

REDTONE INTERNATIONAL BERHAD: A THEORETICAL STUDY

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Abstract---The objective of this case study is to examine and understand the Malaysian tier-2 telco industry with special focus on Redtone International Berhad and its position in the market place. The case analysis includes application of models such as External / Internal Evaluation Matrix, Porter's Model, SPACE Matrix and Ansoff's Matrix. The methodology adopted for this case study is by industry observation through mass media, reference to company annual reports, collection of industry analysis, articles and information in the internet and referring to the company persone (Abdullah, Abdullah, & Salleh, 2017).

Keywords: tier-2 telcos, Porter's model, SPACE matrix, regulatory requirements

I. Introduction

Redtone International Berhad (Redtone) is the number one discounted call provider in Malaysia by revenue, and the first to be listed in the Malaysian Exchange for Securities Dealings and Quotation (MESDAQ) market. Redtone currently commands a market share of more than 30% of the discounted call market revenue. (Source: IDC). The market share in terms of revenue for year 2003 is as shown in Table 1.

Table 1: Discounted Call Market Share (2003)

COMPANY	MARKET SHARE %
Redtone	17.3
Nextel	12.0
Extiva	6.3
FSBM-NetMedia	6.0
Jaring	4.9
NasionCom	4.4
Others – Time, Telekom Malaysia, DiGi, Xintel, Accos, Via Communication Network, etc	49.1

Source: SBB Securities Sdn Bhd

Redtone International Bhd started as VMS Technology Sdn Bhd in 1996. The company secured its first customer in 1997 who is Malayan Sugar. It then signed on distributors for the TeleCARE product in Malaysia and Singapore viz O'Connors and Telekom Equipment Sdn Bhd. On September 17 the company gained MSC status and became a founding member of MSC. It also won the Best IT System award from Pikom Computimes. By this year the R&D team has grown to 30 people. The company obtained MSC R&D grant amounting to RM3.2m. It is the first company to be given such a big amount. It also won Best of TeleConnect Computer Telephony Expo Award in New York, USA. 1999 was a boom year for Redtone. It rapidly rolled out new products every six month. R&D costs are a continuous expense for the company to remain competitive

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and to keep abreast with the latest technology. Such R&D costs that do not meet the criteria of Research & Development costs are expensed off during the period incurred (Abubakar, Hashim, & Pour, 2019).

As part of future plans, the company intends to expand its business internationally. There are additional risks when it operates in foreign countries which include uncertainties in the foreign countries' local regulatory requirements, costs and risks in localizing software solutions for foreign markets, fluctuations in currency exchange rates, imposition of control on currency exchange, uncertainties in operational issue. The company conducts feasibility studies prior to making any decision in its penetration into a particular foreign country. Redtone presently derives most of its revenue in RM and USD while its costs are mainly in RM. Therefore it is not overly exposed to foreign exchange risk previously when the exchange rate of the USD was pegged at USD1.00 to RM3.80, but as the pegging was withdrawn there is now foreign exchange risk. Also as the company purchases its wholesale voice traffic in USD, it is subjected to foreign exchange risk (Adiri et al., 2017).

II. Literature Review

Redtone was granted MSC status in November 1997 by MDC. However the MSC status is subjected to continuous fulfillment of certain criteria. MDC being the body responsible for monitoring all MSC designated companies has the right to withdraw any company's MSC status at any time. Redtone's financial performance so far includes the MSC status incentives. The company is operating in the telecommunications industry which is subjected to supervision by the regulatory authorities that include the Communication and Multimedia Commission (CMC). The regulations set out by the authorities are subjected to change which may then affect certain operations of the company. Redtone's ASP license issued under the Malaysian Communication and Multimedia Act 1998 (CMA) which will expire in 2005 permits Redtone to provide discounted calls with value-added services (A. S. Ali & Pour, 2014).

Lee Eng Sia, aged 51, a Malaysian, was appointed to the Board of Directors of the Company on 15 November 2003. He obtained his Bachelor's Degree (First Class Honors) in Electrical Engineering from University of Auckland, New Zealand in 1978. In 1979, he joined Hitachi Sales (Malaysia) Sdn Bhd as Production Engineer. In 1980, he joined Agilent Technologies (M) Sdn Bhd (formerly known as Hewlett-Packard (M) Sdn Bhd) as Product Line Manager and R&D Manager before he left to join Nibong Tebal Paper Mills Sdn Bhd in 1988. He was the Managing Director of Nibong Tebal Paper Mills Sdn Bhd from 1988 to 2000 (N. M. Ali, Karis, Abidin, Bakri, & Razif, 2015).

Zainal Amanshah bin Zainal Arshad, aged 39, a Malaysian, was appointed to the Board of Directors of the Company on 15 November 2003. He obtained his Bachelor's Degree in Electrical Engineering from University of Kent, UK in 1989. He began his career with Unisys (M) Sdn Bhd as Field Engineer from 1989 to 1990. He later joined AT&T/NCR Malaysia Sdn Bhd from 1990 to 1994. From 1994 to 1996, he joined Solsis (M) Sdn Bhd as Sales Manager. Subsequently, from 1996 to 1998, he joined Xylog Business Solutions Sdn Bhd as General Manager, Business Development involved in the existing and new business expansion for overseas market. In 1998, he joined Lotus Consulting Malaysia as Country Manager and was subsequently appointed as Director of Professional Services after the merger of the various divisions within Lotus where he was responsible for sourcing business opportunities around Lotus technology for e-business, workgroup applications and messaging. In Lotus, he was involved in building the client's infrastructure for Web application hosting services and building of portals. In 2000, he joined Redtone Telecommunications Sdn Bhd as Executive Director responsible for the call centre and computer technology system and subsequently responsible for the discounted call business for the Malaysia market. He represents Redtone Telecommunications Sdn Bhd as Deputy Chairman of ASP Association (Protem) (binti Zaidi, binti Lokman, bin Daud, Achmad, & Chia, 2015).

Huen Foo Seng, aged 51, a Malaysian, was appointed to the Board of Directors of the Company on 15 November 2003. He obtained his Bachelor's Degree in Mechanical Engineering from University of Malaya, Kuala Lumpur in 1978. He began his career with MIDF Berhad as a Project Officer in 1978. He joined Bank of Canton Ltd as Credit Officer in 1979 and Exxon Chemical (M) Sdn Bhd as Logistics Analyst in 1980. Prior to joining Chemquest Sdn Bhd as Trading and Marketing General Manager in 1993, he served in various positions in the logistics and sales function of Exxon Chemical (M) Sdn Bhd in Malaysia and Singapore. He is currently the General Manager of Chemquest Sdn Bhd group of companies' manufacturing division (Hughes, Satasook, Bates, Bumrungsri, & Jones, 2011).

Aged 35. Obtained his Diploma in Electronic Engineering from Tunku Abdul Rahman College in 1992 and Engineering Council, UK Part I and II in Electronic Engineering in 1992. He is one of the founding members of Redtone International Berhad Group and has been with the group since 1996. Main responsibilities include designing and managing the hardware design and development of the Group's range of products such as Telecare Voice Mail System and Redtone TECS products. For the year ended 28 February 2005 the Redtone Group achieved 106.5% rise in revenue and 145.2% growth in profit after tax. The revenue hit RM174.7 million from RM84.6 million proforma in 2004. Profit after tax rose to RM25.5 million from RM10.4 million proforma in 2004 (Koedsin & Huete, 2015).

The strong performance is primarily due to the Group's ability to offer a wide range of discounted call services that cater to a well-diversified customer base. These are household users, small and medium enterprises (SME), foreign workers and corporate customers. Staff costs has increased from RM3,919,179 in 2004 to RM10,327,159 in 2005 representing 163%. This is mainly due to the increased number of staff from 144 in 2004 to 224 in 2005. The major components of staff costs are wages and salaries amounting to RM8, 665,987, pension costs (defined contribution plans) amounting to RM1, 005,500 and other staff related expenses amounting to RM495, 051. Call bandwidth cost has also increased by 242% from RM28, 045,130 in 2004 to RM95, 859,565 in 2005. This consists mainly of bandwidth leasing from third parties for voice traffic routing domestically and internationally (Phua, Tsuyuki, Furuya, & Lee, 2008).

III. Research and Development

However, the R&D expense is being charged to the group's income statement instead of being capitalised. The innovative R&D has enabled the group to roll out at least 3 products or services every year in order to stay forefront of the industry. Redtone is expected to launch two new products this year, which are wireless broadband and mobile phone rental service centers. However, it is only expected that these two products will start to contribute to the group's earnings in FY06 as it takes time for the consumers to accept the new products.

Redtone's products and services can be grouped into two categories, i.e:

1. Discounted call service
2. Telecommunication products and services

Table 2: Discounted call service

Product / Service	Features	Target Market
Corporate Voice	<ul style="list-style-type: none"> • Postpaid telco grade quality service for IDD, STD and mobile calls. • Wizard for IP telephony applications • Advanced call accounting system 	Large corporations and SMEs

	<ul style="list-style-type: none"> • Voice mail system • Total mobile savings 	
Njoy	<ul style="list-style-type: none"> • Prepaid service • For fixed line and mobile telephones calling IDD and STD • For travelers oversea to call home 	Consumers
Redtone Phone Card	<ul style="list-style-type: none"> • Prepaid service • For IDD, STD and mobile calls from Redtone public phone 	General public, foreign workers, tourists
Redtone Call Shops	<ul style="list-style-type: none"> • Comfortable and private setting for phone calling service • Equipped with accounting software, PBX/phone switching system and business management software • Does not require coins or call card 	General public, foreign workers, tourists
Redtone Payphone	<ul style="list-style-type: none"> • For retail outlets and small shop owners • Does not require coins or call card • Records and displays call charges 	General public, foreign workers, tourists

Source: www.redtone.com

Table 3: Telecommunication products and services

Product / Service	Features	Target Market
Redtone Wizard	<ul style="list-style-type: none"> • A suite of IP telephony applications to improve productivity and reduce cost • Phone book, call register, SMS, messaging, voice mail, computer telephony integration 	Corporations, SMEs, Branch Offices
Telecare Voice Mail System	<ul style="list-style-type: none"> • An advanced voice mail system • An auto attendant with multilevel directory • A voice-messaging system that works with Private Branch Exchanges (PBX) systems • Can either be a stand-alone voice messaging or an auto attendant system. 	Large corporations, SMEs
Telecare Advance Call Accounting System	<ul style="list-style-type: none"> • An advanced accounting tool that keeps track of all telecommunications expenditure. • A superior software architecture that provides comprehensive tracking and analysis of phone bills. 	Large corporations, SMEs

Hospitality Suite	<ul style="list-style-type: none"> • Software that provides service provisioning and management is of guest phone bills. 	Hotels
Telco Access Gateway	<ul style="list-style-type: none"> • A circuit switching solution. • Supports pre-paid and post-paid products with caller identification authentication • Supports multiple routes to improve call completion. 	Telco Service Provider
Telco Billing and Payment Management System	<ul style="list-style-type: none"> • A billing management solution. • Includes analysis and reporting software. • Supports flexible discounts, product mix and commission calculation. 	Telco Service Provider
Gateway Performance and Call Traffic Monitoring	<ul style="list-style-type: none"> • With real-time tracking and monitoring capability. • Allows to proactively plan the increase of capacity and for the early detection of problems in the services provided. 	Telco Service Provider

Source: www.redtone.com

Redtone is actively seeking for opportunities to venture to overseas countries especially in the ASEAN countries and OIC members region in promoting its products and services. The management of Redtone expects overseas revenue to account for 50% of the group's total revenue within three years, as they are gearing for the World Trade Organisation (WTO) Free Trade agreement. The investment in overseas may be modeled in two ways.

- i. Teaming up with a foreign partner on a profit sharing basis
- ii. Operating the discounted call service business on its own by applying for the license on its own. This is dependent on the country's regulations.

The ventures which the company has entered into or in the process of entering are listed below.

1. In 2004, Redtone Telecommunications Sdn. Bhd. entered into a business collaboration agreement with Symbol Network Corporation Ltd (SNC) and Diversified Gateway Bhd (DGB) to offer discounted call services in Thailand through its Callshop and Payphone Services.
2. In 2004, Redtone Telecommunications Sdn. Bhd. entered into a joint venture agreement with Cyber Leap Data Solution Ltd to cooperate with each other in the business of operating and distributing telecommunications and software products and services in Bangladesh subject to terms and conditions stipulated in the said agreement through a new joint venture company known as Redtone Cyberleap BD Ltd. The joint venture has not yet commences operations.
3. On 6 May 2004, Redtone Technology Sdn Bhd. had incorporated a wholly owned subsidiary, Redtone Telecommunications Pakistan (Private) Limited. It was awarded a 20-year Long Distance & International License and a 15-year Card Payphone License from the Pakistan Telecommunication Authority. Redtone can now offer telephone and fax services via card payphones besides voice telephone services, data and IT services

4. On 25 May 2005, Redtone Technology Sdn. Bhd. entered into a collaboration agreement with PT StarCall Siskom for the provision of telecommunication services in Indonesia (Amin Beiranvand Pour & Hashim, 2015).
5. In 2005, entered collaboration with China TieTong Telecommunications Corporation Shanghai Branch Company to offer discounted call services to consumer and corporate customers in the Republic of China. This is for both fixed line and mobile subscribers.

PEST analysis is very important so that an organization considers its environment before beginning the marketing process. In fact, environmental analysis should be continuous and feed all aspects of planning. The organization's macro environment is made up from Political, Economic, Social and Technological factors known as PEST.

Table 4: SEPT Analysis

SOCIAL	ECONOMIC	POLITICAL	TECHNOLOGY
<ul style="list-style-type: none"> • Changing lifestyle and increase sophistication towards ICT • Demand for portability & mobility of devices • Increase for on-demand & online services • High customer confidence & satisfaction of ICT services rendered • Malaysian Quality of Life Index improved by 10% 	<ul style="list-style-type: none"> • Local telco capex to grow at CAGR 10% • GDP growth rate 5% - 6% in 2003, 2004 & 2005 • Vibrant business environment – market oriented economy, supportive government policies & a large local business community • Expansion & investment in foreign telcos • ICT as engine of growth for increase productivity & wealth • Foreign telco offer local services • Opening up the last mile 	<ul style="list-style-type: none"> • Ninth Malaysia Plan focus on ICT • Government push for mergers and consolidation • MSC continuing development • National Broadband Plan – 5% penetration by 2006, 10% by 2008. • World terrorism threat • Market deregulation and liberalization • High oil prices 	<ul style="list-style-type: none"> • Convergence of computers and communications • Online digital and internet revolution taking shape rapidly • Broadband potential revenue thru video, online games & audio • VOIP over broadband network • Award of 3G licenses and services rollout • WiFi and WiMax wireless rollout plans

The Malaysian society is experiencing a rapidly changing lifestyle and increase sophistication. The public are embracing the information and communications technology products and services well and moving into digital society. There is tremendous demand for portability and mobility of devices. There are currently about 4.4 million fixed line subscribers of which 66% are residential and 34% are businesses. This represents a penetration rate is about 17%. The growth of fixed line

subscribers has declined slowly over the past five years due to availability of cellular telephones. There were 5 million cellular subscribers in 2000 and this has grown to about 16 million subscribers in 2005. This represents a penetration rate of about 61%. Short messaging system (SMS) has been a very popular application with a total of 3.4 billion SMSs. This is equivalent to an average of 215 SMSs per subscriber (Amin Beiranvand Pour, Hashim, & Marghany, 2014).

For internet take-up, there were 1.6 million dial-up subscribers in 2000. Currently there are 3.4 million subscribers. The penetration rate is 13.2%. For broadband, there were 20,000 subscribers in 2002. As of today there are 300,000 broadband subscribers representing a penetration rate of 1.2%. This figure is expected to increase rapidly as the availability of broadband infrastructure extends to sub-urban and remote areas. The number of household owned personal computers is 4.65 million representing a penetration of 18%. This is low due to the high price of a PC which is more than RM 1000 for an entry-level computer. The government and private corporations has embarked on several PC ownership campaigns to encourage people to buy and use PCs.

The most popular internet activities are emailing, chatting, use search engine to find information, research a product or service before buying it, look for info on a hobby or interest, get news, buy a product and surf the web for fun. A nationwide survey by the Malaysian Communications and Multimedia Commission (MCMC) was conducted on fixed line and mobile phone services, television and radio stations and Internet access providers. The survey has found consumers to be largely satisfied with local telecommunications, broadcasting and Internet access services. The results show an overall consumer confidence level of 95 per cent. All categories of services recorded an average of about seven in customer satisfaction based on a scale of one to 10, with 10 indicating the best (A Beiranvand Pour, Hashim, & Sciences, 2015).

According to the Quality of Life Report produced by the Economic Planning Unit (EPU) in January 2005, the Malaysian Quality of Life Index (MLQI) has rise by 9.8 percentage points. This shows that Malaysia's quality of life has improved over the period of 1990 to 2002. Other areas are grid computing, radio frequency identification technology and internet protocol version 6. The government also wants wireless fidelity (WiFi) connectivity to be available in all schools.

The government has taken steps to implement the National Broadband Plan. The targets are to achieve 5% penetration by 2006 and 10% by 2008. Communities identified that will be connected as catalyst are government departments, schools, universities and research institutions, hospitals and clinics, libraries and community centers. The advent of new technologies such as VOIP, Broadband and Wireless (WiFi, WIMAX, 3G) created new products and services at affordable prices. With broadband, the Web content today for news, TV networks, newspapers and magazines have changed to rich media and multimedia. Media companies are more willing to invest to produce it as they recognize that more people are now using it. There is also broadband potential revenue thru video, online games, audio and voice through broadband phones.

Voice-over-Internet-Protocol (VOIP) has significantly changed the telecommunication scenario. The traditional voice service previously carried over PSTN has now switched to VOIP network which is much cheaper. However the service quality is initially lower but improving over time. This factor is acceptable to the general consumer and business which often is non-critical. The widely available cheap VOIP bandwidth and termination rates makes it attractive for new service providers to enter the playing field offering discounted calls to popular destinations serving certain segments of the market. This has created a very competitive landscape with Tier-1 service providers (Pradhan & Buchroithner, 2010).

The roll-out of 3G services represents a significant milestone in the development of telecommunications in the country. However the implementation of 3G raises concerns in three areas. Firstly, the introduction of new technology has the potential to accentuate or aggravate the digital divide that already exists, particularly in the areas of affordability and access. Secondly is the availability of content, especially local content. It is one of the critical success factors of 3G. Thirdly, 3G as a powerful medium for access to information services, especially in locations that do not have access to fixed line services. The provision

of improved information services at affordable prices to the people and high levels of governance in the provision of entertainment-based services to ensure that 3G services contribute positively to the social and economic development of the country.

Internal Factor Evaluation Matrix

The weightage are industry-based where 0.0 is least important and 1.0 is most important. The ratings are company-based where:

- Major strength = 4
- Minor strength = 3
- Minor weakness = 2
- Major weakness = 1

Table 5: Internal Factors – Strengths and Weaknesses

Strengths	Weightage	Rating	Total Weight
1. Responsive in-house R&D team	0.2	4	0.8
2. Own Intellectual Property Rights	0.2	4	0.8
3. MSC status incentives	0.05	3	0.15
4. 5 years of revenue growth	0.15	3	0.45
5. Large customer base	0.15	3	0.45
Weaknesses	Weightage	Rating	Total Weight
1. Limited range of products	0.1	2	0.2
2. Does not own infrastructure	0.1	2	0.2

3. Dependent on inter-connectivity with other telcos	0.05	2	0.1
Total	1		3.15

The total weightage shows that the management of Redtone is very seriously giving attention to the internal factors.

External Factor Evaluation Matrix

The weightage are industry-based where 0.0 is least important and 1.0 is most important. The ratings are company-based where:

Table 6: External Factors – Opportunities and Threats

Opportunities	Weightage	Rating	Total Weight
1. Replicate business model in developing countries	0.2	3	0.6
2. Investment & expansion overseas	0.3	4	1.2
Threats	Weightage	Rating	Total Weight
1. Competition from 1 st tier telcos	0.1	2	0.2
2. Competition from other 2 nd tier telcos and service providers	0.1	2	0.2
3. Foreign exchange risk on wholesale traffic purchase	0.3	1	0.3
Total	1		2.5

The total weightage shows that the management of Redtone is very keen to take advantage of the opportunities available and matching the challengers posed by threats.

Diagnosis of Redtone International Berhad

1. Redtone has a limited range of products, the core being discounted voice calls. Others are IP telephony applications and telco service provisioning solutions. It is facing fierce competition from tier-1 telcos which are capable of lowering their voice call rates which will have negative impact on Redtone.
2. Redtone being a tier-2 telco does not own their domestic and international network infrastructure. Instead they lease from local tier-1 telcos and international bandwidth provider. Although this saved the company from huge investment cost, this may increase operational cost due to uncontrollable price fluctuations factors.
3. The international network infrastructure is very much subjected to foreign exchange risk on wholesale traffic purchase. Any increase will reduce the revenues generated since Redtone is focusing much on international traffic.
4. Calls originating from and terminating to Redtone's subscribers will mostly be other telco's subscribers. This is dependent on the interconnectivity agreement with the other telcos and subjected to operations and maintenance of their network. Any major failure or disruptions will have a negative impact on Redtone.
5. Other tier-2 telcos such as Nasioncom and Xintel are competing with Redtone. These service providers are also offering internet access and broadband telephones. Redtone's main target market for voice calls are foreign workers, foreign students and foreign tourist. These segments are subjected to factors such as government policies, political relationship and environmental conditions such as SAR epidemic, tsunami and terrorism (Reza, Eswaran, & Hati, 2008).

Reasons for Weaknesses and Threats

Table 7: Reasons for Weaknesses

Weaknesses	Reasons
1. Limited range of products	Redtone has small staff strength of 150 only, of which 50 is in the R&D. The investment in R&D is also small of about RM10 million only.
2. Does not own network infrastructure	Investments to build own network infrastructure is huge. Instead opted to lease domestic and international network infra from telcos and bandwidth suppliers.
3. Dependent on interconnectivity with other telcos.	Being a tier-2 telco and without previous customer base, Redtone has to interconnect with other telcos to terminate their customers' calls to generate revenue.

Table 8: Reasons for Threats

Threats	Reasons
1. Competition from tier-1 telcos	Tier-1 telcos with their extensive financial and network resources are able to compete by lowering their rates and capitalizing their branding and reputation.

2. Competition from tier-2 telcos	Due to market deregulation, more players are entering the market. Examples are Nasioncom and Xintel which offers similar products and services.
3. Foreign exchange risk for wholesale traffic	Redtone purchase wholesale traffic terminations to foreign destinations from international bandwidth suppliers. These businesses are based on foreign currencies which fluctuate frequently.

To be an internationally recognized telecommunications service provider, delivering the benefits of innovative and affordable communications products and services.

- To be the clear and dominant number one Application Service Provider (ASP) in Malaysia
- To replicate the Group’s discounted call provider or voice service provider, internationally
- To grow the Group customer base for office communication system both locally and abroad
- To provide world-class products and services for a broad range of market segments.
- To add value and grow the business of our competent business partners worldwide.
- To cultivate an environment that promotes innovation, trust and excellence, thus enabling Redtone to attract and retain people of the highest caliber.
- To increase shareholders’ value through continuous growth, innovation and globalization.
- Being able to differentiate itself
- Pioneering meaningful change in the industry through innovation
- Implementing a business marketing model that embraces channel partners
- Offering high value-added products and premier customer care services
- Trust in the ability of employees to deliver
- Belief in each individual’s commitment to go the extra mile
- Respect for the unique skills that each brings to the team
- Integrity in the way each person is treated

TOWS Matrix

Strengths (S)

1. Responsive in-house R&D team
2. Own Intellectual Property Rights
3. MSC status incentives
4. 5 years of revenue growth
5. Large customer base

Opportunities (O)

1. Replicate business model in developing countries
2. Investment & expansion overseas

Table 9: SO Strategy – Maximise S Maximise O

S O	Maximize S and Maximize O	Strategy
S1 O1	Customize products for new markets	Market development
S1 O2	Create new products for new markets	Product development
S2 O1	Utilize IP Rights for new markets	Market development
S2 O2	Identify and enter new markets	Market development
S3 O1	Create high value products for new market	Product development
S3 O2	Enter new markets with high value products	Market development
S4 O1	Expand business model to include related products & services	Concentric diversification
S4 O2	Introduce TQM to meet specific demand of world	Differentiation
S5 O1	Upgrade products & services for new markets	Market development
S5 O2	Create new products for new markets	Product development

WO Strategy – Minimise W Maximise O

Weaknesses (W)

1. Limited range of products
2. Does not own infrastructure
3. Dependent on inter-connectivity with other telcos

Opportunities (O)

1. Replicate business model in developing countries
2. Investment & expansion overseas

Table 10: WO Strategy – Minimise S Maximise O

W O	Minimize W and Maximize O	Strategy
W1 O1	Market existing products in other countries	Market development
W1 O2	Customized existing products for other countries	Market development
W2 O1	Partnership with other infra provider s	Joint venture
W2 O2	Partnership with other service providers	Joint venture
W3 O1	Interconnect with other telcos in other countries	Market development
W3 O2	Partnership with other telcos	Joint venture

ST Strategy – Maximise S Minimise T

Strengths (S)

1. Responsive in-house R&D team
2. Own Intellectual Property Rights
3. MSC status incentives
4. 5 years of revenue growth
5. Large customer base

Threats (T)

1. Competition from 1st tier telcos
2. Competition from other 2nd tier telcos and service providers
3. Foreign exchange risk on wholesale traffic purchase

Table 11: ST Strategy – Maximise S Minimise T

S T	Maximize S and Minimize T	Strategy
S1 T1	Create innovative products for customers	Product development
S1 T2	Create leading-edge products	Differentiation
S1 T3	Increase productivity at reduced cost	Cost leadership
S2 T1	Create competitive products	Product development
S2 T2	Create differentiated products	Differentiation
S2 T3	Create products at low cost	Cost leadership
S3 T1	Create products at low cost	Cost leadership
S3 T2	Create products at low cost	Cost leadership
S3 T3	Create products at low cost	Cost leadership
S4 T1	Focus on discounted call services	Focus strategy
S4 T2	Focus on service quality & customer service	Focus strategy
S4 T3	Bargain for fixed exchange rate traffic purchase	Cost leadership

S5 T1	Create differentiated products	Differentiation
S5 T2	Create differentiated products	Differentiation
S5 T3	Bargain for cheaper wholesale rate traffic purchase	Cost leadership

WT Strategy – Minimise W Minimise T

Weaknesses (W)

1. Limited range of products
2. Does not own infrastructure
3. Dependent on inter-connectivity with other telcos

Threats (T)

1. Competition from 1st tier telcos
2. Competition from other 2nd tier telcos and service providers
3. Foreign exchange risk on wholesale traffic purchase

Table 12: WT Strategy – Minimise W Minimise T

W T	Minimize W and Minimize T	Strategy
W1 T1	Aggressive marketing and promotions	Market penetration
W1 T2	Customized existing products to suit market	Differentiation
W1 T3	Increase productivity and reduce cost	Cost leadership
W2 T1	Collaborate with 1 st tier telcos	Backward integration
W2 T2	Collaborate with 2 nd tier telcos and service providers	Forward integration
W2 T3	Negotiate for long term fixed price of wholesale traffic	Cost leadership
W3 T1	Collaborate with 1 st tier telcos	Backward integration
W3 T2	Collaborate with 2 nd tier telcos and service providers	Backward integration
W3 T3	Negotiate for long term fixed price of wholesale traffic	Cost leadership

The External Factors Evaluation (EFE) matrix is an analysis that evaluates an organization’s response to threats and its’ strategies to capitalize on opportunities. The analysis summarized and evaluates external factors such as economic, social, cultural, demographic, environmental, political, governmental, and technological and competitiveness. The EFE matrix for Redtone is shown below.

Table 13: External Factors Evaluation Matrix

Opportunities	Weightage	Rating	Total Weight
1. Replicate business model in developing countries	0.2	3	0.6

2. Investment & expansion overseas	0.3	4	1.2
Threats	Weightage	Rating	Total Weight
1. Competition from 1 st tier telcos	0.1	2	0.2
2. Competition from other 2 nd tier telcos and service providers	0.1	2	0.2
3. Foreign exchange risk on wholesale traffic purchase	0.3	1	0.3
Total	1		2.5

Redtone scores 2.5 points for the EFE shows that the company is responding positively to the threats and has taken strategies to capitalize on the opportunities. It is planning to replicate the business model and invest and expand regionally to Pakistan, China and Indonesia. However the threat of foreign exchange remains for its domestic market since the company purchase wholesale traffic in foreign currencies.

Strategic Position and Action Evaluation (SPACE) Matrix

The SPACE matrix is a valuable method for analyzing the competitive position of an organization. It makes use of two internal dimensions (financial strength and competitive advantage) and two external dimensions (industry strength and environmental stability), to determine the organization’s strategic posture in the industry. The firm’s strategic posture is then classified broadly as: aggressive, competitive, conservative or defensive (Suman et al., 2017).

Table 14: Strategic Position and Action Evaluation (SPACE) Matrix

Financial Strength	Ratings	Average Score
• Return on investment	4	4
• Leverage	3	
• Liquidity	5	
• Working capital	4	
• Cash flow	4	
• Ease of exit from market	3	
• Risk involved in business	5	

<p>Competitive Advantage</p> <ul style="list-style-type: none"> • Market share • Product quality • Product life cycle • Customer loyalty • Competitor's capacity utilization • Technology know-how • Vertical integration 	<p>-5</p> <p>-5</p> <p>-5</p> <p>-2</p> <p>-2</p> <p>-6</p> <p>-2</p>	<p>-3.9</p>
<p>Industry Strength</p> <ul style="list-style-type: none"> • Growth potential • Profit potential • Financial stability • Technology know-how • Resource utilization • Capital intensity • Ease of entry into market • Capacity utilization 	<p>6</p> <p>5</p> <p>5</p> <p>3</p> <p>4</p> <p>5</p> <p>2</p> <p>4</p>	<p>4.3</p>
<p>Environmental Stability</p> <ul style="list-style-type: none"> • Technological changes • Rate of inflation • Demand variability • Price range of competing products • Barriers to entry to market • Competitive pressure • Price elasticity of demand 	<p>-4</p> <p>-4</p> <p>-5</p> <p>-5</p> <p>-2</p> <p>-3</p> <p>-4</p>	<p>-3.9</p>

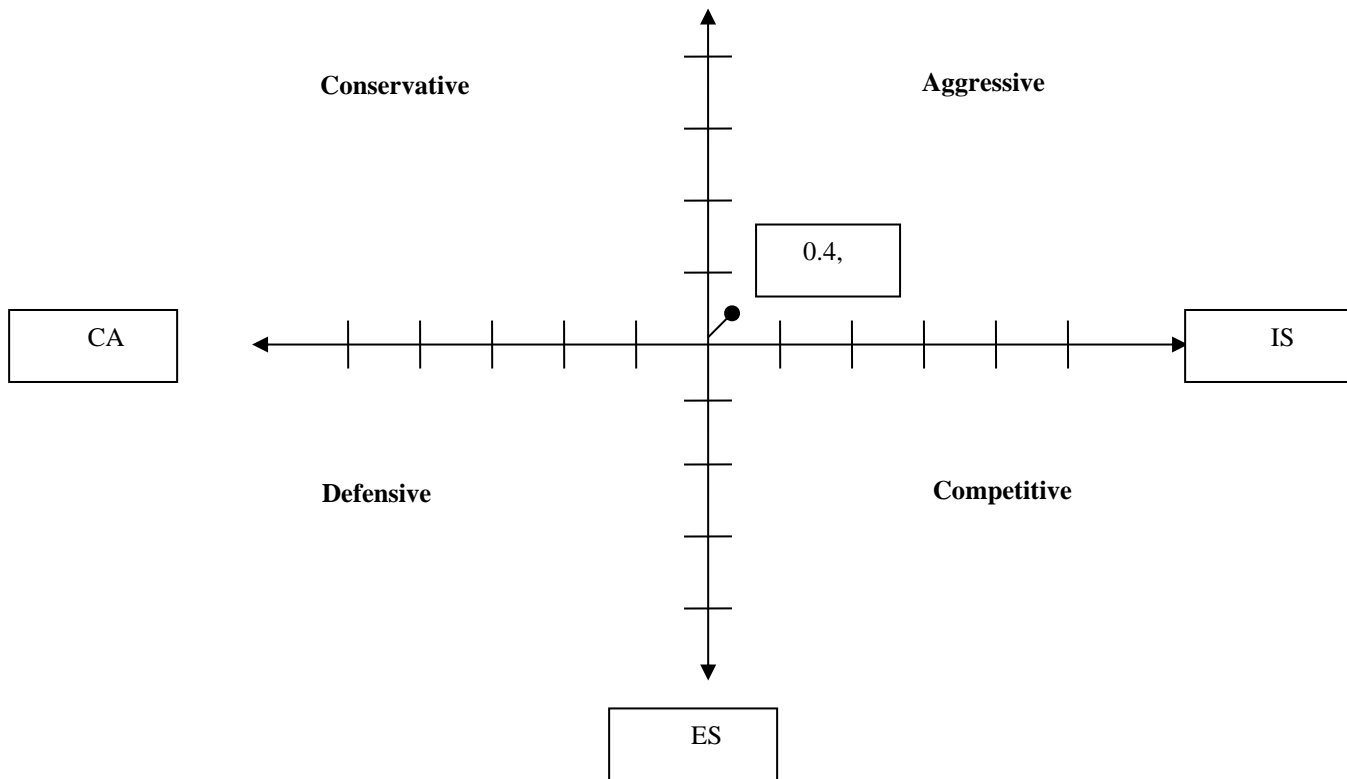
Directional Vector Coordinates:

X-axis: $CA + IS = -3.9 + 4.3 = + 0.4$

Y-axis: $FS + ES = 4.0 - 3.9 = + 0.1$

Figure 1: Strategic Position and Action Evaluation (SPACE) Matrix Vector

FS



Conclusion: Redtone should pursue Aggressive Strategies

IV. Diversification

This is where the company markets completely new products to new customers. There are two types of diversification, namely related and unrelated diversification. Related diversification means that the company remains in a familiar market or industry. Unrelated diversification is where the company has neither previous industry nor market experience (Tiwari & Shandilya, 2010).

Table 15: Ansoff's Product/Market Matrix for Redtone

Product / Market	Present	New
Present	<ul style="list-style-type: none"> • Corporate Voice • Njoy • Phone Cards • Call Shops System • Multi Line Wartel Phone • Full Service • Wizard • Telecare 	Product Development <ul style="list-style-type: none"> • IP phones • Voice activation phones
New	<ul style="list-style-type: none"> • Corporate Voice • Njoy • Phone Cards 	Related Diversification

	<ul style="list-style-type: none"> • Call Shops System • Multi Line Wartel Phone • Full Service • Wizard • Telecare 	<ul style="list-style-type: none"> • Upgrade products • Customized products • Innovate products
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Conclusion: Redtone must focus on the following strategies in order of priority:

1. Market penetration
2. Market development
3. Product development
4. Diversification

The voice call market is fast becoming competitive firstly because the number of players in the industry is increasing by day due to the low entry barrier. The MCMC has so far issued ninety ASP licenses which allow licensees to offer various applications-based services with low capital investment. Secondly, the Malaysian market size itself is limited in terms of population compared to other countries like Indonesia, Thailand, India and China. Thirdly, voice call rates are getting lower due to stiff competition amongst the local players and the cost of terminating calls at different parts of the world is also getting lower. Due to these factors, beyond the next two years the discounted voice call business may reach maturity and therefore growth will be slower. It is expected that Redtone would face declines in revenues unless consumptions improve tremendously to offset this effect. It is therefore critical for Redtone at this juncture to devise and implement major growth strategies. Below are the recommended plans to be implemented by Redtone:

Expansion to overseas market

The business venture in Pakistan which started in 2004, must be able to generate revenue by now. As the license awarded covers voice telephony, data, IT services and payphones, it provides a big potential market for Redtone to offset any decline in revenue from Malaysian operations. Other overseas business ventures that have been started in China, Indonesia and Thailand need to be speeded up so as to generate the required revenue as soon as possible. It is highly recommended that these ventures be ready operationally by end of 2005 and start to generate revenue in January 2006 (Zaki, Shafait, & Mian, 2017).

Broadband telephony

Broadband telephony is taking up in Malaysia in-line with the increasing take-up of broadband internet. Broadband internet is offered by the ISPs namely TM Net, Time Dot Com, Jaring and other smaller players. Presently there are about 300,000 broadband subscribers, but the government is making various initiatives to achieve at least 5% and 10% broadband penetration by 2006 and 2008 respectively according to the National Broadband Plan. This worked out to be 1.15M and 2.3M subscribers in 2006 and 2008 respectively.

Broadband telephony works the same way as normal telephone, except that it rides on the broadband internet infrastructure. A broadband phone is required to make/receive calls which are connected to the broadband internet line or the computer can also be used to make/receive calls with special software (soft phone). As the current Redtone's ASP license covers this service, the only other requirement is to apply for the 015 number which are allocated to broadband telephony

service providers. Currently ISPs which are already allocated this 015 number are Jaring and TM Net. Interconnection is also required between these companies to enable their 015 subscribers to communicate. 015 subscribers can also make call and receive calls to/from fixed line and mobile phones.

Broadband telephony can be considered as a substitute product to discounted voice calls made from fixed line and mobile telephones. It is expected that as broadband penetration increases, people will use broadband telephony. This will definitely lower the present revenue stream. By acting as a broadband telephony service provider, Redtone can mitigate this effect. It is recommended that Redtone immediately launch this service by fourth quarter of 2005 (Zoheir & Emam, 2014).

New roaming service

Redtone has been making statements about this new service since July 2005. This new service is expected to be launched in 3QFY2006 together with the deployment of new mobile telephone sets. This service will enable Malaysian travellers to make discounted calls when they are overseas without the normal roaming charges which are very high. Redtone is also able to operate this service from other countries thus enabling travellers from those countries to get same benefits when they traveling in other countries. It is also recommended that Redtone immediately launch this service by fourth quarter of 2005. This is to coincide with the school holiday season and celebrations in Malaysia where most people would want to travel overseas.

New electronic payment system

Redtone's R&D has developed an electronic payment system used internally by their 10,000 agents nationwide. This system has proven to be reliable, secure and user friendly. Redtone needs to enhance and upgrade this system from the security aspect to support commercial deployment. This system can then be used with other parties especially in the mobile content industry with mobile operators to offer subscriber's e-commerce supported services. Its subsidiary, Mobile Money International Sdn Bhd can be used as a vehicle for this purpose. This will become another revenue stream for Redtone. It is recommended that Redtone commercialized this product by December 2005.

New NSP license

Redtone applied for and was awarded a network service provider license (NSP) by the Malaysian Communications and Multimedia Commission (MCMC) which means the company can now offer a broader range of services similar to those provided by a full-fledged telco, except that Redtone will not build physical infrastructure. The company can now provide data services, an area which has great potential especially among the SMEs (small and medium-sized enterprises). At the same time, Redtone can purchase domestic interconnect minutes at mandatory rate which is lower than what has previously paid as an ASP (application service provider). Redtone will also be able to get unrestricted access to interconnect capacity or minutes from local telcos, meaning the company is assured of capacity which augurs well with the rapid growth of the business, besides getting unrestricted network connection to all global telcos as well. It is recommended that Redtone starts providing some of these new services by December 2005.

Market Strategy

Besides growth strategy, Redtone must also implement market strategy to strengthen its present position. The company must clearly differentiate its position to address each market segment within the ASP industry by strategically positioning its services and products to beat competition and capitalize on opportunities. In addition the marketing strategy is to ensure that the company delivers innovative services and products that suit the specific need and requirements of each segment.

The company has to continue leveraging on capable partners to market its services and products in order to grow its business beyond the constraints of its sales and marketing staff. In addition, Redtone has to constantly seek and explore new business arrangements to enhance or complement the business strategy.

The company must continue to invest in building awareness of and preference for the Redtone brand through a combination of marketing, advertisement and public relation activities. With these strategies, the company should be able to reinforce its lead as the number one ASP in Malaysia as well as continue to grow its market share in brand sensitive market segments.

Human Resources Strategy

The company has a dynamic organization that has demonstrated rapid growth and major accomplishment over the last five years. Hence, Redtone has to develop an effective strategy to support and maintain the human resources growth by offering training programmes, competitive remuneration packages and flexible working environment. Redtone places strong emphasis on R&D and technical employees in order to achieve indigenous technology, services and products innovation as well as offering premier quality service. In order to maintain these personnel, the company has to provide the staff with competitive remuneration packages. In addition they must be encouraged to attend trainings to keep abreast with the latest developments.

It is recommended that the company provides staff training and development through on-the-job-training and in-house training programs. On-the-job-training is an effective means of providing practical training for its employees. In addition, the employees should also be given chance to attend both technical and managerial courses externally.

V. Conclusion

Overseas expansion and replication of the business model seems to be the top agenda of Redtone's management. It is believed that with the strong management team, prudent financial management, good corporate governance and innovative product development, the company would be at par with the best tier-1 telecommunication company not only in Malaysia but also in the country where it competes.

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