# COM 6950 New Media Project

(Supervisor: Professor CHYI, Hsiang Iris)

Research Topic:

## *Investor Relations in the Internet Era:*
## *Online IR Adoption in Hong Kong and in the United States*

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## I) Introduction

'Investor' is the most significant stakeholder of a company as they provide the main source of operating capital through investing in the company's stocks, bonds and other financial assets (Witmer, 2000:118). Conceptually, 'investor relations (IR)' is the means whereby publicly listed companies maintain dialogues with existing shareholders and potential investors. The fundamental principle of investor relations is that no individual or institution should invest in the securities of a company unless s/he is fully informed about the company's business (products and services), financial conditions (earnings growth, return on assets, cash flow status, etc) and the composition of the management team. In respect of this, the purpose of IR is to present a comprehensive and detailed picture of corporate strategy and management performance, enabling the investment community to decide the company's fair market value and to make rational investment decisions (Thomsett,1998:10-15; Witmer,2000:118-120). In this sense, IR can be influential to a company's market value and cost of capital relative to its industry sector and the overall economic climate. These are why IR constitutes the core element of public-relations strategy of companies.

With the advance in information technology, there has been a growing trend of using the Internet as a tool for managing investor relations and this gives rise to the idea of 'online investor relations (online IR)'. Online IR ranges from simple email enquiry to sophisticated web casting of conference calls delivered through streaming technology. The adoption of online IR helps investor-relations officers (IROs) disseminate company information to and communicate with investors in efficient manners.

In fact, IR has been well developed in the United States. For instance, despite the influential position of the London stock market, the United Kingdom had no idea of

investor relations until 1980s, ten years after the idea had appeared in the US (Witmer,2000:41). Moreover, consistent to its leading position in the IT development, the US has been leading the application of online IR since early 1990s. Hong Kong, as a global financial center, is characterized by a high degree of liquidity and is operated under transparent regulations. Accordingly, investor relations should be very important to the public companies in Hong Kong. Thus, it is expected that Hong Kong should follow the US's suit in applying the Internet's tools to their IR strategies.

In respect of the above, the aim of this research is to compare the patterns of online IR adoption in Hong Kong and in the US. Whether online IR adoption is affected by factors like industry nature, size of market capitalization and stock-trading activity are examined. The research goal is achieved through comparing the company websites of HK and of US publicly listed companies by content analysis.

Lastly, this paper is structured as follows: first, a comprehensive literature review is provided for delineating the background and the previous research of online IR; afterwards, research hypotheses and methodology are explained; then, research findings about online IR adoption in HK and in the US are analyzed in detail; at the end, a thorough explanation for the HK and the US models of online IR adoption is provided.

## II) Literature Review

### 2.1) Rise of Online Investor Relations

The emergence of online investor relations is the result of the convergence of two elements: financial regulations and information technology development.

Describing the trend of investor relations, Cossette pointed out that financial regulations since 1933 in the US paved the way for the development of investor relations. Stock market crash in 1929, leading to the Great Depression before World War 2, revealed the lack of credibility and standardization of financial reporting by listed companies. Typical offering circulars were blamed for inadequate financial information. As a result, the Securities Act was enacted in 1933 to ask public companies to provide investors with material information concerning securities offered for public sale and to prevent misrepresentation, deceit and other fraud in the sales of securities. Moreover, the new regulation urged the companies to spend much more resources on managing disclosure of financial information and on handling communications with investors. Further legislations in 1934, 1982, 1995 and 2000 worked together to confine the companies in disclosing financial information and to encourage them to formulate systematic functions for investor relations departments (Cossette, 2002).

As a result of these legal initiatives, senior management at US corporations has gradually learned the importance of managing investor relations. In the 1970s, the IR profession emerged in the US and spread to European countries 10 years later (Witmer,2000:41). Nowadays, the professional tasks of investor-relations officers (IROs) include preparing financial reports, editing press releases, hosting conference calls and handling enquiries from shareholders, potential investors and media.   In multinational corporations, senior IR consultants are recruited to formulate customized IR strategies and to devise global IR campaigns (IRS, 2001).

Since the early 1990s, revolutionary development of the Internet technology has transformed the practice of investor relations. Before the Internet age, IROs disclosed first-hand corporate news over private channels accessible only to privileged parties with paid subscriptions. Invitation lists for conferences of earnings announcements were limited to an elite clique of financial analysts, portfolio managers and investment bankers. Options for disseminating financial information were limited and costly. However, development of the Internet has enabled IROs to deliver company information in an open and cost-effective manner. For example, lengthy financial reports in PDF or Word-document format can be distributed to investors at virtually zero cost through the email or FTP (file-transfer-protocol) system. Earnings-announcement conferences (or 'conference calls', abbreviated as 'CC' on the Wall Street) are accessible to any investor with an appropriate browser via webcasting technology. As a result of online IR application, money managers, financial news media and the wired public all have equal and virtually simultaneous access to corporate financial information (Pownall, 2002).

## 2.2) Academic Research on Online IR Adoption

The adoption of the Internet in managing investor relations is highly concerned by the IR industry. In fact, most studies on online IR were conducted by associations of IR practitioners in the US. National Investor Relations Institute (NIRI) conducted surveys on the 'growing use of communications technologies in the practice of investor relations' in 1996, 2000 and 2001 respectively, in which more than 200 members were asked for the availability of corporate websites, email systems and conference calls in their companies. The results showed that the usage of corporate web sites, emails and conference calls had gained in popularity: for instance, in the 2001 survey, 67% of IROs believed that email was a valuable tool for their company

to handle investors' enquiries (Thomson, 2002). What's more, the consultancy group NewsDirections conducted a survey on IROs' usage of the Internet in the US in 1998. The survey found that 98% of IR departments had Internet access and 75% of the companies had websites to support their IR activities (NewsDirections, 1999).

These studies showed that online IR has become an integral part of corporate strategies in the US. How about the situation in other countries?

A survey of 216 publicly-listed companies in Poland was conducted in 2001 by the IT consultancy company Digital Strategies Group. It was found that 96% of the Polish companies had their own web sites and 67% had a specific 'investor-relations section' in the website (Digital Strategies Group, 2001). The German financial magazine *Capital* conducted a survey on the top 150 publicly listed companies (ranked in terms of market capitalization) in Germany and found that most German companies recognized that the Internet was an important platform for managing investor relations (Stuttgart, 2000).


## 2.3) Research Questions and Hypotheses

On the whole, previous studies concluded that online IR was widely adopted and appraised by public companies in Western countries. However, the IR picture depicted by past research is still incomprehensive. First, studies were conducted mainly at the local level, most of which focused on US companies. **Cross-country comparison** of online IR adoption was not conducted. Second, **cross-industry comparison** of online IR adoption was not made: does the type of industries affect the online IR adoption rate of its companies? Furthermore, does the **financial nature** of a company, in terms of its **stock's trading activity** and its **market capitalization**, affect its online IR adoption as well? These 3 research aspects are significant because of the following reasons:

1) For IR service providers, findings from these 3 research questions provide them with practical information to reveal potential markets in terms of geographical locations, industrial sectors and corporate financial status.

2) For IROs, the findings enable them to identify strengths and weaknesses in their IR strategies vis-à-vis the online IR strategies adopted by companies in different locations and industrial segments.

3) For academic researchers, cross-country comparison provides the empirical foundation for erecting the Eastern model of online IR adoption: is the pattern of online IR adoption in Eastern countries or city states (like Hong Kong) different from that in Western countries (like the US)? If so, what kinds of factors contribute to the difference between the Eastern and the Western models?

In view of the above, five research questions are designed for analyzing online IR adoption in the US and in Hong Kong. These research questions are specified as follows:

*Q1: Is there a difference in adopting online IR between US and HK publicly listed companies?*

*Q2: Is there a difference in adopting online IR between tech and non-tech companies in the US and in HK?*

*Q3: Is there a difference in adopting online IR among different economic sectors in the US and in HK?*

*Q4: Is there a difference in adopting online IR among companies with different sizes of market capitalization?*

*Q5: Is there a difference in adopting online IR among companies with different stock-trading activities?*

In order to answer these 5 research questions, content analysis of corporate websites of US and of HK publicly listed companies was conducted. In the following section, details of the research methodology are provided.

## III) Research Methodology

### 3.1) Operational Definitions of Variables

*A) Adoption of Online Investor Relations (Online IR)*

The dependent variable for the 5 research questions is 'online IR adoption'. Theoretically, it refers to the use of the Internet in managing investor relations. Operationally, the degree of adoption of online IR is measured by the availability of **15 online IR features**. In discussing the ways to nurture investor relations, Witner, Middleberg and Haig suggested the application of 15 online IR strategies (Witner, 2000; Middleberg, 2001; Haig, 2000). These online IR features include:

1) Corporate website
2) IR section on the website
3) Stock quote
4) Corporate news
5) Email news alert
6) Annual report
7) Interactive annual report
8) Webcast
9) Proxy statement
10) Online proxy voting
11) Company-event calendar
12) IR frequently-asked question (FAQ)
13) IR contact email or enquiry form
14) Printed material request
15) IR search engine

The more online IR features a company offers, the higher the degree of online IR adoption for the company. To provide a thorough understanding of the 15 features, their specific details are presented in the following:

### 1. Corporate web site

'Corporate website' refers to the independent website of a company. The domain name of the website is usually the company name or the initial of the

company name plus ".com". For example, www.ford.com for Ford Motor and www.ge.com for General Electric.

**2. IR section on the website**

'IR section on the website' refers to the specific section in a corporate website tailored made for IR functions like distributing press releases. Usually, the IR section is named "Investor", "Investing", "Investor Relations", "Investor Information", "Shareholder", etc.



**IR section on website: P&G.com**

**3. Stock quote**

Stock quote gives the real-time or delayed (usually 15-minute delayed) price information of a company's stock traded on an exchange. While stock prices are always a serious concern for investors, the company website serves as the most effective channel for providing stock data, which is impossible to offer cost-efficiently offline (Witner, 2000; Middleberg, 2001).
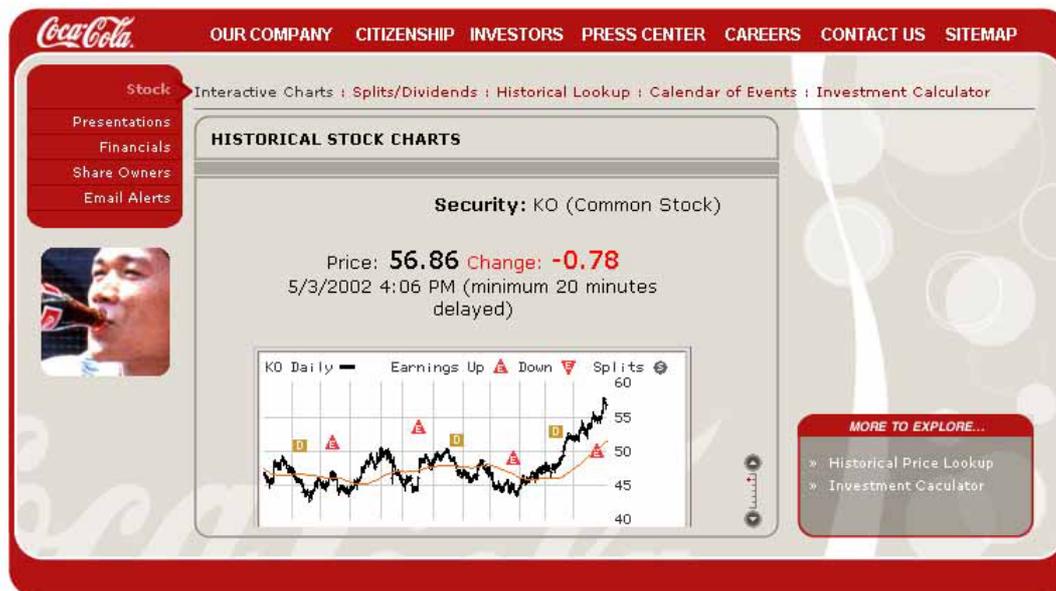
**Stock quote: cocacola.com**

### 4. Corporate news

'News section' on a corporate website is for posting press releases from the company as well as news articles related to the company from other media (Middleberg, 2001).

### 5. Email news alert

'Email news alert' is a free service for interested individuals to receive email alerts of news updates about the company. Usually, a person can subscribe to the service by just providing the personal email address.

### 6. Annual Report

'Annual report' contains in-depth information about a company's business, financial and equity performance. The digital format of annual reports is usually Portable Document Format (PDF), which presents the reports exactly in the same layout as the printed version. However, PDF format requires a pre-installed reader (the most common is Acrobat Reader). Since it is a graphical presentation, the file size is usually large and it takes time to download the PDF file before actual perusal. Moreover, the same presentation as the printed version is not customized for the

computer screen and this makes on-screen reading difficult. This is why IR specialists advocate the interactive version of annual reports in HTML format.

### 7. Interactive Annual Report

The interactive version of annual reports is usually produced in Hyper Text Markup Language (HTML). The HTML presentation makes the file size relatively small. What's more, hyperlinks within the text enable readers to retrieve important information in a single click.

### 8.  Webcast

'Webcast' is the means by which a company can broadcast, in video or in audio format, company events such as conference calls or new product presentation through the Internet (Witner,2000:35). Video or audio clips can be delivered live or archived in a database. Usually, webcast requires special media software like Windows Media Player or QuickTime Player.

### 9. Proxy Statement

'Proxy statement' is a document explaining the items (such as election of directors, approval of stock offering plan) on which shareholders have the right to vote in a special company meeting.

### 10. Online Proxy Voting

Nowadays, proxy voting can also be undertaken online. The adoption of online proxy voting is convenient for shareholders to make their vote and it saves time and resources for companies on proxy solicitation.

### 11. Event Calendar

'Event calendar' is used to inform investors about the dates of important company events, including earnings announcement, new product release, press conference, stock split, etc.

### 12. IR Frequently Asked Question (FAQ)

'IR FAQ' is a list of frequently asked questions about investing in a public company, including dividend-payment enquiry, stock-split issues, etc.



**IR FAQ: harley-davidson.com**

### 13. Contact Email or Enquiry Form

'Contact email' serves as a cost-effective means of communication between the IR departments and the public. To enhance the efficiency of handling enquiry, some companies choose to use 'online enquiry form'. Standardization of the enquiry forms allows IROs to handle investor questions efficiently and to collect enquirers' personal particulars for marketing purposes systematically.

**Online enquiry form**

## 14. Request Form for Printed Material

'Request form for printed material' allows investors to order hard copies of corporate publications, including annual reports, financial statements, etc.



**Request form for printed material**

**15. IR Search Engine**

'IR search engine' is specified for searching investor-related information. Many company websites have a general search engine comprising all kinds of corporate information. However, Witner believed that a specific search engine confined to the investor-relations scope is more effective for investors and also boosts the image of the respective IR department (Witner, 2000:60).

*B) US and HK Listed Companies*

In question 1, the independent variable is the **geographical location** of public companies, divided into 2 groups: US-listed companies and HK-listed companies. US listed companies are randomly selected from the pool of Standard & Poor's (S&P) 500 Index while HK listed companies are randomly picked from the pool of Hang Seng Composite Index. The sampling method is detailed in the latter part of this section.

The S&P 500 Index consists of 500 stocks chosen for market size, liquidity, and industry group representation. It is a market-value (or market-capitalization) weighted index, with each stock's weight in the Index proportionate to its market capitalization (stock price times number of shares outstanding). This Index is one of the most widely used benchmarks of U.S. equity performance (e.g., many mutual funds' portfolios mirror the 500 Index's composition, and there are many individual investors trading the futures of S&P 500 Index (the futures symbol is 'SPX' on Chicago Board Options Exchange)) (Standard and Poor's, 2002).

The Hang Seng Composite Index Series, launched on 3rd October 2001, is aimed at providing a comprehensive benchmark of the performance of the Hong Kong stock market. Comprising the top 200 listed companies in terms of market capitalization, the Hang Seng Composite Index covers 95% of the market capitalization of the stocks

listed on the Main Board of the Hong Kong Stock Exchange (HSI Services Ltd, 2002).

*C) Industry Group*

In question 3, the independent variable is **industrial sectors**. In this aspect, US- and HK-listed companies are categorized according to different economic sectors. As shown in table 1, S&P 500 Index comprises 23 industry groups and Hang Seng Composite Index consists of 9 industry groups.

| *S&P 500* | *Hang Seng Composite Index* |
|---|---|
| Automobiles & Components | Oil & Resources |
| Bank | Industrial Goods |
| Capital Goods | Consumer Goods |
| Commercial Services & Supplies | Services |
| Consumer Durables & Apparel | Utilities |
| Diversified Financials | Financials |
| Energy | Properties & Construction |
| Food & Drug Retailing | Information Technology |
| Food & Beverage & Tobacco | Conglomerates |
| Health Care Equipment & Services | |
| Hotels, Restaurants & Leisure | |
| Household & Personal Product | |
| Insurance | |
| Materials | |
| Media | |
| Pharmaceuticals & Biotechnology | |

| | |
|---|---|
| Real Estate | |
| Retailing | |
| Software &Services | |
| Technology Hardware & Equipment | |
| Telecommunication Services | |
| Transportation | |
| Utilities | |

**Table 1) Industry Groups in the US and in HK**

In order to generate comparable results for US- and HK-listed companies, the companies in the above industry groups are re-organized into 10 economic sectors (Appendix 1 provides the detailed classification of the sampled companies). This classification is based on the economic sectors defined by Standard & Poor's. The 10 economic sectors are:

1) Consumer Discretionary
2) Consumer Staples
3) Energy
4) Financials
5) Health Care
6) Industrials
7) Information Technology
8) Materials
9) Telecommunication Services
10) Utilities

*D) Tech and Non-tech companies*

In question 2, the independent variable is **companies' tech-relatedness**, divided into tech and non-tech companies. The classification of tech and non-tech companies is based on the 10 economic sectors mentioned above and it is listed in table 2.

| Companies's Tech-Relatedness | S&P's 10 Economic Sectors |
|---|---|
| Tech Companies | Information Technology |
|  | Telecommunication Services |
| Non-Tech Companies | Consumer Discretionary |
|  | Consumer Staples |
|  | Energy |
|  | Financials |
|  | Health Care |
|  | Industrials |
|  | Materials |
|  | Utilities |

**Table 2) Classification of Tech and Non-Tech Companies**

*E) Market Capitalization*

Market capitalization of a company is computed by multiplying the market price by the number of outstanding shares. For example, a publicly-listed company with 10 million shares outstanding that trade at US$20 each would have a market capitalization of US$200 million. The values of companies' 'caps' are used to segment the universe of stocks into various chunks, including large-cap, mid-cap and small-cap. Market capitalization of the sampled US companies was based on the data provided by Hoover's Inc (www.hoovers.com), one of the most reputable corporate information provider in the US. For the chosen HK companies, the data of market capitalization was extracted from the official website of the Hong Kong Exchange and Clearing Limited (HKEx).

*F) Stock-Trading Activity*

The trading activity of a stock is measured by its trading volume, that is, the number of shares traded. To have a fair measurement, the average trading volume for the latest 13 weeks is calculated (details of average trading volume are provided in Appendix 1). The 13-week average trading volumes of US companies are provided by Hoover's Inc while the data for HK companies is retrieved from Yahoo Finance Hong Kong.

**3.2) Sampling**

140 corporate websites, representing 20% of the total population (i.e., 700 websites), were examined through content analysis from 2$^{nd}$ March to 25$^{th}$ March 2003. The average browsing time spent on each website is 48.5 minutes.

Since the company ratio of S&P 500 Index to Hang Seng Composite Index is 5 to 2, 100 samples were chosen from S&P 500 while 40 samples were picked from Hang Seng Index out of the total of 140 samples. In addition, specific companies were randomly selected from S&P 500 and Hang Seng Index through **stratified sampling**. Under stratified sampling, the population was first divided into 10 economic sectors mentioned above. The number of random samples chosen from an economic sector was based on the company proportion of that economic sector to the total number of companies in the respective index. For instance, in the S&P 500 Index, there are 89 companies belonging to the 'consumer discretionary' sector, which occupies 18% of the 500 companies in the Index. Since 100 samples were chosen from the S&P Index, 18 US corporations were randomly picked from the consumer discretionary sector. The details of stratified sampling are summarized in table 3 and 4.

**Table 3: Stratified Sampling for S&P 500 Index (Total sample size=100)**

| Economic Sector | No. of Companies | % of S&P 500 companies | No. of companies randomly chosen* (total sample size=100) |
|---|---|---|---|
| Consumer Discretionary | 89 | 18 | 18 |
| Consumer Staples | 35 | 7 | 7 |
| Energy | 23 | 5 | 5 |
| Financials | 82 | 16 | 16 |
| Healthcare | 47 | 9 | 9 |
| Industrials | 66 | 13 | 13 |
| Information Technology | 75 | 15 | 15 |
| Materials | 34 | 7 | 7 |
| Telecommunication Services | 12 | 3 | 3 |
| Utilities | 37 | 7 | 7 |
| Total | 500 | 100 | 100 |

*details of the random samples (e.g., company names, market-caps, stock-trading volumes, etc) are

provided in Appendix 1

**Table 4: Stratified Sampling for Hang Seng Composite Index (Total sample size=40)**

| Economic Sector | No. of Companies | % of 200 Hang Seng Composite Index companies | No. of companies randomly chosen* (total sample size=40) |
|---|---|---|---|
| Consumer Discretionary | 32 | 16 | 6 |
| Consumer Staples | 12 | 6 | 2 |
| Energy | 9 | 5 | 2 |
| Financials | 58 | 29 | 11 |
| Healthcare | 2 | 1 | 1 |
| Industrials | 49 | 25 | 10 |
| Information Technology | 14 | 7 | 3 |
| Materials | 4 | 2 | 1 |
| Telecommunication Services | 12 | 6 | 2 |
| Utilities | 8 | 4 | 2 |
| Total | 200 | 100 | 40 |

*details of the random samples (e.g., company names, market-caps, stock-trading volumes, etc) are provided in Appendix 1

## 3.3) Content Analysis and Coding

In this research, the unit of analysis was each corporate website. Moreover, content analysis is applied for identifying the availability of the 15 online IR features on the 140 websites. In addition, a coding scheme was prepared along with coding

guidelines. A sample of the coding sheets is provided in Appendix 2. On the coding sheet, a score of '1' was given for the presence of each online IR feature while '0' was given for absence of each characteristic. Accordingly, this coding scheme results in scores ranging from a maximum of 15 to a minimum of 0. The higher a company scores, the higher the degree of its online IR adoption. **Lastly, an inter-coder reliability test called Kappa test was conducted to ensure consistency throughout the coding process. Kappa test includes different formulas suitable for ordinal, interval and nominal data (Kraemer,1982; Krippendorff,1980). In this aspect, 20 websites were re-coded and the Kappa result was 0.98.**

### 3.4) Statistical Methods

One-tailed t-tests, ANOVA and Pearson's correlation coefficient are applied for statistical analyses. One-tailed t-test is used to test the significance of the difference of online IR adoption between: 1) the US and HK (question 1); and 2) tech and non-tech companies (question 2). ANOVA is used to test the significance of the difference of online IR adoption among different economic or industrial sectors (question 3). Pearson's correlation coefficient is calculated to reveal the correlations between: 1) online IR adoption and market capitalization (question 4); and 2) online IR adoption and stock-trading activity (question 5).

## IV) Patterns of Online IR Adoption: Findings

### 4.1) Online IR Adoption in the US and HK

*Q1: Is there a difference in adopting online IR between HK- and US-listed companies?*

Table 3 summarizes the degree of online IR adoption in the US and in HK.

|        | *Highest Score* | *Lowest Score* | *Mean Score* |
|--------|-----------------|----------------|--------------|
| *US*   | 15 (Johnson & Johnson) | 4 (Fifth Third Bancorp, Loews Corp, PPG Industries) | 10.62 |
| *HK*   | 11 (HSBC)       | 0 (Natural Beauty Ltd.) | 5.25 |

**Table 3 Score of New Media Adoption in IR: HK vs. US**

First of all, it is found that US companies have a higher degree of online IR adoption than HK companies. The average score of US companies is 10.62 while that of HK companies is 5.25, which means that out of the 15 online IR features, US companies offer about 10 on average while HK companies provide only 5 on their websites. To test the significance of the difference, a one-tailed t-test was conducted. The hypotheses are set as follows:

*Null hypothesis:*        *US companies do not have a higher degree of online IR adoption than HK companies.*

*Research hypothesis:*    *US companies have a higher degree of online IR adoption than HK companies.*

The obtained value of t was 4.015 while the table t was 1.671 (at 0.05 significance level). Thus the research hypothesis is accepted.   Statistically, the degree of online IR adoption in the US is significantly higher than that in HK.   In this sense, HK lags behind the US in implementing online IR.

Hong Kong's being a laggard can be witnessed from another perspective. Table 3 shows that among all US companies, Johnson & Johnson has the highest score (15, meaning that J&J offers the 'perfect' model of online IR) while among HK companies, Hong Kong and Shanghai Banking Corporation (HSBC) has the best score (11). In contrast to the perfect model of J&J in the US, HK offers the 'worst' model in online IR adoption: Natural Beauty Ltd has a score of 0, which is far less than the lowest score among US companies (4). Ironically, the US offers the perfect model while HK provides the worst case.

Furthermore, figure 1 and 2 delineate a detailed picture of online IR application in the 2 locations.
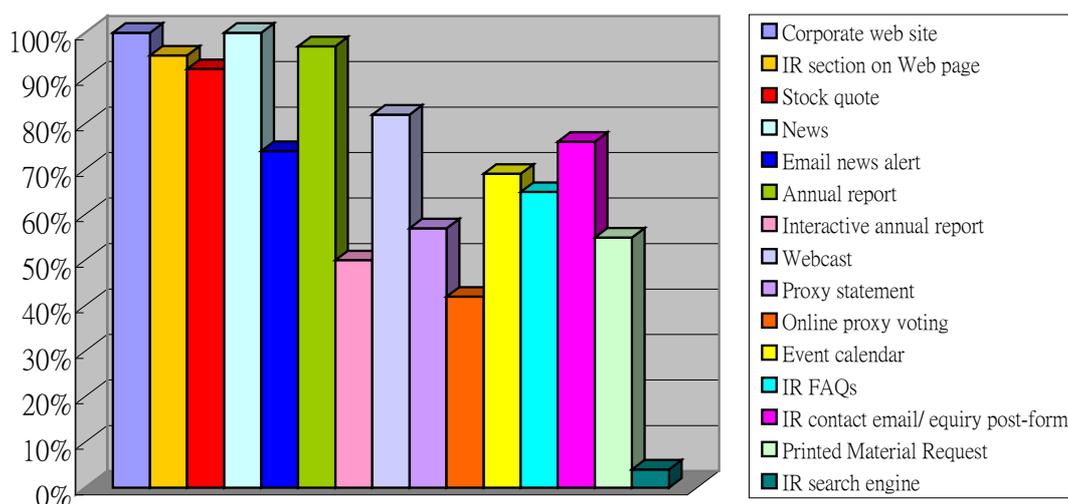


**Fig. 1: Online IR Application among 100 US companies**
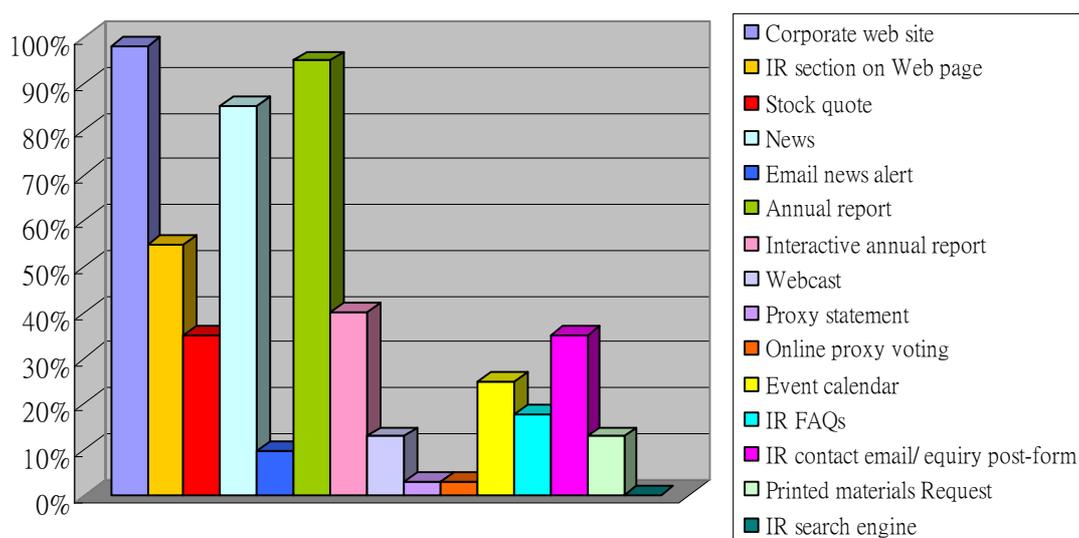
**Fig. 2: Online IR Application among 40 HK companies**

From figure 1, we can find that **13** online IR features are adopted by the majority of US companies (= or >50%). There are only **2** online IR functions that are not widely utilized: online proxy voting (42%) and IR search engine (4%). However, as figure 17 shows, there are **only 4** online IR features adopted by the majority of HK companies (= or > 50%) and they are: corporate website (98%), annual report (95%), corporate news (95%) and IR section on the website (55%). The remaining 11 online IR functions fail to gain in popularity among HK companies. In a nutshell, we can see that US companies have greater acceptance and broader application of different online IR features while HK companies are inarguably limited in utilizing various online IR strategies.

In conclusion we can find that **HK companies are significantly lagging behind the US counterparts** in adopting online IR strategies. This is obviously reflected by the fact that the US offers the perfect model of online IR adoption (Johnson & Johnson) while HK has the worst example (Natural Beauty Ltd). Last but not least, US companies employ a wide range of online IR functions while HK companies limit

themselves mainly to only 4 online IR strategies. Explanations for HK's being a laggard are provided in-depth in section 5.

## 4.2) Online IR Adoption in Tech and Non-Tech Companies

*Q2: Is there a difference in online IR adoption between tech and non-tech companies?*

Compared with old-economy industries, it is expected that technology companies should rely more on the Internet as a major communication tool since technology practitioners tend to be 'early adopters' of innovations. Moreover, technology managers should be well trained in utilizing network systems. According to this assumption, it is expected that tech companies have a higher degree of online IR adoption than non-tech companies.

Table 4 shows the mean scores of tech and non-tech companies in the US in terms of online IR adoption.

|  | *Mean Score of IR adoption for tech companies* | *Mean Score of IR adoption for non-tech companies* |
|---|---|---|
| *US* | 11.78 | 10.37 |
| *HK* | 7.4 | 4.94 |

**Table 4 Score of New Media Adoption for IR - Tech and non-tech companies**

To test the significance of the difference, a one-tailed t-test is conducted.   The hypotheses are set as follows:

*Null hypothesis:*          *In the US, tech companies do not have a higher degree of online IR adoption than non-tech companies.*

*Research hypothesis:*     *In the US, tech companies have a higher degree of online IR adoption than non-tech companies.*

For US companies, the obtained value of t is **2.509** while the table t is 1.658 (at 0.05 significance level). Thus, the research hypothesis is accepted. Statistically, tech companies have a **higher degree** of online IR adoption than non-tech companies in the US, supporting our theoretical assumption.

How about the situation in HK? To test the significance of the difference, again a one-tailed t-test is conducted. The hypotheses are provided as follows:

*Null hypothesis:*          *In HK, tech companies do not have a higher degree of online IR adoption than non-tech companies.*

*Research hypothesis:*    *In HK, tech companies have a higher degree of online IR adoption than non-tech companies.*

For HK companies, the obtained value of t is **2.292** while the table t is 1.684 (at 0.05 significance level). **Therefore, the research hypothesis is accepted. Statistically, technology companies in HK have a higher degree of online IR adoption than non-tech companies, the pattern of which is the same as that of the US. Therefore, the HK and the US cases support our argument that technology companies do have a higher tendency in adopting online IR than non-tech companies.**

As concluded in section 4.1, on average HK companies lag behind US corporations in adopting online IR. However, do HK tech companies also fall behind their US counterparts? As mentioned before, tech companies, regardless of their geographical origin, should show relatively high adoption of Internet technology in managing investor relations. To see whether US tech companies also have higher degree of online IR adoption than HK tech companies, a one-tailed t-test is conducted for the following hypotheses:

*Null hypothesis:*          *US tech companies do not have a higher degree of online IR*

                        *adoption than HK tech companies.*

*Research hypothesis:*    *US tech companies have a higher degree of online IR*

                        *adoption than HK tech companies.*

The obtained value of t is 5.595 while the table t is 1.721 (at 0.05 significance level). Therefore, the research hypothesis is accepted.  Statistically, the degree of online IR adoption in the US tech companies is **significantly higher** than that in HK tech corporations. In this sense, HK lags behind the US in implementing online IR **even in the technology sector**.

In addition, the online IR adoption pattern in non-tech area is also examined. To see whether US non-tech companies have a higher degree of online IR adoption than HK non-tech companies, a one-tailed t-test is conducted for the following hypotheses:

*Null hypothesis:*          *US non-tech companies do not have a higher degree of online*

                        *IR adoption than HK tech companies.*

*Research hypothesis:*    *US non-tech companies have a higher degree of online IR*

                        *adoption than HK tech companies.*

In this aspect, the obtained value of t is 7.697 while the table t is 1.658 (at 0.05 significance level). Thus, the research hypothesis is again accepted.  Statistically, US non-tech companies have a higher degree of online IR usage than HK non-tech companies.

From the above analyses, we can find that in adopting online IR, HK companies significantly lag behind US companies in **both the technology and the non-technology sectors**. This pattern is further confirmed in table 5 and 6.

**Table 5: Highest and Lowest scores among US tech and non-tech companies**

|  | *Highest Score* | *Lowest Score* |
|---|---|---|
| *Tech* | 14 <br><br> (Applied Micro Circuits, AT&T Corp) | 8 <br><br> (Electronic Arts) |
| *Non-tech* | 15 <br><br> (Johnson & Johnson) | 4 <br><br> (Fifth Third Bancorp, Loews Corp, PPG <br><br> Industries) |

**Table 6: Highest and Lowest scores among HK tech and non-tech companies**

|  | *Highest Score* | *Lowest Score* |
|---|---|---|
| *Tech* | 9 <br><br> (PCCW) | 6 <br><br> (CCT Telecom Holdings Ltd) |
| *Non-tech* | 11 <br><br> (HSBC) | 0 <br><br> (Natural Beauty Ltd.) |

In the US technology sector, there are 2 companies obtaining the highest score of 14, which is close to perfect. Moreover, these 2 tech companies conduct networking businesses (AT & T is the No.1 telecommunication service provider in the US while Applied Micro Circuits is the leader in optical networking). However, in the case of HK, despite being the No. 1 telecommunication service provider in the city, Pacific Century Cyber Works (PCCW) only receives the highest score of 9 (5 points below AT & T's score). In addition, the tech company with the lowest score (6) in HK is also a telecommunication player – CCT Telecom Holdings Ltd, whose score is 8 points below AT & T's. Ironically, the tech company with the lowest score (8) in the US (Electronic Arts, a video-game publisher) is only 1 point below the score of PCCW. In

the non-tech arena, Johnson & Johnson provides the perfect model of online IR adoption in the US with a score of 15 while Natural Beauty serves as the worst model in HK with zero score. These findings further confirm that in both the tech and the non-tech domains, US companies act as the ideal model while **even the best performers in HK still lag behind their US counterparts.**

To conclude, this section reveals 2 important patterns of online IR adoption in the US and in HK: **1) in both areas, tech companies have a higher degree of online IR adoption than non-tech companies**; and 2) US tech and non-tech companies have significantly higher degrees of online IR adoption than their HK counterparts, reinforcing the finding of section 4.1.

## 4.3) Online IR Adoption among Economic Sectors

*Q3: Is there a difference in adopting online IR among different economic sectors?*

Table 7 lists the mean score of each economic sector in the US and in HK. Accordingly, the mean score of economic sectors in the US ranges from 9 (Financials, Materials) to 12.33 (Telecommunication Services) while that in HK ranges from 2.5 (Consumer Stapes, Energy) to 7.5 (Telecommunication Services).

| *Economic Sector* | *Mean score* | |
|---|---|---|
| | *U.S.* | *H.K.* |
| Consumer Discretionary | 10.78 | 5.67 |
| Consumer Staples | 12.14 | 2.5 |
| Energy | 10 | 2.5 |
| Financials | 9 | 5.27 |
| Health Care | 11 | 6 |
| Industrials | 10 | 4.7 |

| | | |
|---|---|---|
| Information Technology | 11.67 | 7.33 |
| Materials | 9 | 5 |
| Telecommunication Services | 12.33 | 7.5 |
| Utilities | 12.14 | 6.5 |

**Table 7 Online IR Adoption among Economic Sectors in the US & in HK**

To verify whether there is a significant difference in online IR adoption among different economic sectors, ANOVA testing is applied. In the case of the US, the hypotheses are designed as follows:

*Null hypothesis:*          *There is no difference in online IR adoption among different economic sectors in the US.*

*Research hypothesis:*     *There is a difference in online IR adoption among different economic sectors in the US.*

For US companies, the obtained F-ratio is 3.86 while the table F is 2.10 (at 0.05 significance level). Therefore, the research hypothesis is accepted.   Statistically, the nature of economic sectors **does matter** in affecting the adoption of online IR among US companies. From table 7, we can find that the top-3 economic sectors with the highest average IR adoption rates are telecommunication services (12.33), consumer staples (12.14) and utilities (12.14). Meanwhile, sectors with the lowest average IR adoption rates are Materials (9) and Financials (9).

In the case of HK, the corresponding hypotheses are provided in below:

*Null hypothesis:*          *There is no difference in online IR adoption among different economic sectors in HK.*

*Research hypothesis:*     *There is a difference in online IR adoption among different economic sectors in HK.*

For HK companies, the obtained value of F-ratio is 1.35 while the table t is 2.27 (at 0.05 significance level). As a result, the null hypothesis is accepted.   Statistically,

there is **no difference** in adopting online IR among companies in different economic
sectors, the pattern of which is completely different from that in the US.

As concluded in section 4.1 and 4.2, US companies have a higher degree of
online IR adoption than HK companies. But is the argument also supported when
comparing the adoption pattern of each economic sector in the US with that in HK?
To answer this question, the following hypotheses are devised:

*Null hypothesis\*:*         *US companies of a specific economic sector do not have a*
*higher degree of online IR adoption than HK companies in*
*the same economic sector.*

*Research hypothesis\*:*   *US companies of a specific economic sector have a higher*
*degree of online IR adoption than HK companies in the same*
*economic sector.*

\*These 2 hypotheses are applicable to analyzing all the 10 economic sectors

10 one-tailed t-tests are conducted for analyzing the 10 economic sectors on the
basis of cross-country comparison. The obtained t values and the respective table t
values (at 0.05 significance level) are summarized in table 8.

| *Economic Sector* | *Obtained T Value* | *Table T Value (at 0.05 significance level)* | *Acceptance of Research Hypothesis* |
|---|---|---|---|
| Consumer Discretionary | 6.059 | 1.717 | Yes |
| Consumer Staple | 6.319 | 1.895 | Yes |
| Energy | 6.186 | 2.015 | Yes |
| Financials | 3.883 | 1.708 | Yes |
| Healthcare | 1.677 | 1.860 | No |
| Industrials | 6.708 | 1.827 | Yes |

| Information Technology | 4.568 | 1.746 | Yes |
| Materials | 1.247 | 1.943 | No |
| Telecommunication Services | 2.527 | 2.353 | Yes |
| Utilities | 4.232 | 1.895 | Yes |

**Table 8: One-tailed T-tests' results for 10 economic sectors in the US and in HK**

From the table, we can find that the research hypothesis is supported by **8 economic sectors**, including consumer discretionary, consumer staple, energy, financials, industrials, information technology, telecommunication services and utilities. This means that US companies in these economic sectors have significantly higher degrees of online IR adoption than their HK counterparts. Moreover, only 2 economic sectors refute the research hypothesis (healthcare and materials), implying that US companies in these sectors do not have higher degrees of online IR adoption than respective HK corporations. Therefore, among the 10 economic sectors, findings from the majority strengthen the view that US companies have a relatively high degree of online IR adoption.

This finding is further confirmed from the distribution of the highest and the lowest scores in the 2 places (table 9 and 10).

| *Economic Sector* | *Highest Score* | *Lowest Score* |
|---|---|---|
| Consumer Discretionary | 14 (McGraw-Hill) | 7 (Bed Bath & Beyond) |
| Consumer Staples | 14 (Gillette Co.) | 10 (Alberto-Culver) |

| | | |
|---|---|---|
| Energy | 12<br><br>(Chevron Texaco Corp.) | 8<br><br>(Rowan cos.) |
| Financials | 12<br><br>(Plum Creek Timber Co.) | 4<br><br>(Fifth Third Bancorp, Loews<br><br>Corp) |
| Health Care | 15<br><br>(Johnson & Johnson) | 6<br><br>(King Pharmaceuticals) |
| Industrials | 12<br><br>(Emerson Electric, FedEx<br><br>Corporation, General Electric,<br><br>Ingersoll-Rand Co. Ltd) | 7<br><br>(Allied Waste Industries, Cintas<br><br>Corporation, Union Pacific.) |
| Information Technology | 14<br><br>(Applied Mircro Circuits) | 8<br><br>(Electronic Arts) |
| Materials | 12<br><br>(Alcoa Inc, Louisiana Pacific) | 4<br><br>(PPG Industries) |
| Telecommunication<br><br>Services | 14<br><br>(AT&T Corp) | 10<br><br>(Nextel Communications) |
| Utilities | 13<br><br>(American Electric Power, DTE<br><br>Energy Co., El Paso Corp.,<br><br>Pinnacle West Capital) | 11<br><br>(Duke Energy, NiSource Inc.,<br><br>Williams Cos.) |

**Table 9: Highest and Lowest Scores of US companies based on Economic Sectors**

| Economic Sector | Highest Score | Lowest Score |
|---|---|---|
| Consumer Discretionary | 9 (Esprit Holdings Ltd.) | 3 (Television Broadcasts Ltd.) |
| Consumer Staples | 5 (Vitasoy International) | 0 (Natural Beauty Ltd) |
| Energy | 3 (Yanzhou Coal Mining Co.) | 2 (Jiangxi Copper) |
| Financials | 11 (HSBC) | 2 (Henderson China Holdings) |
| Health Care | 6 (Global Bio-chem Technology Group Co. Ltd.) | 6 (Global Bio-chem Technology Group Co. Ltd.) |
| Industrials | 8 (Wharf Holdings Ltd) | 3 (China Aerospace, Hung Hing Printing, Road King Infrastructure) |
| Information Technology | 8 (VTech Holdings Ltd.) | 7 (ASM Pacific Technology Ltd., Legend Group Ltd.) |
| Materials | 5 (Cheung Kong Infrastructure) | 5 (Cheung Kong Infrastructure) |
| Telecommunication Services | 9 (PCCW) | 6 (CCT Telecom) |
| Utilities | 9 (CLP) | 4 (Hongkong Electric) |

**Table 10: Highest and Lowest Scores of HK companies based on Economic Sectors**

Comparing table 9 and 10, we can find that there are 5 US companies from the 10 economic sectors offering perfect or close-to-perfect scores (15 points for J&J and 14 points for McGraw Hill, Gillette, AT & T and Applied Micro Circuits). However, in HK, the best performer among the 10 sectors only obtains a score of 11 (HSBC). Moreover, in the US, the mean and the median values of the highest scores are 13.2 and 13.5 respectively. In HK, these values are 7.3 and 8 respectively, both of which are significantly lower than the US values. These results show that **even the best performers** from the 10 economic sectors in HK still **lag behind** their counterparts in the US in online IR application.

Surprisingly, in the US, the mean and the median values of the lowest scores are both 7.5, which is higher than the mean value (7.3) of the highest scores in HK. Meanwhile, in HK, the mean and the median values of the lowest scores are 3.8 and 3.5 respectively. These findings depict a shocking picture: on average, the **under-performers** from the 10 economic sectors in the US have similar degree of online IR adoption compared with the **best performers** in HK. The best online IR practitioners in HK are, indeed, only like the worst players in the US.

To sum up, this section reveals 2 important findings: 1) in the US, the nature of economic sectors does affect online IR adoption but this is not the case in HK; 2) HK companies from the 10 economic sectors significantly lag behind their counterparts in the US in adopting online IR; moreover, the best online IR adopters in HK are just like the worst practitioners in the US.

**4.4) Online IR Adoption and Market Capitalization**

*Q4:  Is there a difference in adopting online IR among companies with different sizes of market capitalization (market cap)?*

Companies with large market cap are assumed to have a higher degree of online IR adoption. It is because of 2 reasons. First, many stock indices (e.g., S&P 500 Index, NASDAQ Composite Index, Wilshire 5000 Equity Index and Hang Seng Index) mirrored by mutual funds and individual investors are market-cap weighted indices, with each stock's weight in an index proportionate to its market cap. As a result, the larger the market cap a company has, the higher the influence of the company's stock on the whole index's movement. For example, **Microsoft at the market cap of US\$260 billion occupies 3.4% of S&P 500 Index (S&P 500 Index's total market capitalization is US\$7647 billion (US\$260 billion / 0.034)). If Microsoft's stock price changes US\$10, the overall market value changes approximately US\$107 billion, causing S&P 500 Index to move 1.4% ((US\$107 billion/ US\$7647 billion) x 100% = 1.4%, rounded up to 2 decimal places) (Parish, 2003; S&P 500 Index's market-cap calculation is conducted by the author).** Since companies with large market-cap have significant influences over market-value weighted indices, mutual fund managers and individual investors mirroring these indices have high demand for corporate information on these large-cap companies. To satisfy the investment community's demand, it becomes necessary for large-cap companies to adopt online IR to ensure open and cost-effective dissemination of financial information.

Second, large market capitalization implies high liquidity for the respective company since it can raise cash efficiently through issuing stock offerings in the open market. Thus, large-cap corporations possess the financial strength to implement comprehensive online IR strategies. To verify this argument, the following hypotheses are designed and are tested by Pearson's correlation coefficient:

*Null hypothesis:*          *Large-cap companies do not have a higher degree of online IR adoption than small-cap companies.*

*Research hypothesis:      Large companies have a higher degree of online IR adoption*

*than small-cap companies.*

Based on the market-capitalization data listed in Appendix 1, statistical findings are generated. For US companies, the obtained Pearson's r is 0.066 while the table Pearson's r is 0.205 (at 0.05 significance level). Therefore, the null hypothesis is accepted. Statistically, in the US, large-cap companies do not necessarily have more online IR adoption than small caps. Market capitalization is not an effective predictor of online IR application in the US corporate world.

For HK companies, however, the obtained Pearson's r is **0.424** while the table Pearson's r is 0.304 (at 0.05 significance level). Therefore, the research hypothesis is accepted. Statistically, large-cap companies in HK tend to have a higher degree of online IR adoption than small-cap players. The case of HK supports the market-capitalization argument.


**4.5) Online IR Adoption and Stock-Trading Activity**

*Q5: Is there a difference in online IR adoption among companies with different stock-trading activities?*

Listed companies with higher daily stock-trading volumes are assumed to have a higher degree of using online IR. It is because the higher the daily trading volume, usually the more the number of institutional and retail investors trade the stock. This naturally creates substantial demand for corporate information related to the actively traded stock. Moreover, stocks with high trading volume are 'headline catcher' of financial news and their price movements can exercise impacts over the prices of related stocks (Markman, 1999:242-44,299-300). For instance, on Briefing.com (one of the most influential financial website in the US) there is a special section called 'Volume Leaders' offering information on the top-25 most active stocks on NASDAQ,

on New York Stock Exchange and on American Stock Exchange. If Intel's price was down 10% on a heavy volume, it could create downward pressure for other semiconductor stocks as well. As a result, active traders have great demand for updated information on actively traded stocks. In respect of this, public companies with high stock-trading volumes should provide comprehensive online IR functions to satisfy the information needs of active stock traders.

The above argument is translated into the following hypotheses:

*Null hypothesis:*            *Companies with higher stock-trading volumes do not have a higher degree of online IR adoption than companies with lower stock-trading volumes.*

*Research hypothesis:*      *Company with higher stock-trading volumes have a higher degree of online IR adoption than companies with lower stock-trading volumes.*

Based on the stock-trading volume data provided in Appendix 1, statistical findings are obtained. For US companies, the obtained Pearson's r is 0.101 while the table Pearson's r is 0.205 (at 0.05 significance level). Thus, the null hypothesis is accepted. Statistically, stock-trading activity does not matter in the adoption of online IR strategies for corporate America.

In the case of HK, the obtained Pearson's r is 0.267 while the table Pearson's r is 0.304 (at 0.05 significance level). Again, the null hypothesis is accepted. Statistically, companies with higher trading volumes do not necessarily have better online IR services than companies with thinner trading volumes in HK.

To conclude, stock-trading activity is not a predictor for the degree of online IR adoption in the US and in HK. The insignificance of trading activity can be attributed to the fact that trading volumes are easily manipulated by institutions (mutual funds, hedge funds, investment banks, etc). Despite a high trading volume, a large part of it

may be handled by institutions with little participation from individual shareholders (Thomas, 1999). Moreover, it is the fact that a company's stock price is largely affected by trading actions of institutions instead of individual traders (Schurr, 2003). Thus, simply from the stock-trading perspective, there is no substantial need for companies to adopt online IR to cater for the needs of individual traders.

## V) The Hong Kong Model of Online IR Adoption

**5.1) The Hong Kong Model vs The US Model**

The original findings in section 4 can be conceptualized as the US and the HK models of online IR adoption. The differences between these 2 models are radical and are delineated systematically in the following.

Most importantly, from the macro (overall picture), the mid-range (technology and non-technology sectors) to the micro (detailed division of 10 economic sectors) level, US-listed companies have a **significantly higher degree** of online IR adoption than HK-listed companies (figure 3). The only exceptions exist in 2 economic sectors, healthcare and materials, in which US companies do not possess a higher rate of online IR adoption than HK companies.

| Macro Level | 100 US-listed Companies from S&P 500 Index vs 40 HK-listed Companies from Hang Seng Composite Index | | | | |
|---|---|---|---|---|---|
| Mid-Range Level | Technology Sector | Non-Technology Sector | | | |
| Micro Level | Information Technology | Consumer Discretionary | Financials | Industrials | Energy |
| | Telecommunication Services | Consumer Staple | Utilities | Healthcare | Materials |

**Figure 3: Adoption of online IR at various levels of analysis**

Moreover, the US case includes 5 companies representing the **perfect model** of online IR adoption: Johnson & Johnson scores 15 points while AT & T, Applied Micro Circuits, Gillette and McGraw Hill each scores 14 points. However, HK has only 1 company with an online IR adoption score higher than 10 (HSBC with 11 points). Ironically, HK includes the company representing the **worst model** of online IR adoption: Natural Beauty Ltd has no score at all.

Furthermore, even the best online IR practitioners in HK are only like the worst adopters in the US. For instance, in the technology arena, the company with the highest adoption score in HK (PCCW with 9 points) is only 1 point higher than the tech company with the lowest score in the US (Electronic Arts with 8 points). Moreover, the mean value of the lowest scores among US companies from the 10 economic sectors (7.5) is higher than the mean value of the highest scores among HK corporations in these sectors (7.3). The best performer in HK is not on a par with the perfect online IR practitioners in the US.

The above findings reveal an important issue: US companies have a significantly higher rate of online IR adoption than HK companies. The adoption of online IR is so mature in the US that there are numerous perfect practitioners while online IR application in HK is so primitive that companies neglect the importance of the IR strategy.

## 5.2) Explanation for HK's lagging behind the US

In view of the above findings, it becomes necessary to explain why US companies have a relatively high degree of online IR adoption. Through literature review and **in-depth interviews (a face-to-face interview and a phone-call interview for follow-up questions)** with the public-relations manager of Disney Hong Kong, Miss Emily Wong, 4 reasons are identified to explain the phenomenon.

First, the increasing popularity of online trading in the US plays a vital role. 'Online trading' refers to securities trading activities whereby investors directly place orders via electronic communications channels like the Internet (HK Exchange,2003). In 1998, only 10% of investors in the US traded securities online but the figure jumped to 18% in 1999. In 2000 and 2001, 40% of US investors already traded stocks through online brokerage firms. In addition, an important feature of these online

traders was that they actively searched for stock-related information online (that is, online due-diligence or stock research). In respect of the growing number of online traders, publicly listed companies felt the need to offer comprehensive online IR functions to satisfy demand for online stock research (Securities Industry Association, 1999; Harris Interactive, 2001). However, the case in HK is different. HK investors still prefer the 'manual mode' of stock trading: under the manual mode, an investor would call up his account executive (AE) on phone, make one or two enquiries about the market and then place his order. In 2002, only 27% of HK investors actually traded online. Online security issues like transaction frauds and data loss are the main concerns for HK investors (HK Exchange,2003). As online trading is not prominent in HK, publicly listed companies do not feel the need to improve online IR services for the niche market of online traders.

Moreover, in the US, online IR is regarded as an effective tool to nurture investors' trust in management teams. As Roalman pointed out, investors' willingness to invest in a company depends largely on their trust in the company's management team (Dilenschneider, 1996:113). What's more, Louis Thompson, CEO of National Investor Relations Institute, found that 48% of the IR officers in 2001 agreed that trust in companies' top management affected significantly investors' decision making (up from 38% in 2000 and 35% in 1996) (Thompson, 2002). The trust factor has become more important for investors since the bankruptcy of Enron and of Worldcom, which reflected the corrupt side of CEOs in the US. As Emily Wong pointed out, online IR allows public companies to gain investors' trust in 3 aspects: 1) by offering IR contact channel online (e.g., email contact and enquiry form), a 'responsiveness' image can be erected for the management team; 2) through providing comprehensive corporate information online, top management is not seen as providing favorable news only to privileged financial analysts; 3) through providing corporate news and event updates

in real time online, public companies can efficiently dispel unfavorable rumors spread on the Internet. Therefore, online IR is widely adopted among US public companies for gaining trust from the investment community.

However, in Hong Kong, online IR's trust-building advantage is not widely accepted. IR specialist Richard Carpenter attributed the slow development of online IR in HK to the Asian financial crisis in late 1997. 'Asia seemed to be just gearing up for a push on to a higher level of investor relations. Then the markets started collapsing'. The immediate impact of the market collapse across the region was many companies taking the view that they were right in assuming that proactive investor relations was not worth the effort (Carpenter, 2001:42-44). In addition, Paul Marriage, executive director of investor relations agency Forrest International in Hong Kong, pointed out that 'some companies (in Hong Kong) will have been put off IR in the short term with a "tried that, didn't work" attitude…There are many companies in the region that do a little investor relations very reluctantly. Free information flows are not as normal in this part of the world as in the US or UK' (Carpenter 2000:68-69).

Another advantage of online IR for US companies is cost saving. Emily Wong stated that online IR features like event calendar and IR FAQ reduce much offline workload for IROs in handling phone-enquiry about the date of earnings reports or the way to buy a company's stock (this inarguably reduces pressure on hiring additional IR staff). Moreover, distributing corporate material in digital formats via the Internet helps reduce administrative expenditures including printing and mailing costs. In addition, there are many online IR services providers in the US, such as webcasting and online help-desk providers (e.g., Network Associates). With keen competitions and pricing wars, the cost of online IR adoption in the US in 2001 was relative lower

than it was in 1998 (Pownall, 2002). In a nutshell, online IR is a cost-effective tool for US companies to achieve cost saving.

**For the case of Hong Kong, the author conducted a follow-up phone interview with Emily Wong. Wong pointed out that 'cost saving' could be a double-edged sword in adopting online IR in HK. On the one hand, online IR functions enabling companies to cut operating costs in obvious ways are widely used (e.g., online press release and annual-report distribution help reduce printing and mailing costs) (confirmed by the finding in Fig. 4). On the other hand, online IR features adding burdens to the workload of IR officers are mostly avoided by HK companies. For instance, online-communication features like IR contact-email, enquiry form and printed material request are avoided because they enable individual investors to inquire IR officers about their companies conveniently. The increasing number of email enquiries is inarguably a heavy workload for IR officers. Another example is the 'webcast' function. Wong said that webcast enables real-time interactive communication among top management, financial analysts and myriad individual investors during an earnings conference or a special company meeting. 'Scrutinizing, organizing and answering' (in Wong's words) the large number of questions asked by the individual investors online in real time is always a stressful duty for IR officers. Thus, webcast is not popular for HK corporations. However, for US companies, as mentioned above, these online IR features enable companies to gain trust from their investors and thus they are widely adopted. Interestingly, 'cost cutting' (or 'workload reduction') acts as a double-edged sword in adopting online IR strategies for HK companies.**
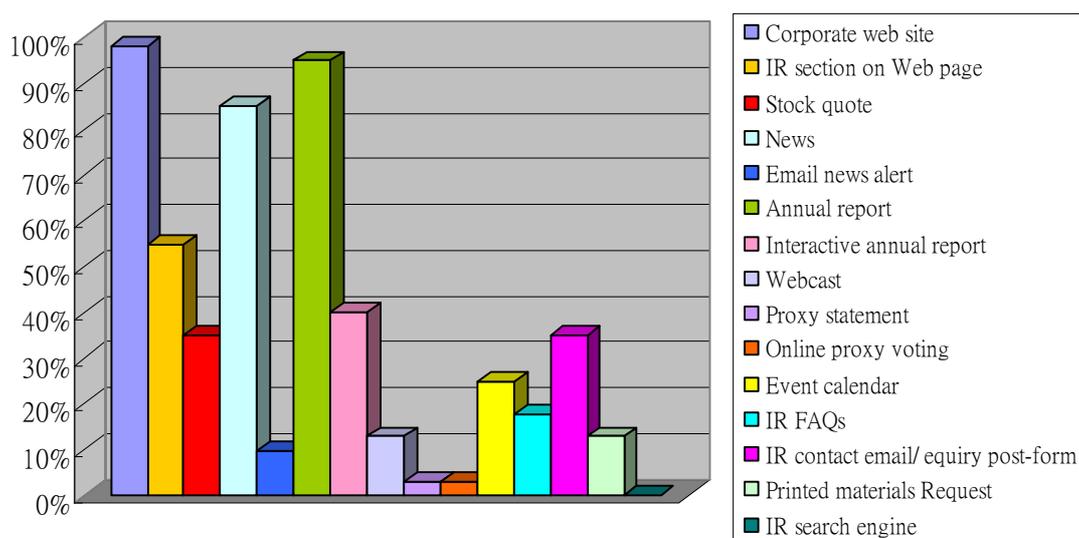
**Fig. 4: Online IR Application among 40 HK companies**

Lastly, financial regulation has encouraged adoption of online IR in the US: the new Regulation Financial Disclosure (Regulation FD) enacted by the Security Exchange Commission on October 23, 2000.   In response to the problem that some companies gave selective disclosure of information to particular parties such as security analysts, the Regulation FD confined that companies must publicly disclose any material information provided to favored securities analysts and portfolio managers. As a result, the web has become an effective tool for publicly disseminating corporation information. Now, CEOs still brief financial analysts, but interested investors can now listen to the meeting via webcast. As noted by Micheal Edwards, global sales director at teleconferencing provider Genesys, 'web streaming technology is a cost-effective method to comply with Regulation FD' (Cossette,2002:80).   According to Louis Thomson's findings, the use of webcasting conference calls was rising consistently from 80% in 1996 to 88% in 2000 and reached 92% in 2001.   He attributed the increase to the impact of Regulation FD (Thomason, 2002). Besides, the US Security and Exchange Commission (SEC) gives clear rules on openness of information. It 'requires public companies to disclose

meaningful financial and other information to the public, which provides a common pool of knowledge for all investors to use to judge for themselves if a company's securities are a good investment' (SEC 2002). The effort of the SEC and the implementation of Regulation FD provide the legal incentive for US public companies to use online IR to disseminate financial information to public investors.

However, the difference in financial regulation hinders the development of online IR in Hong Kong. As mentioned before, the subsequent regulations since 1933 by the Security and Exchange Commission confined the information disclosure of US listed companies and gave rise to investor relations. On the other hand, regulations on information disclosure in Hong Kong are not well defined. When Hong Kong Stock Exchange, Futures Exchanges and Securities Clearing Company were merged and privatized as Hong Kong Exchange, the market regulating listing division was left inside the profit-making company rather than being transferred to the Securities and Futures Commission (SFC). As David Webb, founder of Hong Kong Association for Minority Shareholders (Hams), criticized, 'the consequence of that is the exchange has been very slow to innovate its regulations and tends toward weaker regulation' (Spiegelberg,2002). In fact, HK's stock market is always blamed for violation of the rights of minority shareholders. CEOs focus their attention on institutional investors and financial analysts who have significant influences over equity grading of public companies. They do not think it is worthwhile to allocate resources on online IR which is largely beneficial to individual shareholders (Webb 2001).


### 5.3) Patterns of Online IR Adoption in the US and in HK

In addition to the adoption phenomenon mentioned in 5.1, there are 3 special patterns of online IR adoption in the US and in HK. Moreover, these special patterns

serve as important marketing data for IR service providers in refining their marketing strategies.

**First, in both HK and the US, technology companies have a higher degree of using online IR than non-tech companies. Obviously, technology companies' IR officers possess more willingness and better skills in implementing online IR strategies. Thus, for IR consultancy companies, 'technology companies' should be one of the core markets to develop.**

Second, in the US, there is a significant difference in online IR adoption among companies in different economic sectors. The top-3 economic sectors with the highest average IR adoption rates in the US are telecommunication services (12.33), consumer staples (12.14) and utilities (12.14). Meanwhile, sectors with the lowest average IR adoption rates are materials (9) and financials (9). As a result, in addition to technology companies, IR service providers in the US should also focus on 2 non-tech sectors with high acceptance of online IR: consumer staples and utilities. However, in HK, economic sector per se does not serve as an indicator of online IR adoption.

Then, what serves as a predictor of online IR usage in HK? According our study, large-cap companies in HK tend to have a higher rate of online IR adoption than small-cap companies (however, this pattern is not suitable for US companies). In respect of this, local IR consultants should allocate more resources on exploiting the large-cap market, which has more willingness and better financial strength to spend on online IR services.

**In conclusion, based on this research, IR service providers should focus on different customer segments in the US and in HK. In the US, their core customers should be: 1) technology companies; 2) companies from the consumer**

**staples sector; and 3) companies from the utilities sector. Size of market capitalization does not matter in adopting online IR in the US. However, in HK, their core customers should be: 1) technology companies; 2) large-cap companies. Therefore, large-cap technology companies in HK should be the main target group for local IR consultants.**

## VI) **Conclusion**

Theoretically, this research has revealed several original findings regarding online IR adoption in HK and in the US. On the whole, the use of corporate websites to disseminate company information has become the general practice for most companies. However, US- and HK-listed companies have different patterns of online IR adoption. First of all, US companies have a significantly higher degree of using the Internet to handle investor relations than HK companies. What's more, corporations from different economic sectors in the US have different online IR adoption patterns. In Hong Kong, the size of market capitalization serves as a predictor for online IR adoption by local companies while market-cap does not matter in the US.

**Nevertheless, there are 2 similarities in adopting online IR in the US and in HK. In both places, technology companies have a higher tendency in using online IR than non-tech companies.** Moreover, stock-trading activity does not affect companies in adopting online IR in both markets.

From the practical perspective, this research provides significant information for IR service providers and IR officers:

1) In exploring the IR market in the US, service providers should focus on technology companies and companies in the consumer staple and the utilities sectors. In developing the HK market, the providers should put more effort on establishing business relationship with **large-cap technology corporations**.

2) IR officers in Hong Kong should realize that most HK companies lag behind US counterparts in adopting online IR functions. The usage of online IR in HK is still limited to a narrow scope (e.g., distribution of annual reports and provision of press releases). To maintain HK as a global financial center, local IR officers should employ more online IR tools like webcast to provide investors with comprehensive IR services.

All in all, this research has offered some original insights about online IR adoption through cross-country comparisons. Moreover, the theoretical findings have practical implications for IR practitioners as well. To provide more insights into the Eastern model of online IR adoption, the author recommends further research on online IR adoption among companies in Mainland China (though Hong Kong is part of the Mainland, the business practice in HK is inarguably different from that in China). Cross-country comparison between China and the US in online IR usage should generate more original and practical findings for the IR industry.

## VII) Appendix I

## Online IR Adoption Scores of 140 listed companies in US & HK

## US: 100 companies from S&P 500 Index

| Sector | Ticker | Stock_Name | Score | Market Cap (in Billion) | 13-Week Average Volume (in Million) |
|---|---|---|---|---|---|
| Consumer Discretionary | AM | American Greetings Class A | 9 | 0.86 | 0.58 |
| | AOL | AOL Time Warner Inc. | 11 | 47.05 | 20.91 |
| | BBBY | Bed Bath & Beyond | 7 | 10.07 | 3.20 |
| | CTB | Cooper Tire & Rubber | 10 | 0.92 | 0.33 |
| | EK | Eastman Kodak | 12 | 8.57 | 2.72 |
| | F | Ford Motor | 13 | 13.69 | 10.82 |
| | GPS | Gap (The) | 11 | 12.99 | 6.41 |
| | HAS | Hasbro Inc. | 12 | 2.42 | 0.87 |
| | HDI | Harley-Davidson | 11 | 11.67 | 2.51 |
| | JWN | Nordstrom | 11 | 2.17 | 0.67 |
| | MCD | McDonald's Corp. | 11 | 17.83 | 6.89 |
| | MHP | McGraw-Hill | 14 | 10.83 | 1.06 |
| | NYT | New York Times Cl. A | 11 | 6.64 | 0.75 |
| | SBUX | Starbucks Corp. | 10 | 9.82 | 4.12 |
| | SWK | Stanley Works | 9 | 2.10 | 0.68 |
| | TRB | Tribune Co. | 10 | 13.96 | 1.03 |
| | VC | Visteon Corp. | 10 | 0.77 | 0.69 |
| | YUM | Yum! Brands, Inc | 12 | 7.03 | 1.38 |
| Consumer Staples | ACV | Alberto-Culver | 10 | 1.58 | 0.27 |
| | CPB | Campbell Soup | 13 | 8.82 | 1.02 |
| | G | Gillette Co. | 14 | 32.78 | 3.34 |
| | HNZ | Heinz (H.J.) | 11 | 10.21 | 1.32 |
| | KO | Coca Cola Co. | 13 | 99.80 | 5.92 |
| | PG | Procter & Gamble | 11 | 115.74 | 3.73 |
| | WAG | Walgreen Co. | 13 | 30.15 | 3.06 |

| Sector | Ticker | Stock_Name | Score | Market Cap (in Billion) | 13-Week Average Volume (in Million) |
|--------|--------|-----------|-------|-------------------------|-------------------------------------|
| Energy | ASH | Ashland Inc. | 11 | 2.81 | 0.49 |
| | CVX | ChevronTexaco Corp. | 12 | 69.96 | 3.41 |
| | KMG | Kerr-McGee | 9 | 4.16 | 0.83 |
| | RDC | Rowan Cos. | 8 | 1.88 | 1.71 |
| | XOM | Exxon Mobil Corp. | 10 | 238.49 | 12.3 |
| Financials | ACE | ACE Limited | 9 | 7.71 | 1.69 |
| | AIG | American Int'l. Group | 7 | 132.06 | 8.16 |
| | AXP | American Express | 11 | 44.18 | 5.05 |
| | BAC | Bank of America Corp. | 10 | 102.16 | 5.68 |
| | C | Citigroup Inc. | 8 | 191.23 | 15.26 |
| | EOP | Equity Office Properties | 10 | 10.63 | 1.38 |
| | EQR | Equity Residential | 10 | 6.7 | 0.92 |
| | FITB | Fifth Third Bancorp | 4 | 28.67 | 2.58 |
| | GS | Goldman Sachs Group | 10 | 34.03 | 4.03 |
| | JPM | J.P. Morgan Chase & Co. | 10 | 49.35 | 10.14 |
| | LEH | Lehman Bros. | 10 | 14.46 | 2.45 |
| | LTR | Loews Corp. | 4 | 7.39 | 0.60 |
| | PCL | Plum Creek Timber Co. | 12 | 4.00 | 0.63 |
| | SAFC | SAFECO Corp. | 9 | 4.99 | 0.74 |
| | STT | State Street Corp. | 9 | 10.40 | 2.52 |
| | USB | U.S. Bancorp | 11 | 37.02 | 4.25 |
| Health Care | AET | Aetna Inc. (New) | 13 | 7.35 | 1.18 |
| | AMGN | Amgen | 12 | 75.63 | 11.64 |
| | BDX | Becton, Dickinson | 12 | 8.9 | 1.47 |
| | CHIR | Chiron Corp. | 11 | 7.05 | 1.72 |
| | HCA | HCA Inc. | 11 | 20.38 | 2.74 |
| | JNJ | Johnson & Johnson | 15 | 174.15 | 7.17 |
| | KG | King Pharmaceuticals | 6 | 2.82 | 2.44 |
| | MDT | Medtronic Inc. | 7 | 55.71 | 3.90 |
| | PHA | Pharmacia Corp | 12 | 57.65 | 4.96 |

| Sector | Ticker | Stock_Name | Score | Market Cap (in Billion) | 13-Week Average Volume (in Million) |
|---|---|---|---|---|---|
| Industrials | AW | Allied Waste Industries | 7 | 1.55 | 0.66 |
| | BA | Boeing Company | 9 | 20.54 | 3.71 |
| | CTAS | Cintas Corporation | 7 | 5.66 | 1.53 |
| | DAL | Delta Air Lines | 11 | 1.09 | 2.96 |
| | EFX | Equifax Inc. | 11 | 2.88 | 0.54 |
| | EMR | Emerson Electric | 12 | 19.42 | 1.35 |
| | FDX | FedEx Corporation | 12 | 17.09 | 1.56 |
| | GE | General Electric | 12 | 261.12 | 22.91 |
| | IR | Ingersoll-Rand Co. Ltd. | 12 | 6.52 | 1.07 |
| | MMM | 3M Company | 11 | 52.4 | 2.25 |
| | PBI | Pitney-Bowes | 10 | 7.52 | 0.76 |
| | R | Ryder System | 9 | 1.28 | 0.33 |
| | UNP | Union Pacific | 7 | 14.19 | 1.16 |
| Information Technology | A | Agilent Technologies | 13 | 6.36 | 2.62 |
| | ADBE | Adobe Systems | 12 | 7.07 | 3.41 |
| | AMAT | Applied Materials | 13 | 21.12 | 31.64 |
| | AMCC | Applied Micro Circuits | 14 | 1.11 | 2.45 |
| | CA | Computer Associates Intl. | 13 | 7.77 | 3.16 |
| | CSCO | Cisco Systems | 9 | 98.85 | 59.00 |
| | DELL | Dell Computer | 12 | 74.22 | 24.21 |
| | ERTS | Electronic Arts | 8 | 8.48 | 4.07 |
| | GTW | Gateway Inc. | 12 | 0.72 | 1.40 |
| | MOT | Motorola Inc. | 12 | 19.56 | 10.36 |
| | MSFT | Microsoft Corp. | 12 | 260.58 | 69.22 |
| | MU | Micron Technology | 11 | 4.88 | 9.69 |
| | NVDA | NVIDIA Corp. | 12 | 2.23 | 8.15 |
| | VRTS | Veritas Software | 12 | 7.54 | 8.21 |
| | YHOO | Yahoo Inc. | 10 | 13.62 | 10.5 |
| Materials | AA | Alcoa Inc | 12 | 16.4 | 3.91 |
| | DD | Du Pont (E.I.) | 10 | 41.42 | 3.67 |

| Sector | Ticker | Stock_Name | Score | Market Cap (in Billion) | 13-Week Average Volume (in Million) |
|---|---|---|---|---|---|
| | DOW | Dow Chemical | 10 | 25.15 | 3.20 |
| | FCX | Freeport-McMoran Cp & Gld | 6 | 2.53 | 1.87 |
| | HPC | Hercules, Inc. | 9 | 0.97 | 0.37 |
| | LPX | Louisiana Pacific | 12 | 0.94 | 0.54 |
| | PPG | PPG Industries | 4 | 7.84 | 0.69 |
| Telecommunication Services | BLS | BellSouth | 13 | 41.80 | 5.36 |
| | T | AT&T Corp. (New) | 14 | 12.85 | 6.33 |
| | NXTL | Nextel Communications | 10 | 13.92 | 20.77 |
| Utilities | AEP | American Electric Power | 13 | 7.92 | 3.41 |
| | DTE | DTE Energy Co. | 13 | 6.54 | 0.85 |
| | DUK | Duke Energy | 11 | 13.82 | 6.93 |
| | EP | El Paso Corp. | 13 | 3.62 | 12.59 |
| | NI | NiSource Inc. | 11 | 4.51 | 1.23 |
| | PNW | Pinnacle West Capital | 13 | 3.06 | 0.55 |
| | WMB | Williams Cos. | 11 | 2.23 | 5.49 |
| | | Average: | 10.62 | | |

## HK: 40 companies from Hang Seng Composite Index

| Sector | Ticker | Stock_Name | Scroe | Market Cap (in Million) | 13-Week Average Volume |
|---|---|---|---|---|---|
| Consumer Discretionary | 178 | Sa Sa International Holdings Ltd. | 5 | 1,111.5 | 1,761,383 |
|  | 282 | Next Media Ltd. | 5 | 2,208.2 | 655,018 |
|  | 330 | Esprit Holdings Ltd. | 9 | 17,134.4 | 2,336,599 |
|  | 341 | Cafe de Coral Holdings Ltd. | 4 | 2,837.7 | 813,418 |
|  | 511 | Television Broadcasts Ltd. | 3 | 10,249.2 | 592,910 |
|  | 888 | RoadShow Holdings Ltd. | 8 | 1,231.4 | 2,307,588 |
| Consumer Staples | 157 | Natural Beauty Ltd. | 0 | 840.0 | 5,958,434 |
|  | 345 | Vitasoy International Holdings Ltd. | 5 | 1,598.2 | 942,338 |
| Energy | 358 | Jiangxi Copper Co. Ltd. | 2 | 1,214.3 | 12,908,565 |
|  | 1171 | Yanzhou Coal Mining Co. Ltd. | 3 | 3,162.0 | 7,972,622 |
| Financials | 1 | Cheung Kong (Holdings) Ltd. | 3 | 100,058.2 | 4,204,321 |
|  | 5 | HSBC Holdings plc | 11 | 751,494.2 | 7,838,004 |
|  | 17 | New World Development Co. Ltd. | 6 | 5,748.8 | 4,780,339 |
|  | 41 | Great Eagle Holdings Ltd. | 7 | 2,366.4 | 376,912 |
|  | 54 | Hopewell Holdings Ltd. | 6 | 5,606.2 | 2,138,290 |
|  | 83 | Sino Land Co. Ltd. | 4 | 8,293.8 | 2,944,730 |
|  | 183 | CITIC International Financial Holdings Ltd. | 3 | 5,941.9 | 2,346,665 |
|  | 246 | Henderson China Holdings Ltd. | 2 | 1,415.8 | 172,092 |
|  | 388 | Hong Kong Exchanges and Clearing Ltd. | 8 | 8,818.3 | 4,009,305 |
|  | 535 | Vision Century Corporation Ltd. | 5 | 283.6 | 854,516 |
|  | 626 | JCG Holdings Ltd. | 3 | 2,509.9 | 444,922 |
| Health Care | 809 | Global Bio-chem Technology Group Co. Ltd. | 6 | 4,425.7 | 3,502,322 |
| Industrials | 4 | Wharf (Holdings) Ltd., The | 8 | 33,040.3 | 3,628,221 |
|  | 13 | Hutchison Whampoa Ltd. | 5 | 183,751.3 | 6,880,485 |
|  | 31 | China Aerospace International Holdings Ltd. | 3 | 621.3 | 1,728,734 |
|  | 177 | Jiangsu Expressway Co. Ltd. | 6 | 3,177.2 | 5,276,087 |
|  | 179 | Johnson Electric Holdings Ltd. | 6 | 31,594.6 | 5,327,624 |
|  | 267 | CITIC Pacific Ltd. | 5 | 34,379.5 | 4,154,950 |

| Sector | Ticker | Stock_Name | Scroe | Market Cap (in Million) | 13-Week Average Volume |
|---|---|---|---|---|---|
| | 450 | Hung Hing Printing Group Ltd. | 3 | 3,003.0 | 344,785 |
| | 710 | Varitronix International Ltd. | 5 | 1,346.8 | 704,553 |
| | 1098 | Road King Infrastructure Ltd. | 3 | 1,843.2 | 564,658 |
| | 1205 | CITIC Resources Holdings Ltd. | 3 | 1,590.0 | 139,721 |
| Information Technology | 303 | VTech Holdings Ltd. | 8 | 919.0 | 1,336,939 |
| | 522 | ASM Pacific Technology Ltd. | 7 | 6,868.2 | 602,362 |
| | 992 | Legend Group Ltd. | 7 | 18,395.5 | 12,738,499 |
| Materials | 1038 | Cheung Kong Infrastructure Holdings Ltd. | 5 | 30,319.1 | 1,048,319 |
| Telecommunication Services | 8 | PCCW Ltd. | 9 | 20,941.9 | 86,508,878 |
| | 138 | CCT Telecom Holdings Ltd. | 6 | 333.4 | 1,060,548 |
| Utilities | 2 | CLP Holdings Ltd. | 9 | 78,268.0 | 2,980,797 |
| | 6 | Hongkong Electric Holdings Ltd. | 4 | 66,162.1 | 2,556,822 |
| | | Average: | 5.25 | | |

## VIII) Appendix II

### Coding Sheet

Date: _____

Market: _____US / HK_____

Economic Group: _____

Tech or Non-tech Group: _____

| Company No. | 01 | | | |
|---|---|---|---|---|
| Company Name | | | | |
| URL | | | | |
| Market capitalization | | | | |
| Stock activity (average 13-week daily volume) | | | | |
| Corporate website | | | | |
| IR section on website | | | | |
| Stock quote | | | | |
| Corporate news | | | | |
| Email news alert | | | | |
| Annual report | | | | |
| Interactive annual report | | | | |
| Webcast | | | | |
| Proxy statement | | | | |
| Online proxy voting | | | | |
| Event calendar | | | | |
| IR FAQ | | | | |
| IR contact email/ enquiry form | | | | |
| Printed Material Request | | | | |
| IR search engine | | | | |
| **Total Score of IR adoption:** | | | | |

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