ONLINE VIRTUAL MALAYSIA WALKTHROUGH (MAWA)

(Experience the Culture)

This report submitted to Graduate School in partial fulfillment of requirement for the degree Master of Science (Technopreneurship), Universiti Utara Malaysia.

By:

Amran Bin Sharib

Copyright © 2009 Amran Bin Sharib. All rights reserved.

KOLEJ SASTERA DAN SAINS
(College of Arts and Sciences)
Universiti Utara Malaysia

PERAKUAN KERJA KERTAS PROJEK
(Certificate of Project Paper)

Saya, yang bertandatangan, memperakukan bahawa
(I, the undersigned, certify that)

AMRAN BIN SHARIB
(89656)

calon untuk Ijazah
(candidate for the degree of) **MSc. (Technopreneurship)**

telah mengemukakan kertas projek yang bertajuk
(has presented his/her project paper of the following title)

ONLINE VIRTUAL MALAYSIA WALKTHROUGH (MAWA)
(EXPERIENCE THE CULTURE)

seperti yang tercatat di muka surat tajuk dan kulit kertas projek
(as it appears on the title page and front cover of project paper)

bahawa kertas projek tersebut boleh diterima dari segi bentuk serta kandungan dan meliputi bidang ilmu dengan memuaskan.
(that the project paper acceptable in form and content, and that a satisfactory knowledge of the field is covered by the project paper).

Nama Penyelia Utama
(Name of Main Supervisor): **PROF MADYA DR. NORSHUHADA SHIRATUDDIN**

Tandatangan
(Signature) : _____

Tarikh
(Date) : 13/9/09

PERMISSION TO USE

In presenting this thesis in partial fulfillment of the requirement for a post graduate degree from Universiti Utara Malaysia, I agree that the University library may make it freely available for inspection. I further agree that permission for copying of this thesis in any manner, in whole or in part, for scholarly purposes may be granted by my supervisor or, in their absence, by the dean of the Research and Innovation. It is understood that any copying or publication or use of this thesis or parts there of for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and Universiti Utara Malaysia for any scholarly use which may be made of any material from my thesis.

Requests for permission to copy or to make other use of materials in this thesis, in whole part, should be addressed to:

Dean of Research & Innovation

College of Arts & Sciences

Universiti Utara Malaysia

06010 UUM Sintok

Kedah Darul Aman

EXECUTIVE SUMMARY

Five years ago some of us became familiar with the term 'virtual reality' by reading in computer magazines that soon one will be able to visit cultural heritage sites using a computer. Today, some of the websites display three dimensional (3D) models of objects, buildings and sites so that one can visualise these models from any angle by rotating them on the computer screen. This visualisation is improving and will soon allow the 'virtual visit' of a site, of heritage buildings and of objects surrounding them. This improvement has introduced the term 'virtual tourism' thus providing new tools for heritage site interpretation and presentation, and for sustainable tourism.

Online Virtual Malaysia Walkthrough or MAWA is an application that takes Malaysia to the world. Virtual is a representative word for digital or cyber world. MAWA promotes Malaysia in virtual form to attract tourists all over the world to know how Malaysia looks from a far. The tag line is experience the culture. This project would also allow exploring the uses of virtual reality to improve the presentation and interpretation of cultural sites and to extend the carrying capacity of heavily visited sites.

The targeted market is the foreign tourists, and the strategy is to attract at least 1% of the total forecasted tourist who will need to pay an access fee of USD20 per entry.

ACKNOWLEDGEMENTS

First of all I would like to say my gratitude to the one and only to our mighty God, Allah S.W.T. for giving me the strength, good health and talent to complete this business plan of this research project as one of the requirement for the conferment of the MSC Technopreneurship Degree.

I would also like to thank my family and friends for giving me all the support since the beginning of the course. Not to forget my respectful Assoc. Prof. Dr. Norshuhada Shiratuddin who has done a tremendous job in helping me in completing this project and with her cooperation, ideas, energy and much more. Last but not least, Mohd Khalil Salleh who is my business sifoo and taught me how to make the project into money making. Also, to all the staff of Asia Best Communication Sdn Bhd.

Furthermore, I would like to dedicate thousands of appreciation to all my beloved lecturers who had given me the motivation and inspiration to make this research project a dream come true. May Allah bless you all with love and happiness in this world and the world after.

TABLE OF CONTENTS

PERMISSION TO USE i

EXECUTIVE SUMMARY..... ii

ACKNOWLDGEMENTS iii

TABLE OF CONTENT..... iv

LIST OF TABLES vii

LIST OF FIGURES..... xi

CHAPTER ONE: INTRODUCTION TO THE COMPANY

1.1 Company Background..... 1

1.2 Business Intent..... 2

1.3 Growth Strategies..... 4

1.3.1 Financial Strategies..... 5

1.3.2 Technology and Product Development Strategies..... 5

1.3.3 Marketing Strategies to Increase Market or Mind Share.. 6

1.4 Target Markets..... 8

1.5 Revenue Model..... 9

1.6 Operational Setup..... 9

1.7 Long Term Goals of Company..... 11

1.8 Market and Competitors Information..... 12

1.8.1 Market Analysis..... 12

1.8.1.1 World Internet Market Analysis..... 13

1.8.1.2 World Tourism Sector Analysis..... 26

1.8.2 Customer Analysis 34

1.8.2.1 Fundamental Characteristics of Segmentation... 36

1.8.3 Competitor Analysis..... 37

1.8.3.1 Evaluation MAWA Against the Competitors... 38

1.9 Strength and Weaknesses or SWOT..... 39

CHAPTER TWO: EMPLOYMENT OF KNOWLEDGE WORKER

2.1 Management Team..... 41
2.2 Organizational Chart..... 43
2.3 Human Resource Plan..... 44

CHAPTER THREE: PRODUCT DESCRIPTION

3.1 Product Overview..... 49
3.2 Customer Value Proposition..... 50
3.3 Objectives..... 50
3.4 Scope of the Product..... 51
3.5 Uniqueness of the Product 51
3.6 Target User..... 52
3.7 Product Features..... 54
3.8 Product Limitations..... 57
3.9 Development Tools..... 57
3.10 Hardware and Software Requirements..... 60

CHAPTER FOUR: MARKETING PROGRAM

4.1 Marketing Overview..... 61
4.2 Marketing Programs/Plans..... 62
4.3 Branding & Promotion strategies..... 63

CHAPTER FIVE: FINANCIAL PROJECTIONS

5.1 Financial Overview..... 64
5.2 Financial Plan..... 64

CHAPTER SIX : CONCLUSIONS AND SUGGESTIONS

6.1 Introduction..... 85
6.1.1 What is MAWA? 85

6.1.2 Objective of the Project..... 86
6.1.3 Target Customers..... 86
6.2 Suggestions..... 86
6.2.1 AMS to Develop and Market MAWA..... 87
6.2.2 Future Enhancement of MAWA..... 87
6.3 Conclusions 88

REFERENCES..... 89
ANNUAL REPORT..... 91

APPENDICES
Appendix A : Company Profile..... 118
Appendix B : Gantt Chart..... 129

LIST OF TABLES

Title	Page
Table 1.1 : The Internet Big Picture World Internet Users and Population Statistics	13
Table 1.2 : Top 20 countries with highest number of internet users	16
Table 1.3 : Internet Users and Population Statistics for Asia	19
Table 1.4 : Asia Internet Usage and Population	21
Table 1.5 : Malaysia Users and Population Statistics	22
Table 1.6 : Outbound Tourism	29
Table 1.7 : Malaysian Tourist Statistic	29
Table 1.8 : Country of Residence Arrival to Malaysia (2007-2008)	30
Table 1.9 : Market Composition	33
Table 1.10 : Top Ten Markets	33
Table 1.11 : Tourists Expenditure (RM)	34
Table 1.12 : International Tourism Receipts	36
Table 1.13 : Product Comparison	38
Table 2.1 : Unit Personnel	44
Table 3.1 : International Tourist Arrivals by Region (million)	53

Table 5.1 : Start-up Expenses 64

Table 5.2 : Start-up Assets Needed 65

Table 5.3 : Hardware 66

Table 5.4 : Software 66

Table 5.5 : Office Equipment 67

Table 5.6 : Investment & Start-Up Expenses 68

Table 5.7 : Assumption rate 69

Table 5.8: Year 1 70

Table 5.9 : Year 2 71

Table 5.10 : Year 3 72

Table 5.11 : All Accumulate Amount 73

Table 5.12 : Administration Expenses 73

Table 5.13 : Basic Salary 74

Table 5.14 : Monthly Salary 75

Table 5.15 : Yearly Salary 75

Table 5.16 : EPF 76

Table 5.17 : SOKSO 77

Table 5.18 : Monthly Utilities 77

Table 5.19 : Yearly Utilities 78

Table 5.20 : Office Rental 79

Table 5.21 : Content Research & Development 79

Table 5.22 : Computer Equipment 80

Table 5.23 : Office Equipment 80

Table 5.24 : Total Depreciation 81

Table 5.25 : Total Operational Expenses 81

Table 5.26 : Services & Sales 82

Table 5.27 : Unit Price 82

Table 5.28 : Total Sales 82

Table 5.29 : Profit & Lost (3 Years) 83

LIST OF FIGURES

Title	Page
Figure 1.1 : Our targeted yearly hit	8
Figure 1.2 : Sales targets	9
Figure 1.3 :Internet Users in the World by Geographic Regions	14
Figure 1.4 : World Penetration Rates by Geographic Regions	14
Figure 1.5 : World Internet Users by World Regions	15
Figure 1.6 : Internet Top 20 Countries with Highest Number of Users	17
Figure 1.7 : Internet Top 20 Countries Percent of World Users	18
Figure 1.8 : Internet Top 20 Countries Penetration Rate	18
Figure 1.9 : Asia Top 10 Internet Countries	20
Figure 1.10 : Internet Penetration in Asia March 2009	21
Figure 1.11 : Household use of Internet by Gender	23
Figure 1.12 : Household use of Internet by Age Categories	24
Figure 1.13 : Household use of Internet by Main Use	25
Figure 1.14 : Inbound Tourism, 1990-2007	27
Figure 1.15 : Inbound Tourism by Month	27
Figure 1.16 : Tourists Arrival to Malaysia	32

Figure 1.17 : Monthly Tourists Arrival (January-December 2008) 32

Figure 1.18 : Inbound Tourism by Purpose of Visit, 2007 35

Figure 2.1 : Company Organization Chart 43

Figure 2.2 : Management Organization Chart 44

Figure 3.1 : International Tourist Arrivals, 1950-2020 53

Figure 3.2 : Negeri Sembilan Traditional House 54

Figure 3.3 : Negeri Perlis Traditional House 55

Figure 3.4 : Mapping Negeri Sembilan Traditional house in prototype development 56

Figure 3.5 : Example of avatar in house 56

Figure 3.6 : Example of avatar in MAWA world 57

CHAPTER ONE

INTRODUCTION TO THE COMPANY

1.1 Company Background

The company is called AMS Solution. All of the partners are from the Multimedia and IT background. Even though all came from the same background, the expertises are different and that differences are taken as our strength. We divide our task to three parts, Technical, Marketing and, Administration. For the technical part, it covers all about the research and development of the project. Marketing part is to make sure the project gets to the targeted and potential customer. The administration part task is to make sure all the operational works smoothly. All parts have to make sure the project is accepted by the customer. Refer Company Profile (Appendix A) for more detail about AMS Solution.

- Vision

  We aim to be one stop center IT provider in Web Application Development, Multimedia Development and IT Training.

- Mission
  - To build a profitable company renowned for its quality.
  - To develop and improve our product and services to meet our customer's needs.
  - To continuously do research and development to remain competitive.
  - To be a good corporate citizen.

The contents of the thesis is for internal user only

REFERENCES

[1]Ahmad Zamil Abd Khalid. (2002). *Application of VR Technology as an Effective Web Based Marketing and Corporate Tools: STM Virtual Tour.* Unpublished MSc Thesis. Malaysia: Universiti Utara Malaysia.

[2]Astheirner, P. & Rosenblum, L. (1999). Naval Research Laboratory. *A Business View of Virtual Reality.*

[3]Bronkhorst, T. (June 4, 2007). *White paper: Segmenting Internet Users, Implications for Online Advertising.* Boston, Massachusetts.

[4]Ekkapak Meechai. (2002). *Application of VR Technology for Historical Architecture at Pattani, Thailand.* Unpublished MSc Thesis. Malaysia: Universiti Utara Malaysia.

[5]Habbo Hotel Official Site. (n.d). *Habbo: Create your avatar, decorate your room, chat and make new friends.* Retrieved December 26, 2008, from http://www.habbo.com.my/

[6]Haleem Yeekhade. (2003). *Virtual Reality Application of Thailand Web-based Virtual Tour and Thai Souvenir 3D E-commerce.* Unpublished MSc Thesis. Malaysia: Universiti Utara Malaysia.

[7]Harlina Md Sharif & Hazman Hazumi. (2004). *Reconstruction of The Earliest Mosque in Malaysia Using Virtual Reality Technique.* Malaysia: International Islamic University of Malaysia.

[8]Juliana Aida Abu Bakar. (2002). *Virtual Reality in Web-based Application: The UUM Sports Complex.* Unpublished MSc Thesis. Malaysia: Universiti Utara Malaysia.

[9]Junaiza Jarjis. (2001). *Virtual Reality Applications in Malaysia's School Subject: Geography and Chemistry.* Unpublished MSc Thesis. Malaysia: Universiti Utara Malaysia.

[10]Lee Mei Ching. (2001). *E-commerce Application: An Interactive and Customized Virtual New Home.* Unpublished MSc Thesis. Malaysia: Universiti Utara Malaysia.

[11]Letellier, R. (2001). *Virtual Reality: A new Tool for Sustainable Tourism and Cultural Heitage Sites Management.* Canada.Mohd Fairuz Shiratuddin. (2000). *Utilising 3D Game Engine to Developing a Real-world Walkhtrough-virtual Reality Application.* Unpublished MSc Thesis. Malaysia: Universiti Utara Malaysia.

[12]Machover, C. (1999). The Business of Computer Graphics. *Computer Graphics World*, 2000, 44-45.

[13]Mohd Jaafar Salleh. (2003). *Utilizing Virtual Reality in Architectural Presentation: System Model.* Unpublished MSc Thesis. Malaysia: Universiti Utara Malaysia.

[14]Monitor, B. (n.d.). *Business Monitor.* Retrieved December 26, 2008, from Malaysia Business Forecast Report: http://www.businessmonitor.com/businessforecasts/ malaysia.html

[15]Raemah Abdullah Hashim & Nurul Adna Mohd Sidek. (2001). *Creating Kampong Raja Sub District as Potential Tourist Destination through Cultural and Heritage Resources Development.* Malaysia: UNITAR

[16]Rafal Hamah. (2002). *Web Base Virtual Reality for Tourism in Kedah.* Unpublished MSc Thesis. Malaysia: Universiti Utara Malaysia.

[17]Second Life Official Site. (n.d). *Virtual worlds, avatars, 3D chat and online meetings.* Retrieved November 5, 2008, from http://secondlife.com/

[18]Syahida Hassan. (2003). *Virtual Reality Application in Tourism Sector: Fascinating Penang.* Unpublished MSc Thesis. Malaysia: Universiti Utara Malaysia.

[19]World Tourism Organization (UNWTO). (2008). *Tourism Highlights 2008 Edition.* Retrieved November 5, 2008, from http://www.travelindustrywire.com/ article36366.html