

## **BUSINESS LOCATION AND SUCCESS: The Case of Internet Café Business in Indonesia\***

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*This research aims to examine the relationship between business location decision and business success. The case is Internet café business in Indonesia. This research is addressed to answer these main questions: (1) what factors do underlie location decision for an Internet café business?; and (2) does location decision determine success of Internet café business? A field research is conducted to answer these questions.*

*Factor analysis applied to 17 location factors reveals five underlying dimensions of business location decision. They are centrality, business environment, business venue, cost, and labor. Based on responses from 93 Internet cafés in three locations (i.e. Yogyakarta, Surabaya, and Lombok), the author finds that favorable location of business is positively related to business success. More specifically, a regression analysis reveals that availability of utilities, proximity to schools/universities and security affect business success in a positive direction, while proximity to highways, being in commercial center affect in a negative direction. The independent variables explain 23 percent of total variance.*

**Keywords:** business location; business success; location factor; Internet café; Indonesia

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## Introduction

Location selection is one of the business decisions that have to be made carefully. Past research has shown that business location have had relationship with business' success (e.g. Alli et al. 1991). In this context, measurement of business success can vary, but it is most likely related to both subjective and objective data on multiple aspects of performance such as sales growth, market share and profitability (Dawes 1999).

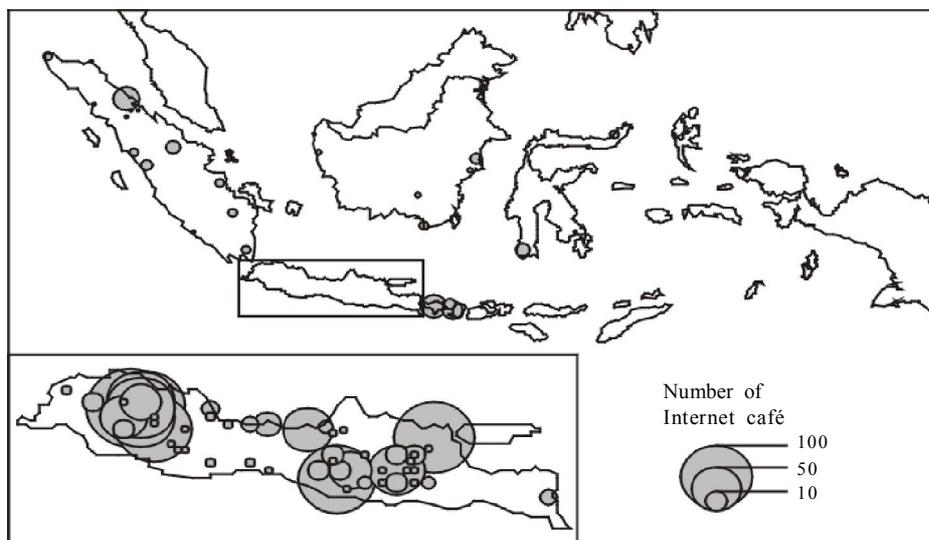
The vast of business location decision studies have focused on the manufacturing sectors, high technology industries, and large companies (e.g. Greenhut 1956; Wendt 1972; Schmenner 1982; Galbraith and De Noble 1988; Hayter 1997; Karakaya and Canel 1998). Several, but not many studies on business location decision for service business have been conducted (e.g. Schmenner 1994). Previous empirical works have mainly attempted to investigate factors behind business location decisions.

The Internet café business in Indonesia is rapidly growing. Hitherto, there were around 1500 Internet cafés in whole country (Basuni et al. 2001). Initial interviews with several users of Internet cafés revealed that location was one of their considerations in selecting their favorite Internet café. This preliminary finding attracted the author to investigate the relationship between location decision and business' success. The aim of this study is to participate to the debate, especially about location decision in service industries. The main objective is to examine what factors that influence location decisions; relation between those factors and business success; and other critical success factors in the Internet Cafés business.

This study is addressed to answer the following main questions:

- What factors do underlie location decision for an Internet café business?
- Does location decision determine success of Internet café business?

Figure 1. Map of Internét Cafes in Indonesia



## Setting

The development of the Internet café business (in Indonesian, known as *warnet* in short for *warung Internet*) in Indonesia is an interesting phenomenon. There is no fixed statistics on the number of Internet cafés in Indonesia reported. According to Basuni et al., (2001), it was about 1500 Internet cafés in the whole country in 2001. In 2002, Purbo (2002) stated that there were over 2000 Internet cafés in Indonesia. A list of Internet cafés collected from several sources on the Internet and field observations in three cities supports this number. Figure 1 depicts map of Internet cafés in Indonesia graphically. The vast majority of Internet cafés is found in the big cities, such as Jakarta, Bandung, Yogyakarta, Surabaya and Semarang.

## Theoretical Framework

Past research on location decision is mostly based on three main schools of thought, neoclassical, behavioral, and institutional (enterprise) theory. The neoclassical framework has largely focused on the manufacturing sectors and has found that location was largely driven by the transportation cost of their production factors (e.g. Schmenner 1982). The behavioral location theory interprets the location as a decision making (and learning) process. According to Dicken (1971), the location decision can be defined as a part of the objective environment which represents the total sum of information in the economy, either globally or regionally, with which the firm receives and sends information flows and signals of one kind and another. The institutional (enterprise) theory interprets location as an exercise in bargaining (Krumme 1969). In more detail, location decision can be viewed as a part of investment decisions that have

strategic purposes, i.e. they are made to meet the basic motivation of corporate strategy (such as growth, profits and security) by gaining access to new markets or sources of supply in a way that makes sense to individual corporation (Hayter 1997:170)

Recent studies of location decision have sought quantitative indicators of the decision's success by linking location selection decisions to enhanced business success. Although the business success does not depend solely upon the location of business, but the later influences the former. Some scholars state that business location had relationship with business success (Alli et al. 1991; Chan et al. 1995; Ghosh et al. 1995).

Relating to business success, in this context, measurement of business success can vary, but it is most likely related to both subjective and objective data on multiple aspects of performance such as sales growth, market share and profitability (Dawes 1999). Laitinen (2002) proposes two ways of measuring business performance: financial and non-financial performance. Financial measurement is traditionally used in measuring the performance of a company, which relates to the profitability of the company (return on investment) (Laitinen 2002). Non-financial measurements can focus on quality, inventory levels, productivity, flexibility, deliverability and employees. Beside those, Dawes (1999) uses other terms for explaining financial and non-financial measurement called subjective and objective measurement. Subjective measurement can be defined as perceived success of the owner's firm while objective one will be an actual percentage figure of sales growth or profitability.

In this study, Internet café business can be considered as services business – simply because it offers services to its

consumer—as well as retail business—because it sell directly its service to its consumer. A service business is not only retail business, and a retail business is not necessarily a service business.

### ***Location Decision in Service Business***

It is generally argued that the characteristic of service business and manufacturing obviously differs. The main differences are regarding to time of production and consumption considerations. Service businesses traditionally have been thought to be locationally connected to markets, while the manufacturing firms (primary and/or secondary sectors)—such as agriculture and other direct uses of natural resources or manufacturing—are confined by supply considerations. Since one of the characteristics of services is that services could not be stored, at least in the conventional sense, so they must be provided where they are consumed (Hanink 1997).

The service sectors can be divided into two major sectors: tertiary and quaternary (Hanink 1997). The tertiary sector consists of those activities such as transport, government, wholesale and retail trade and the general business and personal services, while the quaternary sectors, which are sometimes called the information sector because providing and managing information, consists of those activities such as banking, insurance, and management service. Another important distinction between services is defined not by what they provide, but by their market. They are consumer services and producer services. Whether the service issued from the tertiary or the quaternary sector, services sold to households are called consumer services. Those services sold or

provided to business are called producer services.

As mentioned in the previous section, the service business establishments in the tertiary sector are almost always found in proximity to their market, due to the fact that most service cannot be stored. Likewise, market accessibility is important for the service business establishment in the quaternary sector that is characterized by frequency of purchases. Because their production and consumption take place simultaneously, the best location for service business (i.e. retail business) or other consumer service providers are in places with a high market density (Hanink 1997). Other factors such as traffic flows, population densities and local quality of life are also important in selecting location for a new firm.

Schmenner (1994) introduces an approach to study the service business location. His study approaches the location decision as an intuitively appealing two-step procedure, which first chooses a general area for the service operation, and then a particular site. For each step in the decision, influences can be described as being “musts” or “wants.” The decision maker is assumed to look first to “musts” and to satisfying them, and then to move on to consider desirable features, termed “wants” for the location.

His study shows that labor issues, infrastructure and quality of life tended to be more important for those firms located at more distance from the city center. Proximity to customers is valued by firms with several distinct characteristics: high employment, more open hours per week, high capital/labor ratios, sites in this vicinity, strong local business ties, high value placed on particular sites. Many of these charac-

teristics apply also to the proximity to competitors influence. Low costs or rents appeal most to large service firms and to those that draw on a wide market area for their sales. In addition, they find that hospitals, education and social services, personal and business services (e.g. direct mail, cleaning, graphic arts, and temporary employment agencies) and utilities are relatively immune to many of the general area influences.

On the location of particular sites, their findings show that the importance of adequate parking is relatively greater for those service operations whose sales are largely local in origin, open hours is longer than other services, and relocation is distant from downtown. Also, the attractiveness of the building and high customer traffic area sites is most important for those services that have greater interaction with the customer. Those industries that are most affected by high customer traffic, adequate parking area, and similar influences are the more retail-oriented services: retailing, restaurants, banking and auto sales-services.

### ***Location Decision in Retail Business***

From distribution channels point of view, the author considers an Internet café as a retailer, as stated earlier. Levy and Weitz (1998: 7) define “retailer as a business that sells products and services to consumers for their personal or family use.” A retailer is the final business, after wholesaler, in a distribution channel that links manufacturers with consumers. In this view, Internet Service Providers (ISP) can be considered as wholesalers that sell Internet bandwidth to the Internet cafés and sometimes directly to consumers.

Furthermore, Levy and Weitz (1998) state that selecting retail location is one of

the retailing strategies, because of some reasons. *First*, location is typically the important consideration in customer’s store choice. *Second*, location decision can be used to develop a sustainable competitive advantage. In fact, retail location is not restricted to only new retailers. Mazze (1972) mentions that population shifts, new modes of transportation, changing consumer life styles and competitive conditions are often considered as factors that make retailers to re-evaluate their locations. He also states that location is one of the factors that determine the success of a retail store.

According to Levy and Weitz (1998), there are three general factors affecting the attractiveness of market in retail business: demographics, business climate and competition. Demographic factors relate to some conditions, such as population density, education, income and family size (Mazze 1972; Levy and Weitz 1998). Demographic factors considered in retail business location are dependent on the target market of a particular retailer. For example, an Internet café with student as its target market often choose its location near to university, school or student dormitory. Business climate is mainly considered to ensure strong retail environment in the future. This factor may include market’s employment trends to guarantee availability of labor and availability of necessary utilities. For instance, an Internet café relies on service from an ISP to provide access to the Internet, hence, the availability of such service in the future should also be guaranteed. The level of competition in an area also affects demand for a retailer’s products or services. For example, if two convenient Internet cafés are too close in their location, their market will shrink since they offer the same services.

In more detail, Mazze (1972) and Levy and Weitz (1998) mention several factors that should be taken into account in selecting retail location: term of occupancy, retail grouping or being in a center, accessibility, and legal consideration. The term of occupancy relates to the cost of renting/building and utilities, since most retailers prefer to lease a building for their store rather than to be the owner of the building. Hence, once a particular location is chosen, retailers still face a multitude of decision, either will lease or buy. In fact, most of the best locations such as in shopping malls are only available by leasing (Levy and Weitz 1998).

Retail grouping refers to a group of retailers that have the same target market (Mazze 1972). It is important for a store located in retail grouping or a center of business activities. The theory of cumulative attraction as formulated by Nelson (1958) suggested that retailers indeed benefit from agglomeration. It means that a cluster of similar and complementary retailing activities will generally have greater drawing power than isolated stores that engage in the same retailing activities (Levy and Weitz 1998). For instance, shoe stores, clothing stores, cosmetic and perfume shops seem to do better if they are close to one another. Likewise, stationary shops, photocopying, computer rental and Internet café seems to get more benefit if they are close to another.

Referring to Levy and Weitz (1998), the accessibility of a retail location is defined as the ease with which a customer may get into and out of the store, and it can be analyzed into a macro analysis and a microanalysis. The macro analysis concentrates on the road pattern or the posi-

tion of retailers relatively to highway (Mazze 1972) or freeway so that customers can travel easily to the store. The microanalysis focuses on issues in the immediate vicinity of the store such as visibility, vehicular traffic, availability of parking area, congestion, transportation facilities, and ingress/regress (Levy and Weitz 1998).

Legal consideration is also important factors in considering location of a store. Legal issues that affect the location decision of a store include environmental issues, zoning, building codes and signs and licensing requirement (Levy and Weitz 1998). For example, retailers must consider laws regarding how land is used when choosing a certain location for their stores.

## Methodology

### *Operational Measurement*

In fact some specific hypotheses can be drawn, however, the author choose to treat this research as exploratory in nature. The reason is due to the lack of theoretical background that specifically relates to Internet café business. Location factors in this business sector are not well-understood. Research questions are stated earlier in this paper. It is believed that business location decision has effect on business success. The more favorable the location of a business, the higher possibility of the business to succeed.

Despite that there are many location factors, 17 location factors that are relevant to be taken into account in making location decision of Internet café business are selected (see Table 1). The research model is depicted in Figure 2.

Figure 2. Research Model

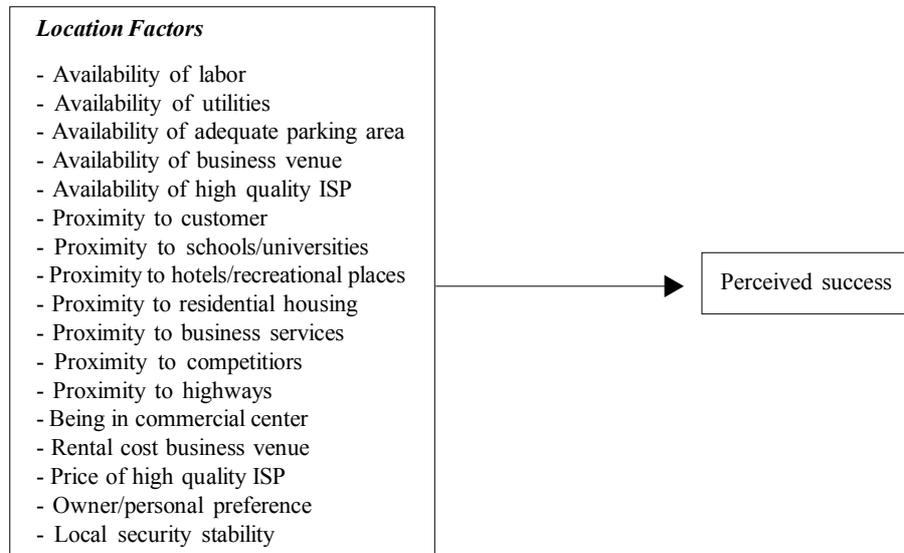


Table 1. Factors Considered in Location Decisions

Factors	Studies
Availability of labor	Fulton (1971); Blair and Premus (1987); Gailbraith and De Noble (1988); Schmenner (1994); Mudambi (1995); Laulajainen and Stafford (1995); Hayter (1997)
Proximity to customers	Schmenner (1994); Laulajainen and Stafford (1995); Alberto (2000)
Proximity to schools/universities	Haines (1970); Gailbraith and De Noble (1988); Karakaya and Canel (1998); O'Mara (1999)
Proximity to business services	Mazze (1972); Gailbraith and De Noble (1988); Schmenner (1994)
Proximity to residential housing	Gailbraith and De Noble (1988); Schmenner (1994)
Proximity to hotels/recreation places	Gailbraith and De Noble (1988)
Proximity to highway	Schmenner (1994); Hanink (1997)
Being in commercial center	Schiller (2001)
Proximity to competitors security	Schmenner (1994) Laulajainen and Stafford (1995); Mudambi (1995)
Availability of utilities	Fulton (1971); Schmenner (1982)
Availability of adequate parking area	Schmenner (1994); Hanink (1997)
Owner/personal preference	Haines (1970); Gailbraith and De Noble (1988)
Availability of business venue	Haines (1970); Karakaya and Canel (1998)

*Continued from Table 1*

Factors	Studies
Rental price of business venue	Haines (1970); Galbraith and De Noble (1988); Schmenner (1994)
Availability of high quality ISP and price of ISP	Developed in this study

The dependent variable of this study is perceived success measured by five items. The items are perception on utilization of computer, growth of net income, payback period, and two items on general assessment on success.

**Research Instrument**

A questionnaire was developed as the main research instrument. The questionnaire was based on theories on location decision and several preliminary unstructured interviews with owners of Internet café and users. The preliminary interviews were conducted in the beginning of August 2002.

In addition to demographical questions, the questionnaire consisted of questions on location decision, market structure, business development, key success factors and obstacles. The questionnaire was in Indonesian language. Normally it took around 20 minutes to fill in the questionnaire.

Background questions incorporated individual characteristics such as gender, education and work experience and business-related items such as year of establishment, number of computer, operating hours, initial investment, and total investment.

Items on perceived success were measured by 5-point Likert scales anchored by "strongly disagree" and "strongly agree." While those on location decision were

measured by 5-point Likert scales anchored by "very unimportant" and "very important." Questions on location decision consisted of 17 items which each of them represented one dimension of location believed to be relevant on deciding business location in the Internet café business context. Dimensions of location, for instance, were availability of labor, availability of utilities (e.g. water, electricity, and phone), availability of high quality Internet Service Provider (ISP), proximity to customers, and proximity to schools/universities.

To test the questionnaire, a pilot investigation was done in the middle of December 2002. Based on feedbacks from some respondents, the questionnaire was refined. Some questions were elicited since the respondents considered that they were difficult to answer or they did not want to release such information asked.

**Data Collection Procedure**

Respondents of this study were the owners of Internet café. The study took place in three regions: Yogyakarta, Surabaya, and Lombok. Yogyakarta was selected because it is a typical university city, where large proportions of the population are active students at the 100 institutions of higher education within the small province. Surabaya (in East Java) was included because of its dominant role as an industrial city in Indonesia with a high

number of modern manufacturing and service industries. The island of Lombok in the province of Nusa Tenggara Barat (NTB) was selected mostly because of the dominating tourist industry in the area. The author use the term Lombok to refer to Mataram, Senggigi, and Gili Terawangan Island. The three study areas are economically relatively well developed and centrally located within the wider Indonesian context. The Lombok site, however, differs from the urban Javanese study areas in some ways, as we shall see. First and foremost, Lombok is characterized by a more rural society and less advanced infrastructure development. There are around 120 Internet cafés in Yogyakarta, 100 in Surabaya, and 30 in Lombok.

A clustered-proportional sampling was used to select respondents. The area of Yogyakarta city was divided into five geographical clusters based on main lines of demarcation. A north-south distinction was made using the railway as divider. The northern area was divided into three clusters, and the southern into two based on the main road partitions. The author distributed 66 questionnaires randomly to around 50 percent of the total population in each cluster. The author got 44 responses and 43 were usable. A similar procedure was employed in Surabaya, dividing the town into four geographical clusters partitioned by main highways. The author distributed 50 questionnaires and got 41 responses, 39 are valid. The island of Lombok was divided differently: one educational cluster that is in the vicinity of educational institutions in the capital town, one shopping-mall cluster, and lastly a tourism area cluster. The number of Internet café in these three clusters is around 30. The author distributed the questionnaires to 50 percent of total population in each

cluster, got 11 responses, all of them are valid. On the average, the response rate was 73 percent.

Data from the questionnaires have been complemented by five in-depth interviews with Internet café owners and twenty users in Yogyakarta and in Lombok. The qualitative information has helped interpreting some of the quantitative data.

### ***Data Analysis Methods***

Score of each independent variable is calculated by averaging from score from each item in respective variables. Reverse scoring is employed for unfavorable item. Because all questions in the questionnaire are closed-ended ones, a statistical software package, SPSS, is appropriate to be used in data analysis.

To examine reliability (internal consistency), Cronbach's alpha is used. Confirmatory factor analysis is used to examine validity of the instrument. In addition to descriptive analysis (i.e. central tendency), correlation and regression analyses are employed to check interdependency among two variables and the effect of several independent variables on dependent variable respectively.

## **Research Results**

### ***Reliability and Validity of the Instrument***

Reliability and validity test is applied to items to measure subjective success. Cronbach's alpha value is used to examine the reliability (internal consistency) of the instrument (Frankfort-Nachmias and Nachmias 2000). The value of Cronbach's alpha is 0.89. Nunnally (1978) suggested that the values up to 0.60 and even 0.50 can be considered acceptable.

Principal factor analysis is used to determine the validity of data. Principal component analysis (Frankfort-Nachmias and Nachmias 2000) discloses that only one factor is being extracted with factor loadings vary from 0.73 to 0.88. Without exception, component loading of all items are greater than the minimum acceptable value, 0.3. Hence, the instrument is said to be valid.

### **Demographic Characteristics**

The vast majority (89.2%) of Internet café's owners are male. Most owners of Internet café have university education (87.2%), while only 1.1 percent of them who have either elementary or junior high school education.

The age of the owners varies from 22 to 59 years old, with an average 32 years. Most of them fall into the age group 26-30 years. Two third (66.3%) of the owners have previous work experience. Out of those with work experience, 40.7 percent have IT-related experience and only 11.1 percent have worked in the public sector. More than half of the owners are Javanese (57%) and 14 percent are Chinese.

### **Location Factors and Business Success**

Using mean rating, the five most important location factors considered by the respondent at starting up are (a) availability of high quality ISP, (b) proximity to customers, (c) security, (d) availability of utilities, and (e) availability of business venue. At present day, the five most important location factors are somewhat different from those at start up. These factors are (a) security, (b) proximity to customers, (c) availability of high quality ISP, (d) availability of utilities, and (e) price of high quality ISP. The following quotations from

in-depth interviews support the findings

*"I prefer to open it here or at Seturan [a location in the proximity of a university]. But first, Jogja Media Net [an ISP that offers a high quality Internet connection] should be available in that location."*

*"[The location] is very favorable. [It is] close to campuses. There are many boarding houses in the surrounding of campuses. Students are our target market."*

*"Access speed is very important. And then [it is followed by] comfort and quality services. Access speed means quality of infrastructure, in this regard ISP."*

A regression model is used to determine which location factors that have direct effect on business success. Values of independent variables are based on the values of the location factors at start up, while the dependent variable is subjective measurement of success.

Prior to regression analysis, a correlation analysis is conducted to ensure that independent variables do not correlate among other (i.e. no multicollinearity problem). Result of the correlation analysis is depicted in Table 2. Multicollinearity is said to exist if there is strong correlation between independent variables or if coefficient of correlation is greater than 0.7 (Gujarati 1995). As can be seen, no coefficients of correlation that is greater than 0.7, and hence the author can conclude that there is no multicollinearity problem.

The author finds that the independent variables altogether significantly ( $F_{17,73}=2.60, p<0.01$ ) explain the perceived success as summarized in Table 3. As can be seen, availability of utilities, proximity to schools/universities, and local security

Table 2. Correlation Matrix of Independent Variables at Start Up

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1 Availability of labor	1.00																
2 Availability of utilities	0.40 <sup>f</sup>	1.00															
3 Availability of adequate parking area	0.17	0.37 <sup>e</sup>	1.00														
4 Availability of business venue	0.15	0.36 <sup>e</sup>	0.54 <sup>c</sup>	1.00													
5 Availability of high quality ISP	0.19 <sup>g</sup>	0.40 <sup>f</sup>	0.26 <sup>b</sup>	0.43 <sup>c</sup>	1.00												
6 Proximity to customers	0.06	0.31 <sup>c</sup>	0.14	0.31 <sup>c</sup>	0.28 <sup>f</sup>	1.00											
7 Proximity to schools/universities	0.03	0.08	0.41 <sup>c</sup>	0.38 <sup>c</sup>	0.24 <sup>b</sup>	0.37 <sup>f</sup>	1.00										
8 Proximity to hotels/recreation places	0.11	0.19 <sup>g</sup>	0.01	0.05	0.21 <sup>b</sup>	0.31 <sup>f</sup>	-0.02	1.00									
9 Proximity to residential housing	0.09	0.26 <sup>b</sup>	0.15	0.22 <sup>b</sup>	0.15	0.22 <sup>b</sup>	0.21 <sup>b</sup>	0.47 <sup>g</sup>	1.00								
10 Proximity to business services	0.15	0.27 <sup>e</sup>	0.17	0.23 <sup>b</sup>	0.28 <sup>f</sup>	0.28 <sup>f</sup>	0.11	0.62 <sup>e</sup>	0.59 <sup>f</sup>	1.00							
11 Proximity to competitors	-0.04	0.09	0.24 <sup>b</sup>	0.17	0.01	0.19 <sup>g</sup>	0.17	0.22 <sup>b</sup>	0.37 <sup>f</sup>	0.31 <sup>f</sup>	1.00						
12 Proximity to highway	0.21 <sup>b</sup>	0.47 <sup>g</sup>	0.36 <sup>c</sup>	0.34 <sup>c</sup>	0.16	0.28 <sup>f</sup>	0.27 <sup>g</sup>	0.16	0.30 <sup>f</sup>	0.35 <sup>f</sup>	0.19 <sup>g</sup>	1.00					
13 Being in commercial center	0.03	0.10	0.15	0.20 <sup>g</sup>	0.03	0.06	0.18	0.33 <sup>e</sup>	0.26 <sup>b</sup>	0.34 <sup>f</sup>	0.19 <sup>g</sup>	0.12	1.00				
14 Rental price of business venue	0.06	0.08	0.38 <sup>c</sup>	0.26 <sup>b</sup>	0.18 <sup>g</sup>	0.17	0.38 <sup>c</sup>	0.04	0.13	0.12	0.19 <sup>g</sup>	0.12	0.15	1.00			
15 Price of high quality ISP	0.19 <sup>g</sup>	0.31 <sup>c</sup>	0.23 <sup>b</sup>	0.25 <sup>b</sup>	0.46 <sup>f</sup>	0.41 <sup>c</sup>	0.16	0.07	0.10	0.19 <sup>g</sup>	0.31 <sup>c</sup>	0.26 <sup>f</sup>	0.03	0.32 <sup>f</sup>	1.00		
16 Owner/personal preference	0.10	0.21 <sup>b</sup>	0.21 <sup>b</sup>	0.30 <sup>c</sup>	0.30 <sup>f</sup>	0.43 <sup>c</sup>	0.26 <sup>b</sup>	0.13	0.19 <sup>g</sup>	0.25 <sup>b</sup>	0.19 <sup>g</sup>	0.36 <sup>f</sup>	0.12	0.17	0.41 <sup>c</sup>	1.00	
17 Security	0.37 <sup>f</sup>	0.38 <sup>f</sup>	0.30 <sup>c</sup>	0.42 <sup>c</sup>	0.49 <sup>f</sup>	0.51 <sup>c</sup>	0.36 <sup>f</sup>	0.23 <sup>b</sup>	0.22 <sup>b</sup>	0.32 <sup>f</sup>	0.18 <sup>g</sup>	0.46 <sup>f</sup>	0.10	0.24 <sup>b</sup>	0.52 <sup>e</sup>	0.50 <sup>f</sup>	1.00

Notes: <sup>a</sup>  $p < 0.1$ , <sup>b</sup>  $p < 0.05$ , <sup>c</sup>  $p < 0.01$

Table 3. Regression Coefficients

Variable	Beta	t
Availability of labour	-0.04	-0.35
Availability of utilities	0.24	1.83 *
Availability of adequate parking area	0.12	0.97
Availability of business venue	0.05	0.37
Availability of high quality ISP	0.12	0.93
Proximity to customers	-0.20	-1.53
Proximity to schools/universities	0.31	2.50 **
Proximity to hotels/recreational places	0.22	1.65
Proximity to residential housing	0.02	0.14
Proximity to business services	-0.22	-1.56
Proximity to competitors	0.09	0.79
Proximity to highways	-0.37	-2.96 ***
Being in commercial centre	-0.18	-1.72 *
Rental price of business venue	-0.12	-1.09
Price of high quality ISP	-0.09	-0.70
Owner/personal preference	0.19	1.64
Security	0.29	1.99 *
Model summary:		
$F_{17, 73} = 2.60$	$p < 0.01$	$R^2 = 0.38$
		$Adj-R^2 = 0.23$

Notes: \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

affect success in a positive direction, while proximity to highways, and being in commercial center affect in negative directions.

In this regard, availability of utilities (e.g. electricity, water) is considered to be significant by the Internet café's owners in determining their business success. It is obvious, no Internet café without these necessary requirements. Moreover, a comfortable place as mentioned before needs more utilities to provide. Quite often, the comfortable place is a necessary condition to attract more customers and keep the existing customers. This demand makes the Internet cafés consider availability of

utilities to be more important at present day compared to that at start up.

Likewise, position of the Internet café close to schools/universities has direct and significant positive effect on business success. The possible explanation is that location in the neighborhood of schools/universities will enable the Internet cafés to get more potential customers since the largest percentage (58.9%) of their market is student.

Security is also found to be linked to business success significantly. As rate of criminality increases, this factor becomes more important to attract customers. The

higher the number of potential customers that can be attracted by the Internet cafés, the higher their possibility to get success.

On the contrary, the author finds that proximity to highways has a direct and negative effect on business success. Proximity to highways in one hand is related to visibility and attractiveness; but on the other hand it has its inherent disadvantage because of noise. Since the author finds that each Internet café has already had its regular customers, then the visibility becomes less important and hence have no positive influence on business success.

Another interesting finding is that being in commercial center is negatively associated with business success. The fact that most people visit the shopping

center for other activities than Internet browsing may explain this. In case they will use the Internet, they will go to the Internet café on purpose. This finding suggests that the Internet café located in commercial center tends to be less successful than those not located in commercial center. Total variance explained by all independent variables is only 23 percent (adjusted-R<sup>2</sup>).

### *Underlying Dimensions of Business Location Decision*

Factor analysis with principal component analysis and varimax-rotation is used to determine underlying dimensions of location decision. That factor analysis is

Table 4. **Varimax-Rotated Principal Component Loadings**

	<b>Factor 1</b>	<b>Factor 2</b>	<b>Factor 3</b>	<b>Factor 4</b>	<b>Factor 5</b>
	<b>Centrality</b>	<b>Business environment</b>	<b>Business venue</b>	<b>Cost</b>	<b>Labor</b>
Availability of high quality ISP	<b>0.82</b>	0.02	0.12	0.17	0.07
Price of high quality ISP	<b>0.72</b>	0.06	0.02	0.44	0.17
Availability of utilities	<b>0.66</b>	0.12	0.39	-0.01	0.28
Proximity to customers	<b>0.59</b>	0.14	0.49	0.03	-0.17
Security	<b>0.54</b>	0.06	0.52	0.21	0.21
Proximity to highways	<b>0.47</b>	0.25	0.12	0.33	-0.09
Proximity to business services	0.31	<b>0.85</b>	-0.08	0.04	-0.05
Proximity to residential housing	0.06	<b>0.83</b>	0.13	0.14	-0.26
Proximity to hotels/recreation places	0.29	<b>0.75</b>	-0.08	-0.07	0.07
Being in commercial centre	-0.10	<b>0.69</b>	0.26	0.15	0.11
Proximity to competitors	-0.25	<b>0.44</b>	0.10	0.15	0.24
Availability of business venue	0.18	0.08	<b>0.83</b>	0.08	0.02
Availability of adequate parking area	0.07	-0.07	<b>0.79</b>	0.38	-0.01
Owner/personal preference	0.17	0.16	<b>0.55</b>	0.04	0.31
Rental price of business venue	0.22	0.07	0.12	<b>0.80</b>	0.20
Proximity to schools/universities	0.24	0.22	0.33	<b>0.76</b>	-0.16
Availability of labour	0.16	-0.03	0.12	0.05	<b>0.87</b>
<b>Percentage of variance explained</b>	<b>32.00</b>	<b>14.05</b>	<b>8.28</b>	<b>6.89</b>	<b>5.96</b>

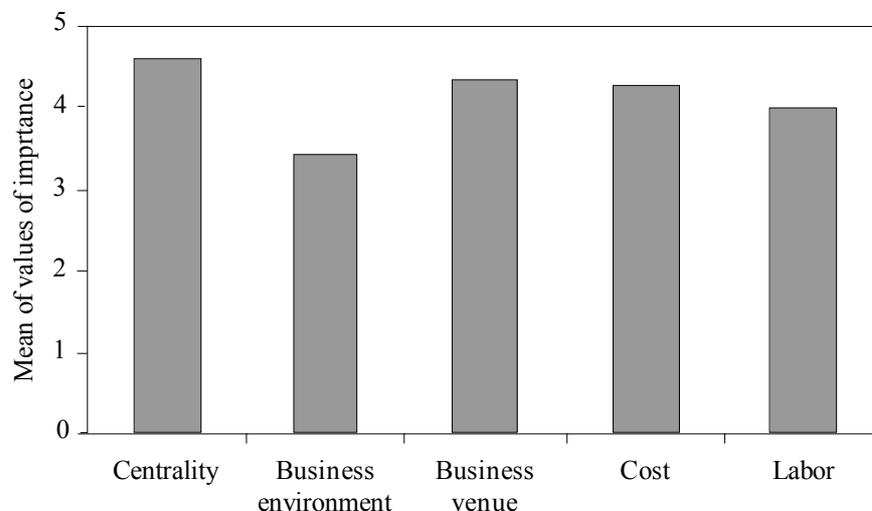
applied to values of importance of location factors at present day provided by respondents and reveals five factors (dimensions) as shown in Table 4.

The *first factor* consists of six factors; availability of high quality ISP, price of high quality ISP, availability of utilities, proximity to customers, security, and proximity to highways. The author names this as “centrality” factor. This factor accounts 32 percent of the variance. Being in the center of activities is an important factor in selecting business location. Location in the proximity to customers and the proximity highway means that it is close to high customer traffic. In addition, generally, in a place where there are many activities, it needs a high security. Not surprisingly, this factor falls into this dimension. Giving the customer as well as the owner freedom from fear about criminality is very important. The attractiveness of the Internet café is difficult to maintain without the existence of security. In addition, availability and price of high quality ISP play a central

role in the Internet café business. In Summary, all these six factors play a central role in succeeding the Internet café business.

The *second factor* that is termed as “business environment” factor has five components; proximity to business services, proximity to residential housing, proximity to hotels/ recreation places, being in commercial center, and proximity to competitors. This factor accounts 14.05 percent of the variance. A good business within inappropriate business environment is not guaranteed to survive. In this regards, the existence of a good business environment is important. Location in the proximity to business services, proximity to residential housing, proximity to hotels/ recreation places, being in commercial center, and proximity to competitors are beneficial to present a good and healthy business climate. The first four components again are related to the possibility to increase potential customers because of the attractiveness of the location. The last factor is very important to stimulate the

Figure 3. Importance of Five Location Decision Factors Compared



Internet café to always be innovative in order to win the market. This, then, will produce a tough entrepreneur.

The *third factor* is named as “business venue” factor and incorporates three components, namely availability of business venue, availability of adequate parking area and owner/ personal preference. This factor explains 8.28 percent of the variance. The first two components are directly related to a necessary building in which the Internet cafés operate and attractiveness of the venue. The last component may be related to locality. These components, then, altogether ease to get a representative and attractive business venue.

Next, *the fourth factor* is labeled as “cost” factor and has two components (i.e. rental price of business venue and proximity to schools/universities). This factor explains 6.89 percent of the variance. These factors cannot solely be corresponded to operating cost, but also to profitability. Quite often, rental price of business venue in a certain location, such as in the proximity to schools/universities, is somewhat high, but this will be compensated by revenue the Internet cafés will get. The last factor is availability of labor that is named as “labor” factor and accounts 5.96 percent of the variance.

In order to examine which factor that is most important, five factors are compared based on their importance as shown in Figure 3. The centrality factor appears as the most important one with mean rating of 4.56, and is followed by the business venue factor (4.34), the cost factor (4.25), the labor factor (3.96), and the business environment factor (3.4) respectively.

## Discussion of the Results

Two main research questions were posed at the beginning of this study (1) what factors do underlie location decision for an Internet café business?; and (2) does location decision determine success of Internet café business? These questions are addressed below in light of the result of the data analyses.

### *Underlying factors of Location Decision for an Internet Café Business*

The recent study finds that there are some underlying dimensions examined in the Internet cafés location decision. The five underlying factors identified (i.e. centrality, business venue, cost, labor, and business environment) through factor analysis are clearly the important dimension considered by the Internet cafés’ owner when evaluating the location for business. From a regional-planning perspective, it means that regions (cities or town) attempting to attract new Internet cafés into their area need to consider the factors that are important to Internet cafés planning to relocate or open up new Internet cafés. It is equally important to prevent the existing Internet cafés from leaving their present locations to more attractive ones.

These five factors seem also to affect the agglomeration of the Internet café business. Attractiveness of a certain location makes business with similar target market to cluster. Spread of Internet cafés in Yogyakarta and Surabaya (not only those in the research sample) as depicted by Figure 4 supports this claim. In this analysis, the author excludes Internet cafes in Lombok because as mentioned above, the

term Lombok refers to Mataram, Segingga, and Gili Tawangan Island and this make it incomparable to those on Yogyakarta and Surabaya.

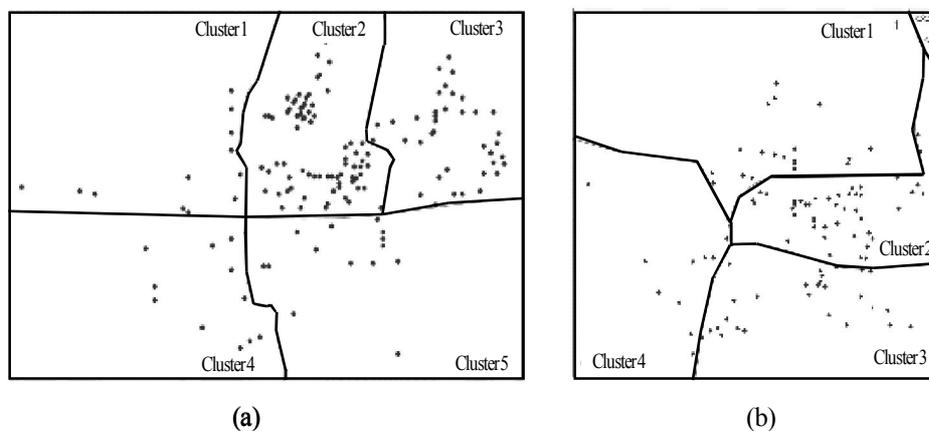
As can be seen in Figure 4 (a), most Internet cafés are concentrated in clusters 2 and 3. This spatial pattern of location seems to be like this because in those clusters several big universities, such as Gadjah Mada University (with more than 40.000 students), Islamic University of Indonesia (with more than 20.000 students), Yogyakarta State University, Sanata Dharma University, and National Development University are located. Among these 93 Internet cafés in the sample, 80 of them (86%) target students as their customer. Though several universities are also found in the rest of the three clusters, they are not the big ones. This seems also to be the case in Surabaya. Most Internet cafés are located in clusters 2 and 3 (see Figure 4(b)) where several big universities (e.g. ITS, Petra University, Surabaya University, Untag, and Unitomo) exist. This finding substantiates previous theories on geographical concentration or agglomeration

and theory of accumulative attractiveness (e.g. Nelson 1958; Porter 1998a; 1998b). According to Porter (1998a, p. 88), this will give “a social glue that binds clusters together and facilitates access to important resources and information.”

### ***Impact of Business Location on Success***

Location of the Internet cafés is found to be having a direct and significant effect on business success. This finding supports previous finding stating that business location had relationship with business' success (Alli et al. 1991; Chan et al. 1995; Ghosh et al. 1995). The specific location factors that are important differ from business sector to business sector. In the context of Internet café business, the author finds that availability of utilities, proximity to schools/universities and security are positively and significantly linked to business success, while proximity to highways and being in commercial center have a negative influence on business success. Internet cafés entrepreneur who want to ensure the success of the business should

Figure 4. Spread of Internet Cafés in (a) Yogyakarta, and (b) Surabaya



pay more attention to availability of utilities, proximity to schools/universities and security when selecting business location. On the contrary, they should avoid from establishing Internet cafés in commercial center and near to highways.

The independent variables altogether explain 23 percent of total variance. This finding tells us that there are other factors that explain business success in addition to location factors. Including other relevant factors such as individual background (e.g. education and entrepreneurial readiness) and business related factor (e.g. type of Internet connection, market, and number of computers) into the model might increase the explained variance.

Furthermore, examining critical success factors on business success may give a better understanding of factors behind the success. In addition to geographical location, access speed, comfort of place, quality of services, and rental price are believed to have determining influences on the Internet café business success. It is equally important to consider possible barriers that hinder the Internet cafés to succeed. In addition to unfavorable location, these factors include high fixed expenses, unfavorable ISP, high competition, and limited market. Fostering the critical success factors and dampening the possible barriers down will ensure the success of the Internet café business. Some of

the factors/barriers are the owner's responsibility and some are other business's and government's tasks.

### Limitations and Further Research

This research is not without its limitations. *First*, limited number of sample on only three locations (e.g. Yogyakarta, Surabaya, and Lombok) may lead us to a somewhat biased conclusion, since the author finds that the importance of location factors varies from one location to others. However, the findings may be extrapolated to other locations. But, including Internet cafés in other locations into samples perhaps will give us a cleaner picture of the relationship between location factors and Internet café business success.

*Second*, this study only includes 17 location factors based on findings of several previous researches. However, including other factors especially those related to specific market area and business context, may give different results.

*Third*, the author wants to re-emphasize here that as an exploratory research, this research addressed the research questions broadly. A more specific research may be carried out to examine many speculative explanations throughout the study.

### References

- Alberto, P. 2000. The logistics of industrial locations decisions; an application of the analytic hierarchy process methodology. *International Journal of Logistics: Research and Applications* 3 (3): 273-289.
- Alli, K. L., G. G. Ramirez, and K. Yung. 1991. Corporate headquarters relocation: evidence from the capital markets. *Journal of the American Real Estate and Urban Economics Association* 19(4): 583-599.

- Basuni, D. F., et al., 2001. Indikasi teknologi informasi dan komunikasi 2001. Available online on <http://www.inn.bppt.go.id/Siti2001/default.htm> (accessed on August 15, 2002).
- Blair, J. P. and R. Premus. 1987. Major factors in industrial location: a review. *Economic Development Quarterly* 1 (1): 72-85.
- Chan, S. H., G. W. Gau, and K. Wang. 1995. Stock market reaction to capital investment decisions: evidence from business relocations. *Journal of Financial and Qualitative Analysis* 30: 81-100.
- Dawes. 1999. The relationship between subjective and objective company performance measures in market orientation research: the further empirical evidence. *Marketing Bulletin* (May): 65-76.
- Frankfort-Nachmias, C. And D. Nachmias. 2000. *Research Methods in the Social Science*. New York: Worth Publishers.
- Fulton, M. 1971. New factors in plant location. *Harvard Business Review* (May-June): 166-168.
- Galbraith, D. and A. F. De Noble. 1988. Location decisions by high technology firms: a comparison of firm size, industry type and institutional form. *Entrepreneurship Theory and Practice* (Winter): 31-48.
- Ghosh, A. and C. S. Craig. 1986. An approach to determining optimal locations for new services. *Journal of Marketing Research* (November): 354-362.
- Ghosh, C., M. Rodriguez, and C. F. Sirmans. 1995. Gains from corporate headquarters relocations: evidence from the stock market. *Journal of Urban Economics* 38: 291-311.
- Greenhut, M. L. 1956. *Plant Location in Theory and Practice*. North Carolina: Chapel Hill.
- Gujarati, D. 1995. *Basic Econometrics*. New York: McGraw-Hill.
- Haines, V. G. 1970. *Business Relocation: A Guide to Moving a Business*. London: Business Book.
- Hanink, D. M. 1997. *Principles and Applications of Economic Geography: Economy, Policy Environment*. New York: John Wiley & Sons.
- Hayter, R. 1997. *The Dynamics of Industrial Location: The Factory, The Firm and The Production System*. England: John Wiley & Sons.
- Karakaya, F. and C. Canel. 1998. Underlying dimensions of business location decisions. *Industrial Management and Data Systems* 7: 321-329.
- Krumme, G. 1969. Toward a geography of enterprise. *Economic Geography* 45: 30-40.
- Laitinen, E. K. 2002. A dynamic performance measurement system: evidence from small Finnish technology companies. *Scandinavian Journal of Management* 18: 65-99.
- Laulajainen, R. and H. A. Stafford. 1995. *Corporate Geography: Business Location Principles and Cases* (Vol. 31). Boston: Kluwer Academic.

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- Levy, M. and B. A. Weitz. 1998. *Retailing Management*. London: Irwin McGraw-Hill.
- Mazze, E. M. 1972. Identifying the key factors in retail store location. *Journal of Small Business and Management* 10, 1: 17-20.
- Mudambi, R. 1995. The MNE investment location decision: some empirical evidence. *Managerial and Decision Economics* 16: 249-257.
- Nelson, R. L. 1958. *The Selection of Retail Location*. New York: F. W. Dodge Corporation.
- Nunnally, J. C. 1978. *Psychometric Theory*. New York: McGraw-Hill.
- O'Mara, M. A. 1999. Strategic drivers of location decisions for information-age companies. *Journal of Real Estate Research* 17 (3): 365-386.
- Philip, P. D. 1991. Site selection: corporate perspective and community response. *Economic Development Review* 9(2): 4-12.
- Porter, M. E. 1990. *The Competitive Advantage of Nations*. New York: Macmillan.
- Porter, M. E. 1998a. Cluster and the new economic of competition. *Harvard Business Review* 76(6): 77-90.
- Porter, M. E. 1998b. *Competitive Advantage: Creating and Sustaining Performance, with A New Introduction*. New York: Free Press.
- Purbo, O. W. 2002. Getting connected: the struggle to get Indonesia online. *Inside Indonesia* (October-December): 14-16.
- Schiller, R. 2001. *The Dynamic of Property Location: Values and The Factors Which Drive The Location of Shops, Offices and Other Uses*. London: Spon-Press.
- Schmenner, R. W. 1982. *Making Business Location Decisions*. Englewood Cliffs, NJ: Prentice-Hall.
- Schmenner, R. W. 1994. Service firm location decisions: some Midwestern evidence. *International Journal of Service Industry Management* 5 (3): 35-56.
- Stonebraker, P. W. and G. K. Leong. 1994. *Operations Strategy, Focusing Competitive Excellence*. Needham Heights, MA: Allyn and Bacon.
- Wendt, P. F. 1972. Deciding on location for a small business. *Journal of Small Business Management* (January): 1-4.



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**Part III. Entrepreneurship**

Under you will find several statements about your own skills and access to external resources. You should state if you agree or disagree with these statements. Choose one value on 5-scale measure (from 1=strongly disagree to 5=strongly agree) for every statement mentioned below.

---

	<i>Strongly disagree</i>			<i>Strongly agree</i>	
1 I have the leadership skills needed to succeed as an entrepreneur	1	2	3	4	5
2 I have mental maturity to succeed as an entrepreneur	1	2	3	4	5
3 I have enough experience in business operation to succeed	1	2	3	4	5
4 I have social networks that can be utilized to start and improve my business	1	2	3	4	5
5 I have access to supporting useful information to start and to improve my business	1	2	3	4	5
6 I have access to capital needed to start and improve my business	1	2	3	4	5

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**Part IV. Location Decision**

When you started this Internet café how did you at that time perceive the following factors when choosing location? Please choose one value on 5-scale measure (from 1=absolutely not important to 5=very important) for every factor mentioned below.

---

	<i>Very unimportant</i>			<i>Very important</i>	
1 Availability of labour	1	2	3	4	5
2 Availability of utilities (e.g. water, electricity, phone)	1	2	3	4	5
3 Availability of adequate parking area	1	2	3	4	5
4 Availability of business venue (to rent or your own)	1	2	3	4	5
5 Availability of high quality ISP	1	2	3	4	5
6 Proximity to customers	1	2	3	4	5
7 Proximity to schools/universities	1	2	3	4	5
8 Proximity to hotels/recreational places	1	2	3	4	5
9 Proximity to residential housing	1	2	3	4	5
10 Proximity to business services	1	2	3	4	5
11 Proximity to competitors	1	2	3	4	5
12 Proximity to highway	1	2	3	4	5
13 Being in commercial centre (e.g. mall/industrial park/office park)	1	2	3	4	5
14 Rental cost of business venue	1	2	3	4	5
15 Price of high quality ISP	1	2	3	4	5
16 Owner/personal preference	1	2	3	4	5
17 Security	1	2	3	4	5

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If this Internet café has been in this location for more than 6 months *how would you rate the importance of the same factors based on the experience so far*. Please choose one value on a 5-scale measure (from 1=very unimportant to 5= very important) for every factor mentioned below.

	<i>Very unimportant</i>			<i>Very important</i>	
1 Availability of labour	1	2	3	4	5
2 Availability of utilities (e.g. water, electricity, phone)	1	2	3	4	5
3 Availability of adequate parking area	1	2	3	4	5
4 Availability of business venue (to rent or your own)	1	2	3	4	5
5 Availability of high quality ISP	1	2	3	4	5
6 Proximity to customers	1	2	3	4	5
7 Proximity to schools/universities	1	2	3	4	5
8 Proximity to hotels/recreational places	1	2	3	4	5
9 Proximity to residential housing	1	2	3	4	5
10 Proximity to business services	1	2	3	4	5
11 Proximity to competitors	1	2	3	4	5
12 Proximity to highways	1	2	3	4	5
13 Being in commercial centre (e.g. mall/industrial park/office park)	1	2	3	4	5
14 Rental cost of business venue	1	2	3	4	5
15 Price of high quality ISP	1	2	3	4	5
16 Owner/personal preference	1	2	3	4	5
17 Security	1	2	3	4	5

**Part V. Development of your business**

Under you will find several statements about the development of your business. You should state if you agree or disagree with these statements. Choose one value on a 5-scale measure for every statement mentioned below (1 = strongly disagree, 5 = strongly agree) for every statement mentioned below.

	<i>Strongly disagree</i>			<i>Strongly agree</i>	
1 I am satisfied with utilization rate of computers	1	2	3	4	5
2 I am satisfied with the growth of net-income	1	2	3	4	5
3 I am satisfied with the time needed to reach break-event point	1	2	3	4	5
4 I consider my Internet café business as the successful one	1	2	3	4	5
5 My internet café business is growing	1	2	3	4	5