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Strategy Generation and Selection

In part one, the mission and vision statement are analyzed, and strategic analysis of SWOT is carried out. In part two, based on the analysis in part one, strategy generation and selection will be conducted. There are 3 stages in the strategy generation and selection and different strategic analysis framework will be applied. Finally, two strategies will be compared, and the best will be recommended.

Stage 1 – Input Stage

In the input stage, the basic input information is summarized and analyzed. Three frameworks will be used, namely,

- External Factor Evaluation (EFE) Matrix
- Internal Factor Evaluation (IFE) Matrix
- Competitive Profile matrix (CPM)

Internal Factor Evaluation (IFE) Matrix

Internal Factor Evaluation (IFE) Matrix is a strategy tool commonly used to evaluate internal environment of a firm. It is used to reveal the firm's strengths and weaknesses. (Jurevicius, 2014)

	Key Internal Factor	**Weight**	**Rating**	**Weighted Score**
	Strength			
1	Leading Global Software Development Company	0.12	4	0.48
2	World's 4th largest market value Company with dominant market share	0.10	3	0.3
3	Extensive market reach	0.07	4	0.28
4	Constant growth	0.04	3	0.12
5	Addition of newer SKUs (Stock Keeping Units)	0.02	3	0.06
6	Trusted Brand with high customer loyalty	0.10	4	0.4
7	Large Market Value	0.05	3	0.15

8	Adverting efforts are highly effective	0.08	4	0.32
9	Brand Building and Corporate Reputation	0.07	3	0.21
10	User friendly software	0.08	4	0.32
	Weaknesses			
1	Overly bind to the personal computer market	0.05	1	0.05
2	Hackers and Thefts	0.04	2	0.08
3	Lacking innovation	0.06	1	0.06
4	Failed as market leader in Internet browser	0.06	1	0.06
5	Failed acquisitions	0.06	1	0.06
	Totals	1.00		2.95

From the IFE above, Microsoft has a few strengths and weakness. Microsoft has constant growth now, therefore, there is no immediate problem with the company. However, strategies are for the future. A mature corporation should plan for the future and make changes when the corporation still has the resources, time and morale to start something new.

The brand, loyalty customers, marketing, market reach and constant growth are especially important strengths of Microsoft and are supports to any change to be made. The major weakness includes the highly dependency on PC market, which ironically, the success factor to make the Microsoft today. (Belanger, 2018) The failure to ride on the internet trend to build a successful internet browser and other innovation create the challenges of Microsoft today. (McFarlane, 2020) If Microsoft was able to create a very successful internet browser, the industry may not be the same as today. The failure to offer a successful browser has a few reasons, including Microsoft believed that she can influent the user behaviors, but consequences are Microsoft loss a very critical chance. With a strong team of developers, Microsoft is ready for a world beyond Windows and embraces the cloud first and mobile first business. (Warren, 2018) The total weighted score of 2.95 indicated that the internal strategies Microsoft is using is effective.

External Factor Evaluation (EFE) Matrix

The EFE matrix is commonly used together with the Internal Factor Evaluation (IFE) to examine the external environment of the firm and to identify the available opportunities and threats .It is used to evaluate external environment or macro environment include economic, social, technological, government, political, legal and competitive information of the firm. (Kasi, 2009)

	Key External Factor	**Weight**	**Rating**	**Weighted Score**
	Opportunities			
1	Acceptance of Cloud computing	0.17	4	0.68
2	Artificial Intelligence and Innovation	0.17	4	0.68
3	Acquisitions and Business Partnerships	0.08	3	0.24
4	Booming of Smart phone market	0.06	1	0.06
5	Cost leadership	0.06	2	0.12
	Threats			
1	Criticisms on Workforce related issues	0.04	1	0.04
2	Controversy of Gay reference	0.04	1	0.04
3	Highly competitive market	0.11	3	0.33
4	Change of consumers preferences	0.11	3	0.33
5	Open source software	0.11	3	0.33
6	Hackers and unlicensed software	0.05	4	0.20
	Total	1.00		3.05

Based on the EFE Matrix, there are a few opportunities, such as the acceptance of cloud computing and popularity of the use of Artificial Intelligent are definitely an international mega trend, (Nasdaq, 2017) that major industrial players, if they are able to follow that mega trend, will be able to increase their market share. (Warren, 2018) Due to the huge initial investment, small players are focused out of the market. These opportunities enable major players to reshape the industry and build up new users' habit. Companies who are able to reshape the industry will create environment favor for their business. (Forbes

Technology Council, 2020) The total weighted score of 3.05 indicated that the external strategies Microsoft used is effective.

Competitive Profile Matrix (CPM)

Competitive profile matrix is used to compare the firm with the major players in the industry and is an essential strategic management tool. CPM compares the firm and its competitors with their relative strengths and weaknesses. The profile matrix identifies a firm's key competitors and compares them using industry's critical success factors. As a result, a company can easily identify the areas it should improve and the areas it should protect. (Sridharan, 2018)

Competitive Profile Matric (CPM)					
		Microsoft		Amazon	
Critical Success Factor	Weight	Score	Weighted Score	Score	Weighted Score
Innovation	0.17	3	0.51	3	0.51
Marketing	0.1	3	0.3	3	0.3
Brand Reputation	0.1	4	0.4	3	0.3
Product Quality	0.11	4	0.44	4	0.44
Customer Service	0.08	3	0.24	3	0.24
Price Competitiveness	0.09	2	0.18	2	0.18
Technological Competence	0.12	4	0.48	3	0.36
Product Range	0.08	4	0.32	2	0.16
Customer Loyalty	0.15	4	0.6	3	0.45
Total	1		3.47		2.94

In the CPM above, Microsoft is compared with Amazon. Amazon is chosen because:

- Both are international players that entered into China market.
- They have engaged China local partners for their China operation.
- They will be subject to similar laws and regulations both from China (as foreign business) and USA (their head quarter).
- They are both listed in US stock market.

- They ranked the first and second in the international market, so they will compete in the China market also.

Based on the CPM above, Microsoft has higher total weighted score than Amazon. Microsoft has better score in technological competence, customer loyalty, and product range.

Technological competence describes the application of skills and knowledge needed to perform effectively in a specific job or group of jobs within the organization. These types of competencies are closely aligned with the skills and knowledge or "know-how" needed for successful performance. (Craig, 2015) Microsoft as one of the largest software developers in the world has a good internal training system to enhance the competence of the employees. (Microsoft, 2019) Microsoft built software from operation system, programming languages, application software and gaming software. (Microsoft, 2020) Microsoft's major business is all related to software, even though the hardware, they are used to bundle Microsoft Windows. This development level ranged from high level software development (application software) to low level software development (operation system, development tools) covered all levels of software developers. The application software is developed for the use by customers. Therefore, this software are all Microsoft products to sell. However, the major products of Amazon are the cloud computing and online e-commerce, especially, selling books, movies and other items. (Wikipedia, 2020) The developers of these teams may require different hard and soft skills, so these teams are actually working on their own. Searching by the keyword the "Amazon internal training", it is found that internal training is for the staff in the fulfillment centers, that is, for the e-commerce platform, but no information on the software development teams. (Amazon, 2020) The software developed for the cloud is targeted for cloud users. On the other hand, the software developed for the online platform is not for sale, but to support the operation of online platform. Therefore, the product range and technical competent are better in Microsoft. As Microsoft have a full range of software products, loyalty customers are easier to maintain and upsell for other products. Examples are most users using Microsoft Office are for business uses, they have high potential to use Microsoft cloud to host their other software used in business and may also use the machine Learning Studio from Microsoft, by their in house programmer using Microsoft software development tools and development languages. This scenario is common for many business users, who used all Microsoft products in their business.

On the other hand, Amazon users purchase books, video and other items online, and a certain portion of Amazon users are individuals, students and educators, they are not potential users of cloud and machine learning services users.

Stage 2 – The Matching Stage

The matching stage is to generate feasible alternative strategies by aligning key external and internal factors. In these stage, 4 frameworks will be used include the Strength, Weakness, Opportunities, Threats (SWOT) Matrix, the Strategic Position and Action Evaluation (SPACE) Matrix, the Internal-External (IE) Matrix and the Grand Strategy Matrix.

SWOT Matrix

SWOT is an analysis framework used to map out the possible alternatives based on the most definitive internal and external factors currently affecting an organization. The matrix considers four factors:

- Strengths
- Weaknesses
- Opportunities
- Threats

In stage two, the strategy-making process, SWOT frequently used first to identify the strengths, weaknesses, opportunities and threats. Based on these information, SWOT Matrix will be used to list possible future strategies from the SWOT findings.

Applying SWOT Matrix to the SWOT findings is very helpful in considering how the greatest strengths can make good of the best opportunities, or to minimize the most serious threats. At the same time, it flags up the internal weaknesses that could stand in the way of external opportunities and draws attention to dangerous situations in which threats and weaknesses overlap. (The Target Internet, n.d.)

SWOT Matrix

Strength	Weakness
1 Leading Global Software Development Company	1 Overly bind to the personal computer market
2 World's 4th largest market value Company with dominant market share	2 Hackers and Thefts
3 Extensive market reach	3 Lacking innovation
4 Constant growth	4 Failed as market leader in Internet browser

	5 Addition of newer SKUs (Stock Keeping Units) 6 Trusted Brand with high customer loyalty 7 Large Market Value 8 Adverting efforts are highly effective 9 Brand Building and Corporate Reputation 10 User friendly software	5 Failed acquisitions
Opportunity	**SO Strategies**	**WO Strategies**
1 Acceptance of Cloud computing 2 Artificial Intelligence and Innovation 3 Acquisitions and Business Partnerships 4 Booming of Smart phone market 5 Cost leadership	1 Promote Microsoft Azure as upsell to all Office Users. (S3, S6, S8, S9, S10, O1) 2 Microsoft has set up Machine Studio and AI platform for non-programmers. (S3, S6, S9, S10, O2, O4) 3 Acquire business partners of upstream and downstream to create more synergy. (S3, S6, S9, O3) 4 Develop more mobile friendly software and solution (S1, S8, S9, S10, O4) 5 Develop low cost smart device, such as IoT devices to open up new market. (S1, S3, S6, S8, S10, O5)	1 Develop more cloud and mobile application (W1, W3, O1) 2 Develop AI application for users and AI library for developers (W1, W3, O2) 3 Acquire any business partnership with mobile phone manufacturers (W1, W4, O3, O4)
Threats	**ST Strategies**	**WT Strategies**

1 Criticisms on Workforce related issues	1 Run campaign to promote workforce diversity (S8, T1, T2)	1 Expand product line to avoid highly depend on PC market (W1, T3, T4)
2 Controversy of Gay reference	2 Enhance brand building to stand out from the competitive market (S6, S8, S9,T3)	2 Conduct public competition for new cloud and mobile products to improve product innovation. (W3, T3, T4)
3 Highly competitive market	3 Differentiate product from other competitors with user friendly design (S3, S4, S5, S6, S8, S9, S10, T3)	3 Develop transactional product by making use of open source software (W2, W4, T5, T6)
4 Change of consumers preferences	4 Develop campaign to educate the customer and build up new preferences (S3, S6, S8, S9, S10, T4)	
5 Open source software	5 Enhance software for business collaboration and customer services (S3, S6, S8, S9, S10, T4)	
6 Hackers and unlicensed software	6 Offer SaaS to check the software online for unlicensed copy (S8, S9, S10, T6)	

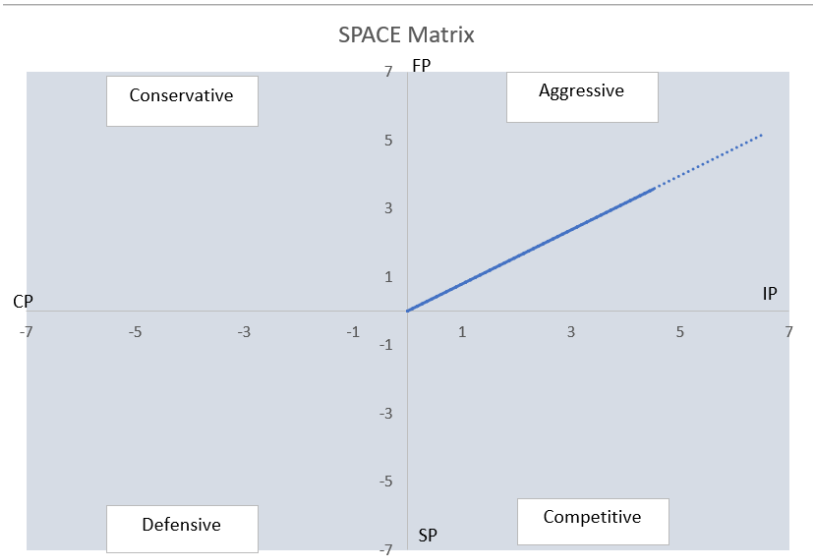
SPACE Matrix

SPACE Matrix is the Strategic Position and Action Evaluation Matrix. It is used for determining the type of a strategy a company should take. The management of an organization could identify the most appropriate strategy easily. For example, the company could identify a strategy from the four strategies, aggressive, conservative, defensive, or competitive. (MBA Lectures, 2010)

Internal Strategic Position		**External Strategic Position**	
Financial Position (FP)		**Stability Position (SP)**	
Gross Margin	7	Technological Changes	-4

Net Profit Margin	7	Demand Variability	-3
Debt/Equity Ratio	5	Barrier to entry	-1
		Price range of competing	
Current Ratio	6	Products	-1
Quick Ratio	6	Ease of exit from market	-1
Return on Equity	4	Competitive pressure	-2
Return on Assets	4		
Average	5.6	Average	-2.0

Competitive Position (CP)		**Industry Position (IP)**	
Product quality	-1	Growth potential	7
Market Share	-2	Resource utilization	6
Technological know-how	-1	Financial stability	6
Customer loyalty	-1	Ease of entry into market	4
Average	-1	Average	5.8



From the SPACE Matrix, the four strategic positions are analyzed and plotted in the chart above. Microsoft should take a more aggressive approach using its internal strengths to develop aggressive strategies, such as enhancing market penetration and market development strategy, develop stronger products, acquisition of strategic business, such as LinkedIn, so that business with strategic importance will not be acquired by competitors.

The Internal External Matrix

The IE Matrix is based on two key dimensions, x-axis, the IFE total weighted scores and y-axis, the EFE total weighted scores. The IE Matrix can be separated into 3 regions, namely, Grow and build (I, II, IV), Hold and maintain (III, V, VII), and Harvest or divest (VI, VIII, IX).

The Internal External (IE) Matrix is an important matrix in the matching stage of strategy formulation. The outcomes of internal and external position and weighted score are plotted on it. The 3 regions can be further separated into nine cells depend on the IFE total weighted scores and the EFE total weighted scores. (Farooq, 2016)

		The IFE Total Weighted Scores		
		Strong 3.0 to 4.0	Average 2.0 to 2.99	Weak 1.0 to 1.99
The EFE Total Weighted Scores	High 3.0 to 4.0	I	II	III
	Medium 2.0 to 2.99	IV	V	VI
	Low 1.0 to 1.99	VII	VIII	IX

The IFE calculated above is 2.95 and the EFE calculated is 3.05. Therefore, the result will be in cell II, which is Grow and Build. In this cell, the strategies may include:

- Backward/Forward/Horizontal Integration
- Market Penetration and Development
- Product Development

Grand Strategy Matrix

Grand Strategy Matrix is especially useful instrument for creating alternative strategies for an organization. There are four quadrants in the Grand Strategy Matrix; each quadrant contains different sets of strategies. Firms should adopt the corresponding strategies of the that quadrant they fell in. (MBA Lectures, 2010)

Based on the analysis above, the China market is rapidly growing, and the market competition is strong, besides Amazon, which is in similar situation with Microsoft, there are also some local players, who are strong competitors also. Considering these two situations, Microsoft falls in the quadrant I. Quadrant I suggests the company to have:

- Market penetration and development
- Product development
- Forward/ Backward/ Horizontal integration
- Related diversification

Companies in quadrant 1 have the strongest strategic position. Microsoft should focus on their established competitive advantage. They should work more on the existing market by adopting the market development and market penetration, and product development strategies. Microsoft may focus on a single product, that is the cloud computing business, and consider a diversification strategy to reduce the risk related to putting all eggs in the same basket. Microsoft has good liquidity, even though they may need to raise fund by debts or equity, they have the resources to consider acquisitions to achieve horizontal, backward and forward integration. Microsoft can take risks and being aggressive in the strategies.

Conclusion on Stage 2

In this matching stage, 4 strategy formulation frameworks have been applied, different strategies have been suggested. In SWOT Matrix, various strategies such as SO, WO, ST, WT are assessed and listed. Totally 17 strategies are suggested based on the information input from stage 1, that is the strength, weakness, opportunities and threats. From the SPACE matrix, Microsoft should adopt an aggressive strategy. From IE Matrix, Microsoft is in quadrant II, that is grow and build, this strategy may include market penetration, market development, product development and backward, forward or horizontal integration. Similar result is obtained from the Grand Strategy Matrix. In this Matrix, Microsoft is in quadrant I.

Summarizing all the suggested strategies from the 4 frameworks, integrations (forward, backward or horizontal), market penetrations and development, and product development are well supported. These strategies can be achieved by acquisition of business partners.

The alternative strategy is to setup these business by Microsoft itself, that is self-expansion, it may take some more time, but the cost may be lower.

Stage 3 – Decision Stage

This stage involves the Quantitative Strategic Planning Matrix (QSPM) to reveal the relative attractiveness of alternative strategies and thus provides objective basis for selecting specific strategies. The QSPM uses the information from stage 1, the Input Stage, and stage 2, the Matching Stage. The information of input stage is based on EFE Matrix, IFE Matrix and CPM and the information of stage 2 comes from SWOT matrix, SPACE Matrix, IE Matrix and Grand Strategy Matrix. The QSPM combine the strategies found along the way, into a few alternatives for analytical process to decide the best strategy for the organization success. (Kasi, 2009)

QSPM		Acquisition		Self-Expansion	
Key Factors	**Weight**	**AS**	**TAS**	**AS**	**TAS**
Key External Factors					
Acceptance of Cloud computing	0.17	0	0	0	0
Artificial Intelligence and Innovation	0.17	4	0.68	4	0.68
Acquisitions and Business Partnerships	0.08	4	0.32	2	0.16
Booming of Smart phone market	0.06	3	0.18	2	0.12
Cost leadership	0.06	3	0.18	3	0.18
Criticisms on Workforce related issues	0.04	0	0	0	0
Controversy of Gay reference	0.04	0	0	0	0
Highly competitive market	0.11	4	0.44	3	0.33
Change of consumers preferences	0.11	3	0.33	3	0.33
Open source software	0.11	2	0.22	1	0.11
Hackers and unlicensed software	0.05	0	0	0	0
Key Internal Factors					
Leading Global Software Development Company	0.12	4	0.48	3	0.36
World's 4th largest market value Company with dominant market share	0.10	3	0.3	2	0.2
Extensive market reach	0.07	3	0.21	3	0.21
Constant growth	0.04	4	0.16	3	0.12
Addition of newer SKUs (Stock Keeping Units)	0.02	0	0	0	0
Trusted Brand with high customer loyalty	0.10	4	0.4	3	0.3
Large Market Value	0.05	4	0.2	3	0.15
Adverting efforts are highly effective	0.08	4	0.32	2	0.16
Brand Building and Corporate Reputation	0.07	3	0.21	3	0.21
User friendly software	0.08	0	0	0	0
Overly bind to the personal computer market	0.05	0	0	0	0
Hackers and Thefts	0.04	0	0	0	0
Lacking innovation	0.06	3	0.18	2	0.12
Failed as market leader in Internet browser	0.06	0	0	0	0
Failed acquisitions	0.06	2	0.12	1	0.06
Total			**4.93**		**3.8**

Attractiveness Scores (AS) in the QSPM indicate how each factor is important or attractive to each alternative strategy. The Total Attractiveness Scores (TAS) indicate the relative attractiveness of each key factor and related individual strategy. The higher the Total Attractiveness Score, the more attractive the strategic alternative or critical factor. The QSPM Sum Total Attractiveness Scores reveal which strategy is most attractive. Higher scores point at a more attractive strategy, considering all the relevant external and internal critical factors that could affect the strategic decision.

Conclusions for Stage 3

From the QSPM above, the strategy of acquisition of business partners has higher weighted score of 4.93, therefore this strategy should be chosen. To achieve these strategies, the targeted partners should be:

- In the upstream of the existing China cloud business, such as software application on cloud
- In the downstream of the existing China cloud business, such as software to enhance cloud platform security and efficiency
- Horizontal to the existing China cloud business, such as cloud platform provider for specialized industries
- Mature smaller cloud platform providers with active customer pool to contribute to the market penetration and development
- Mature smaller software developers with software products, which are compliment to the existing product lines of Microsoft, cloud based, with patent or special domain knowledge and with a certain amount of active customers
- Able to improve the weakness of Microsoft and contribute to the compliance of China local laws.

If Microsoft is able to identify partner business in China with the above characteristics, it would be helpful to its strategy.

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