Managerial Motivations on Voluntary Intellectual Capital Disclosure in Hong Kong

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***Abstract*—This paper investigates what influences managerial motivations to disclose Intellectual Capital (IC). Understanding managers' perceptions of these issues can provide valuable insights that may help predict the extent to which firms might improve certain disclosure mechanisms that could benefit their stakeholders. In this study, the best-supported motive for voluntary IC disclosure is to enhance communication to stakeholders so as to reduce information asymmetry. In contrast, respondents did not view stock price motivation and stock-based compensation as important benefits for disclosure.**

***Keywords*—intellectual capital, managerial motivation, signalling theory**

I. Introduction

Intellectual Capital (IC) has become progressively pivotal in the establishment and sustenance of competitive advantage and corporate value (Mkumbuzi, 2016). The globalisation of the world economy and the burgeoning influence of IT have also contributed significantly to the growing demand for IC (Anik *et al.*, 2021).

However, IC disclosure is presently unregulated, allowing managers to decide what and where to disclose (So, 2023). Moreover, IC disclosure remains a voluntary practice, given the absence of legislative or accounting standards mandating specific disclosure criteria.

Nishitani *et al.* have identified corporate motivations for voluntary disclosure of information as an important and unresolved question for future research. The objective of this study is to gain insights into the managerial motivations underpinning IC disclosure in annual reports. Grasping managers' views can help predict how companies might enhance disclosure mechanisms, benefiting stakeholders.

II. Literature Review

A. Intellectual Capital

The literature presents diverse definitions of Intellectual Capital (IC). Initially, IC is delineated as knowledge with the potential for conversion into value (Edvinsson, 1997). Stewart extends this definition by incorporating intellectual material encompassing knowledge, information, intellectual property, and experience. These elements can be used to create wealth and boost a competitive edge within a company. Subsequently, Bratianu and Bejinaru characterize IC as a dynamic, fluid concept, underscoring its interactive nature with both physical and intellectual assets to realize organizational objectives.

B. The Indicators of Motivation

In examining managers' motivations for voluntary disclosure, Healy and Palepu underscore the imperative need for empirical investigations. This study identifies four primary indicators of managerial motivations for voluntary disclosure: (i) information asymmetry, (ii) stock price motivations, (iii) stock compensation, and (iv) signal management talent (Graham *et al.*, 2005). An overview of these four indicators is presented below.

1) Information Asymmetry

Information asymmetry is a pivotal concept in agency theory, emerging when one party within a specific agency setting possesses an information advantage over another party (An *et al.*, 2011). In recent years, corporate voluntary disclosure, as indicated by Hamrouni *et al.* seem predominantly motivated by their impact on mitigating information asymmetry between managers and shareholders. Zamil *et al.* further posit that a dedication to increased disclosure serves to diminish information asymmetry.

2) Stock Price Motivations

Sheridan *et al.* propose that the threat of job loss, stemming from subpar stock performance, motivates managers to proactively disclose information, with the intention of reducing the likelihood of undervaluation. In an efficient market, decisions regarding disclosure can convey valuable information to investors, influencing the valuation of shares (Cordazzo *et al.*, 2020).

3) Stock Compensation

Managers and employees are generally holding stock granted for their compensation. Healy and Palepu highlight the efficiency of stock compensation when stock prices accurately reflect firm values. In terms of opportunistic behavior, Brockman *et al.* discover that strategic timing of disclosure can optimize managers' stock-based compensation. Therefore, managers may be incentivized to enhance disclosure to maximize benefits from stock-based compensation (Choi and Kim, 2017).

Stock-based compensation schemes have the potential to provide rewards to additional stakeholders, such as employees. According to stakeholder theory, managers bear the responsibility of representing the interests of all firm stakeholders, not solely its owners (Freeman *et al.*, 2023). Hence, managers are motivated to offer additional disclosure to alleviate the risk of stock misvaluation.

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4) Signal Management Talent

Maina points out that a firm's market value is contingent on its managers' capacity to anticipate and respond to forthcoming changes. Consequently, it is observed that management talent signalling serves as a statistically significant indicator of managerial motivation for disclosure (Shehata, 2014).

III. Theoretical Perspective

Agency theory, stakeholder theory, and signalling theory could be employed to elucidate managerial motivations and disincentives regarding voluntary IC disclosure, and these would be examined below.

Pursuant to agency theory, agency problems arise when both the principal and the agent seek to maximise their own interests, which are not aligned (Parinduri *et al.*, 2019). Information asymmetry is one of the key factors contributing to agency problems (Mio *et al.*, 2020). Regarding the relationship between agency theory and IC disclosure, it is reasonable to anticipate that the voluntary disclosure of IC could alleviate information asymmetry.

Stakeholder theory proves significant in clarifying managerial viewpoints on voluntary IC disclosure (Oliveira *et al.*, 2013). Intangible assets could be shared with stakeholders like employees, customers, or suppliers. In order to cultivate and bolster its intangible endowment, a firm must establish and fortify a reliable fiduciary relationship between the firm and these stakeholders. Consequently, the managerial motivation for IC disclosure tends to encompass the interests of various stakeholders.

Signalling theory facilitates the elucidation of how decision-makers interpret and respond to situations characterized by incomplete and asymmetrically distributed information among transaction parties (Spence, 1973). Utilizing signalling theory, researches have demonstrated that signalling can function as a mechanism for communicating both the quality of a firm and the talents of its managers (Liu *et al.*, 2020).

IV. Research Methods

A survey questionnaire was used to collect views on why managers voluntarily disclosed IC information in annual reports. A list of questions was designed and developed based on the voluntary disclosure literature including Graham *et al*. and Healy and Palepu.

The questions included four major motivations: (1) information asymmetry, (2) stock price motivations, (3) stock compensation, and (4) signal management talent.

The survey was an empirical test of the relation between managerial motivations and IC disclosure. It asked respondents to indicate their level of agreement or disagreement with each of the statements about motivations or disincentive on IC disclosure. The questionnaires used a seven-point Likert scale using the following responses 'strongly agree' (+7), 'very agree' (+6), 'agree' (+5), 'neutral' (+4), 'disagree' (+3), 'very disagree' (+2), and 'strongly disagree' (+1). This technique gave respondents with a series of attitude dimensions, and they were asked whether and how strongly they agreed or disagreed using one of a number of positions on a seven-point scale. Because the scale represented interval data, means and standard deviations were calculated for each statement. The results were largely analysed in terms of agree/disagree. In addition, a one- sample t-test was performed to determine whether a sample mean was significantly different from the neutral response (i.e., test value of 4). Additionally, the questionnaire contained open-ended questions to ask the executives what was important regarding their decision about voluntary disclosure. In general, the open-ended comments provided insight and depth to further the understanding of the survey responses.

Listed companies from the main board of the Hong Kong Exchange were selected using proportionate stratified sampling for six industry sectors. A total of 1,500 executive directors were randomly selected from six industry sectors.

In total, 202 valid responses were received this represented around a 13% response rate. This response rate approximated those reported by executives (Graham *et al.*, 2005). All responses from the survey were analysed for validity, and all valid responses were used for analysis. Incomplete data were collected and noted as invalid and discarded.

The reliability of data was measured using Cronbach's alpha coefficient. This is a statistical measure that could indicate whether several items that were supposed to measure the same thing are correlated. The overall result was around 0.7, which was generally required for reliable data (Vogt, 2007).

V. Results and Discussions

A. Information Asymmetry

As Table 1 shows, the one with the largest mean response (5.21) was the statement: 'voluntary IC disclosure can communicate information to external stakeholders' (A12). This view seemed to be shared by many respondents. One respondent wrote: 'Transparency is important to investors in making an informed judgment'. Others also mentioned that 'transparency of IC could facilitate investors' relation and attract more potential investors.

When the respondents were asked whether IC disclosure in annual reports can promote a reputation for transparent and accurate reporting (A1), more than 78.2% of respondents agreed or strongly agreed with this motivation. Moreover, 67.3% of respondents supported the view that IC disclosure increases transparency in capital markets (A20). In a related question, when asked whether IC disclosure can reduce the information risk that investors assign to stock (A2), 53.4% either strongly agreed or agreed.

Several respondents indicated their views in relation to information asymmetry:

'IC disclosure could make firms more transparent to stakeholders'.

'IC information increased transparency to investors'.

'IC disclosure enabled investors to make an informed judgment'.

'IC disclosure helped show a clearer picture of the financial health to the investors'.

Information asymmetry is a pivotal factor contributing to agency problems. The findings supported the agency theory that managers would use voluntary IC disclosure as the means to mitigate the agency problem.

Apart from the shareholders' requests, IC information has also been increasingly demanded by various stakeholders in recent years (Ramirez *et al.*, 2016). Hence, it is anticipated that managers would opt for voluntary IC disclosure to mitigate information asymmetry between firms and stakeholders, consequently bolstering their relationships.

B. Stock Price Motivations

When the relationship between IC disclosure and correction of undervalued share prices was examined, no statistical difference in the responses was found (A6). Conversely, nearly half of the respondents disagreed or strongly disagreed with the idea that voluntary IC disclosure can increase the liquidity of stock (A7). Similarly, the majority of respondents (53%) indicated disagreement on using disclosure to increase P/E.

These are summaries of insights given by respondents:

1) Increased disclosure will probably reflect the fair value rather than the higher market value of firms.
2) The information environment in Hong Kong is already rich, additional IC information by firms may not affect share price.

C. Stock Compensation

There is a view that firms that adopt compensation plans for their employees are likely to use opportunistic IC disclosure to reduce risks of undervaluation of their stocks (Mkumbuzi, 2016). Edmans *et al*. confirmed this empirically by finding that the quality of firms' disclosure is higher when the directors' compensation is sensitive to stock price changes. However, the current survey did not strongly support this view (22.8% for and 45% against, A11, and 12.8% for and 32.2% against, A17), indicating that most respondents were unlikely to make opportunistic voluntary IC disclosure that maximise their stock-based compensation.

Table 1. Survey results of managerial motivations on IC disclosure

Motivation	**Mean**	**SD**	***t*-value**	**H0: Average rating =4**
A1. Reputation	5.11	1.453	10.895	*, **
A2. Reduce Information Risk	4.43	1.592	3.801	*, **
A6. Correct Under-valued Stock Price	4.01	1.281	0.110	-
A7. Increase Liquidity of Stock	3.22	1.358	-8.189	*, **
A9. Reveal Managerial Skill	4.76	1.322	8.145	*, **
A11. Reduce Risk Premium	3.62	1.330	-4.073	*, **
A12. Communicate Info. to Stakeholders	5.21	1.341	12.806	*, **
A17. Stock-based Compensation for Managers	3.61	1.007	-5.449	*, **
A18. Signal Managers Talents	4.40	1.317	4.328	*, **
A20. Increase Transparency	5.06	1.353	11.177	*, **

Note: The results of t test of the null hypothesis that average response is equal to 4 (neither agree nor disagree). *, ** denote rejection of hypothesis at the 5% and 1% levels respectively. The average rating is significantly different from the test value of 4.

D. Signal Management Talent

Two statements (A9 and A18) relate to signalling management talent. Respondents, on average, agreed and strongly agreed with these two statements (61.4 % and 51%) whose means differed significantly from 4 (neutral). The approach of the current accounting framework does little to reflect management talent in deciding intangible investments that are critical to firms' prospects (Hunter *et al.*, 2005).

According to signalling theory, the sending of a signal is normally based on the assumption that the signal would indicate the good quality of the signaller (Yasar *et al.*, 2020). In this study, there was evidence suggesting that managers were motivated to use IC disclosure as a means of signalling their talent. Therefore, high-quality managers have an incentive to highlight their superior quality so as to attract more investors for their firms, with voluntary IC disclosure being considered a crucial signalling mechanism.

VI. Limitations of the Research

The study exclusively focuses on the largest listed companies in Hong Kong, and consequently, the findings may not be extrapolated to small or medium-sized enterprises. Additionally, this study does not shed light on the significance that private companies attribute to their IC and the extent to which such companies disclose their IC information to third parties.

Further research could yield valuable insights by delving into the role of receivers in the signalling process. Moreover, exploring users' perceptions of IC disclosure would be beneficial. For instance, it is useful to understand the behavior of additional stakeholders, including government, employees, and customers, in relation to IC disclosure information. A study reporting the results of feedback from different stakeholders could help managers adjust their signalling activity of IC disclosure.

VII. Summary and Concluding Remarks

This study examines into the primary managerial motivations for voluntary IC disclosure. Regarding disclosure incentives, the strongest views are articulated in the context of communicating information to external stakeholders.

The managerial motivations for IC disclosure find explanation through various theories, including agency, stakeholder, and signalling theories. Each theory offers insights into voluntary IC disclosure, focusing on distinct aspects of corporate behavior. In alignment with agency theory, managers generally perceive that IC disclosure can alleviate information asymmetry between themselves and external stakeholders. The findings endorse the notion that managers employ voluntary IC disclosure as a strategy to address the agency problem of information asymmetry. Additionally, the results extend the application of stakeholder theory, suggesting that IC disclosure enables firms to share information beyond mandatory requirements, fostering trust with employees and other stakeholders.

In accordance with signalling theory, IC disclosure serves as a crucial avenue for firms to signal their management talent and financial achievement. The findings support the signalling theory, indicating that managers in high-performing firms are motivated to utilize voluntary IC disclosure as a strategy to distinguish their performance from that of other firms.

Conflict of Interest

The authors declare no conflict of interest.

AUTHOR CONTRIBUTIONS

Michael So worked on conceptualization, methodology and supervision; Shiyao Zheng worked on literature review, data collection and analysis; all authors contributed to write the paper and approved the final version.

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