

**ACCOMODATING TELECENTERS INTO CYBERCAFES:
A CASE STUDY IN JOHOR BAHRU
CENTRAL MUNICIPALITY**

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**MASTER SAINS
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2001**

**ACCOMODATING TELECENTERS INTO CYBERCAFES:
A CASE STUDY IN JOHOR BAHRU
CENTRAL MUNICIPALITY**

MUHD SHARIL BIN BAKRI

**Projek Penyelidikan Ini Dikemukakan Sebagai Memenuhi
Sebahagian Daripada Syarat Untuk Mendapatkan
Ijazah Masters Sains (Pembangunan Sumber Manusia).**

**Jabatan Pemajuan Professional Dan Pendidikan Lanjutan
Fakulti Pengajian Pendidikan
Universiti Putra Malaysia
Serdang, Selangor.**

Januari, 2001

Adalah disahkan bahawa saya telah membaca dan menyemak kertas projek yang bertajuk "Accommodating Telecenters Into Cybercafes: A Case Study In Johor Bahru Central Municipality" oleh Muhd. Sharil Bin Bakri. Adalah dengan ini diperakui bahawa kertas projek ini memenuhi syarat dan kelayakan bagi keperluan bergraduan untuk Ijazah Master Sains (Pembangunan Sumber Manusia), Jabatan Pengajian Professional dan Pendidikan Lanjutan, Fakulti Pengajian Pendidikan, Universiti Putra Malaysia.

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Projek ini telah dikemukakan kepada Fakulti Pengajian Pendidikan, Universiti Putra Malaysia, dan diterima bagi memenuhi sebahagian daripada syarat penganugerahan Ijazah Master Sains (Pembangunan Sumber Manusia).

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DEDICATION

Dengan Nama ALLAH Yang Maha Pemurah

Lagi Maha Penyayang

Alhamdulillah, saya panjatkan kesyukuran kepada ALLAH s.w.t. kerana hanya dengan limpah kurnia, keizinan, kesabaran dan kekuatan daripadaNYA maka dapatlah disiapkan laporan projek penyelidikan ini dan seterusnya menyempurnakan pengajian Master Sains (HRD) ini.

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Hai anakku,

Tidak ada akal bagi orang yang tidak memelihara akalnya.
Tidak ada ilmu bagi orang yang tidak ada gemarnya pada ilmu.
Tiada simpanan yang lebih bermanfaat daripada ilmu.
Tiada hartayang lebih menguntungkan daripada hikmah.

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**ACCOMODATING TELECENTRES INTO CYBERCAFES: A CASE
STUDY IN JOHOR BAHRU CENTRAL MUNICIPALITY**

Oleh

**MUHD SHARIL BIN BAKRI
JANUARI 2001**

Penyelia : Dr. Jamilah Binti Othman.

Fakulti : Pengajian Pendidikan.

Kajian ini bertujuan untuk mengenalpasti samada siberkafe boleh menyesuaikan konsep "telecenter" dalam operasi perniagaan mereka dalam proses melaksanakan telekerja di Malaysia. Oleh itu kajian ini menjurus kepada mengenalpasti adakah siberkafe bersedia dari segi kemudahan fizikal iaitu peralatan ICT. Selain itu kajian ini juga melihat kepada kesediaan pengusaha-pengusaha siberkafe untuk melakukan perubahan-perubahan dalam usaha untuk menyesuaikan konsep "telecenter" ke dalam siberkafe mereka. Responden kajian ini terdiri daripada pengusaha-pengusaha siberkafe di kawasan Majlis Daerah Johor Bahru Tengah.

Kajian ini merupakan satu kajian yang bersifat 'exploratory'. Ianya telah dilakukan dengan menggunakan kaedah penyelidikan yang berbentuk kuantitatif dengan menggunakan borang soal-selidik.

Analisis daripada kajian ini mendapati bahawa pengusaha siberkafe

melihat telekerja sebagai sesuatu yang positif dan pada dasarnya bersetuju untuk menyesuaikan siberkafe mereka dengan konsep telecenter. Dapatan daripada kajian ini juga mendapati bahawa siberkafe mempunyai kesediaan dari segi fizikal dengan mempunyai peralatan ICT yang memuaskan untuk menampung keperluan sesebuah telecenter. Walaubagaimana pun kajian ini juga mendapati bahawa pengusaha siberkafe keberatan untuk melakukan perubahan-perubahan dalam proses menyesuaikan siberkafe mereka menjadi sebuah telecenter.

Adalah diharapkan kajian ini dapat memberi alternatif baru dalam proses pelaksanaan telekerja di Malaysia.

ABSTRACT

Accommodating Telecentres Into Cybercafes: A Case Study In Johor Bahru Central Municipality.

This study was conducted with the purpose of determining whether cybercafes would be able to accommodate the concept of telecentres in their daily business operation in the process of implementing teleworking in Malaysia. This study focuses on identifying the physical readiness of the cybercafes in terms of the availability of ICT equipments. This study also looks into the readiness of the cybercafe proprietors in making changes in the process of accommodating the concept of telecentres at their cybercafes. The respondents for this study consists of cybercafe proprietors in the Johor Bahru Central Municipality.

This study was exploratory in nature. It uses the quantitative research method by utilizing the questionnaire.

Analysis from this study shows that cybercafe proprietors' view teleworking as something positive and they were willing to accommodate telecentres at their cybercafes. Findings from this study also shows that cybercafes were ready physically by having the appropriate ICT equipment to support the needs of a telecentre. Findings from this study also shows that cybercafe proprietors' were reluctant in making changes in the process of accommodating telecentres at their cybercafes.

It is hoped that this study would open new alternatives in the process of implementing teleworking in Malaysia.

CHAPTER 1

INTRODUCTION

Introduction.

The year 1876 was a turning point in the history of communication for mankind. That was the year when the telephone was invented by Alexander Graham Bell. From that time onwards we never looked back and since then tremendous and rapid advancements have been achieved in the area of communication.

Running parallel to communication technology is the information technology (IT). IT has also made tremendous and rapid advancements since its introduction in the 1930's and along the way has made a huge impact in human lives. Now both technology are slowly being integrated to become what is known as information-communication technology (ICT). ICT is seen as another revolution that would change our way of life - the way we work, the way we live, where we live, the way we shop, and also entertainment. Just like the industrial revolution did in the 18th century.

When Alexander Graham Bell invented the telephone in 1876, it opened up new avenues in working.

Once the telephone was available, business could move to cheaper quarters and still keep in touch. A firm could move outwards, as many did, or move upwards to the 10th or 20th floor of one of the new tall buildings. Indeed the telephone made possible the construction of those skyscrapers ... The

telephone fostered the separation of plant and office. In the mid-19th century, if one entered one of the large brick sheds along the rivers of the Northeast which housed most American factories, one would have found the offices of the company president at the front of the building with the production plant behind. By the 1920's one would have found most corporate headquarters in Manhattan or in downtown of some other metropolis and would have found the factories on the outskirts or in smaller manufacturing towns. Able to give instructions about production to obedient employees by telephone, the president located himself at the place where more uncertain bargaining with customers, bankers and suppliers took place. Thus at the turn of the century the downtowns of American cities changed from being loft areas and manufacturing centers to becoming concentration of white collar workers in office buildings. (Pool, 1977; page 75-76).

The invention of the telephone made the world smaller and closer. Now, with ICT the world has become much more 'smaller' and 'closer' that the term 'village' is used to depict the current scenario. Thus with such 'smallness' and 'closeness' that has been brought by ICT, the world has now become 'a borderless world'. The borderless world has made a 'no holds barred' scene in the global economy. Countries and organizations face stiff competition in

doing business. This can be observed from the remark made by Helmut Maucher, Chief Executive Officer (CEO) of Nestle when he said “The most important thing in order to survive in this world, whether as an individual, enterprise or country, is to be more competitive than one’s neighbour.” (Nouvel Observateur, 1996 cited in Standing, 1999).

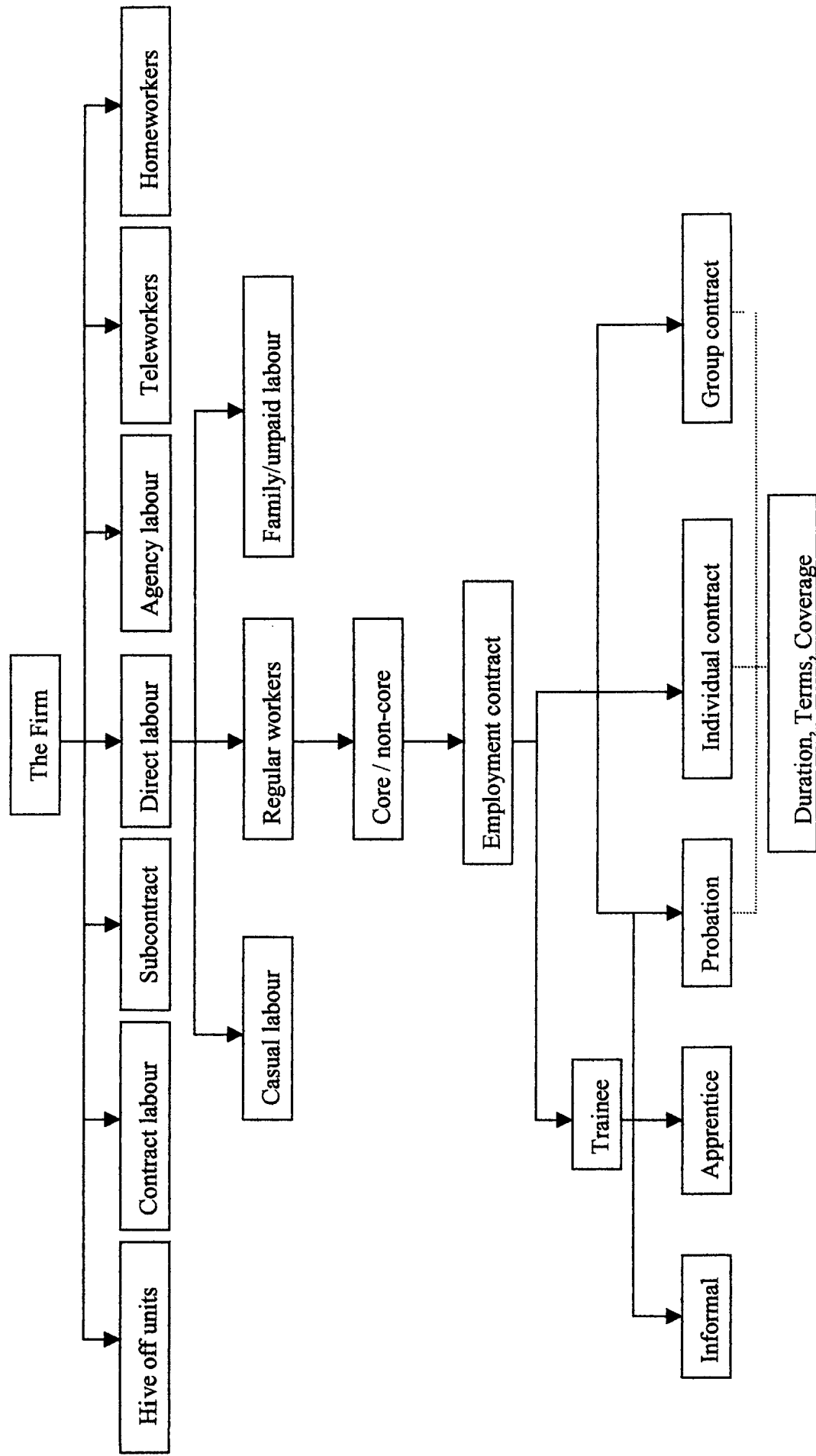
Countries and organizations are battling each other in order to have that slight competitive edge that would ensure their survival and existence in the global market. To achieve this, countries and organizations must ensure that their production cost remain competitive, in other words remain the lowest possible. One important factor that would be the determinant in achieving this is the human resource factor.

In the end, all business operations can be reduced to three words: people, product and profit. People come first. Unless you have got a good team you can’t do much with the other two (Margerison, 1993).

Therefore how a country or an organization organize their human resource will determine whether or not they have the competitive edge needed to survive.

At the organizational level, by looking at figure 1, it can be seen that there are ways where an organization can utilize the human resources to suit its operation needs. One of the choices would be to favor teleworkers. A teleworker is an employee who executes the job through the means of teleworking.

Figure 1: The Firm's Employment Function



Source: Standing, Guy. (1999), Global Labour Flexibility: Seeking Distributive Justice, New York, St. Martin's Press Inc.

Teleworking is a mode of working that utilizes the ICT to accommodate the physical barrier in accomplishing his or her work task. Teleworking is made possible with the advancements that have been achieved in the area of ICT. It can be executed in different forms such as from home, centre-base or mobile.

Centre-base teleworking are more preferred by employers, employees and also women's group (Abdul Azeez, 1998; United Nation University Institute for New Technologies and MIMOS, 1999).

Neighbourhood alternatives to working at home could alleviate the more negative effects of working at home. The neighbourhood Work Center will ultimately be the most widely accepted form of telecommuting because, though initially more difficult to set up, they have a broader appeal both for employers and telecommuters (Asha, 1999).

Centres that accommodate teleworkers are referred to as telecentres, telecottage, teleservice centre and electronic village hall (Bertin and Denbigh, 1998). These centres can be community oriented or highly commercial enterprises which offers services such computer training, internet access for the community and answering services, book keeping for businesses Bertin and Denbigh, 1998).

Centre-base teleworking would eventually be the most preferred type of teleworking but currently in Malaysia, there is no incident of a centre-base

teleworking (United Nation University Institute for New Technologies and MIMOS, 1999)

Background of study.

Teleworking in Malaysia is well behind those of the developed nations with a very small percentage of the labour force involved in teleworking. But nonetheless teleworking holds a bright future in Malaysia as reported by the United Nation University Institute for New Technologies and Malaysian Institute for Microelectronics Systems (MIMOS) where the survey findings suggest that there is significant potential for teleworking within the Malaysia economy (United Nation University Institute for New Technologies and MIMOS, 1999). This optimistic future that Malaysia has could be attributed to several factors.

The role of government.

The Malaysian government has taken a proactive role in promoting IT to the nation. Realizing that knowledge-based economy is the answer to achieve the desired developed nation status by the year 2020, the government has realigned its development policy towards IT. This intention is clearly stated in the Seventh Malaysian Plan (1996 - 2000) whereby several thrust areas have been identified (United Nation University Institute for New Technologies and MIMOS, 1999).

- a. Ensure widespread diffusion and application of IT within and across sectors to stimulate productivity and competitiveness and further improve the quality of life.

- b. Develop a national action plan to ensure a more systematic approach to manage IT development in the country, involving the development of an IT culture, the implementation of national application projects, such as the Multimedia Super Corridor (MSC) and intelligent city, as well as the necessary telecommunications infrastructure.
- c. Expand IT education and training in line with the anticipated demand for IT-related skills, knowledge and expertise.
- d. Review laws and regulations that restrain the development of IT.
- e. Promote the development of the local IT industry, in terms of design and production of innovative products, systems and services, to generate new growth opportunities as well as skills and employment in high-tech areas.
- f. Develop Malaysia into an IT hub with international IT companies operating from Malaysia.

The government's commitment is further emphasized by the Malaysian Premiere Dr. Mahathir in his Vision 2020, when he stated:

“In the information age that we are living in, the Malaysian society must be information rich. It can be no accident that there is no wealthy developed country that is information-poor and no information-rich country that is poor and underdeveloped (Mahathir, 1991 cited in Abdul Azeez and Supian Ahmad, 1995).

All efforts are focus towards making Malaysia an information rich country and this was reflected in the statement made by Dr.Mahathir when he emphasize that:

“... the ultimate objective that we should aim for is a Malaysia that is fully developed country by the year 2020 ... a nation that is fully developed along all the dimensions ... In the information age that we are living in, the Malaysian society must be information rich. Computer literacy is a must if we want to progress and develop. No effort must be spared in the creation of an information rich Malaysian society... The information era will force us to change our lifestyle and our way of working. The earlier we adapt ourselves and the faster we acquire this new knowledge, the better will be our future (New Straits Times, January 1997, cited in Asha, 1999).

With IT earmarked to spearhead Malaysia’s quest to become a fully developed nation along all the dimensions by the year 2020, the government has taken the initiative by undertaking several fundamental projects. To date, the single most celebrated and prestigious project concerning IT in the country is the Multimedia Super Corridor (MSC). The idea in developing the MSC is solely dedicated for the information and telecommunication-based industries. The MSC is targeted to become a multimedia “island of excellence” comprising a system of capabilities, technologies, legislation, infrastructure and

policies designed to give its companies a unique competitive advantage in the development, integration and use of multimedia technologies in their fields (Asha,1999).

The MSC has a designated area of 15km by 50km which comprises the Kuala Lumpur City Center (KLCC), Putrajaya and Kuala Lumpur International Airport (KLIA). The heart of the MSC is Cyberjaya which is being developed to become an intelligent city for multimedia companies. The entire area will be served by a 2.5 to 10 gigabyte, 100 percent fibre optic network with direct links to the world (United Nation University Institute for New Technologies and MIMOS, 1999). Besides state-of-the-art technology which has been incorporated in its infrastructural development the distinct feature of the MSC is manifested in its seven flagships which are:

- a. Electronic Government.
- b. Smart Schools.
- c. Telemedicine.
- d. R&D Clusters.
- e. National Multipurpose Card.
- f. Borderless Marketing Centers.
- g. Worldwide Manufacturing Web.

To further facilitate the materialization of building a knowledge-based IT society and economy, the government has setup several agencies such as Malaysian Administrative Modernization and Management Planning (MAMPU), National Consultative Committee on Information Technology (NCCIT) later renamed to become National Information Technology Council

(NITC) and Malaysian Institute for Microelectronics Systems (MIMOS) to oversee the progress.

The growth of the telecommunication sector.

Malaysia has come a long way since its first experience with telecommunication which dates back to the year 1874 with the introduction of the first telegraf line. This was soon followed by other infrastructural facilities detailed accordingly in a chronological manner;

Table 1

The Development of Communication Facilities in Malaysia

Year	Development
1874	First telegraph line.
1882	First submarine cable connecting Perak with Seberang Prai and Penang Island.
1891	The first telephone exchange was installed in Kuala Lumpur.
1926	The first wireless station was built in Penang.
1960	International Radio Telephone Service from Kuching to Kuala Lumpur and Singapore.
1962	Subscriber Trunk Dialing (STD) facility was introduced between Kuala Lumpur and Singapore.
1963	The first microwave system was installed between Kuala Lumpur and Singapore.
1970	The commissioning of the first international satellite earth station in Kuantan.
1975	The automatic telex exchange system was introduced.
1979	International Direct Dialing (IDD) was introduced.

- 1980 The first fully electronic exchange was commissioned in Penang.
 - 1980 The commissioning of Malaysia's own submarine cable linking Kuatan and Kuching.
 - 1983 Datel was introduced where computer users are able to use public switched telephone network for data communications.
 - 1983 Telefax was introduced with the ability to send and received copies of print images and graphics.
 - 1985 ATUR 450 the first mobile communication system was introduced.
 - 1985 Optical fibre network was introduced into junction network.
 - 1988 Malaysia's first privately owned cellular mobile telecommunication system (ART 900) went into operation.
 - 1992 Optical fibre network were introduced into the trunk routes.
 - 1993 Integrated Service Digital Network (ISDN), a digital technology that enables more than voice data to be carried over a telephone connection was introduced by Telekom.
 - 1995 Malaysia's first fully owned satellite known as Malaysia East Asia Satellite (MEASAT) which is owned by Binariang was launched into orbit and became operational.
-
-

Source: Abd.Azeez and Supian Ahmad, 1995.

Within a time span of 120 years, Malaysia has managed to advance from the telegraphic style of communication into the most sophisticated satellite communication technology.

Besides infrastructural development, the government has also formulated a policy known as the National Telecommunications Policy (NTP) which was launched in 1994 which covers the period from 1994 - 2020 (United Nation University Institute for New Technologies and MIMOS, 1999). The