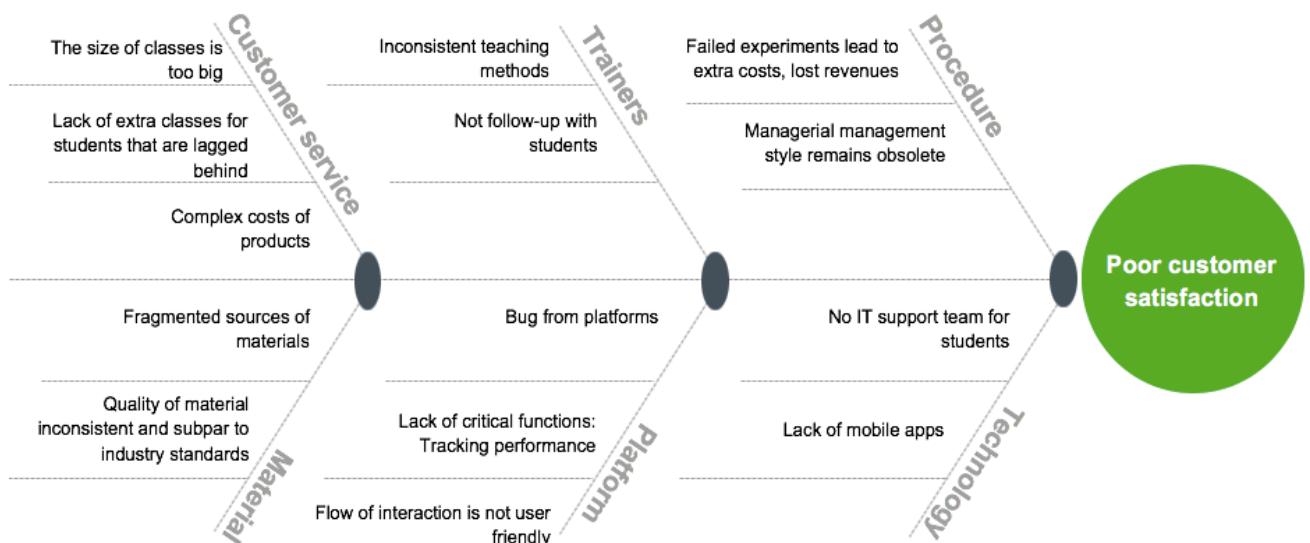
## Step 2: Explore the root causes

Among those five issues, the root cause of high cost over revenue of the current offline classes, which are organized in the CBD of Hobart, is apparently apparent: It is due to the small size of the classroom. Because the classroom can only accommodate 12-15 students per session, PTE Magics needs to organize more offline sessions when the number of students increases, therefore, suffers extra costs for trainers' salary and facilities costs.

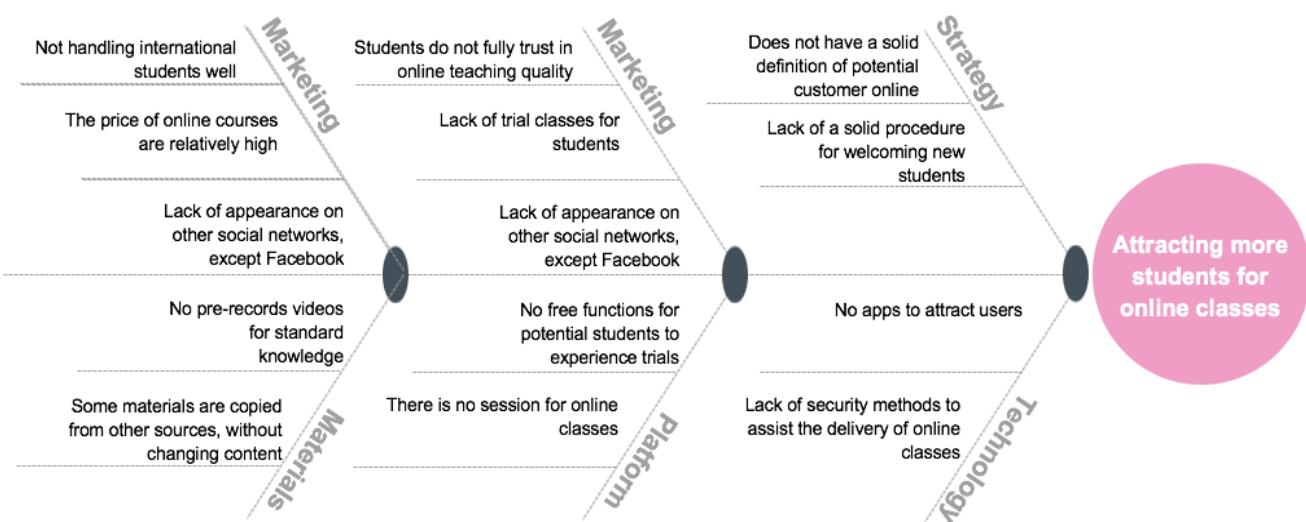
Other four problems are more critical and complex, thus require more comprehensive analysis to define the root causes leading to the issues. 5 Whys and Fishbone (Ishikawa diagram) are combined to drill down into underlying layers of the problems and identify the root causes.



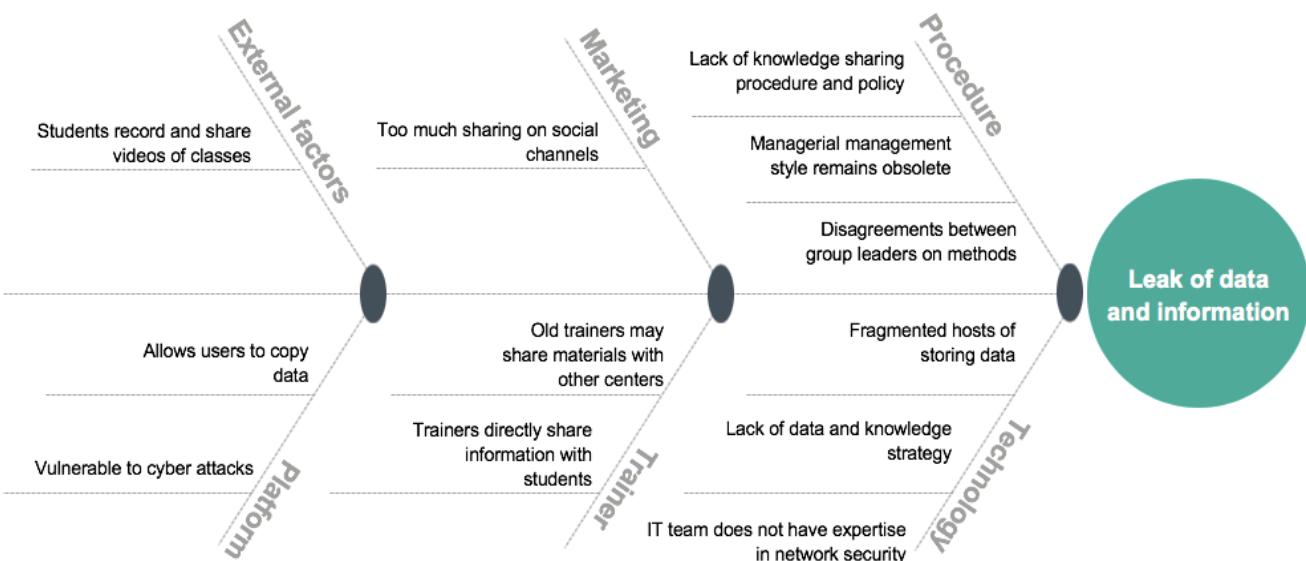
**Figure 3. Root cause analysis of inconsistency in teaching methods**



**Figure 4. Root cause analysis of poor customer satisfaction**



**Figure 5. Root cause analysis of difficulties in expanding online classes**



**Figure 6. Root cause analysis of leaking of data and information**

### Step 3: List and categorize problems

After the root cause analyses, a list of 30 problems is obtained. For the ease of further steps, including ranking and exploring recommendations, the problems are divided into two main categories:

- ICT related problems
- Non-ICT related problems

Because of the vast number of non-ICT related problems, they are further categorized into specific groups, based on the stakeholders that are responsible for the issues.

Problem #	Problem description
<b>NON-ICT RELATED PROBLEMS</b>	
<b>Procedures &amp; Strategy</b>	
P1	Lack of pre-training sessions before assigning classes to trainers
P2	Lack of monthly meetings to review teaching quality
P3	Lack of knowledge sharing procedure and policy
P4	Lack of a solid procedure for welcoming new students
P5	Does not have a solid understanding of potential customer online
<b>Marketing</b>	
P6	Share too much confidential information on social channels
P7	Students do not fully trust in online teaching quality
P8	Lack of trial classes for students
P9	Lack of appearance on other social networks, except Facebook
<b>Customer service</b>	
P10	The size of online class is too big
P11	Lack of extra support for students lagging behind
P12	Students feel annoyed when they need to reset accounts monthly
P13	Not good at dealing with international students
<b>Trainers</b>	
P14	Do not follow up closely with students
P15	Lack of trainings on teaching methods and communication skills
P16	Lack of KPI to encourage teachers
P17	Lack of an official employment procedure
<b>COVID-19</b>	
P18	Decreasing demand: Less students coming to Australia for studying
P19	PTE testing centers are close, students cannot complete their courses
<b>ICT RELATED PROBLEMS</b>	
P20	No IT supporting team for online students
P21	Lack of mobile apps
P22	Platform is reported to have many bugs (both UX and UI)
P23	Platform's functions do not fully support students and trainers
P24	Fragmented hosts of storing data
P25	Lack of data and knowledge strategy
P26	IT team does not have expertise in network security
P27	No tool to support communication between trainers, admins
P28	Students can record and share videos of classes
P29	Platform's server is not stable and vulnerable to cyber attacks
P30	It is easy to copy data and materials directly from platform

**Figure 7. List of problems identified of PTE Magic**

## Step 4: Ranking the problems

### Ranking criteria

A multi-criteria assessment is designed to rank the identified problems so that high priority issues can be detected. The ranking criteria consists of three components, which have the same weight (33.33%) and are scored on a scale from 0 to 4. Finally, based on the final accumulated score of all issues, the level of ICT relevance is considered so that the list of problems is further divided into three categories: High priority, Medium priority and Low priority.

*Criterion 1: Impact on business:*

- 0- No impact
- 1- Minimal impact
- 2- Moderate impact
- 3- Major impact
- 4- Severe impact

*Criteria 2: Potential benefits over cost (Return on investment) of addressing the problem:*

- 0- No/ low impact
- 1- Moderate impact, high cost
- 2- Moderate impact, low cost
- 3- Massive impact, high cost
- 4- Massive impact, low cost

*Criteria 3: Urgency of resolving the problem:*

- 0- Not urgent
- 1- Slightly urgent
- 2- Moderately urgent
- 3- Urgent
- 4- Highly urgent

Category	Description
High priority	Problems that require immediate attention, involve a high payoff and will benefit from ICT solutions. In addition, by solving these problems, it is expected that some related issues will also be alleviated.
Medium priority	Problems that when solved will support the high priority problems in being solved, but may or may not have direct ICT components
Low	Problems that aren't directly related to ICT and have a low impact on the business or are very hard or costly to solve.

Problem #	Problem description	Criteria 1	Criteria 2	Criteria 3	Total score	Rank by category
P1	Lack of pre-training sessions	2	2	2	6	Low
P2	Lack of monthly review meetings	3	2	4	9	Medium
P3	Lack of knowledge sharing policy	3	2	3	8	Medium
	Lack of welcoming for new students	1	2	0	3	Low
P5	Does not have a solid understanding of potential customer online	3	1	2	6	Medium
P6	Share too much confidential information on social channels	1	0	2	3	Low
P7	Students do not fully trust in online teaching quality	3	3	3	9	Medium
P8	Lack of trial classes for students	1	1	3	5	Low
P9	Lack of appearance on other social networks, except Facebook	3	3	2	8	Medium
P10	The size of online class is too big	3	1	2	6	Low
P11	Lack of extra support for students	2	1	2	5	Low
P12	Students feel annoyed when they need to reset accounts monthly	2	2	2	6	Low
P13	Not good at dealing with international students	2	1	2	5	Low
P14	Do not follow up closely with students	4	3	3	10	High
P15	Lack of trainings on teaching methods and communication skills	3	3	3	9	Medium
P16	Lack of KPI to encourage teachers	2	1	2	5	Low
P17	Lack of an official employment procedure	2	2	1	5	Low
P18	Decreasing demand: Less students coming to Australia for studying	3	0	1	4	Low
P19	PTE testing centers are close, students cannot complete their courses	3	0	0	3	Low
P20	No IT supporting team for online students	3	3	4	10	High
P21	Lack of mobile apps	4	3	3	10	High
P22	Platform is reported to have many bugs (both UX and UI)	4	3	4	11	High
P23	Platform's functions do not fully support students and trainers	2	3	2	7	Medium
P24	Fragmented hosts of storing data	3	3	3	9	Medium
P25	Lack of data and knowledge strategy	4	4	3	11	High
P26	No expertise in network security	3	3	2	8	Medium
P27	No tool to support communication between trainers, admins	4	4	4	12	High
P28	Students can record and share videos of classes	4	1	3	8	Medium
P29	Platform's server is not stable and vulnerable to cyber attacks	2	3	3	8	Medium
P30	It is easy to copy data and materials directly from platform	3	3	3	9	Medium

**Figure 8. Evaluation and ranking of problems of PTE Magic**

## Descriptions of High priority problems

### #P14: Do not follow up carefully with students

Due to the increasing number of students (both offline and online), it is a difficult task for the trainers to monitor the progress and follow up with each student closely. In addition, the COVID-19 pandemic has caused the closure of PTE testing centers (#P19) in Australia (Pearson 2020), which led to the increasing number of active students as they could not take the test and complete their course. This matter seriously affects the teaching quality, customer satisfaction and quality of reviews from students on social sites. Therefore, it should be addressed immediately with the help of ICT assistance, such as: using AI to track student progress on platform and send automatic reminder emails based on the progress, providing better administration system for trainers to view the progress and follow up with students quickly and efficiently.

### #P20: No IT supporting team for online students

As illustrated in the organizational context report, PTE Magic's IT team consists of only two technicians, and they are primarily in charge of designing and maintaining the online platform and the application. Therefore, PTE does not explicitly assign the task of supporting IT-related issues for students and trainers to any personnel. Currently, trainers and marketing team are playing the role of customer services and try to support students based on what they understand of the system. This ongoing issue needs to be rectified, especially when the company is planning to expand its online business.

### #P21: Lack of mobile apps

The company is well aware of this problem as the CEO has received many feedback and requests of an application supporting students in practicing the questions. There are four to five similar applications in the market, mostly from Chinese centers (See Appendix A). The development of an application is in progressed, and the app is expected to be launched in July, 2020. It is critical for the CEO and IT team to take issues related to the current platform (#P22-#P24) into consideration to avoid similar mistakes when designing the UX and UI of the application.

### #P22: Platform is reported to have many bugs (both UX and UI)

As analyzed as one of the major ICT-related perspectives in the operating context report, the current platform still receives negative feedback from students and trainers as it does not fully support the users and sometimes causes confusion when navigating. Fixing the platform has cost PTE Magic much money and caused frequent interruptions. This is mainly due to a lack

of end-user focus during the software development design. Therefore, PTE Magic should consider the payoffs of two option: either review all the bugs and functions to fix at once, or rebuild the whole platform.

#### **#P25: Lack of data and knowledge strategy**

This issue is critical as it is the main causes of other related problems, such as inconsistency in teaching methods and materials, lack of knowledge sharing policy (#P8 ), sharing too much information on social network (#P6), not following up frequently with students (#P14), fragmented hosts of storing data (#P24). This problem remains as the CEO has never seriously thought of the role of ICT strategy in the business and the IT team focuses heavily on the technical side and does not have enough expertise in strategically developing a comprehensive strategy to harness the use of ICT to support and protect the business.

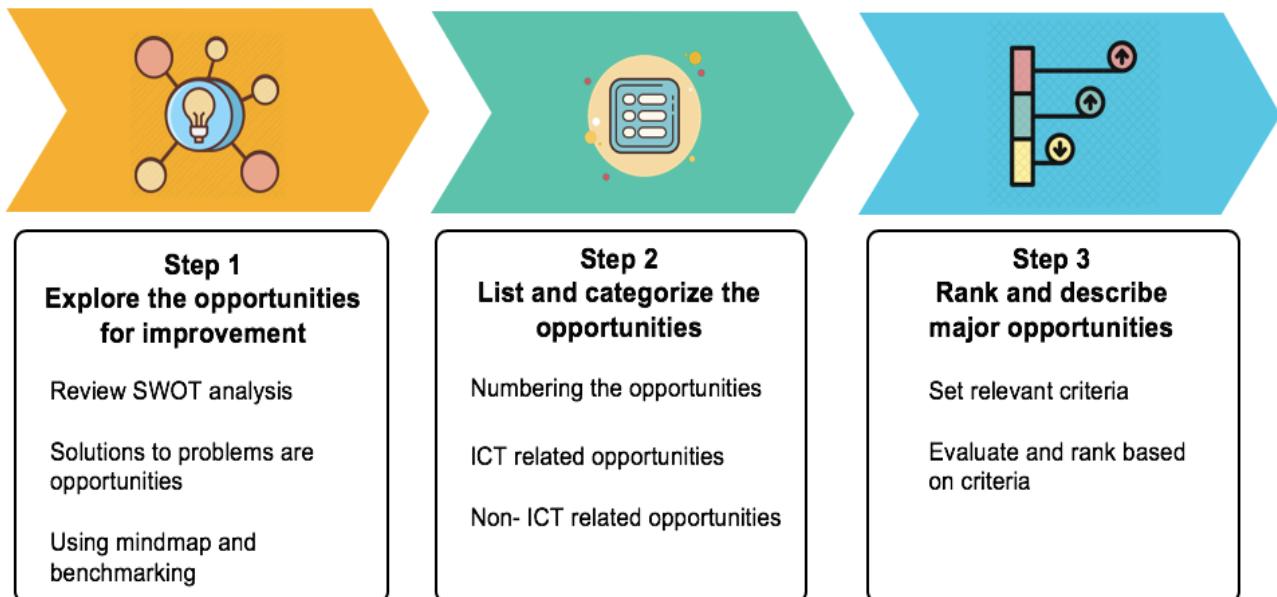
#### **#P27: No tool to support communication between trainers, admins**

Communications between different departments of the company are mainly conducted via informal channels: Facebook, Wechat, and text messages. Therefore, important announcements are not formally communicated in a prompt manner and sometimes are distorted, causing late response, confusion and inconsistency in teaching direction. Thus, PTE Magic needs to harness the use of ICT to create a professional channel for internal communication and boost the team spirit by encouraging communication within the organization.



## B. OPPORTUNITY IDENTIFICATION AND PRIORITIZATION

Opportunities are defined as anything if being reasonably and timely grasped would potentially support the development and expansion of PTE Magic. In this report, we follow three steps to explore general opportunities in different areas and then narrow down the scope of opportunities that are most critical to the growth of the company and could be embraced with the support of ICT solutions.



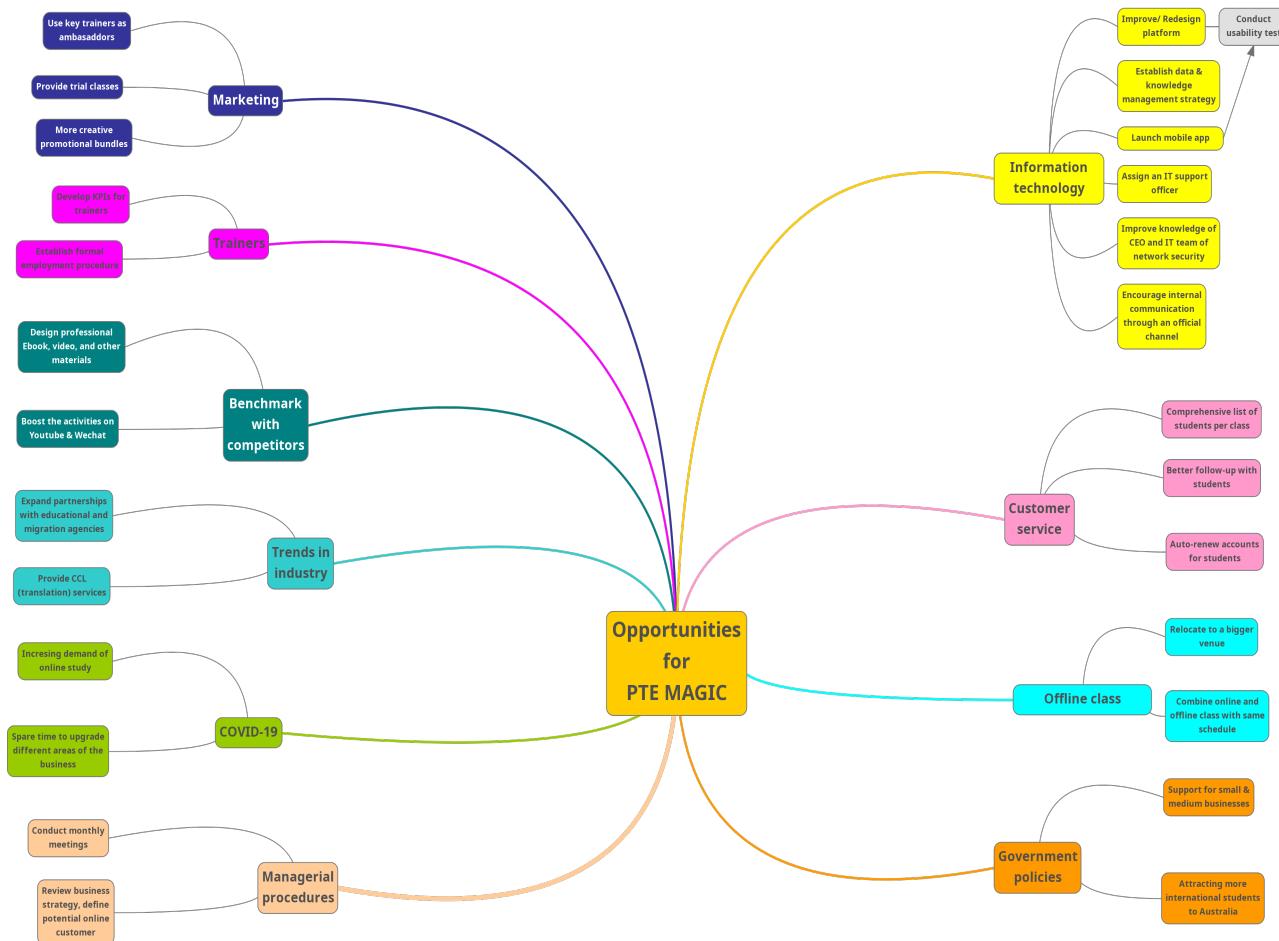
**Figure 9. The process of identifying, categorizing and ranking opportunities**

### Step 1: Identify the opportunities

Opportunities of the business are identified by applying mind mapping technique, covering the areas synthesized from:

- SWOT analysis from organizational context report
- Potential solutions to the identified problems
- Benchmarking with competitors' performance
- Trends in the industry
- External factors

After the opportunity identification process, a list of 27 opportunities has been identified.



**Figure 10. Opportunities identification using mind mapping**

### Step 2: List and categorize opportunities

The identified opportunities are listed under the following two categories for the ease of review and evaluation:

- ICT related opportunities: Opportunities which are either directly related to the ICT assets of the company or would involve the support of ICT solutions to be grasped successfully
- Non-ICT related opportunities: The remained opportunities.

The list of categorized opportunities, including a brief description, is presented in the table below:

Opportunity #	Opportunity description
<b>NON-ICT RELATED OPPORTUNITIES</b>	
O1	Organize trial classes (both offline and online)
O2	Provide more creative promotional bundles
O3	Introduce a reward scheme for current students
O4	Use senior trainers as ambassadors on marketing campaigns
O5	Establish KPIs for each trainer
O6	Develop formal employment procedure
O7	Redesign professional learning materials: E-book, Video.
O8	Boost the marketing activities on Youtube & Wechat
O9	Expand partnership with emerging agencies
O10	Provide CCL classes (translation service)
O11	Restructure the organization during COVID-19 break
O12	Conduct monthly meetings to connect and update staffs
O13	Develop a master class list and student ID to follow up
O14	Combine online and offline classes with the same schedule
O15	Support for small and medium businesses from local government (Tasmanian Goverment 2020)
O16	Increasing demand from international students after COVID-19
O17	Relocate the office to a bigger venue
<b>ICT RELATED OPPORTUNITIES</b>	
O18	Improve/ Redesign the online platform (functions, UX, UI)
O19	Conduct usability tests and get feedback from current students
O20	Establish data and knowledge management strategy
O21	Develop and launch a mobile app quickly
O22	Assign an IT support team to support students and trainers
O23	Improve knowledge of network security and apply to the digital assets
O24	Encourage internal communication through a formal channel
O25	Auto-renew accounts for students
O26	Redesign commercial website
O27	Develop AI to monitor study progress of students actively

**Figure 11. List of opportunities identified of PTE Magic**

### Step 3: Ranking the opportunities

#### Ranking criteria

An opportunity matrix is designed to evaluate the identified opportunities against two dimensions: Return on investment (Potential benefits and impact on the business over the cost of harnessing the opportunity) and the Feasibility (Success rate) of the opportunities.

Each opportunity will be assessed against these two criteria on a scale from 1 (Very low) to 5 (Very high).

OPPORTUNITY MATRIX		Return on investment				
Success rate	Almost certain	Very low	Low	Moderate	High	Very high
	Likely					
	Possible					
	Unlikely					
	Rare					

**Figure 12. Opportunity ranking matrix**

Based on the result of the evaluation, opportunities are categorized into 4 groups:

Category	Description
High priority	Opportunities that require immediate attention because it involves a high payoff and high success rate, thus, would be most attractive to the business
Medium priority	These opportunities either have a high return on investment and moderate success rate, or reverse order. These opportunities should be further reviewed to be implemented case by case once the top priority opportunities are realized.
Low priority	Those opportunities that are moderate on both criteria, thus should not be considered in short term. They could be reviewed on the later report.
Negligible	The impacts of these opportunities are insignificant, and it is hard to realize the benefits, therefore, these opportunities should be ignored

Opportunity #	Opportunity description	Return on investment	Success rate	Category
O1	Organize trial classes (both offline and online)	High	Certain	High
O2	Provide more creative promotional bundles	High	Likely	Medium
O3	Introduce a reward scheme for current students	Moderate	Possible	Low
O4	Use key trainers as ambassadors on marketing campaigns	Low	Possible	Low
O5	Establish KPIs for each trainer	High	Possible	Medium
O6	Develop formal employment procedure	Unlikely	Possible	Low
O7	Redesign professional learning materials: E-book, Video	Very low	Likely	Low
O8	Boost the marketing activities on Youtube & Wechat	Low	Possible	Low
O9	Expand partnership with emerging agencies	Moderate	Possible	Low
O10	Provide CCL classes (translation service)	Very low	Rare	Negligible
O11	Restructure the organization during COVID-19 break	Very low	Unlikely	Negligible
O12	Conduct monthly meetings to connect and update staffs	Moderate	Possible	Low
O13	Develop master class list and student ID to follow up	High	Certain	High
O14	Combine online and offline classes with same schedule	Moderate	Certain	Medium
O15	Support for small and medium businesses from local government	Very low	Possible	Negligible
O16	Increasing demand international students after COVID-19	Low	Certain	Medium
O17	Relocate the office to a bigger venue	Very low	Certain	Low
O18	Improve/ Redesign the online platform (functions, UX, UI)	Very high	Certain	High
O19	Conduct usability tests and get feedback from current students	High	Certain	High
O20	Establish data and knowledge management strategy	Very high	Likely	High
O21	Develop and launch mobile app quickly	High	Certain	High
O22	Develop IT support team to support students and trainers	Very high	Certain	High
O23	Improve knowledge of network security and apply to the digital assets	Moderate	Possible	Low
O24	Encourage internal communication through a formal channel	Very high	Possible	Medium
O25	Auto-renew accounts for students	Low	Unlikely	Negligible
O26	Redesign commercial website	Low	Possible	Low
O27	Develop AI to monitor study progress of students actively	High	Likely	Medium

**Figure 13. Evaluating and ranking opportunities of PTE Magic**

## Descriptions of High priority opportunities

### #O1: *Organize trial online and offline classes*

Trial classes are provided by many competitors in the industry. It is a great chance for potential students to experience the quality of teaching before purchasing the service. Therefore, PTE Magic should follow the trend and design attractive standard trial classes for different groups of students with different English level. The company could also consider providing a trial period for premium accounts on platform and test bank.

### #O13: *Develop master class list and student tracking system*

A system to record and track student's information and progress would be highly beneficial in the long run. Such system will help eliminate the abundance and replication of data and thus, boost the working efficiency and customer satisfaction. This opportunity is closely related to #O27 so that PTE Magic could consider investing in building a customized system with BI functions to support the operational functions of the business.

### #P18: *Improve/ Redesign the online platform (functions, UX, UI)*

This opportunity is the solution to #P22 identified in the previous part. Redesigning the platform with a customer-focused approach will help the company avoid the cost of fixing bugs and maintenance in the long run. This matter is critical and is in line with the business strategy of expanding the business via online classes and selling premium accounts.

### #P19: *Conduct usability tests and get feedback from current students*

A great base of current and ex-students who have used the platform is helpful in assisting the company review the design of the platform and the coming app. Conducting usability tests with the participation of current and ex-students will reduce the cost and will help the company avoid the mistake of not involving end-users in the software development life cycle.

### #P20: *Establish data and knowledge management strategy*

This opportunity is the solution to #P25 identified in the previous part. By formally establishing a comprehensive strategy to manage data and knowledge within the organization, many related problems (#P6, #P8, #P14, #P24) will be solved, and the company will gain significant advantages over the other players in the market.

**#P21: Develop and launch a mobile app quickly**

This opportunity is the solution to #P21 identified in the previous part. A mobile application will help the center to be on par with other major players so that the company can be confident competing with other international competitors in Hobart. The database of the application is the same as the current platform. However, it is critical for the CEO and IT team to be highly alerted to avoid similar mistakes when designing the UX and UI of the application.

**#P22: Develop an IT support team to support students and trainers**

As the company is planning to boost the penetration of online classes and practice platform, it is necessary to have an official IT support officer within the company to support both students and trainers. Moreover, the company should consider to include the responsibility of handling data and network security for this position as this will help reduce the extra cost of salary in the future when there is an internal data management system.

**PTE MAGIC**

THE BEST PTE TRAINING CENTER IN HOBART

## CONCLUSION

Based on the general understanding of the operating context of PTE Magic, this report has performed further analyzing methods to identify problems and opportunities that are relevant to the operation and development of the company. Using a customized approach, 30 issues and 27 prospects have been identified. Then, the multi-criteria assessment of problems and opportunities matrix have assisted the ranking process and help highlighted a shortlist of 5-6 major problems and opportunities that should be dealt with urgently with the help of ICT solutions. Those high priority issues are focused in some particular aspects of the business, including the coming application, the buggy platform, lack of data management strategy and network security expertise, unavailable IT supporting team. Further progress will be presented in the next Recommendations report.

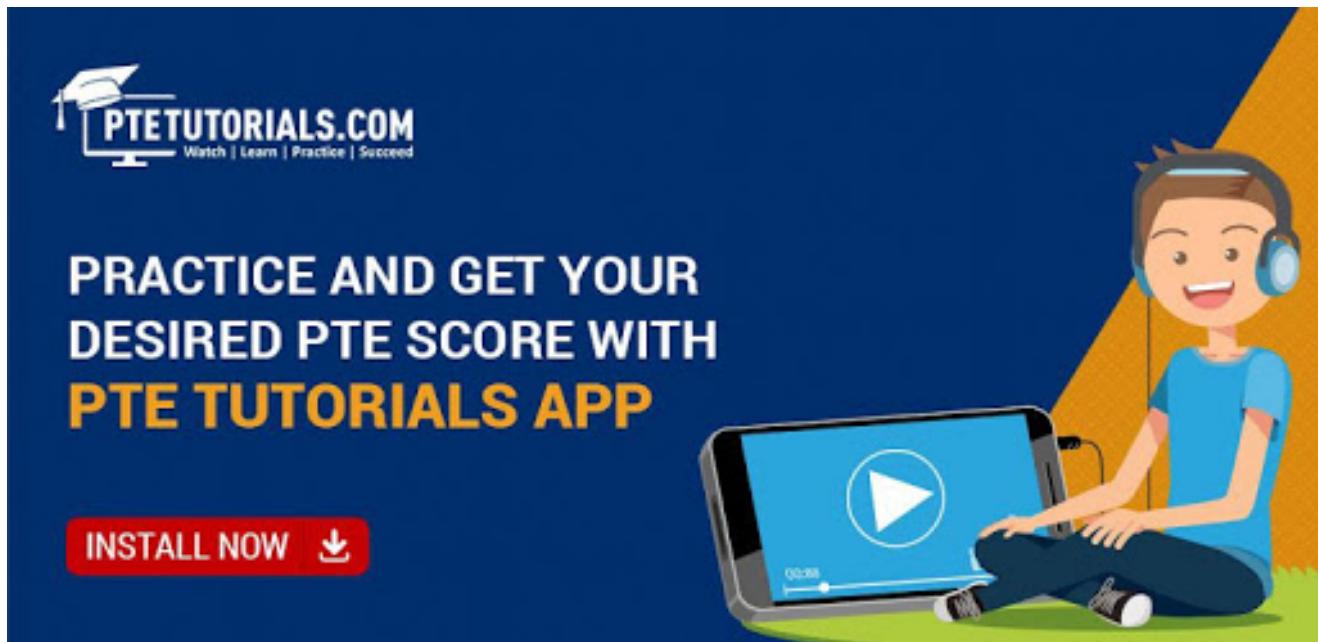
## REFERENCE LIST

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Tasmanian Government 2020, *COVID-19 Business Support, Grants and Loans*, viewed 28 April, 2020, <[https://www.business.tas.gov.au/covid-19\\_business\\_support\\_packages](https://www.business.tas.gov.au/covid-19_business_support_packages)>.

## APPENDIX

## APPENDIX A – MOBILE APPLICATION OF COMPETITORS



The landing page for PTETUTORIALS.COM features a logo with a graduation cap icon and the text "PTETUTORIALS.COM" followed by "Watch | Learn | Practice | Succeed". Below this, a large blue banner contains the text "PRACTICE AND GET YOUR DESIRED PTE SCORE WITH PTE TUTORIALS APP". To the right of the text is a cartoon illustration of a boy wearing headphones and sitting cross-legged on the grass, looking at a smartphone that displays a play button. At the bottom left is a red "INSTALL NOW" button with a download icon.



New version of Alpaca PTE  
AI scoring / Alpaca Applet / Shadowing



The screenshot of the Alpaca PTE app shows the home screen with the title "2020 PTE 备考趋势分析". It includes sections for AI practice library (口语, 听力, 写作, 阅读), monthly frequency chart, new questions, and a treasure chest section for listening and reading practice.