ผลกระทบร่วมระหว่างแรงจูงใจของผู้บริหารและสาเหตุที่รับรู้ที่มีต่อ
การเปิดเผยข้อมูลประมาณการกำไรจากฝ่ายบริหาร

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THE JOINT EFFECTS OF MANAGEMENT INCENTIVES AND PERCEIVED LOCUS OF CAUSALITY ON MANAGEMENT EARNINGS FORECAST DISCLOSURES

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A Dissertation Submitted in Partial Fulfillment of the Requirements
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กาญจนา พรสัมฤทธิสกุล : ผลกระทบร่วมระหว่างแรงจูงใจของผู้บริหารและสาเหตุที่รับรู้ที่มีต่อการเปิดเผยข้อมูลประมาณการกำไรจากฝ่ายบริหาร (THE JOINT EFFECTS OF MANAGEMENT INCENTIVES AND PERCEIVED LOCUS OF CAUSALITY ON MANAGEMENT EARNINGS FORECAST DISCLOSURES) อ.ที่ปรึกษาวิทยานิพนธ์หลัก: อ. ดร. จุฑาทิพ อัสสะบำรุงรัตน์, 159 หน้า.

งานวิจัยนี้ศึกษาผลกระทบของแรงจูงใจของผู้บริหาร (ผู้บริหารที่คำนึงถึงความคาดหวังของตลาด และผู้บริหารที่คำนึงถึงความโปร่งใสในการดำเนินงาน และสาเหตุที่รับรู้ (ปัจจัยภายในและปัจจัยภายนอก) ที่มีต่อความเต็มใจในการเปิดเผยข้อมูลประมาณการกำไรจากฝ่ายบริหารและความถูกต้องของข้อมูลประมาณการกำไรจากฝ่ายบริหาร ผลการวิจัยเชิงทดลองพบว่า กลุ่มผู้บริหารที่คำนึงถึงความคาดหวังของตลาดจะเต็มใจที่จะเปิดเผยข้อมูลประมาณกำไรสู่สาธารณชนในระดับต่ำกว่า อีกทั้งข้อมูลประมาณการกำไรในรูปแบบตัวเลข (point) และรูปแบบช่วงตัวเลข (range) ยังมีความถูกต้องในระดับต่ำกว่ากลุ่มผู้บริหารที่คำนึงถึงความโปร่งใสในการดำเนินงาน นอกจากนี้ สาเหตุที่ทำให้ประมาณการกำไรต่ำกว่าเป้าหมายที่ผู้บริหารรับรู้มาจากปัจจัยภายในและปัจจัยภายนอก มีผลกระทบต่อความถูกต้องของการเปิดเผยข้อมูลประมาณการกำไรจากฝ่ายบริหารในระดับที่แตกต่างกัน แต่งานวิจัยนี้ไม่พบความแตกต่างอย่างมีนัยสำคัญของความเต็มใจในการเปิดเผยข้อมูลประมาณการกำไรจากฝ่ายบริหารระหว่างกลุ่มผู้บริหารที่รับรู้สาเหตุมาจากปัจจัยภายในและกลุ่มผู้บริหารที่รับรู้สาเหตุมาจากปัจจัยภายนอก อย่างไรก็ตาม กลุ่มผู้บริหารที่รับรู้สาเหตุของประมาณการกำไรต่ำกว่าเป้าหมายมาจากปัจจัยภายใน มีแนวโน้มจะเปิดเผยข้อมูลประมาณการกำไรในรูปแบบช่วงตัวเลข (range) ในระดับที่ถูกต้องมากกว่ากลุ่มผู้บริหารที่รับรู้สาเหตุมาจากปัจจัยภายนอก แต่สาเหตุที่ผู้บริหารรับรู้มาจากปัจจัยภายในและปัจจัยภายนอกไม่มีผลกระทบต่อระดับความถูกต้องของข้อมูลประมาณการกำไรในรูปแบบตัวเลข (point)

เมื่อพิจารณาผลกระทบร่วมระหว่างแรงจูงใจของผู้บริหารและสาเหตุที่รับรู้ พบว่าทั้งสองปัจจัยมีอิทธิพลร่วมต่อความเต็มใจในการเปิดเผยข้อมูลประมาณการกำไรและความถูกต้องของข้อมูลประมาณการกำไรจากฝ่ายบริหาร ระดับความเต็มใจที่จะเปิดเผยข้อมูลประมาณการกำไรจากฝ่ายบริหารของกลุ่มผู้บริหารที่คำนึงถึงความคาดหวังของตลาดที่รับรู้สาเหตุของประมาณการกำไรต่ำกว่าเป้าหมายมาจากปัจจัยภายในและกลุ่มผู้บริหารที่รับรู้สาเหตุมาจากปัจจัยภายนอกมีความแตกต่างกันมากกว่ากลุ่มผู้บริหารที่คำนึงถึงความโปร่งใสในการดำเนินงานที่รับรู้สาเหตุมาจากปัจจัยภายในและกลุ่มผู้บริหารที่รับรู้สาเหตุมาจากปัจจัยภายนอก นอกจากนี้ยังพบว่า เมื่อประมาณการกำไรต่ำกว่าเป้าหมายมีสาเหตุมาจากปัจจัยภายนอก กลุ่มผู้บริหารที่คำนึงถึงความคาดหวังของตลาดจะเปิดเผยข้อมูลประมาณการกำไรในรูปแบบของตัวเลข (point) มีระดับความถูกต้องต่ำกว่ากลุ่มผู้บริหารที่คำนึงถึงความโปร่งใสในการดำเนินงาน อย่างไรก็ตาม งานวิจัยนี้ไม่พบว่ามีผลกระทบร่วมของแรงจูงใจของผู้บริหาร และสาเหตุที่รับรู้ที่มีต่อความถูกต้องของข้อมูลประมาณการกำไรจากฝ่ายบริหารในรูปแบบช่วงตัวเลข (range) ผลการวิจัยนี้ คาดว่าจะเป็นประโยชน์ต่อหน่วยงานกำกับดูแลที่เกี่ยวข้องกับการเปิดเผยข้อมูลภาคสมัครใจ โดยเฉพาะอย่างยิ่งในการพิจารณารูปแบบของการเปิดเผยข้อมูลประมาณการกำไรที่เหมาะสม เพื่อเพิ่มความถูกต้องของข้อมูลที่ผู้บริหารจะเปิดเผยต่อสาธารณชนต่อไป

ภาควิชา	การบัญชี	ลายมือชื่อนิสิต	....
สาขาวิชา	การบัญชี	ลายมือชื่อ อ.ที่ปรึกษาหลัก	....
ปีการศึกษา	2560		

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KEYWORDS: MANAGEMENT EARNINGS FORECAST / MANAGEMENT INCENTIVES / LOCUS OF CAUSALITY

KANJANA PHONSUMLISSAKUL: THE JOINT EFFECTS OF MANAGEMENT INCENTIVES AND PERCEIVED LOCUS OF CAUSALITY ON MANAGEMENT EARNINGS FORECAST DISCLOSURES. ADVISOR: JUTHATHIP AUDSABUMRUNGRAT, Ph.D., 159 pp.

This study investigates the effect of management incentives (directive and transparency) and locus of causality (internal and external) on the willingness of managers to disclose management earnings forecast reports and the accuracy of management's earnings forecast information. The experimental findings show that managers with directive incentives are less likely to disclose the earnings forecast and provide less accurate information to market participants than managers with transparency incentives, for both *point* and *range* forecast forms. In addition, locus of causality contributes to the accuracy of management earnings forecast information when the forecasts suggest underperformance, but the findings reveal no significant differences in the willingness of management to issue earnings forecasts. Managers tend to provide more accurate earnings forecasts in the *range* form when the poor performance is internal rather than external. There are fewer clear causal effects on the accuracy of *point* earnings forecasts.

When focusing on the joint effects of management incentives and locus of causality, these factors influence the willingness of management to issue earnings forecast and to provide accurate earnings forecast. The willingness of directive managers to issue earnings forecasts is impacted more by internal and external factors than it is for transparency managers. The results show that when performance is affected by external business factors, directive managers' *point* earnings forecasts are less accurate. However, there is no joint effect of management incentives and locus of causality on the accuracy of earnings forecasts in *range* form. The implications of these findings are for regulators related to the voluntary disclosure of management's earnings forecasts. Particularly, the consideration of an earnings forecast's form enhances the accuracy of the forecast.

Department:	Accountancy	Student's Signature	....
Field of Study:	Accountancy	Advisor's Signature	....
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Finally, I am also thankful to my family for their support and endless love. My last thoughts are dedicated to my beloved parents who passed away. They are forever engraved in my heart.

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1. INTRODUCTION

1.1 Motivation

Management earnings forecast is one of the key voluntary disclosures by managers who reveal their firms' expected performance prior to a reporting date (King et al., 1990, Hirst et al., 2008). Not only has the issuance of management earnings forecast become popular among public companies, but there has also been a long and continuing research interest (see Hirst et al., 2008, Han, 2013, King et al., 1990 for reviews). However, despite the growing number of management earnings forecast disclosures in the late 1990s, such practices of disclosures has decreased in recent years (Han, 2013). Surveys by the National Investors Relation Institute (NIRI) also suggest a downward trend in giving quarterly earnings forecast from 75% in 2003 to 27% in 2007. On the other hand, the percentage of giving annual forecast has increased from 16% in 2003 to 58% in 2007 (Chen et al., 2011). Issuing management forecast is common practice but highly arguable in paper by CFA Institute and Business Roundtable.[1]

Various motivations of issuing earnings forecast are conformed to current or potential shareholders. That is, the firms' behavior of disclosure is driven by stock price considerations to reduce the information asymmetry between managers, analysts, and investors (Ajinkya and Gift, 1984, Cotter et al., 2006, Wang, 2007, Verrecchia, 2001, Pownall et al., 1993, Penman, 1980). Coller and Yohn (1997) suggest that forecast issuing could reduce information asymmetry between insiders and outsiders. Overall, evidence from empirical works obviously shows that management earnings forecast plays an important role in a voluntary disclosure and is associated with economic outcomes.

Empirical evidence suggests several possible factors that make differential motivations to release management earnings forecasts such as management incentives, earnings forecast news, litigation risks, information asymmetry, and analyst and investor reactions (e.g., Lev and Penman, 1990, Skinner, 1994, Healy et al., 1999, Aboody and Kasznik, 2000, Wang, 2007). Since the passing of Regulation Fair

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[1] Breaking the Short-Term Cycle: Discussion and Recommendations on How Corporate Leaders, Asset Managers, Investors and Analysts Can Refocus on Long-Term Value (CFA Institute, 2006)

Disclosure (Regulation FD) in 2000, managers have been prohibited to selectively disclose material information to analysts and institutional investors (SEC, , 2000). One area of material information includes management earnings forecast. After Regulation FD was passed, managers face a choice between public disclosure and silence. Therefore, one of the main antecedents for managers to decide whether to issue earnings forecast or not is their own forecasting behavior.

According to issuing Disclosure Guidelines of Stock Exchange of Thailand (SET) for listed companies' management in 2006, the number of management forecast practices in Thailand has been growing. Although the guidelines were developed to improve the quality of information disclosure, a significant number of management forecast disclosures did not comply with the SET guidelines in the post-guideline period practice (Jarutakanont and Supattarakul, 2011). For example, the SET guidelines do not allow firms to disclose forecast at quarterly report period, but 34% of listed firms still do disclose forecast quarterly in the post-guideline period practice. Furthermore, the annual forecast disclosure in a quantitative form is considered to violate the SET guidelines, but 59% of annual forecast disclosures are in such a form (e.g., point, range, open-ended estimates). It is quite interesting why management decides to break the SET rules and accepts their litigation risks and what their incentives to publicly disclose prohibited information are.

Managerial incentives play a significant role as one of the main antecedents for managers to decide whether to disclose their earnings forecast (Hirst et al., 2008). Since managers have superior knowledge regarding their firms' expected future performance, they generally have their own strategic forecasting behavior (Libby et al., 2002). For example, firms with the highest disclosure ratings tend to show the best earnings performance (Lang and Lundholm, 1993). This may be due to self-selection bias. Firms may disclose more when they are favorable performing rather than information disclosures *per se* (Healy and Palepu, 2001). Besides, opportunistic sets of situations may deviate firms' disclosure decision. For these reasons, identifying management earnings forecast incentives is extremely challenging, and by using archival data consequences can be regarded as resulting from either the management forecast incentives or to other features (Wang and Tan, 2013). Therefore, potential endogeneity is the critical consideration of the archival research in studying voluntary disclosures.

Without regulation forces, it is not practicable to directly measure the incentives or motivations of individual managers by empirical testing (Ajinkya and Gift, 1984).

The issue of management incentives is significant since managers have various incentives when they disclose forecasts (Healy and Palepu, 2001). Two main management incentives, meeting/beating earnings benchmarks and forecast accuracy, noticeably influence management disclosure decisions in prior literature (Hirst et al., 2008, Wang and Tan, 2013, Hutton and Stocken, 2009). Some managers have self-concerns or owner-related incentives (hereafter directive) to meet market expectations (Kothari et al., 2009, Nagar et al., 2003, Aboody and Kasznik, 2000). With respect to firms that have a directive to meet and/or beat earnings benchmarks, managers have strategic concerns over meeting or beating analysts' consensus earnings forecast in order to avoid negative earnings surprises (Matsumoto, 2002, Tan et al., 2002b, Cotter et al., 2006, Tan et al., 2010, Wang and Tan, 2013). Firms that fail to meet or beat analysts' forecast are more likely to cease issuing management earnings forecasts (Houston et al., 2010). Frequently, managers intend to issue neither pessimistic nor optimistic forecasts to deviate market expectations and to easily beat or meet their earnings benchmarks (Cotter et al., 2006, Rogers and Stocken, 2005).

In contrast, some managers have transparency and accuracy concerns (hereafter transparency) about establishing management's reputation from credible reporting and transparent operation (Wang and Tan, 2013, Hutton and Stocken, 2009, Stocken, 2000, Rogers and Stocken, 2005). After Regulation FD had been issued, management of public companies realized that their disclosed information would be reviewed by SEC on the full and fair basis. When people realized that their reports would be reviewed by other people, they would be more careful about quality of work (Bonner, 2008). Hence, this regulation has built up management's accountability for stakeholders. Their released information should be transparent and accurate. Transparency is therefore one of the processes of accountability and becomes intertwined with developments of disclosure and audit (Power, 1997). Previous literature suggests that when managers perceive reporting's transparency, they will concern more about the quality of the firm's corporate governance by providing forthcoming information (Hutton and Stocken, 2009) and disclosing unbiased guidance to establish forecasting reputations (Wang and Tan, 2013). Market participants are also significant for accurate forecasts (Williams, 1996a, Hirst et al., 1999, Hutton and Stocken, 2009). In sum, understanding the effects of different management incentives on earnings forecast setting are important, especially in terms of whether and how these incentives impact the willingness and the accuracy of issuing earnings forecast.

The implications of the disclosure are used to provide insights into voluntary disclosure choices and to advance strategic orientation. Earlier research documents that managers voluntarily release earnings information for two main streams. First, managers of positive performance firm promptly release this good news in order to differentiate his firm from other firms that have poorer performance (Lev and Penman, 1990, Skinner, 1994). Second, consistent with litigation risks and reputation-effects arguments, managers have incentive to early disclose bad news (Skinner, 1994, Kasznik and Lev, 1995). However, some studies show that managers may face opposing incentives to withhold bad news until the threshold due to career-related concerns (Kothari et al., 2009) or delay bad news and try to improve their performance (Graham et al., 2005). In sum, it still remains unclear whether managers guide unfavorable earnings forthcoming and what motivates their disclosure decisions.

When managers decide to disclose management earnings forecasts, their decisions are usually influenced by both firm-specific characteristics, internal attributions, and environmental circumstances, external attributions of considered issuing (Hirst et al., 2008). However, causal attribution plays a role in the aforementioned decision (Gurevich et al., 2012). Attribution (hereafter "*locus of causality*") refers to location of a cause. Outcomes, therefore, are the net result of internal and external causes. Individuals may be able to contribute or hinder their actions depending on outcomes (Heider, 1958, Weiner, 1985). Even though management decision quality is not directly linked to firm performance, it is reasonable to assume a link between causes of decision and causes of firm performance (Koonce and Mercer, 2005). For instance, positive consequences tend to be attributed to internal causes such as abilities and effort. On the other hand, negative consequences are attributed to external causes such as poor instructions or task difficulty (Miller and Ross, 1975, Weiner, 1985). Archival studies examining the association between management earnings forecasts and causal attributions (Baginski et al., 2000, 2004) show that there is a stronger price reaction to the earnings forecasts by appearance of attributions than those by disappearance of attributions. Notwithstanding, it is unclear how managers choose attributions and whether they intend to manipulate attributions for their actions. Thus, not only is it feasible to directly measure personal attributions and outcomes by archival research, but there is also no economic-based theory to explain evidence from empirical studies (Baginski et al., 2004). The endogeneity issue may arise from the archival evidence since managers can choose whether to provide such attributions (Kimbrough and Wang, 2014).

The direct link between locus of causality (internal or external factors) and earnings forecast disclosure decision is important, but it is still uncertain how managers' judgments are influenced by internal or external factors. Particularly, the combinations of earnings disappointing guidance and the internal cause explanation rarely occur in practice. Unlike earnings forecast accuracy, attribution locus and its accuracy are not easily verified. Thus, it would be more challenging to use an experimental method to test this linkage by holding other variables constant. For these reasons, in this study, my hypotheses are drawn from the attribution theory from social psychology stating that when situational forces for an actor's behavior are apparent, people are less likely to make an internal causes (Jones and Davis, 1965). Thus, a crucial problem facing these managers is whether perceived locus of causality affects the likelihood of issuing earnings forecasts and its forecast accuracy.

In addition, the study of causal link between management incentives with locus of causality is significantly advantageous. To the best of my knowledge, this linkage has not been obviously demonstrated in prior literature. That is, when faced with poor performance, such as unfavorable outcomes, it is interesting whether and how locus of causality moderates the influence of management incentives. Moreover, the choice to disclose future earnings forecast and the amounts is at mangers' discretion (Hirst et al., 2008). The selection of forecast forms varies across firms, earnings information and timing (Bamber and Cheon, 1998, Baginski and Hassell, 1997, Cotter et al., 2006). Existing research extensively focuses on *point* and *range* forms to assess earnings forecast accuracy. Practically, the *ex post* accuracy of forecast numbers is determined by differences between the forecast and actual earnings numbers (Pownall et al., 1993). The experimental study can, however, assess the *ex ante* accuracy of *point* and *range* earnings forecast numbers by comparing them against a pre-determined benchmark number. Thus, it is important to explore the impact of manager incentives and locus of causality on the likelihood of issuing management earnings forecast and the accuracy of earnings forecast numbers relating to the choice of forecast form.

1.2 Research Objectives

The purpose of this study is threefold. First and foremost, this study investigates the effects of different management incentives on management decisions in terms of the likelihood and the accuracy of issuing earnings forecast. Second, this study investigates whether the locus of causality related to missed earnings benchmark impacts management's perception to issue earnings forecast. Specifically, this study examines how locus of causality arises from either an internal factor or an external factor inducing bias on the likelihood and the accuracy of issuing management earnings forecast. Finally, this study assesses how locus of causality moderates the effect of management incentives on the likelihood of issuing earnings forecast and the variation of earnings forecast accuracy.

This study, therefore, begins with the arguments that different types of management incentives (directive vs. transparency) will lead to different levels of likelihood and accuracy of issuing management earnings forecast. Next, this study examines whether the locus of causality (internal vs. external) affects the likelihood and the accuracy of issuing management earnings forecast. Finally, this study explores the interaction effects between management incentives and locus of causality on the likelihood and the accuracy of issuing management earnings forecast.

1.3 Research Questions

This study attempts to provide the answer to the following research questions:

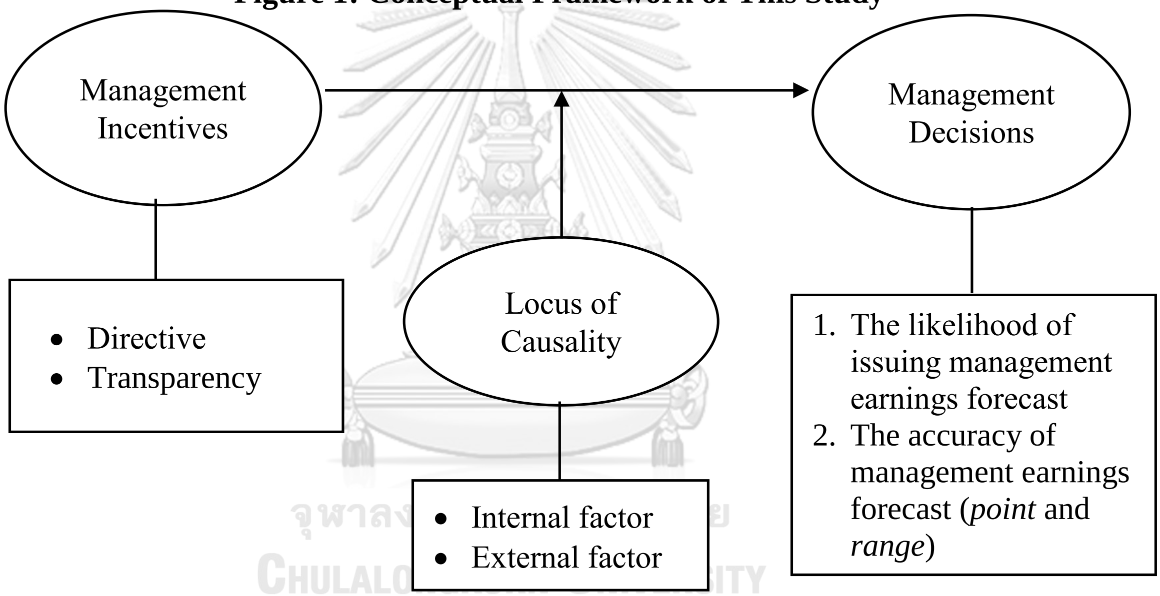
1. Do different management incentives affect management's willingness and accuracy of issuing management earnings forecasts?
2. Does perceived locus of causality impact management's willingness and accuracy of issuing management earnings forecasts?

3. Do the joint effects of management incentives and locus of causality on management's willingness and accuracy of issuing management earnings forecasts?

1.4 Conceptual Framework

The conceptual framework is built on two pillars. The first pillar is the main motivation of issuing management earnings forecasts. The second pillar is a moderator factor that either enhances or reduces the likelihood and the accuracy of issuing management earnings forecasts.

Figure 1: Conceptual Framework of This Study



1.5 Research Design and Summary of Findings

To test my predictions, I employed a 2 x 2 between-subjects experimental design with one control group (2 x 2 + 1). I manipulated management earnings forecast incentives (directive vs. transparency) and the locus of causality (internal vs. external) as independent variables. One hundred and fifty-six Master of Business Administration (MBA) students were participants in this study. They were asked to assume a role of an executive manager who had authority to make a decision to voluntarily disclose forecast. With an 11-point Likert scales instrument, participants were asked about the likelihood of issuing quarterly management earnings forecast. They were also asked to produce an earnings forecast number (*point*) and indicated the minimum and maximum of earnings forecast (*range*) if they were willing to disclose their earnings forecast information. After participants did the case, I did manipulation check by asking questions related to management incentives and locus of causality. After participants finished their task and manipulation questions, demographic questions as well as a set of post experimental questions for knowledge testing were asked in the final part.

To provide further analysis, I ague that directive incentive managers have more concerns over missed market expectation than transparency incentive managers. In contrast, I hypothesize that transparency incentive managers have greater concerns over their transparent operation than directive incentive forecasters. To test these arguments, I asked participants post-experimental questions to indicate the levels of their concerns over market expectation and transparent operation.

Moreover, I also conducted an additional test by providing evidence whether the effect of management incentives and locus of causality on the likelihood and the accuracy of issuing earnings forecast varies across the forecast horizon. Besides providing the likelihood and producing the numbers of earnings forecast in *point* and *range* forms on the quarterly basis, participants were asked to specify that on a half year basis. In addition, I presented a within-subjects test for the forecast horizon effect comparison between the likelihood of issuing quarterly and a half-year earnings forecast. Finally, due to the difference in years of working experience of participants, I further analyzed the effect of experience on the likelihood and the accuracy of issuing earnings forecast.

The results reveal that the factor that affects management's earnings forecast disclosure decision when facing future earnings disappointment depends on given management incentives. Not only are directive managers less likely to disclose management earnings forecast, but their earnings forecast numbers are also less accurate than those of transparency managers in terms of both *point* and *range* forms. In addition, when the cause of earnings disappointment is internal factor, the likelihood of issuing earnings forecast is not different from an external factor. Besides, the accuracy of *point* earnings forecast disclosure is also not different between managers with an internal factor and managers with an external factor. However, in a *range* forecast form, managers with an internal factor disclose more accurate earnings forecast than those with external factor.

Moreover, the joint effects of management incentives and locus of causality influence both the likelihood of issuing management earnings forecast and the accuracy of *point* earnings forecast, but there are small influences on *range* earnings forecast accuracy. The difference in the likelihood of issuing management earnings forecasts among managers with an internal and external factor of directive incentive is greater than that of transparency incentive. Additionally, directive managers impose more bias on *point* earnings forecast than transparency managers when facing an external factor while the accuracy of *point* earnings forecast among managers with different incentives does not vary when facing an internal factor. However, the interaction effects of management incentives and locus of causality on the *range* earnings forecast accuracy are not significant. In fact, both directive and transparency managers also impose more bias on earnings forecast when facing an external factor than when facing an internal factor. Importantly, transparency managers are more likely to issue accurate forecast in a *range* form than directive managers with both an internal and an external factors. Overall, the findings suggest that transparency managers are likely to issue accurate forecast when facing both internal and external factors in both *point* and *range* forms.

In addition, this study investigates which variables mediate the effect of management incentives and locus of causality on the likelihood and the accuracy of issuing management earnings forecast. The results suggest that management's concerns over transparency and reputation mediate the effects of management incentives and locus of causality on the likelihood of issuing earnings forecast. Both market expectation and concerns over transparency and reputation mediate the effects of management incentives and locus of causality on the accuracy earnings forecast in a *range* form. On the contrary, both market expectation and concerns over transparency and reputation fail to mediate such effects on the accuracy earnings forecast in a *point* form. Overall, after controlling the influence of mediator variables, the results confirm the main findings.

In additional analyses, this study provides evidence on the assumptions related to my hypothesis. Debriefing analysis finds that directive managers concern more about the market expectation than transparency managers do. Nevertheless, there is no difference in the concerns between directive managers and a control group. On the other hand, transparency incentives concern more about the transparent operation and management's reputation than both directive managers and a control group. This study also examines the effect of management incentives and locus of causality on the likelihood of issuing management earnings forecast and the accuracy of *point* and *range* earnings forecast in the longer forthcoming period (a half year). The results suggest that only management incentives impact management's disclosure decision for the long-term earnings forecast (a half year). However, the effect of management incentives and locus of causality on the accuracy of issuing *point* and *range* earnings forecast is not persistent in a long forecast horizon. Furthermore, this study, classifying participants into less and more working experiences, finds that overall more experienced managers are more likely to disclose their future information. After comparing all treatment conditions, the results suggest that less experienced managers are less likely to disclosure earnings forecast in almost all conditions, except only in transparency incentive with an external factor condition.

1.6 Contribution

This study makes several contributions to academics and practitioners. A number of researchers have examined consequences of management earnings forecast that has influenced investor reactions and stock prices, but there is little evidence regarding antecedents of asymmetric management behaviors. Complement existing theories, this study furthers the understanding of empirical issues of nondisclosure.

First and foremost, my study adds theoretical insights into accounting literature on management earnings forecast by documenting potential bias of disclosure decision that comes from management incentives. Particularly, this study adds to the literature on positive and negative consequences of management incentives. The results show that the likelihood of issuing management earnings forecast depends on given management incentives. The asymmetric disclosure behavior of future earnings failure tends to be diminished by incentives. Specifically, this study demonstrates that directive incentive could not only obstruct management's voluntary disclosure but also impair their accuracy of earnings forecast. Prior research suggests that the failure of bad news disclosure harms management reputation (Skinner, 1994). In addition, Hutton and Stocken (2009) argue that firms develop reputations from prior accurate forecasting, and they find that stock price reaction to current forecast news increases relative to prior forecast accuracy. This study extends prior studies by providing supporting evidence that managers who have transparent incentive will disclose more accurate earnings forecasts than those with directive incentive to establish transparent operation and management's reputation.

Second, normative theories suggest that monetary incentives adhere more to Bays' theorem than nonmonetary ones (Bonner, 2008). Thus, management trading and stock-based incentive are associated with voluntary disclosures. This study finds that when these incentives disappear, managements with transparency incentive are not only more willing to disclose their future earnings information, but they also issue more accurate earnings forecast in both *point* and *range* forms. This difference is important as it demonstrates that the revealed earnings forecast is associated with management incentives *per se* without the influence of any compensations.

Although the number of firms providing earnings forecast have been steady, managers appear to be inconsistent with disclosing their earnings forecast. Lang and Lundholm (1993) show that the highest performance firms have the highest disclosure rating. However, disclosure rating may result from performance rather than disclosure as such. This study extends evidence from prior research by showing that various levels of disclosure decision and biased earnings forecast number depend on management incentives *per se.* Transparency incentive is more likely to and more accurately disclose their information despite being miss market expectation. It means disclosure decision and the accuracy of future earnings information are not necessarily driven only by performance. In sum, this study improves the understanding regarding antecedents of management forecast behavior and adds to literature on motives for management's disclosure decisions.

Third, this study contributes to attribution literature in psychology by providing evidence of the economic decision making. Self-serving attribution bias suggests that individuals often attribute positive outcome to their own internal factors and negative outcomes to external factors (Miller and Ross, 1975, Heider, 1958). In management earnings forecast context, performance attributions are associated with disclosure strategy by providing the explanations to market participants (Baginski et al., 2004). Due to endogeneity issues, prior studies could not examine self-serving attributions as such because attributions accompanying forecast are also voluntary disclosure. This study demonstrates the starting point of voluntary manipulations. The results show that self-severing bias on locus of causality does not affect managers' judgment before they decide to voluntarily disclose the future earnings information (the likelihood to issue earnings forecast). After managers decide to disclose their earnings forecast, the locus of causality (internal and external) have an influence on management's judgments related to the accuracy of earnings forecast disclosure, particularly in an uncertain forecast form.

Specifically, this study finds that when facing unfavorable future earnings, the *range* earnings forecast is significantly less accurate in the presence of an external factor than those in an internal factor. This result could be attributed to uncertain numbers in a range form. Sometimes, managers might add bias into the earnings forecast numbers and whether they will do that or not depending on which factor (internal or external) causes the poor performance. However, a point form represents a certain number, the self-serving bias of causality becomes less influential in managers' judgments. The results support the prior literature that forecast attributions are one of the forecast characteristics accompanied by earnings forecast that is associated with larger firm, bad news, and the maximum type of forecasts (Baginski et al., 2004). This study complements the prior evidence that the location of causes (locus of causality or attribution) seems to be one of the forecast antecedents.

Forth, not only does this study contribute to the prior literature by highlighting the linkage between attribution literature in psychology and management's voluntary disclosure decisions in accounting, but this study also contributes to the regulators by providing the forecast error evidence. This study illustrates a potentially interactive role of management incentives and locus of causality on the willingness of earnings forecast disclosure and forecast error. The effect of locus of causality on both the likelihood and the accuracy of earnings forecast disclosure is conditional on the management incentives. When facing an external cause of future earnings failures, directive managers will be less likely to issue their future earnings information than transparency managers. However, the effect of locus of causality does not have the same effect on transparency managers. As a result, transparency managers are not sensitive to causality of unfavorable outcomes; thus, their likelihood of issuing future earnings information in the presence of either an internal or an external factor remains unchanged.

However, there are the joint effects of management incentives and locus of causality influence on the earnings forecast accuracy in a *point* form. When an external factor appears, the levels of earnings forecast accuracy in a *point* form depend on management incentives. In contrast, there is no effect of an internal factor among different management incentives on the *point* forecast accuracy. Note that the interactive role of management incentives and locus of causality does not matter when it comes to earnings forecast accuracy in a *range* form. The findings are supported by elasticity of range sensitivity (Fischer, 1995). A *range* forecast form represents uncertain numbers; managers with both incentives seem to add alongside bias forecast with their own preferences. Importantly, transparency managers with an external factor also add more bias into their earnings forecast than those with an internal factor as well as directive managers in a *range* forecast form. Hence, these results also have the implication for the regulators. These results could be contributed to standard setters and regulators to improve business reporting including extensive voluntary disclosures. Understanding the linkage between management incentives and locus of causality offers them insight into how to strengthen voluntary disclosures of forward-looking information in a management forecast context. While the regulators emphasize the promotion of the good corporate governance best practice of transparent disclosure, the transparency does not necessarily lead to disclosures of accurate information. Transparency will lead to accurate information voluntary disclosure only when the information is put into certain forms.

Finally, this study also directly contributes to the regulators in Thailand. While the Stock Exchange of Thailand (SET) regulations allow public companies to issue only qualitative financial forecast on an annual basis, SET has recently stated during Investor Relation Best Practice training of SET in 2016 that public companies could disclose quantitative financial forecast together with assumptions. This study demonstrates the impact of management incentives and locus of causality on the accuracy of point and range forecast forms. Complying with SET's Disclosure Guidelines[2], this study also provides an additional test to carry out the effects of management incentives and perceived locus of causality in the long-term horizon (a half-year). The results indicate that the accuracy of the long-term forecast is not carry over the effect of management incentives and locus of causality. Therefore, the study also contributes to the management earnings practice by providing the evidence that the effects of management incentive and locus of causality are less influential in the managers' judgment regarding the forest accuracy when they disclose earnings forecast in the longer period. Additionally, the results support the debate around the forecast horizon that the short-term forecast drives the myopic managerial behavior caused by attempts to meet market expectation (Houston et al., 2010).

1.7 Organization of the Study

The remainder of the study is organized as follows. Section two reviews the relevant literature and hypotheses development. Section three describes the research design, experimental materials, and procedures. Section four explains the manipulation check and results. Section five reports additional analyses. Section six discusses conclusion, implications, and limitations of this study.

[2] SET's Guidelines prohibit management to disclose short-term financial projections (less than 6 months).

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

The information (lemons) problem arises from asymmetrical information and conflicting incentives between buyers and sellers. It can pose important hindrances in the capital market mechanism (Akerlof, 1970). Corporate disclosure is an important role for developing in the capital market. Firms provide disclosure through regulated financial reports, including the financial statements and other documents for regulators. However, some firms engage in a voluntary disclosure to communicate to outsiders (Trueman, 1986, Healy and Palepu, 2001). The term "*voluntary disclosure"* primarily describes a disclosure outside the financial statements that are not explicitly required by General Accepted Accounting Principles (GAAP) or Securities and Exchange Commission (SEC) ruling (FASB, , 2001)[3], such as forward-looking information, press release, and other corporate reports (Healy and Palepu, 2001). Managerial commitment to disclose private information, be it good or bad, can reduce information asymmetry and potentially lower the firm's cost of capital (Diamond and Verrecchia, 1991, Verrecchia, 2001, Healy and Palepu, 2001). In particular, increased levels of disclosure are more likely to attract both investors and analysts (Kim and Verrecchia, 1991a,b, Hutton, 2005).

In this section, I begin with a discussion regarding institutional background on management earnings forecasts including the definition and implication, framework, and regulatory environment. Next, I review prior literature related to the motivation of management earnings forecast disclosures and earnings forecast characteristics. Then, I develop my hypotheses that are drawn from the effects of management incentives and locus of causality on managements' decision to disclose their private information. Finally, I explore the joint considerations between management incentives and locus of causality that may limit managers' propensity to engage in earnings forecast disclosure practices.

[3] The Financial Accounting Standards Board

2.1 Institutional Background on Management Earnings Forecasts

2.1.1 Definition and Implication of Management Earnings Forecasts

Management earnings forecast[4] disclosure is released in order to provide information about expected financial performance[5] of a particular firm prior to an earnings announcement date (King et al., 1990, Fischer, 1995). Managers often disclose quarterly or annual guidance before the actual earnings releases (Trueman, 1986). In general, management earnings forecasts are released to signal investors concerning future favorable outcomes (Trueman, 1986, Lev and Penman, 1990). Sometimes, they are commonly used as earnings warnings when management fails to reach their expected earnings (Kasznik and Lev, 1995, Libby and Tan, 1999).

Releasing management earnings forecast has become popular in practice, and there has been a long and continuing academic interest[6]. The numerous literature show that management earnings forecasts are informative (Penman, 1980, Ajinkya and Gift, 1984, Kasznik and Lev, 1995). For instance, management earnings forecasts have information content since there is an association between earnings news conveyed through management forecasts and stock price reactions (Pownall et al., 1993, Nagar et al., 2003). Furthermore, investors are more responsive to forecast news when firms have established prior forecasting accuracy (Cohen et al., 2018, Hutton and Stocken, 2009). However, because management forecasts are voluntarily disclosed, managers face many choices as to whether and how to disclose their forecast. Despite the fact that managers do not control the news that they forecast, they can control period decisions and the earnings number to be issued (Hirst et al., 2008).

Realized costs and benefits of releasing earnings forecast play a primary role in management decision. Anecdotal evidence in prior research reveals that managers with good performance will differentiate themselves from other firms by issuing their forecasts (Lev and Penman, 1990). For example, good news firms gain advantage via

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[4] I use the terms “management earnings forecast” and “management earnings guidance” interchangeably throughout this study.
[5] Financial performance contained in management earnings forecasts such as revenue, earnings, revenue and earnings etc.
[6] See King et al. (1990); Hirst et al. 2008); and Han (2013) for an extensive review of management earnings forecast literature.

signaling and preemption their well performance by voluntarily disclosed forecast (Lev and Penman, 1990, Kothari et al., 2009). Nevertheless, empirical testing indicates that firms with earnings disappointments will realize costs of litigation risks and reputation concerns, if they fail to convey their information to reach the market (Skinner, 1994, 1997, Kasznik and Lev, 1995). Hence, when litigation is high, managers make bad news disclosure in a timely manner to manage their risks (Roychowdhury and Sletten, 2012).

Management forecast disclosure is advantageous as claimed in the prior literature. Nevertheless, revealing proprietary information is also costly. Verrecchia (2001) argues that managers' and investors' disclosure preferences are congruent, but proprietary costs are the main obstacle. Proprietary costs are an important hindrance in practical voluntary mechanism, including management forecast disclosures. If management disclosure is costly, a manager tends to enhance firm's value by revealing private information only when the benefit is possibly more worthy than the cost (Verrecchia, 1983, 1990). For instance, Wang (2007) shows that firms with higher proprietary costs (R&D expenditures scaled by total assets as proxy of proprietary information costs) are less likely to disclose forecasting after Regulation Fair Disclosure (Regulation FD) is launched.

2.1.2 Framework of Management Earnings Forecasts

Management earnings forecasts are one of the crucial voluntary disclosures that provide supplement information for several market participants. Hirst et al. (2008) review management earnings forecast literature across all methodologies, and they propose a framework which includes three components: antecedents, characteristics, and consequences. I begin with providing a concise description of the framework and then explaining how this study fulfills the management earnings forecast literature.

Figure 2 provides a pictorial presentation of a framework proposed by Hirst et al. (2008) to analyze the antecedents, characteristics, and consequences of management earnings forecasts. Forecast antecedents are the preliminary factors to the actual forecast decision. Virtually, existing antecedents determine whether the manager will disclose a forecast. Hirst et al. (2008) classify antecedents into two categories: forecast environment and forecaster characteristics. Forecast environment refers legislation, regulatory, analyst, and investor environment while forecaster characteristics are relevant to unique features of forecasters. Focusing on the U.S. environment, after the passing of Regulation FD in 2000, material information has prohibited selective disclosures. Chilling effects may arise when firms decide to keep silent rather than to publicly disclose the forecast because of Regulation FD (Bailey et al., 2003). However, Wang (2007) reveals that management continually discloses earnings forecast depending on firm-specific after the passage of Regulation FD. On the other side of forecast environment, investors and analysts also seek earnings forecast for making investment decision and providing analyst's coverage, respectively (Healy et al., 1999).

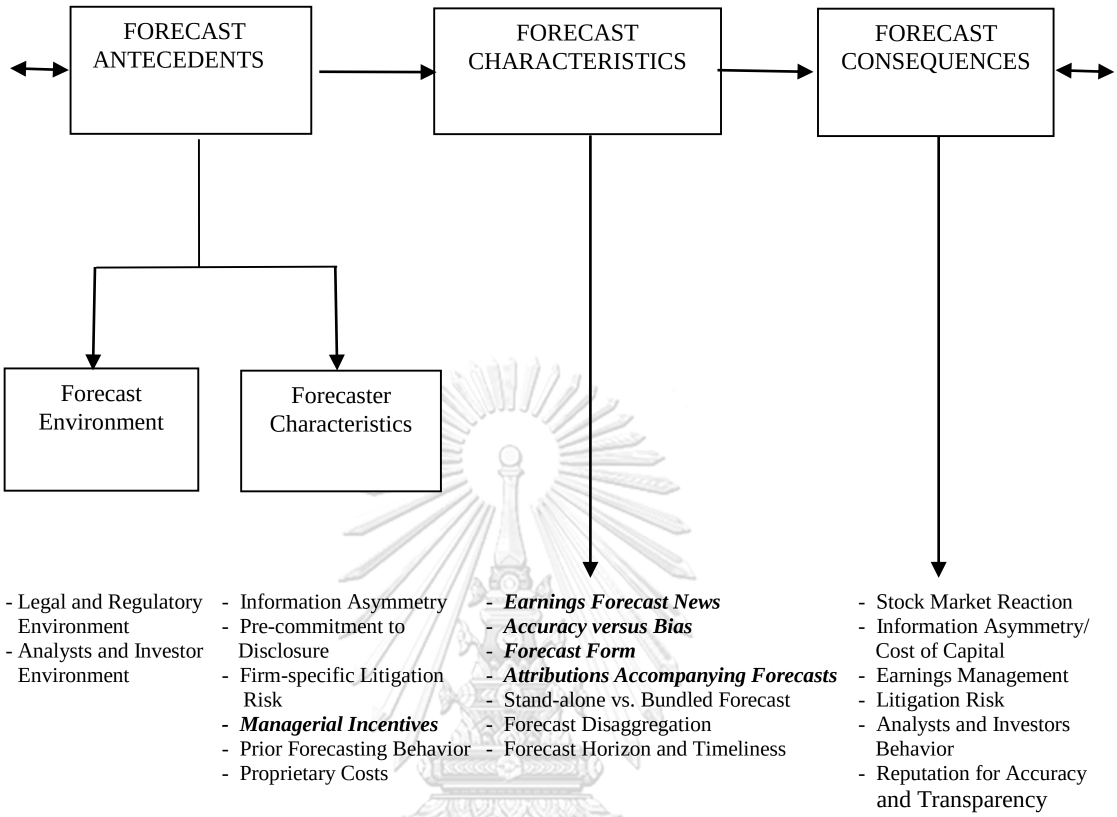
The other antecedent, forecaster characteristics, exists cross-different variations among forecasters. Forecaster characteristics consist of information asymmetry, pre-commitment to disclosure, firm-specific litigation risks, management incentives, prior forecasting behaviors, and proprietary costs. For example, firms with higher litigation risks are more likely to preempt earnings disclosures to avoid its cost (Skinner, 1994, 1997). Management incentives also influence forecast issuing. Particularly, different levels of management incentives vary across firms and time. Managers with equity-based incentives disclose more frequently to avoid mispricing that could adversely affect their compensation (Nagar et al., 2003). In summary, not only is external environment (regulation, investors, and analysts) a significant factor to management forecast issuing, but internal firm-specific (forecaster characteristics) also motivates managers' behaviors to reveal forecasts. However, it is clear that managers have been motivated to voluntarily disclose the forecasts as long as benefits are higher than costs of disclosures (Trueman, 1986).

Having decided to disclose the earnings forecast, the manager then faces many choices of forecast characteristics. There are substantially various types of forecast characteristics that have been documented in prior research (King et al., 1990). These characteristics include, for example, the earnings news (bad versus good news), the accuracy versus bias, the form (e.g., point, range, qualitative, etc.), the horizon (quarterly versus annual), and forecast attributions (the presence or absence of explanation). Overall, forecast characteristics are the properties of management earnings forecasts *per se*. That is, even managers do not control the forecast news. They could, however, create the form, timeliness, and even the accuracy of future earnings information to the public.

Finally, the last component of the framework is forecast consequences. They refer to outcomes after the issuance of the forecast. Existing evidence on the economic consequences of forecast disclosure mostly focuses on the effect of market reactions. Forecast consequences capture market reactions including stock price, analyst and investors' behaviors, and forecasters' reputation (Nagar et al., 2003, Wang, 2007, e.g., Graham et al., 2005, Libby and Tan, 1999). Not surprisingly, most of the consequences are associated with either the antecedents or forecast characteristics. For example, researchers show that the stock price reactions to subsequent management guidance – a consequence – are greater in prior forecast accuracy – an antecedent (Hutton and Stocken, 2009).

Prior review of management earnings forecast literature argues that existing theories generally address why managers choose to issue a forecast and the consequences of those decisions; however, these theories do not address the many choices of disclosure decisions that managers face (Hirst et al., 2008). Moreover, Hirst et al. (2008) note that several previous studies focus on the main effects of forecast antecedents or characteristics on forecast consequences, and significant advantages fulfilled in the literature will derive from the study of interactions. In this study, I explore this issue, not only do I examine two main effects of the management forecast issuing (management incentives and causal attribution), but I also investigate the joint effects of two forecast antecedents – management incentives as an antecedent and locus of causality (causal attribution) as a forecaster characteristic. Particularly, I examine the effect of management incentives and locus of causality on the likelihood of issuing management earnings forecast (*ex ante* disclosure assessment) and the accuracy of earnings forecast (*ex post* disclosure assessment).

Figure 2: Framework to Study Management Earnings Forecast (Hirst et al., 2008)



2.2 The Motivation of Management Earnings Forecast Disclosure

In general, motivation is defined as an internal state of an organism that induces it to act (Reber, 1995). Prior studies have been continually interested in understanding why corporate managers choose to issue earnings forecast. Empirical evidence suggests several possible factors that make differential motivations to release management forecasts, such as management incentives, earnings forecast news, litigation risks, information asymmetry, analyst and investor reactions (e.g., Lev and Penman, 1990, Skinner, 1994, Healy et al., 1999, Aboody and Kasznik, 2000, Wang, 2007). A number of studies have also employed the experimental approach to address these issues. A recent review of experimental studies suggests the synthesis of management guidance disclosure studies (Han, 2013). Focusing on whether and how management reveals earnings forecasts, Han (2013) categorizes his framework into guider attributes and environment attributes and also analyzes how earnings forecast affects forecaster's behaviors. Guider attributes are related to the firm or management attributes, such as the firm's earnings record and incentive of guiders whilst environment attributes are factors outside of the firm or management's control including regulatory environment, peer companies' behavior, etc.

Interestingly, Han (2013) argues that guider attributes and environmental factors are both forecast determinants and moderators of the effect of forecast characteristics in accordance with whether these factors affect management earnings forecast decision or market's reactions to management earnings forecast. Another point of view, a prior review on management earnings forecasts, suggests that both forecast environment and forecaster characteristics are forecast antecedents of management decision to issue earnings forecast (Hirst et al., 2008). Overall, it is clear that management forecast disclosure decisions are motivated by both endogenous factors and exogenous factors (Hirst et al., 2008, Han, 2013).

However, a recent review of management earnings forecast issues shows that there is a paucity of study on the extent to which managers' personal attributes affect their decision to guide (Han, 2013). Moreover, a prior extensive review also suggests that the study of the interactive effects will shed important lights on how other factors might moderate the influence of the other factors (Hirst et al., 2008). Therefore, this study not only examines the main effect of management incentives on management forecast disclosure decisions but also investigates whether and how locus of causality moderates the influence of management incentives on the issue of management earnings forecast and the impact of these two factors on the earnings forecast accuracy.

2.2.1 Regulatory Environment of Management Earnings Forecasts

Even though disclosure of management earnings forecasts are not mandatory, the regulatory environment can motivate management decisions to disclose earnings forecasts (Hirst et al., 2008). In this section, this study begins with the discussion regarding the relation between management earnings forecast and the U.S. regulatory environment. Then, this study explores the related regulatory and management forecast practices in Thailand. Finally, this study compares the different aspects between U.S. and Thai regulatory environments.

2.2.1.1 U.S. Regulatory Environment

The issue of selective disclosure raises several problems in the U.S. Securities and Exchange Commission (SEC). The term "*selective disclosure"* refers to the private practice by which companies provide material information to certain market participants, such as securities market professionals who may gain advantages from the information before releasing this same information to the general public (SEC, , 2000, 2001). Consistent with evidence from the literature prior to the passage of Regulation Fair Disclosure (Regulation FD), some companies privately provide their important information for analysts and institutional investors (Hutton, 2005, Matsumoto, 2002). This practice is primarily unfair to the rest of market participants. Some investors lose confidence in the integrity of the capital market and decide not to participate. Likewise, the companies are also adversely impacted by losing liquidity of their securities, and the costs of capital also increase (SEC, , 2001). Consequently, Regulation FD is designed to address this issue.

Due to concern over that the fact that some issuers might select to disclose their significant information to certain people before making full public disclosure (SEC, , 2000), Regulation FD was approved by SEC in August 2000. Not only does this regulation purpose to establish full and fair disclosure by public companies, but it also prohibits insider trading (SEC, , 2000). Under Regulation FD, *material nonpublic information* could not be selectively disclosed. In other words, Regulation FD requires managers to publicly disclose the same important information to all market participants at the same time.

The term "*material nonpublic information*" is mentioned in Regulation FD depending on the case law. The regulation does not specifically define "*material*" and "*nonpublic*". However, if shareholders consider any information when making an investment decision, such information is material. Furthermore, information is nonpublic if it has not been broadly disclosed to all the market participants (SEC, , 2000, 2001). The types of information should determine whether they are material such as earnings information, merger, acquisitions, tender offers, changes in management control, or changes in auditors and bankruptcies (SEC,, 2001). Particularly, one area of the material information includes earnings forecasts. A private discussion between corporate managers and security analysts or institutional investors about earnings warning takes a high degree of risk under this regulation.

Prior to Regulation FD, managers could either directly release earnings forecasts to the public or indirectly release them through financial analysts. In addition, managers prefer to reveal private information through indirect channels since they are afraid that analysts will not cover their firm. Similarly, analysts prefer managers' use of indirect channels because of self-interest (Ajinkya and Gift, 1984). Therefore, after the passing of Regulation FD, in terms of management earnings guidance as voluntary information, managers face a choice of either public disclosure or silence. Although the information chilling effect of Regulation FD may have been considered, the quantity of information has not been reduced. Previous studies reveals an increase in public earnings forecasts disclosures following this regulation (Bailey et al., 2003, Heflin et al., 2003). In turn, Wang (2007) finds that firms with lower information asymmetry and higher proprietary costs choose nondisclosure after Regulation FD. In conclusion, even though management earnings forecast is a voluntary disclosure, legal and regulatory environment can influence management disclosure decisions.

2.2.1.2 Thai Regulatory Environment

In order to be a certainly active, fair, and orderly capital market, the Stock Exchange of Thailand (SET) has issued Guidelines on Disclosure Information of Listed Companies whose securities are traded on SET by notification no. Bor.Jor/Por.23-00 on May 20, 1993. The concern of SET is that a listed company has an obligation to publicly release the relevant information to market participants for making investment decisions. Thus, the information should be correctly and adequately disclosed to the public in a timely manner. Moreover, all market participants are able to equally access such information. SET requires a prompt disclosure of information, such as a joint venture or acquisition, a change in management control, a significant litigation, and a purchase or sale of a significant asset (SET, 1993).

In 2006, to properly address management's concern about disclosure information, SET released Disclosure Guidelines for listed companies' management and distributed them to all listed companies on March 31 via the circular no. Bor.Jor. (Vor.) 14/2549. These guidelines' objectives are developed to improve the quality of information disclosure regarding accuracy, sufficiency, equality, and timeliness (SET, 2006). Under the disclosure guidelines, the roles of listed companies' management are relevant to information disclosures which are classified into three categories; compulsory, recommended, and optional disclosures.

First, compulsory disclosures refer to information that is required by SET regulations. For instance, quarterly and annual financial statement must be submitted to SET in accordance with deadline disclosures. In addition, any significant information, e.g. an acquisition or sale of assets, dividend payment or omission declarations, a change in a key management position, also should be submitted to the SET. Second, recommended disclosures accompanying rumors or misleading information should be clarified by the related company. The facts should be released immediately to the best of the company's knowledge and given the up to date information. Nevertheless, the company should clarify both positive and negative news which has an impact on the firm's performance. Third, optional disclosures include annual financial projections and views about probable important future events. The company can optionally release their forecasts, but it should be carefully prepared on a reasonable basis, and realistically stated with appropriate qualifications. If such disclosed projections have any changes, they should be immediately corrected and announced. Regarding forecast issuing, the company should provide its forecasts for SET prior to or simultaneously with other channels. If the company has never provided its forecasts to SET, only its income or sale volumes can be released to the media. Interestingly, SET prohibits management from disclosing any quarterly revenue or profit forecasts because it is short-term information and related to the real figures.

However, during Investor Relation Best Practice Training of SET in 2016, SET suggested that the company could disclose annual financial projections with the minimum information, such as revenues, expenses, and earnings with the assumptions for the projections. If the company choose to disclose its forecast, it should continually disclose this every year by submitting it through the SCP system (SET Community Portal). Moreover, the company should be responsible for the accuracy of the information. Although the annual forecast is eligibly disclosed, both quarterly forecasts and short-term estimations (less than 6 months) are prohibited from being publicly disclosed.

Even though management guidance practices have been long and continued interest among public companies in Thailand for several decades, there is a dearth of research exploring management earnings forecasts in Thailand. Jarutakanont and Supattarakul (2011) provide first empirical evidence on management forecast practices in Thailand. They show that during the sample periods, i.e. January 2005 to December 2005 (Pre-guidelines) and July 2006 to June 2007 (Post-guidelines), more than half of the public companies in Thailand release management forecasts. The companies are more likely to disclose their forecast in the post-guideline period.

Surprisingly, after the passage of SET's disclosure guidelines, prior research shows that there are a significant number of management forecast practices that do not comply with these guidelines (Jarutakanont and Supattarakul, 2011). For example, 34% of the forecast firms provided quarterly revenues or earnings forecasts during the post-guideline period. These disclosures violate the guidelines. Nevertheless, this study finds the association between market reactions and management forecast releasing. The absolute cumulate abnormal returns around management forecast dates are significantly positive. The finding suggests that management forecast disclosures also provide useful information for the capital market in Thailand.

Although SET encourages the listed companies to fairly disclose their information, interestingly, Investor Relation Practice Survey of SET finds that the listed companies commonly prefer to privately communicate with selective analysts and investors. The results show that 80% of participating companies arrange private analyst meetings and that 90% of respondents accept a one-on-one meeting with 32.85 meetings per year on average (SET, 2015). The survey results are consistent with the recent empirical evidence on management forecast practices in Thailand (Sonchai, 2014). She investigates the impact of management earnings guidance on financial analysts, and her sample period covers the companies trading in the market from 2008 to 2012. She finds that analysts are more likely to revise their forecasts following management forecast disclosures. Even though there is no statistically significant association between management earnings forecast frequency and analyst revision from previous analyst forecast issuing, the study finds that the analyst forecasts, who revise their forecast, are more accurate after management earnings guidance have been issued. In sum, prior evidence from Thailand also finds that management forecast practices are important to all market participants. However, the study of management earnings forecast in Thailand is probably more difficult than that in the U.S. because there is no direct database providing the necessary information like First Call Historical Database[7]. The researchers have to manually collect information from the NEWSCENTER database[8]. Thus, there is little research related to management earnings forecast practices in Thailand.

2.2.1.3 Comparing U.S. vs. Thai Regulatory Environments of Management Forecast Disclosure

In terms of management forecast disclosure, there are some different practices between the U.S. and Thai regulatory environments. The significant substances are summarized in Table 1 below:

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[7] First Call Historical Database (FCHD) is a history of First Call's Real Time Earnings Estimates. FCHD will no longer be offered beginning February 29, 2012. Thomson Reuters' IBES estimates are a new historical strategic content set.

[8] NEWSCENTER database includes all the news articles in Thailand.

Table 1: Comparing U.S. vs. Thai Regulatory Environments of Management Forecast Disclosure (adapted and reproduced from Sonchai, 2014 with permission)

U.S. Regulations	Thai Regulations
1. Enforcement • There is law enforcement by SEC which issued Regulation Fair Disclosure (Regulation FD) in 2000.	**1. Enforcement** • There is no law enforcement, but SET issued disclosure guidelines in 2006 via circular no. Bor.Jor. (Vor.) 14/2549. •
2. Information disclosure • Material nonpublic information prohibits selective disclosure. • A private discussion between management and analysts about earnings estimates takes on a high degree of risk under Regulation FD.	**2. Information disclosure** • Information must be primarily disseminated through the SET; that is, market participants have an equal access to the information. • Firms can privately disclose information via analyst meetings.
3. Management forecast characteristics • Management forecast is a voluntary disclosure. • Forecast form - Quantitative and qualitative information is allowed to be publicly disclosed. • Forecast horizon and timeliness - Annual and quarterly forecasts are allowed to be publicly disclosed.	**3. Management forecast characteristics** • Management forecast is a voluntary disclosure. • Forecast form - If a company does not provide its forecast for the SET system, it can disclose only the qualitative forecast[9] through other channels. • Forecast horizon and timeliness - Annual forecasts can be disclosed to the public before or at the annual general meeting. - Quarterly revenue or profit forecasts and short-term estimation (less than 6 months) are not allowed to be publicly released.

2.2.2 Management Earnings Forecast Behavior

While managers have superior information about future earnings, investors do not have that. A key feature of management earnings forecast is which firms voluntarily communicate their future earnings information is less regulated than mandatorily

[9] Qualitative forecast is income or sales quantity.

financial statement information (Hutton and Stocken, 2009). Furthermore, there is a relationship between information asymmetry and management behavior documented in prior research. Even though managers issue forecast to reduce the asymmetry in information between managers and investors (Ajinkya and Gift, 1984, Verrecchia, 2001), the asymmetric disclosure behavior is also documented in prior studies dealing with voluntary disclosures (Skinner, 1994, Miller, 2002, Kothari et al., 2009). For instance, firms issue forecast in some periods, keep silent for some periods, and then resume to issue their forecast (Rogers and Stocken, 2005, Houston et al., 2010). Management forecast disclosure behaviors are still interesting for researchers.

The issue of forecasting behavior is important because disclosure behaviors vary across firms and opportunities (Kothari et al., 2009, Han, 2013, King et al., 1990). That is, one of the main motivations that managers decide to issue a forecast depends on forecasters' behaviors (Hirst et al., 2008, Han, 2013). Prior research shows that manager's personal attributes affect their decision on disclosing forecast. For example, overconfident managers tend to be more likely to disclose management earnings forecast (Libby and Rennekamp, 2012). Surprisingly, little research exists on how manager's personal behavior influences forecast disclosure decisions (Han, 2013).

The asymmetric market reactions to earnings forecast news may influence to the asymmetry of management behaviors. For instance, the association between stock price reaction and bad news forecast is strongly negative while that related to the good news forecast is moderately positive (Soffer et al., 2000, Skinner, 1994, Hutton et al., 2003). The stock market reaction to negative earnings surprises tends to be large and asymmetric, suggesting a high cost of missed market expectations. Management strategically discloses all positive forecast news, but not all negative news is released on the pre-announcement date (Soffer et al., 2000). Conforming to prior results that good news is early disclosed, yet bad news tends to be delayed (Miller, 2002, Kothari et al., 2009). Overall, the empirical evidence shows that the asymmetric management forecasting behavior has some connection with the asymmetry of market reactions regarding earnings forecast news.

2.3 Management Earnings Forecast Characteristics

Forecast characteristics are the attributions of the earning forecast *per se*. It is obvious from existing literature that there is an association between earnings forecast news and its accuracy by engaging in various ways. For example, managers can overstate, accurately state, or understate their earnings forecast (Tan et al., 2002a). Bias in management forecasts is divided into *ex ante* and *ex post*. *Ex ante* bias is symmetric relative to good news or bad news while *ex post* bias refers to under or over earnings estimations (McNichols, 1989). In this fashion, even though managers do not control their forecasts news, they are able to decide how to state their future earnings number.

2.3.1 Earnings Forecast News

Earnings forecast news can be categorized into two types. Good news forecasts exceed market expectations while bad news forecasts fall short of these expectations. The forecast news is usually compared with an earnings benchmark to determine its news valence (Han, 2013). Earnings benchmark can be prior period earnings or analysts' consensus forecasts (Tan et al., 2002a, Degeorge et al., 1999). Many studies show the association between earnings forecast news valence and management's decisions (Skinner, 1994, Kothari et al., 2009, Roychowdhury and Sletten, 2012). As mentioned earlier, there is asymmetry across positive and negative forecast news that is documented in prior literature.

In a voluntary disclosure, because the investors cannot directly observe managers' ability, managers have incentives to provide some favorable information by releasing updated earnings forecast in each period to investors so that they can anticipate future firm's value (Trueman, 1986). According to Lev and Penman (1990), managers with good news will distinguish themselves from other firms by issuing voluntary disclosing forecast. Interestingly, they find that the effect on the non-disclosing forecast firms' stock price in the same industry tends to be in the same direction as that for the disclosing forecast firm. These results are inconsistent with the negative price reaction implication of non-disclosing firms in the same industry of forecasting firms. However, the latter finding shows that, on average, management delays the release of bad news to investors (Kothari et al., 2009). Additionally, managers are more likely to issue good news forecasts following a decrease in larger stock price, but not more likely to issue bad news forecasts following an increase in larger stock price (Sletten, 2012). Focusing on management disclosure decisions, prior research reveals that there is a relationship between management behavior and earnings forecast information. Although litigation cost is concerned in voluntary disclosure decisions, managers' behavior appear to be peculiar with this concern (Roychowdhury and Sletten, 2012).

In general, it is well established from prior evidence that managers have incentives to strategically release or preempt positive news relative to negative news to show their good performance to investors and to distinguish themselves from others (Lev and Penman, 1990, Miller, 2002, Kothari et al., 2009). Furthermore, there are non-mutually exclusive results of the relation between negative information and disclosures. Some studies argue that disappointing news is more likely to make a disclosure to lower market expectation and avoid reputational costs (Skinner, 1994, 1997, Kasznik and Lev, 1995), yet other studies show that managers may face opposing incentives to withhold bad news due to career-related concerns and stock price (Kothari et al., 2009, Lang and Lundholm, 2000), or to delay it in hope of improving firms' performance before announcing the bad news (Graham et al., 2005). In sum, earnings forecast news may be the cause of asymmetric behavior in management forecast disclosure decisions. For this reason, this study determines earnings forecast news, especially focusing on earnings in a disappointing context, as one of the main important motives that influences managers' decision as to whether or not to disclose their earnings forecast information and how they unintentionally produce biased earnings forecast.

As discussed previously, firms with bad news are more likely to issue forecasts than those with good news (Kasznik and Lev, 1995) to avoid litigation risks and reputational costs (Skinner, 1994, 1997). In addition, prior studies find that stock price reactions to bad news disclosures are larger than those to good news disclosures. Although prior evidence posits out that the cost of litigation can motivate managers to preempt earnings disappointments, recent studies argue that when litigation risk are not high enough to induce voluntary disclosures, the possibility to delay bad news issuing is more pronounced (Roychowdhury and Sletten, 2012).

In terms of the relation between management behaviors and negative information, managers may withhold bad news for many reasons. First of all, the impact on manager's career can motivate managers to withhold bad news and hope that bad news will be buried by subsequent events (Nagar et al., 2003). Career-related costs are the second reason. Managers' wealth may become lower as a result of a decline in stock prices after the bad news disclosure (Kothari et al., 2009). Finally, prior empirical research provides inconclusive evidence regarding the directional relationship between disclosure choices and performance. In light of these motives, researchers cannot directly observe manager's private information; thus, it is difficult to answer whether managers withhold bad news forecast (Sletten, 2012).

The expectation adjustment hypothesis posits that managers issue their forecast to induce a revision of market expectations about future earnings (Ajinkya and Gift, 1984). Nevertheless, there are several pieces of evidence from prior research supporting that management prefers to disclose good news early and withhold bad news until the threshold, the point where it becomes too costly for managers to withhold bad news. For example, Kothari et al. (2009) show that the magnitude of market reaction to negative managerial forecast exceeds that to positive news; that is, managers accumulate or withhold negative news up to a threshold level and succeed in hiding bad news from the market. Generally, managers often leak good news prior to the public announcement, whereas managers tend to withhold bad news as long as possible (Kothari et al., 2009).

As mentioned earlier, managers may disclose *ex ante* bias on their forecasts by systematical providing good news and withholding bad news. Thus, this study posits that the effect of management incentives on managers' decisions for issuing management earnings forecast is influenced by bad news. Henceforth, I focus on negative preference as it relates to disclosure omissions and unintentional bias of issuing negative earnings information.

2.3.2 Earnings Forecast Accuracy

The choice to disclose future earnings forecast and its amount is at managers' discretion (i.e., voluntary disclosure). Meanwhile, earnings forecast accuracy is governed by a number of factors including organizational culture and governance (Hutton and Stocken, 2009). Although accurate earnings forecasts are favorably viewed by investors and analysts (Williams, 1996b), substantial variations in the management earnings forecast accuracy are commonplace (Cotter et al., 2006).

According to Miller (2002), Lang and Lundholm (2000), Soffer et al. (2000), managers are incentivized to overstate good earnings news and understate bad earnings news to manage stock prices. In addition, managers deliberately issue biased earnings forecasts that are lower than ensuing actual earnings to meet or beat market expectations and thus avert negative earnings surprises (Matsumoto, 2002, Bartov et al., 2002, Cotter et al., 2006). In essence, managers pursue either an accurate or biased forecast route in response to their self-preferences.

On the other hand, some managers have accuracy concerns to establish management's reputation and reporting credibility (Wang and Tan, 2013, Hutton and Stocken, 2009, Stocken, 2000, Rogers and Stocken, 2005). Stock price responses to firm's forecast are increased in prior forecast accuracy, and analyst's stock revisions are more quickly (Williams, 1996b, Hutton and Stocken, 2009). These findings suggest that firms establish a forecasting reputation from prior forecast behaviors (Bhojraj et al., 2011, Williams, 1996b). Thus, some managers issue accurate earnings forecast to establish their reputation from credibility of voluntary earnings forecast disclosure (Healy and Palepu, 2001, Wang and Tan, 2013, Trueman, 1986). Overall, prior research suggests that forecast accuracy affects the credibility and reputation. It is clear that management's decision to voluntarily disclose accurate earnings forecast is influenced by management's reputation and credibility.

In sum, managers decide which action to take in preference of themselves by providing either an accurate or a bias forecast for a desired result. Because previous studies show that managers can impose bias over their earnings forecast disclosure as *ex post*, this study extends this issue by investigating whether management incentives and locus of causality have an impact on earnings forecast accuracy.

2.3.3 Earnings Forecast Form

Firms are presented with five earnings forecast forms: point, range, maximum, minimum, and qualitative[10] (Baginski et al., 1993, Pownall et al., 1993, Soffer et al., 2000). Prior research suggests that managers will match between forecast forms and their own future earnings information (King et al., 1990). Forecast forms vary across firms and timing (Bamber and Cheon, 1998, Baginski and Hassell, 1997, Cotter et al., 2006). Therefore, understanding forecast forms is important because managers might use strategic self-serving behaviors to reveal different levels of accuracy on future earnings across alternative forecast forms.

Existing research extensively focuses on point and range forms to assess earnings forecast accuracy. Specifically, a point form explicitly states the best estimate while a range form presents the lower and upper limits (Han and Tan, 2007). In other words, a point forecast represents certainty and one specific value but a range forecast represents uncertainty and diverse outcomes (King et al., 1990, Han and Tan, 2010). Although the mean of a range could be treated as a point estimate (Soffer et al., 2000), a range form is perceived to be less precise than a point form (Wallsten et al., 1986). In practice, the ex post accuracy of forecast numbers is determined by differences between the forecast and actual earnings numbers (Pownall et al., 1993). This study, however, focuses on point and range forms because of different precisions which allow us to test the forecast precision in different forms per se by comparing against a pre-determined benchmark number.

Prior evidence suggests that earnings forecasts are rather issued in range, maximum, and minimum forms than in a point form (Bamber and Cheon, 1998, Pownall et al., 1993). Specifically, negative earnings news disclosures are more likely to preempt quarterly in a qualitative form while positive earnings news disclosures tend to be disclosed in a quantitative form of annual earnings forecast (Skinner, 1994). Bamber and Cheon (1998) report that nearly 80 percent of the management forecasts during their sample period are disclosed in range, maximum, minimum or qualitative forecasts. Consistent with the results of Pownall et al. (1993), most management

[10] According to SET's Disclosure Guidelines, management earnings forecast practice is limited only to a qualitative forecast form.

earnings forecasts are issued with imprecise forecast forms, which include range, minimum, maximum, and qualitative forecasts.

Psychology research predicts that a point form will be perceived as certain and more precise while range forecasts are represented uncertain disclosures and are less precise (Wallsten et al., 1986). Managers adopt a maximum forecast form accompanied by attributions to signal bad news (Baginski et al., 2004). Given that management earnings forecast disclosure is voluntary and minimally regulated, chances are that managers deliberately distort their earnings forecast figures and market participants fail to discount it, rendering a degree of regulatory intervention.

Below, I develop hypotheses to address whether and how management incentives and locus of causality affect the willingness and the accuracy of issuing earnings forecast across different forecast forms.

2.4 Hypothesis Development

Drawing on both management earnings forecast literature and psychology theory, this study first develops the main hypotheses regarding the main effects of management incentives and locus of causality on the likelihood of issuing management earnings forecast disclosure and the accuracy of management earnings forecast. In the next section, this study also describes the interactive roles of management incentives and locus of causality on management earnings forecast disclosure decisions.

2.4.1 Management Incentives: Main Effects

2.4.1.1 The relation of management incentives to the likelihood of issuing management earnings forecast

The incentives of management earnings forecasts are critical since managers have various incentives when they reveal their earnings forecasts, and these incentives are likely to play an important role in management decisions (Healy and Palepu, 2001, Wang and Tan, 2013). Frequently, managers have their own strategies when they issue earnings forecast. Various incentives motivate managers to either disclose or withhold their private information (Healy and Palepu, 2001, Verrecchia, 2001). The management disclosure agency problem is an important concern for market participants (Verrecchia, 2001). Managers' disclosure decisions may be swayed by the effect of disclosures on equity value, that is stock and options, invested in the firm (Jensen, 2005). Nevertheless, there is non-mutually exclusive evidence on equity-based incentives and management forecast disclosures. Corporate managers also make bad news disclosure to maximize their stock option compensation (Aboody and Kasznik, 2000) while Nagar et al. (2003) argue that equity-based incentives can mitigate the managerial disclosure agency problem. Nagar et al. (2003) find that frequency of management earnings forecast is positively associated with managements' compensation tied to the firm's stock price. Thus, it is difficult to separate management incentives from managements' equity-based compensation in the real world.

This study investigates two main streams of management incentives (directive vs. transparency). These two incentives have an impact on manager's preference of issuing management earnings forecasts in different levels of disclosures and its accuracy. Some managers have self-concerns or owner-related incentives (hereafter, directive) to meet market expectations (Kothari et al., 2009, Nagar et al., 2003, Aboody and Kasznik, 2000). In terms of voluntary disclosure, bad news forecast issuing is one of the management actions to walk-down the market expectations (Cotter et al., 2006, Matsumoto, 2002), and then it is easier to meet or beat earnings benchmark when actual earnings are announced. A prospect theory (Kahneman and Tversky, 1979) postulates that decision-makers derive value from gains and losses with respect to reference point, rather than final wealth. Under the prospect theory, individuals' value functions are concave in gains and convex in losses (S-shaped). Then, the amount of loss is less pleasant than the equivalent gain of pleasure. In sum, not only do good and bad news unequally affect investor's perception, but there are also motived managers' behaviors to issue earnings forecast.

The asymmetric payoff to releasing positive versus negative news is one motivation that managers abstain bad news disclosures. In general, corporate managers prefer to strategically shed themselves and their firms in a favorable light to maximize firm values (Lev and Penman, 1990, Lang and Lundholm, 2000, Baginski et al., 2000). Even though litigation concerns can motivate managers to reveal bad news (Skinner, 1994, 1997), in terms of strategic forecasting behaviors, some managers accumulate and withhold bad news and hope to conceal the bad news with good news that might arrive before reaching the threshold level (Kothari et al., 2009). Consequently, managers should compare costs and benefits of withholding bad news.

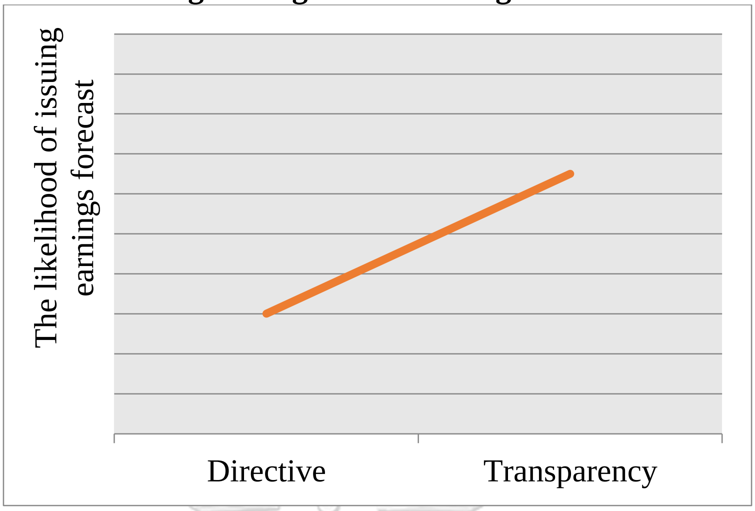
Directive incentive managers may either ignore or delay the issuing of management earnings forecast until they could continue to meet or beat earnings benchmarks later. Because the market reacts more negatively to bad news than good news earnings, some managers prefer to issue management earnings forecast immediately when they meet their earnings benchmarks (Kothari et al., 2009). Consistent with the findings of previous research, firms with earnings decline and failure to meet or beat analysts' consensus temporarily stop issuing management earnings forecasts. Once they could meet analysts' forecasts, they would resume to issue their earnings forecast (Houston et al., 2010). Directive could bias people's construct of their attitudes, traits, and preferences (Kunda, 1990). A motivated reasoning theory suggests that people will engage in biased reasoning to reach their directional goal. Previous studies present that firms increase disclosure level when they could sustain their strong performance or raise earnings up. The disclosure level declines when firm's earnings decrease (Miller, 2002). In addition, some CEOs responded to the questionnaire in Graham et al. (2005) survey study that they decided to delay bad disclosure or even never released the bad news. Consistent with *ex ante* bias of management earnings forecast, directive managers tend to issue earnings forecasts which convey only good news.

On the other hand, some managers will be more accountable to many different parties (hereafter, transparency) for establishing transparent operating (Bonner, 2008). Managers are accountable to shareholders, creditors, board of directors, auditors, and regulators. Nevertheless, it is difficult to study the effect of accountability on management decisions by using archival or survey methods because accountability and other factors are also confounded in the real word. Regarding the voluntary disclosure of private information, some managers decide to disclose because of accountability while others decide to disclose due to perceived accountability and litigation costs together (Bonner, 2008). Researchers cannot separate accountability from litigation risks. In addition, accountability has an influence on cognitive process by motivating individuals to consider how their actions will be interpreted by others (Tetlock and Kim, 1987). Accountability is often essential for good governance, yet the level of accountability varies across period of time and firms (Bonner, 2008). Thereby, corporate governance is stronger in some firms than others (e.g., Langley, 2003).

Based on agency costs (Jensen, 2005), before people make decisions, they would think more carefully about their actions that will impact people they account for. Managers as an agent should be accountable to shareholders as a principal for their actions (Jensen and Meckling, 1976). Managers with transparency are more concerned about stakeholders rather than self-interests. They are more willing to voluntarily disclose negative information to stakeholders so that actions are brought to light for establishing transparent operating and good governance. Thus, transparency incentive may mitigate *ex ante* bias of omission forthcoming bad news guidance. On the other hand, directive managers are more concerned about meeting the market expectations. Directive forecasters may bias the evaluation of evidence by biasing the selection of both beliefs and rules (Kunda, 1990). Based on psychology research, I expect that managers with directive are not willing to voluntarily disclose unfavorable forthcoming earnings. They pay more attention to meet market expectations, but their performances are not aligned with their preferences. Based on the aforementioned information, I hypothesize the following:

H1a: When facing future earnings disappointment, directive managers are less likely to disclose management earnings forecast than transparency managers do.

Figure 3: Prediction the Effect of Management Incentives on the Likelihood of Issuing Management Earnings Forecast



2.4.1.2 The relation of management incentives to the accuracy of issuing management earnings forecast

After deciding to issue management earnings forecast, managers have to decide which numbers of earnings to be disclosed to public. Accuracy is one of forecast quality which results from many factors such as firm's culture and its governance (Hutton and Stocken, 2009). Although accurate earnings forecasts are positively viewed by investors and analysts (Williams, 1996b), substantial variations in the accuracy of management earnings forecasts are documented in prior literature (Cotter et al., 2006). Managers could strategically disclose forecast based on economic outcomes and bad news versus good news (Soffer et al., 2000). For example, forecasters would obstruct bad performance communication by issuing inaccurate earnings forecast when missing market expectations. In addition, some managers issue biased earnings forecast to ensure that the following actual earnings are able to beat or meet market expectations and to avoid negative earnings surprises (Matsumoto, 2002). Even though managers often intentionally use earnings forecast to upward or downward market participants, not all managers would provide biased earnings forecast (Cotter et al., 2006, Wang and Tan, 2013). In sum, managers attempt to be more or less accurate when it comes to forecast disclosure, caused by their own preferences.

Since management earnings forecast disclosure is voluntary and less regulated, its precision is out of focus from regulators. The anecdotal evidence presents that manager strategically decide based on their own preference which action to take. Prior literature finds that managers are more likely to bias their forecast for many reasons including the threat of litigation, firm financial distress, possible profits from insider transactions, and high concentrated industry (Rogers and Stocken, 2005, Rogers, 2008). Although this bias leads to lower credibility perceived by the market, some managers disregard this concern. Consequently, directive forecasters will obstruct bad performance communication by issuing less accurate earnings forecast when missing market expectations.

On the contrary, some managers do not focus on beating or meeting market expectations in the short run. They need to protect their own reputation and reporting's credibility since the market positively views accurate forecast (Hutton and Stocken, 2009, Williams, 1996b). Combined, finding outlined in the discussion above (i.e., the idea that transparent managers are more concerned with their accountability for different parties (Bonner, 2008). Transparency is therefore one of the processes of accountability and becomes intertwined with development of disclosure and audit (Power, 1997). Establishing transparency incentive is one mechanism to control an agency problem. Prior literature suggests that when managers perceive reporting's transparency, they will emphasize the quality of the firm's corporate governance by providing forthcoming information (Hutton and Stocken, 2009). Increasing financial report transparency will lead to less earnings management (Jensen and Meckling, 1976, Baiman, 1990).

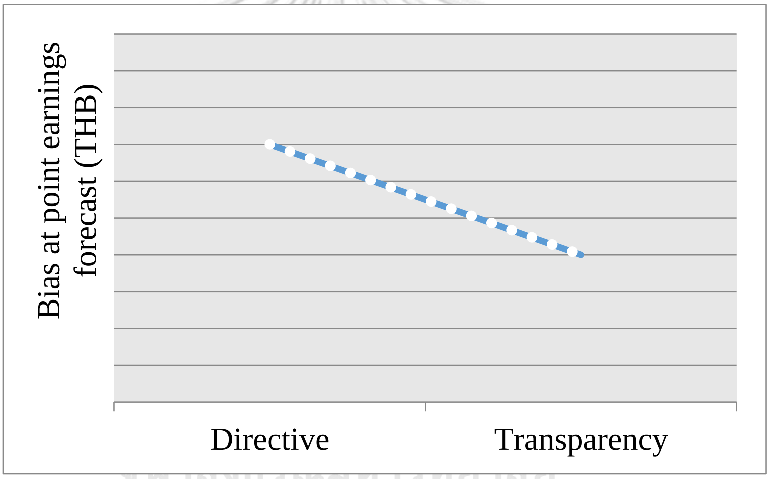
Survey evidence from prior research supports that managers issue earnings forecasts to develop and maintain a reputation for accurate and transparent reporting (Graham et al., 2005). Since transparency is one of the important accountability processes, increasing transparency might reduce the undesirable actions of individuals. Based on an accountability theory, when people have to be responsible for others, they will put more effort, make decision with more complex processing, and consider different perspectives (Bonner, 2008). In this light, I expect the effect of management behavior on the variation of forecast accuracy is conditional on management's incentives. I posit that transparency managers will disclose earnings forecast accurately in both point and range forecast forms even when facing unfavorable outcomes. In contrast, directive managers are likely to add bias on their earnings forecast numbers to conceal their failures. This leads to the following hypotheses:

H1b: When facing future earnings disappointment, *point* earnings forecasts of directive managers are less accurate than those of transparency managers.

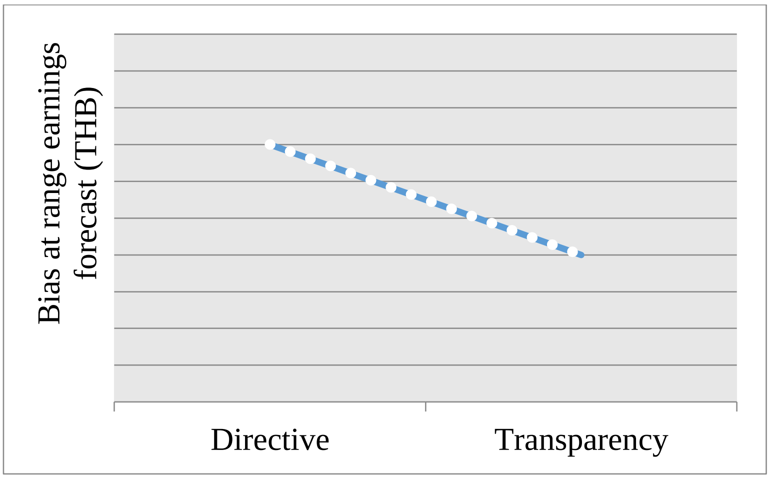
H1c: When facing future earnings disappointment, *range* earnings forecasts of directive managers are less accurate than those of transparency managers.

Figure 4: Prediction the Effect of Management Incentives on the Accuracy of Management Earnings Forecast

Panel A: Point form



Panel B: Range form



2.4.2 Locus of Causality: Main Effects

A significant link between casual attribution and economic decisions is also documented in prior literature (see Koonce et al., 2011 for a review). Despite pervasiveness of attributions in various types of narrative disclosures[11], there has been little research on the extent to which types of managers' personal attributes directly affect disclosure behaviors. Dissimilar to prior studies, this study examines whether perceived locus of causality affects manager's decision to issue earnings forecast including the accuracy of issuing earnings forecast[12]. The departure of this study presented here is to explore properties of causal dimension underling the outcome. First of all, I investigate the main effect of locus of causality, personal cause of outcome (hereafter internal factor), and situational cause of outcome (hereafter external factor) on manager's perception regarding the company's disappointing earnings information. Both factors may be differently perceived. Hence, there is an important issue whether locus of causality has differential levels of manager's perception to disclose management earnings forecasts and the variation of earnings forecast accuracy. I also explore the interactive role of locus of causality in the next section.

2.4.2.1 The relation of locus of causality to the likelihood of issuing management earnings forecast

Social psychology research is concerning how people explain behaviors, and emphasizes the various causes that people assign to behavior (Heider, 1958, Jones and Davis, 1965). An attribution theory is a psychology theory that addresses how people explain the outcomes (Weiner, 1985). An observed outcome is a net result of internal and external causes. Individuals can either contribute to or hinder the outcome (Kelly, 1971). The term *"locus of causality"* in the attribution theory refers to the location of a cause. There are dichotomous constructs of causality which people make causes relate to outcomes: internal and external (Weiner, 1985, Heider, 1958). Internal attributions

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[11] Narrative disclosures appear in a letter to shareholder (e.g., Staw et al., 1983), management's discussions and analyses (MD&A) (e.g., Koonce et al., 2016), management earnings forecasts (e.g., Baginski et al, 2000; 2004), annual reports (e.g., Li, 2008), etc.

[12] In this study, the locus concept will refer to whether the cause of outcome relates to internal or external factor to the decision maker (the manager) rather than to the organization (the company).

focus on a person or dispositional feature of an individual (e.g., effort, ability, and intention) while external attributions focus on other contexts around a person or situational causes of behavior (e.g., task difficult and luck). In general, people may make personal or situational attributions for events. The discussion of self-serving bias in perception of causality exists in prior literature (Miller and Ross, 1975, Kelley, 1967). People tend to underweight situational influences and overweigh dispositional explanations on their own behaviors (Ross, 1977).

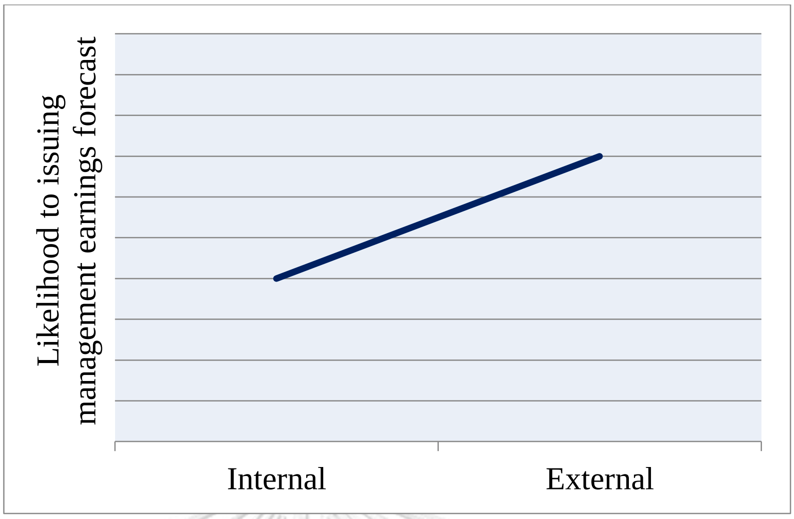
Practically, managers often provide causal explanations for earnings news by linking their performance with internal or external attributions. The usage of internal and external attributions in public statements has been well-documented in prior research (Bettman and Weitz, 1983, Baginski et al., 2004, Baginski et al., 2000, Barton and Mercer, 2005, Chen et al., 2016). For example, the recent archival studies argue that managers seemingly provide self-serving attributions in earnings press releases to manage investors' perceptions of the good and bad performance. (Kimbrough and Wang, 2014). Nevertheless, it is not easily verified by archival data that managers explain their favorable or unfavorable performance by adding genuine causes or doing strategic management to mislead analysts and investors. Thus, this study conducts an experiment to address this issue.

Prior research distinguishes patterns in which managers are more likely to explain good news by internal attributions but bad news by external attributions (Staw et al., 1983a, Baginski et al., 2000, 2004, Kimbrough and Wang, 2014, Barton and Mercer, 2005). In other words, successful outcomes more often lead to self-serving attribution of performance than unsuccessful outcomes (Miller and Ross, 1975). Due to the fact that bad performance is unfavorable outcomes, individuals will seek external causes to identify them (Miller and Ross, 1975). For instance, Barton and Mercer (2005) employ experimental study providing evidence concerning how analysts' responses to external attributions vary with plausibility for poor performance. They find that if managers blame poor performance from implausibly external explanations, then analysts punish them by providing lower earnings forecasts and stock valuation relative to plausibly external explanations. On the other hand, analysts with plausible explanation condition are more likely to believe that poor performance is temporary and provide higher earnings forecasts. As mentioned earlier, the implication of using attribution reflects manager's attempts to influence investors' and analysts' impression (Barton and Mercer, 2005, Kimbrough and Wang, 2014).

According to an attribution theory in social psychology (Weiner, 1985), people would justify behaviors of other people. The causes of behavior could be internal (personality trait or dispositional characteristic) and external (situational) attributions (Heider, 1958). These internal and external causes are not equally weighted (Miller and Ross, 1975, Kelley, 1987, Ross, 1977). For example, when manager report bad news, they tend to turn to external attribution. In contrast, they report good news with internal attribution (Baginski et al., 2000, 2004, Barton and Mercer, 2005, Kimbrough and Wang, 2014, Staw et al., 1983b). Kimbrough and Wang (2014) also show that markets or investors will less severely punish managers who explain bad news earnings press releases with external attribution (such as foreign currency fluctuation) than industry peers. In the context of voluntarily disclosure of earnings forecast, when managers face firm's disappointing performance, I posit that managers with the internal factors (personal causes of outcomes) will less likely to disclose their earnings forecast than those with external factors (situational causes of outcomes). This leads to my hypothesis as follows:

H2a: When facing future earnings disappointment, managers are less likely to disclose management earnings forecast under an internal factor than under an external factor.

Figure 5: Prediction the Effect of Locus of Causality on the Likelihood of Issuing Management Earnings Forecast



2.4.2.2 The relation of locus of causality to the accuracy of issuing management earnings forecast

Studies in psychology suggests that people avoid their responsibility under unsuccessful conditions (Miller and Ross, 1975). Regardless of management earnings forecast research, anecdotal evidence finds that investors believe that bad news forecasts are more credible than good news since managers have few incentives to report bad news (Skinner, 1994, Soffer et al., 2000). Managers increase the credibility of good news by using verifiable forward-looking information about earnings components (Hutton et al., 2003). Although prior literature notes that bad news is inherently credible, managers are more likely to provide supplementary information (soft talk) to investors for both good and bad news earnings forecasts (Hutton et al., 2003).

Attribution research in psychology and accounting literature suggest that using attributions are more likely related to large firms, bad performance, and maximum type of forecasts (Baginski et al., 2004). Yet, prior studies also argue that management may provide plausible or implausible explanations (Barton and Mercer, 2005). In accordance with the recent situations of political conflicts and riots in Thailand during the end of 2013 until the beginning of 2014, many listed firms blame these situations to be the cause of their poor performance and lead to missing earnings benchmark. For example, one of the companies which is listed on SET in property and construction industry argued that the revenue forecasts of 2013 miss benchmark due to the political conflicts at the end of 2013. However, very little research explores this issue in Thailand. In sum, although the use of internal and external attributions in public statements has examined in prior research, these attributions may reflect either truthful management judgments or choices of strategic management (Libby and Rennekamp, 2012).

The implication of using attribution reflects manager's strategy to sway perception of market participants (Barton and Mercer, 2005, Kimbrough and Wang, 2014). Managers are able to provide unbiased information about future earnings or they may be biased on their forthcoming earnings (Merkl-Davies and Brennan, 2007).Therefore, it is insufficient for investors to distinguish between management's honest and intentionally biased on earnings estimations (Lev, 2003). External factors are inherent in uncertainty of operating environment or opportunity while internal factors are closely related to management's personality or ability.

Earnings forecast forms are one of the important properties of management earnings forecast disclosure. However, forecast forms vary across firms and timing (Baginski and Hassell, 1997, Bamber and Cheon, 1998, Cotter et al., 2006). A range forecast provides lower and upper limits in values, implying more uncertainty (Hirst et al., 1999) and more elasticity in outcomes (Han and Tan, 2007, Han and Tan, 2010). On the other hand, a point forecast, exhibits the best estimate in values, implying less variability (Hirst et al., 1999) and less elasticity in outcomes (Han and Tan, 2007, Han and Tan, 2010). A range sensitivity principle from psychology literature suggests that perceptions of attribute importance weights may vary across attribution levels (Fischer, 1995). Different attribution levels make people differently stimulate to the specific attribution. Hence, individual's judgments are more likely to be influenced by the range of attribute levels (Fischer, 1995). Fischer (1995) argues that range sensitives have directly impact on trade-off judgments of decision makers.

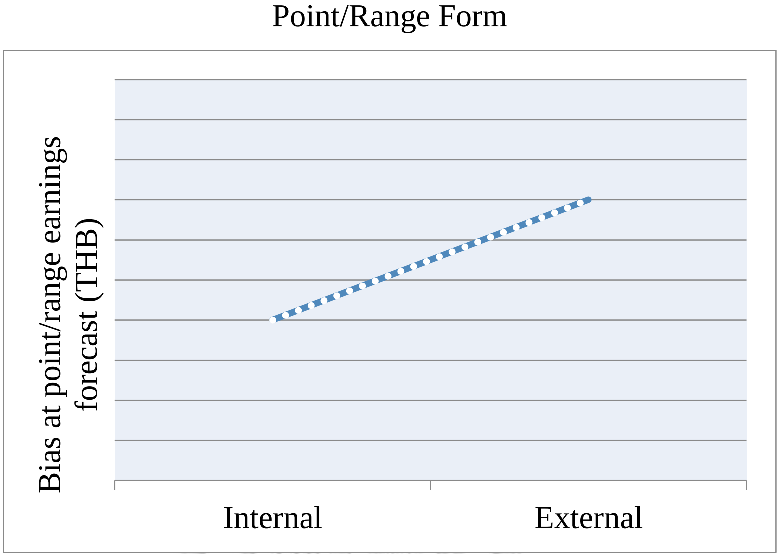
Since people perceived the range of outcomes based on their own preference and personal characteristics, they may be more sensitive weights in the range of attribute values. Even though managers can impose bias over their earnings forecast disclosure as *ex post,* perceived locus of causality would be influence on earnings forecast accuracy as *ex ante*. Following this theory, this study anticipates that the effects of locus of causality on the accuracy of earnings forecast disclosures are more pronounced in both forms. Specifically, external factor is perceived more sensitively than internal factor especially in range forecast forms because of uncertainty in outcomes caused by external factors.

Again, drawing from range sensitivity and elastic justification theories, this study predicts that managers would unequally weigh causes of outcomes relative to uncertainty of outcomes relating elasticity of forms. Because of certain value in a point form, managers may more induce self-serving attribution bias on their earnings estimation by issuing inaccurate earnings forecasts to conceal the unsuccessful outcomes with uncertain (external) factors rather than certain (internal) factors. Hence, this study posits that when negative news is incorporated into an external factor, managers would prefer to disclose less accurate earnings forecast than an internal factor in a point form. Specifically, managers could more impose their bias forecasts with more uncertainty and a more elastic forecast form (*range*). Based upon this literature, I expect that earnings forecast with an internal factor condition will be more accurate than an external factor in both point and range forecast forms. This leads to the following hypotheses:

H2b: When facing future earnings disappointment, *point* earning forecast under an internal factor are more accurate than under an external factor

H2c: When facing future earnings disappointment, *range* earning forecast under an internal factor are more accurate than under an external factor

Figure 6: Prediction the Effect of Locus of Causality on the Accuracy of Issuing Management Earnings Forecast



2.4.3 The Interactive Effects of Management Incentive and Locus of Causality

2.4.3.1 The relation of management incentives and locus of causality to the likelihood of issuing management earnings forecast

In practice, information asymmetry is usually presented in earnings forecast news. In light of the voluntary disclosure of management earnings forecast, managers could selectively engage in early disclosure of earnings forecast in the event of favorable outcomes or delay or withhold the issuance of earnings forecast in case of unfavorable outcomes to maintain or boost stock prices (Houston et al., 2010, Kothari et al., 2009, Lang and Lundholm, 2000). In addition, managers could engage in strategic forecasting behaviors by accumulating and withholding unfavorable future performance news with their hope for future favorable news would develop before the threshold level is reached in order to conceal the unfavorable news (Kothari et al., 2009, Graham et al., 2005). Even though some managers may be motivated to disclose unfavorable earnings forecast early because of legal concern and reputation costs (Skinner, 1994, 1997), several other managers appear to have little regard for this concern (Roychowdhury and Sletten, 2012).

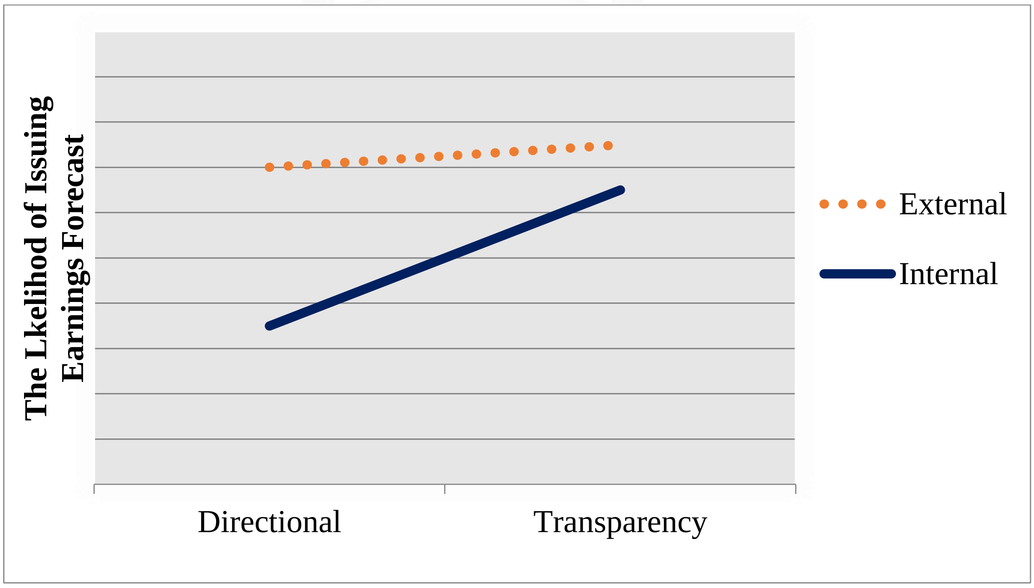
Self-serving attribution in psychology literature suggests that individuals attribute positive outcomes to their own internal factors and negative outcomes to external factors (Miller and Ross, 1975). The term *"self-serving"* is frequently made causal attributions when individuals take a credit for success and avoid blames for failures. Interestingly, causality plays a significant role in the aforementioned decisions because causal information results from the process of attribution (Gurevich et al., 2012). A significant number of managers choose to link management earnings forecast performance with internal factor (e.g., change in management actions) or external factor (e.g., foreign currency fluctuation) (Baginski et al., 2004). Causal thinking and economic making decision making are jointly functioned from psychology and economics. Hence, the predictions of this study are drawn from the motivations of voluntarily management earnings forecasts disclosure literature and a psychology theory. I posit that the effect of management incentives on managers' decision for issuing management earnings forecast is moderated by perceived locus of causality. Directive managers would be less likely to issue earnings forecast when poor performance come from an internal factors than that from external factors. They would seek an external factors that are aligned with their preference to claim their missing market expectation. A psychology theory suggests that when unfavorable outcomes arrive, individual will seek external causes to identify them (Miller and Ross, 1975). That is, when facing with poor performance, managers with directive will over attribute on internal factor that is the cause of poor performance.

Accountability studies indicate that individuals are more likely to engage in more cognitive through processes to justify their behavior when they hold accountable to others (Tetlock and Kim, 1987). Accountability is becoming an increasingly important concept in the management literature. Managers are accountable for different parties, and corporate governance mechanisms induce managers to behave in the best interest of shareholders. Therefore, even the cause of disappointing performance comes from either internal or external factors. Transparency incentive managers will more likely to issue management earnings forecast since they are concerned with their transparent operation and credible reporting. In other words, management forecast's credibility will be deteriorated if they ignore to issue their future earnings information. Thus, this study expects that managers who have transparency incentive will also prefer to issue management earnings forecast either facing internal or external factors since they can brought their action into the light of transparency operation and good governance.

Overall, I predict that managers with transparency incentive are more likely to issue earnings forecast than managers with directional incentive. The likelihood of issuing management earnings forecast of transparency forecasters would insignificantly differ in the presence of an internal and an external factor. In contrast, directive managers prefer to issue their unfavorable earnings forecast when the cause of failure originates from an external factor rather than from an internal factor. Thus, I predict the difference in likelihood of issuing management earnings forecast among different locus of causality (internal and external factors) to be larger for directive incentive than transparency. This leads to my third hypothesis as follows:

H3a: When facing future earnings disappointment, the difference in the likelihood of issuing management earnings forecasts among managers with an internal and an external factor of directive incentive is greater than that of transparency incentive.

Figure 7: Prediction the Interaction Effect of Management Incentives and Locus of Causality on the Likelihood of Issuing Management Earnings Forecast



2.4.3.2 The relation of management incentives and locus of causality to the accuracy of issuing management earnings forecast

Management earnings forecast disclosures are perceived to be self-serving. If management' disclosure is based on firm's financial performance, management will personally benefit from good news disclosures (Koonce and Mercer, 2005). Based on correspondent inference theory prediction, in such case, managers will gain little reputational benefit from providing forward-looking information. In contrast, reporting bad news timely is not self-serving. Accordingly, bad news releasing is predicted to enhance management's reputation (Koonce and Mercer, 2005). Forward-looking disclosures with a higher reputation can be more credible for market participants. That is, this study expects the accuracy of earnings forecasts is influenced by management's reputation and credibility concern. The following section will address whether and how management incentives and locus of causality affect the accuracy of management earnings forecast disclosures.

As mentioned earlier, a *point* forecast form presents the certain and specific values while a *range* form shows uncertain and elastic numbers (Han and Tan, 2007, 2010, Hirst et al., 1999). Under a disappointing performance situation, individual would emphasize the factor that supports this motive. Management incentives could play an important role in management decision (Healy and Palepu, 2001, Wang and Tan, 2013). When having disappointing performance, managers would more likely to seek and refer to external factor than internal factor. Directive managers may impose bias on their earnings estimations in both *point* and *range* forecast forms consistent with uncertainty of external factors.

Since a *range* form is more elastic than a *point* form, directive managers are more inclined to introduce more earnings forecast bias into a range form than into a point form. Following this range sensitivity principle, this study anticipates that the effect of an external factor is more pronounced in a *range* forecast form. On the contrary, transparency managers prefer to issue accurate earnings forecasts in both *point* and *range* forms by bringing this action into the light of accurate and transparent reporting. Transparency managers are expected to issue more bias earnings forecast (less accurate) than directive managers in both forms under an external causes of disappointing performance.

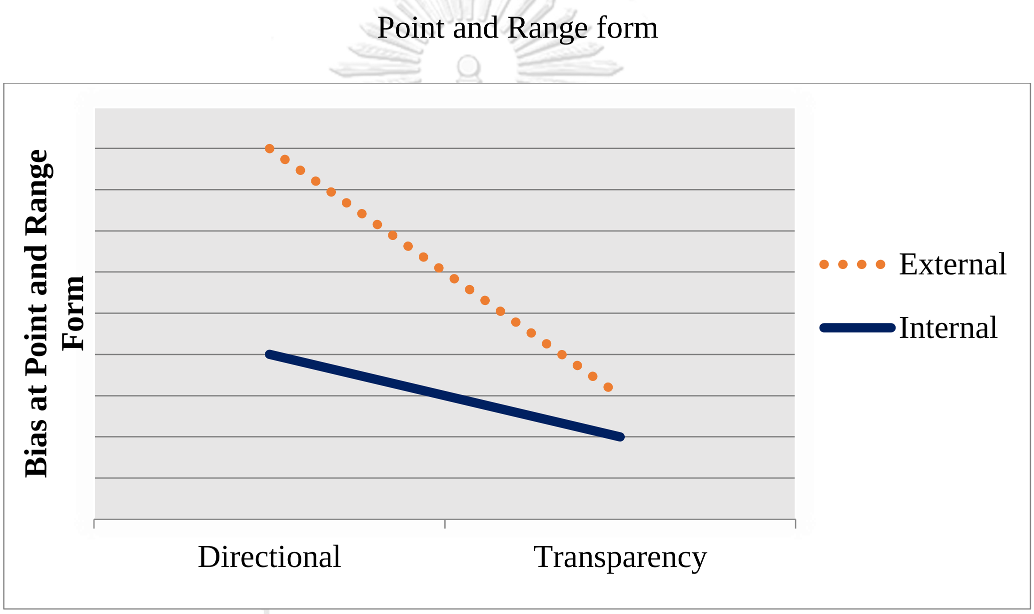
Based on self-serving attributions in a psychology theory, internal causes receive more weight for the explanation of an observed outcome, but the external factors hinder the outcome. As noted, directive managers are concerned with beating or meeting market expectations while transparency managers are more concerned with their transparent operating and credibility from accurate reporting. However, in the situation in which the internal factor leads to missing market expectations, I predict that the variation in the accuracy of issuing management earnings forecast in point and range forms would not differ among different incentives since an internal cause is certain and under management control.

Directive managers could not blame their earnings disappointment when facing their own internal failure; therefore, they would be reluctant to issue an accurate earning forecast. Besides, transparency forecasters will prefer to issue an accurate management earnings forecast since they can present a transparent operation from credible reporting. Accuracy goals from motivated reasoning also suggest that judgment will be equivalently weighed for positive and negative outcomes (Kunda, 1990). Drawing the prediction from a motivated reasoning theory, there is a trade-off and people consider both their costs and benefits of selected strategies. Even though the cause of disappointing performance comes from an internal factor, transparency managers will prefer to issue accurate earnings forecast since they are concerned with a transparent operation and credible reporting. In other words, management forecast's credibility will be deteriorated if they issue their inaccurate forecast. In sum, I expect that the difference in accuracy of issuing management earnings forecast in *point* and *range* form of managers with directive and transparency under an external factor would be greater than that under internal factor. This leads to the following hypotheses:

H3b: When facing future earnings disappointment, the difference in *point* earnings forecasts accuracy among managers with directive and transparency incentives under an external factor would be greater than that of an internal factor.

H3c: When facing future earnings disappointment, the difference in *range* earnings forecasts accuracy among managers with directive and transparency incentives under an external factor would be greater than that of an internal factor.

Figure 8: Prediction the Interaction Effect of Management Incentives and Locus of Causality on the Accuracy of Issuing Management Earnings Forecast



3. RESEARCH METHOD

3.1 Participants

To test my hypotheses, I conducted an experiment with 156[13] Master of Business Administration (MBA) students from two major universities in Thailand. A purposive sampling technique was used to select universities in this study[14]. Even though a purposive sampling was a non-probability method, the sample was selected based on characteristics of the objectives of the study (Tongco, 2007). The purpose of this study is to examine the asymmetric behavior in management earnings forecast disclosures of high level management executives. Thus, participants in this study were specifically selected from well-known business schools in Thailand[15]. Participants needed to have the minimum of three years of working experience and pass or attend some accounting courses.

The participants had a mean working experience of 10.30 years. Among them were highly experienced managers including assistant managers, general managers, and directors, as well as experienced professional positions such as analysts, senior auditors and consultants. The participants had, on average, attended 3.13 accounting courses, 1.49 finance courses, and 0.67 business strategy courses[16]. Sixty-three per cent of the participants had previously invested in individual common stocks and their mean investment experience is 2.80 years.

MBA students are used as proxies of managers for two primary reasons. First of all, this study is interested in a psychological phenomenon rather than reaction to institutional features. I believe that the discussion of students would be insignificantly different from that of managers. Second, MBA student participants were advantageous,

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[13] The sample size is calculated by G*Power3 statistic program (Faul et al., 2007). Based on a pre-test with 43 participants, the power of analysis is 0.90 at significant level 0.05 and beta at 0.1. The effect size is determined by means and standard deviations of pilot testing equal 0.40. A prior analyses (Cohen, 1988) required sample size for 125 participants of 25 for each group.

[14] Before this study began, I asked for permission to collect the data and do the experiment by sending the letter of permission to major universities in Thailand for their consideration. After getting a permission, I started to collect the data in August 2017.

[15] MBA students of two universities must have the minimum of 3 years of work experience as one of the program requirements. In addition, the business schools of these universities have achieved accreditation from the Association to Advance Collegiate Schools of Business (AACSB).

[16] There are not statistical difference of accounting courses ($p = 0.26$) and finance and business strategy courses ($p = 0.15$) among participants from two universities.

since they had some accounting knowledge and some investment experience (Libby et al., 2002).

To ensure that participants had sufficient knowledge to complete the required task, after they had finished the main task and debriefing questions, I tested participants' knowledge through a post-experimental questions modified from Wang and Tan (2013). The eight questions were listed in *Appendix E* (post experimental questions). The participants were instructed to answer the questions based on an 11-point (0-10) Likert scale, where 0 denoted strongly disagree and 10 strongly agree. The participants whose average score was below midpoint (i.e., 5) were excluded from further analysis. *Appendix F* presents an evaluation of participants' understanding of management forecast disclosures. All the mean responses are significantly above the midpoint (p = 0.00 in all questions). It indicated that participants understood the importance of management behaviors and consequences of issuing management earnings forecasts to capital market. However, I excluded one participant whose mean responses were less than midpoint. Overall, whenever MBA students had sufficient knowledge for the task, they were appropriate to be used as participants (Libby et al., 2002, Libby and Rennekamp, 2012).

Totally, 154 participants completed the task, but 10 participants were removed from further analysis due to their poor knowledge score and their failure to complete check questions. The final sample was 146. Table 3 shows the number of participant in further analysis.

Table 2 : Number of participants used for analysis

Panel A: Total sample

Treatment condition	DI	DE	TI	TE	Treatment	Control	Total
Total	29	29	34	34	126	30	156
Less: Incomplete	-	-	1	1	2	-	(2)
Less: Low knowledge	1	-	-	-	1	-	(1)
Less: Failed manipulation	1	1	-	5	7	-	(7)
Final sample	27	28	33	28	116	30	146

Abbreviation of treatment condition:
DI = Directive incentive and internal factor DE = Directive incentive and external factor
TI = Transparency incentive and internal factor TE = Transparency incentive and external factor

3.2 Design and Manipulations

3.2.1 Research Design

I employed a 2 x 2 between-subjects design with a control group. Participants were randomly assigned to management incentives (directive or transparency) and locus of causality (internal or external), as independent variables. There were four conditions presented in Table 3. However, participants in a control condition were not assigned with any management incentives and locus of causality *(a total of five groups).*

Table 3: Classification of Groups in Each Treatment Condition

Locus of Causality	**Management Incentives**	
	Directive	**Transparency**
Internal	Directive, Internal **(DI)**	Transparency, Internal **(TI)**
External	Directive, External **(DE)**	Transparency, External **(TE)**
No treatments	No incentives, No causality **(Control Group)**	

DI represents a group of participants who received directive incentive and internal factor treatment condition.

DE represents a group of participants who received directive incentive and external factor treatment condition.

TI represents a group of participants who received the transparency incentive and internal factor treatment condition.

TE represents a group of participants who received the transparency incentive and external factor treatment condition.

For all treatments, participants were told to assume that they were an executive manager of the hypothetical company called Wire Electronics, the publicly listed company in Stock Exchange of Thailand, and they had the authority to make a decision to disclose the management's earnings forecast to the general public.

Using an experiment to study how and whether management incentives and the locus of causality jointly influence management's judgment on disclosure decisions is advantageous for several reasons. Firstly, firms may change forecast incentives and attributions of their forecasts over time (King et al., 1990, Hirst et al., 2008). By holding them constant, an experiment allowed me to focus on the interested treatments, namely management incentives and locus of causality. Secondly, management incentives are likely to be confounded with other factors in the real world settings (Bonner, 2005). For example, not only do managers face incentives, but they are also threatened by litigation. An experiment allowed me to constantly hold the other factors and directly focus on management incentives *per se*. In addition, cross-sectional differences of forecast disclosures and its attributions could be considered (Baginski et al., 2004). An experiment allowed me to hold firm characteristics constant across conditions to eliminate self-selection issues. Finally, an experiment allowed me to directly measure participants' perception regarding the likelihood and the accuracy of earnings forecast disclosures via incentives and attribution locus.

3.2.2 Independent Variable Manipulations

3.2.2.1 Management Incentives

Management incentives were manipulated at two incentives *(Appendix C)*. Participants in the directive condition were informed that the company had a disclosure policy that emphasizes on providing biased information by highlighting good news and downplaying bad news in order to maintain or boost the company's stock price.

As for the transparency incentive manipulation, participants with transparency condition were asked to emphasize on providing unbiased and accurate information in the event of good and bad news in a transparent fashion in accordance with good corporate governance.

However, prior research notes that compensations and other factors are always confounded in the real word (Bonner, 2008). People with monetary incentives adhere more to Bayes' Theorem than people without monetary incentives. Even though monetary incentives are related to the quality of judgment and decision making, there is a positive association only if the desired conclusion is correct (Bonner, 2008). In other words, because monetary incentives are related to a desired conclusion, such incentives may adversely affect the quality of decisions. Thus, monetary compensations should not be tied to performance in a transparency incentive condition.

Participants in transparency incentive were told that their compensation was based on a fixed salary and bonuses that were tied neither to net incomes nor stock price. Therefore, their compensations would not be affected by management forecast disclosures. On the other hand, as mentioned earlier that monetary incentives are related to a desired conclusion, participants who were concerned with monetary compensations may adversely affect disclosure decisions through motivation. Consequently, participants in directive were informed that even though management's compensation was based on a fixed salary, but bonuses were tied neither to net incomes nor stock price. Therefore, their compensations might be affected by management forecast disclosures.

3.2.2.2 Locus of Causality

Prior anecdotal evidence shows that managers are more likely to claim the causes of good news by internal attributions and the causes of bad news by external attributions (Baginski et al., 2004, Staw et al., 1983a, Barton and Mercer, 2005, Kimbrough and Wang, 2014). The purpose of this study is to investigate whether locus of causality *per se* has an impact on manager's perception to the willingness of issuing management earnings forecasts and to detect a potential bias on earnings forecast number. To address the issue of locus of causality, this study manipulated two factors, internal versus external factors. All participants randomly received the explanations of management earnings forecast that the expected earnings was lower than earnings benchmark caused by either internal or external factors *(Appendix C)*.

To ensure that the dialog of locus of causality was realistic and representative of practice, the experimental materials were reviewed by a security analyst and an assistant vice president investor relations. The case materials also were pilot-tested with 43 Executive-Master program students before launching the final version of the experimental materials. The locus of causality was related to the cause of earnings disappointment in management forecast context. Locus of causality was manipulated into two conditions (internal factors or external factors) while the earnings forecast numbers were constantly held. However, an internal and an external factors were based on prior studies of attribution locus (Chen et al., 2016). In an internal factor condition, participants were informed of the following:

Management earnings forecast is lower than the last quarter's actual earnings <u>largely be attributed to the company's marketing initiatives.</u> Our main competitor's new marketing activity plays a negligible role in the company's expected earnings.

Meanwhile, participants in an external factor condition were informed of the following:

Management earnings forecast is lower than the last quarter's actual earnings <u>largely be attributed to our main competitor's new marketing activity.</u> Our own marketing initiatives play a negligible role in the company's expected earnings.

3.3 Materials

The case[17] was administered in two parts. The first part presented background information and summarized financial data of We Electronics - a hypothetical listed company in the technology industry. The company's business had grown steadily over the five years, and its stock also traded on the Stock Exchange of Thailand (SET). However, the company was facing a fierce competition from other players in the industry.

Participants were assumed the role of an executive manager in all treatment conditions. They were presented with the same information that the budgeting division already provided the earnings forecast information for the first quarter of 2017 for consideration. The company expected the next quarter earnings per shares (EPS) equal to Thai Baht (THB) 0.90. If participants made inferences from the historical background data, the earnings number of management forecast information may be biased. To minimize this possibility, participants were also informed that the company believed the earnings forecast would be realized at 95% confidence interval. Hence, it could be ensured that the actual earnings for the further quarter would not be significantly deviated from this forecasting.

Thereafter, the manipulations were introduced in the second part. The additional information described the cause of management earnings forecast (locus of causality manipulation), analysts' consensus forecasts and last quarter actual earnings (earnings benchmark), and the company's information disclosure policy (management incentive manipulation). Management incentives were manipulated into directive or transparency. Locus of causality manipulation varied (i.e., whether the cause of future earnings disappointment was an internal or an external factor).

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[17] To ensure that the experimental case was practical, I began with interviewing three executive management positions from different companies which were listed in SET to develop case materials. These companies operated in different industries, and they had at least two analysts following. The interviewees consisted of a director, a chief financial officer (CFO), and an assistant vice president investor relations. Based on the interview, I found that all companies prepared the internal annual forecast, but only one company issued them to the public. A disclosed forecast company often revealed their forecast to the market, be it good or bad news, while the non-disclosed forecast company selected to disclose their investment plan or the company assumption of future earnings to selective analysts via an analyst meeting. Interestingly, the management compensation structure in one of these companies was directly associated with their forecast.

Prior research suggests that both prior period earnings and analyst's consensus forecast are also used as earnings benchmark which managers strategically choose to explain and compare their performances (Tan et al., 2002b, Degeorge et al., 1999). In order to ignore a confounded effect of the numbers of earnings benchmark between analysts' earnings forecast and the company's prior period actual earnings, the same earnings numbers were held constant in the case. Thus, the actual earnings per share for the last quarter of 2016 and the analyst consensus forecasts earnings per share (EPS) for the first quarter of 2017 were always constantly held at Baht 1.10 across all conditions. In sum, management earnings forecast for the next quarter was lower than both prior period actual earnings and analyst's consensus forecast earnings at Baht 0.20 equally.

In this study, I examine quarterly management earnings forecast for two main reasons. First, quarterly management earnings forecast disclosure in Thailand is prohibited by SET's Disclosure Guidelines since it is short-term information and related to the real figures. However, previous studies find that the number of listed companies issued quarterly earnings forecast that violates the SET's Guidelines (Jarutakanont and Supattarakul, 2011). The results of this study can help to enhance understanding of management earnings forecast practice in Thailand by demonstrating why managers are motived to violate the guidelines. Second, a survey by the National Investors Relations Institute (NIRI) suggests that more than half of the firms provide quarterly earnings forecast. Moreover, prior research finds that quarterly earnings forecasts are more informative than annual earnings forecasts, since they can lead to stronger stock price reaction (Baginski et al., 1993).

3.4 Dependent Variables

The purpose of this study is to examine the effect of management incentives and locus of causality on the willingness of issuing management earnings forecasts and the accuracy of earnings forecast numbers. Three dependent variables were measured in this study: the likelihood of issuing management earnings forecast (Y1), the accuracy of management earnings forecast number in a point form (Y2) and a range form (Y3).

3.4.1 The likelihood of issuing management earnings forecast

To examine the effect of management incentives and perceived locus of causality on the likelihood of issuing management decisions, after reading information in the second part, participants in all conditions were asked the first question to indicate the likelihood of issuing management earnings forecast for the first quarter of 2017 (Q1 of 2017) on an 11-point Likert scale rating from 0 (not at all likely) to 10 (extremely likely). To investigate interested variables, all participants were informed that issuing earnings forecast was not compulsory; it was a voluntary disclosure. However, if participants were not willing to disclose their earnings forecast at all (indicating 0 on the likelihood of issuing management earning forecast), they can skip the next two questions regarding the earnings forecast numbers.

3.4.2 The accuracy of issuing management earnings forecast

Afterwards, to measure the accuracy of management earnings forecast, only the participants who were willing to disclose management earnings forecast were instructed to respond to the next questions. They were asked two questions related to two earnings forecast forms (*point* and *range*), significantly documented in prior literature (Han and Tan, 2007, Baginski et al., 1993, Soffer et al., 2000).

Participants were asked to produce the number of earnings forecast (*point*) that they preferred to publicly issue in the first question (Y2). Then, they were asked to indicate the minimum and maximum number of earnings forecast (*range*) for the first quarter of 2017 in the second question (Y3). This study captured bias of *point* by measuring a forecast error from the actual earnings forecast and bias of *range* were computed by using the midpoint of range apart from the actual earnings forecast. Therefore, more forecast error (bias) from actual earnings forecast (THB 0.90) indicated less accurate earnings forecast for both questions.

3.5 Experimental Procedures

Prior to the experiment, the participants were informed of the study purposes and required tasks[18] and a consent form (*Appendix A*) was signed to ensure voluntary participation. The participants were then randomly assigned to treatment conditions, and they received three envelops (*Appendix B* and *C* providing details of all case materials). They were instructed to sequentially open the envelopes. The first envelope provided the case materials and the questions of dependent variable response sheets. After reading the case materials, participants answered three dependent variable questions, placed the case materials back into to the first envelop, and then continued to open the next envelop.

The second envelope contained two sets of questions: manipulation checks and debriefing questions (*Appendix D*). The second section elicited participants' responses to manipulation checks and assessed participants' concerns when making decisions. Participants were required to complete all questions and insert the materials into the second envelop before continuing to open the last one.

The third envelope contained demographic questions and a post-experimental questionnaire for knowledge test (*Appendix E*). After the participants finished answering all the questions, they returned the last envelope to the researcher. The entire task lasted 30 minutes and the participants were given a 100-Baht Starbucks complimentary card for their participation (1 USD = THB 33).

[18] This research was conducted with a strict review by the Ethics Review Committee for Research Involving Human Research Subjects, Health Science Group, Chulalongkorn University. The participants were protected from harm and the information was kept confidential. There was minimal risk involved in participating in this study.

Figure 9: Sequence of Experimental Procedures

Envelope1	
Information provided:	1. Instructions 2. Background information 3. Manipulations 4. Dependent variable response sheets
Envelope 2	
Information provided:	1. Manipulation check questions 2. Debriefing questions 3. Post-experimental questions
Envelope 3	
Information provided:	1. Demographic questions 2. Knowledge test questions

3.6 Summary of Hypotheses Testing

3.6.1 Main Effects: Management Incentives

The likelihood of issuing management earnings forecast

H1a: When facing future earnings disappointment, directive managers are less likely to disclose management earnings forecast than transparency managers do.

The accuracy of issuing management earnings forecast

H1b: When facing future earnings disappointment, *point* earnings forecasts of directive managers are less accurate than those of transparency managers.

H1c: When facing future earnings disappointment, *range* earnings forecasts of directive managers are less accurate than those of transparency managers.

3.6.2 Main Effects: Locus of Causality

The likelihood of issuing management earnings forecast

H2a: When facing future earnings disappointment, managers are less likely to disclose management earnings forecast under an internal factor than under an external factor.

The accuracy of issuing management earnings forecast

H2b: When facing future earnings disappointment, *point* earning forecast under an internal factor are more accurate than under an external factor.

H2c: When facing future earnings disappointment, *range* earning forecast under an internal factor are more accurate than under an external factor.

3.6.3 Interaction Effects of Management Incentives and Locus of Causality

The likelihood of issuing management earnings forecast

H3a: When facing future earnings disappointment, the difference in the likelihood of issuing management earnings forecasts among managers with an internal and an external factor of directive incentive is greater than that of transparency incentive.

The accuracy of issuing management earnings forecast

H3b: When facing future earnings disappointment, the difference in *point* earnings forecasts accuracy among managers with directive and transparency incentives under an external factor would be greater than that of an internal factor.

H3c: When facing future earnings disappointment, the difference in *range* earnings forecasts accuracy among managers with directive and transparency incentives under an external factor would be greater than that of an internal factor.

4. RESULTS

4.1 Manipulation Checks

With respect to the management incentives manipulation, I asked participants to indicate whether the company's disclosure policy was directive guidance by highlighting good news and downplaying bad news to boost/maintain the company's stock price, or transparent guidance by providing accurate information to establish operational transparency. Sixty-nine percent of the participants correctly answered this question (chi-square = 17.96, p = 0.00)[19]. Moreover, participants were asked to indicate the type of management compensation scheme. Two options were provided: fixed salary and bonuses were tied neither to earnings nor stock prices and fixed salary but bonuses were tied to earnings and stock prices. Eighty-five percent of the participants correctly answered the company's compensation scheme (chi-square = 61.54, p = 0.00). These results reveal that participants understand their management incentives and compensations. However, seven participants who failed both management incentive manipulation and misunderstood a compensation scheme questions were excluded for subsequent analyses[20].

To assess the locus of causality manipulation, I asked two sets of questions: the cause of the earnings estimation and the locus of causality source. In the cause of the earnings estimation question, participants were asked to attribute the management earnings estimates to either the company's initiative or the competitor's new activity. The findings suggest that eighty percent of the participants correctly answered this question (chi-square = 43.26, p = 0.00). In addition, participants were instructed to answer an 11-point Liket scale (-5 to 5) on the source of locus of causality with regard to management earnings forecast, where -5 indicated an internal factor, and 5 indicated an external factor. The mean responses were -1.11 and 2.78 for internal and external factor (p = 0.00). These results indicate that the participants are aware that the company's marketing initiative is associated with internal factor and the competitor's

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[19] 56% (80 %) of participants in the directive (transparency) incentive condition correctly answered the company's disclosure policy question.
[20] The final samples used for the further analysis is shown in Table 3.

new marketing activity is related to external factor. Therefore, the manipulation checks were successful.

Additionally, participants were asked two questions related to the earnings forecast numbers in the case materials for attention checks. Specifically, the participants were asked to specify whether given management earnings forecast was either above or below earnings benchmarks (i.e., previous quarter's earnings figure and analysts' consensus earnings forecast). The results showed that as many as 93% and 91% of the participants answered both questions correctly (p = 0.00).

4.2 Test of Hypotheses

4.2.1 The likelihood of issuing management earnings forecast

Table 4 shows the results of management incentives and locus of causality on the likelihood of issuing management earnings forecast for the first quarter of 2017. Panel A presents descriptive statistics by experiment condition, and Panel B shows the results of a 2 x 2 analysis of variance (ANOVA), with management incentives and locus of causality conditions as between-subjects design on the likelihood of issuing management earnings forecast for the next quarter. Panel C, finally, reports the one-way ANOVA results for the simple main effect and interaction effect along with contrast tests. A graphical summary of the results for the participants' likelihood of issuing management earnings forecast is shown in Figure 10.

H1a predicts that managers with directive incentive are less likely to disclose their unfavorable earnings forecast than those with transparency incentive. The results on Panel A of Table 4 show that the mean likelihood of issuing management earnings forecast for the directive incentive is lower than that of transparency incentive (mean = 5.61 and 7.29, respectively). Panel B of Table 4 indicates the results of two-way ANOVA that the simple main effect of management incentives is statistically significant (p = 0.00). The results reveal that directive managers tend to withhold bad news earnings forecast more than transparency managers, and the findings are consistent with H1a. Figure 10 Panel A shows the pattern of the results.

H2a expects that when facing future earnings disappointment, managers are less likely to disclose management earnings forecast under an internal factor than under an external factor. As shown in Table 4, Panel A indicates the mean responses of the likelihood of issuing management earnings forecast in the presence of an internal factor (6.64) and an external factor (6.29). In Panel B, the two-way results show that the simple main effect of locus of causality on the likelihood of issuing management earnings forecast is insignificant (p = 0.56). These findings indicate that the likelihood of issuing management earnings forecast is the same between managers with an internal and an external factor condition, which are inconsistent with the argument for H2a. Based on an attribution theory, prior studies find that causal information affects economic decisions and deviates such decisions from the game theory predictions involving sharing gain between parties (Gurevich et al., 2012). Even though prior research suggests that causal attribution plays a role in aforementioned decisions, this study does not find that the process of causal thinking of decision makers would be biased by self-serving attribution given cause of earnings failure in a forecast disclosure context. In short, locus of causality does not deviate the willingness of decision makers to voluntarily disclose future earnings information. Figure 10 Panel B shows the pattern of the results.

H3a predicts that the difference in the likelihood of issuing management earnings forecasts among managers with internal and external factor of directive incentive would be greater than that of transparency incentive. In Table 4, the results of two-way ANOVA in Panel B show that the interactive effect of management incentives and locus of causality on the likelihood of issuing management earnings forecast is marginally significant (p = 0.09). Specifically, the mean responses of directive incentive managers are 6.17 under an internal factor condition and 5.09 under an external factor condition. The difference between an internal and an external factor of directive incentive managers is marginally significant as shown in contrast tests of Panel C (p = 0.08, one-tailed). However, the mean responses of transparency incentive managers between an internal and an external factor condition are insignificantly different (means = 7.04 and 7.57, respectively, p = 0.18, one-tailed). Hence, the results support H3a, and Figure 10 Panel C shows the pattern of the results[21]

[21] The results were robust if I used the likelihood of treatment groups apart from a control group as a dependent variable.

Table 4 : The likelihood of issuing management earnings forecast

(Dependent Variable = the likelihood of issuing management earnings forecast [a])

Panel A: Descriptive Statistics – Mean (Standard Deviation) *N* = Sample Size

Management Incentives	Locus of Causality		
	Internal	External	Total
Directive	6.17	5.09	5.61
	(2.59)	(2.97)	(2.82)
	N = 27	*N* = 29	*N* = 56
Transparency	7.04	7.57	7.29
	(2.44)	(1.82)	(2.17)
	N = 31	*N* = 27	*N* = 58
Total	6.64	6.29	6.46
	(2.52)	(2.76)	(2.64)
	N = 58	*N* = 56	*N* = 114 [b]

Panel B: Two-way ANOVA

Sources	Sum of squares	Df	Mean Square	*F*-statistics	*p*-value
Management Incentives	79.47	1	79.47	12.76	0.00***
Locus of Causality	2.17	1	2.17	0.35	0.56
Incentives x Causality	18.23	1	18.23	2.93	0.09*
Error	685.33	110	6.23		

Panel C: Contrast Tests

Sources	Mean difference	*t*-statistics	*p*-value [c]
The effect of locus of causality given directive incentive			
Internal vs. External	1.08	1.45	0.08*
The effect of locus of causality given transparency incentive			
Internal vs. External	-0.53	-0.94	0.18
The effect of management incentive given internal factor			
Directive vs. Transparency	-0.87	-1.32	0.10
The effect of management incentive given external factor			
Directive vs. Transparency	-2.48	-3.79	0.00***
One-way ANOVA: F = 5.35, *p*-value = 0.00***			

[a] The participants were asked to specify the likelihood of issuing management earnings forecast using an 11-point (0-10) Likert scale, where 0 and 10 respectively denote not at all likely and extremely likely. Total likelihood is 100%.

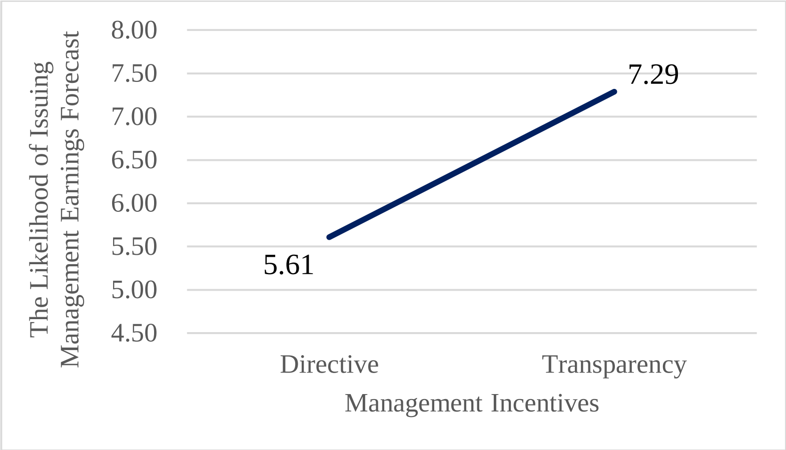
[b] Due to two aberrations (out of 116), there remained 114 participants in the analysis of the likelihood of issuing management earnings forecast.

[c] One-tailed equivalent.

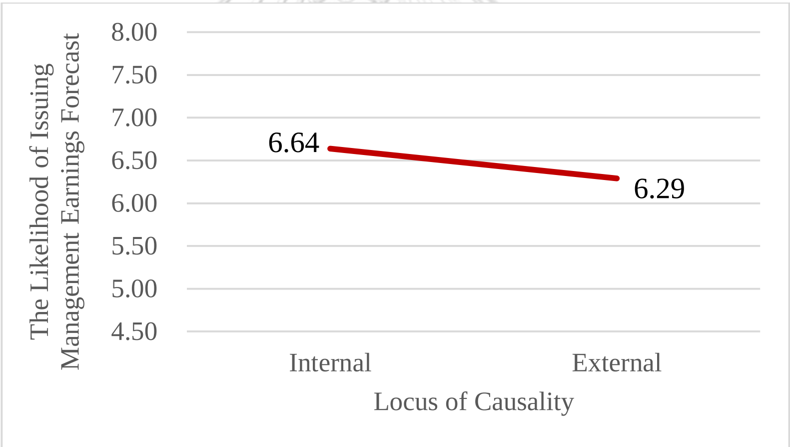
***,**, and * respectively denote the 1%, 5% and 10% significance levels.

Figure 10: Likelihood of Issuing Management Earnings Forecast

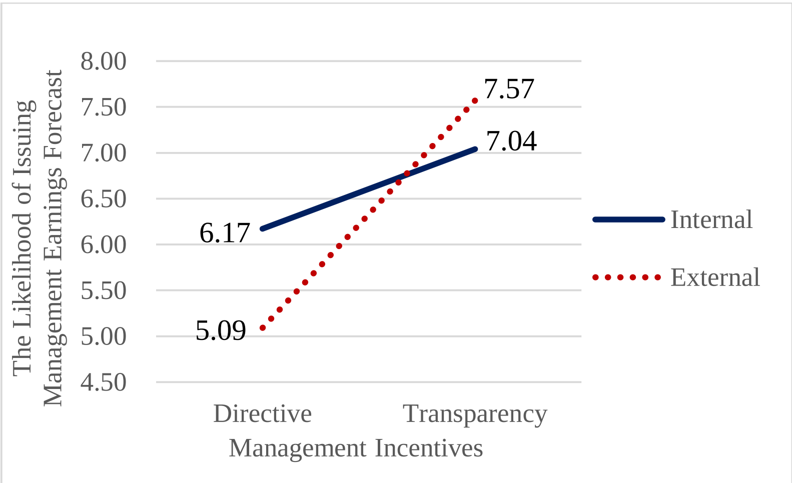
Panel A: The main effect of management incentives



Panel B: The main effect of locus of causality



Panel C: The interaction effect of management incentives and locus of causality



4.2.2 The accuracy of issuing management earnings forecast

Regarding management earnings forecast as a voluntary disclosure, if participants are unlikely to disclose their earnings forecast (scoring 0 denoting not at all likely on the likelihood of issuing management earnings forecast question), they can skip to specify the quarterly earnings forecast number (*point*) and the minimum and maximum numbers (*range*). Therefore, Table 5 and Table 6 report the results of the remaining participants who are likely to disclose their earnings forecast (scoring from 1 to 10 on the likelihood of issuing management earnings forecast question).

This study focuses on the accuracy of *point* and *range* management earnings forecast forms since it can directly measure the earnings forecast accuracy. Prior literature suggests that the *ex post* accuracy of *point* and *range* is defined by comparing the forecast earnings with the actual earnings number (Pownall et al., 1993). This study, however, captures the accuracy of earnings forecast in different forms *per se* by comparing the participants' earnings forecast number against the pre-determined earnings forecast (THB 0.90). The *point* earnings forecast accuracy is measured by the forecast deviating from the actual earnings forecast (the pre-determined earnings forecast given in case materials) while the *range* earnings forecast accuracy is computed by the midpoint of range apart from the actual earnings forecast. High deviation (bias) indicates less accurate earnings forecast.

4.2.2.1 Point Form

Table 5 shows the results of management incentives and locus of causality on the accuracy of *point* earnings forecast. Panel A presents descriptive statistics by experiment condition, and Panel B shows the results of a 2 x 2 analysis of variance (ANOVA), with management incentives and locus of causality conditions as between-subjects design on the accuracy of issuing management earnings forecast for the next quarter in a *point* form. Panel C, finally, presents the one-way ANOVA results for the interactive effect along with contrast tests. A graphical summary of the results for the participants' accuracy of issuing management earnings forecast in a *point* form is shown in Figure 11[22].

H1b predicts that when facing future earnings disappointment, *point* earnings forecasts of directive managers are less accurate than those of transparency managers. Panel A of Table 5 shows that the mean bias responses in *point* earnings forecast of directive managers are higher than that of accuracy managers (mean = 0.10 and 0.06, respectively). The high amount (bias) indicates less accurate earnings forecast disclosure. The results of two-way ANOVA in Panel B show that the main effect of management incentives is statistically significant (p = 0.01). Hence, the results are consistent with H1b that directive managers tend to disclose less accurate earnings forecast than that of transparency incentive managers in a *point* forecast form. Figure 11 Panel A shows the pattern of the results.

H2b predicts that when an internal factor is caused by unfavorable future earnings, a *point* earning forecast is less accurate than an external factor. Panel A of Table 5 shows that the mean bias responses at *point* earnings forecast between an internal and an external factor are 0.08 and 0.08, respectively. Again, high amount (bias) of mean responses indicates less accurate earnings forecast. Panel B of Table 5, the two-way ANOVA results, shows that the main effect of locus of causality on the accuracy of issuing management earnings forecast in a *point* form is insignificant (p = 0.77). The findings indicate that the accuracy of issuing management earnings forecast in a *point* form is not different between managers with an internal and an external factor. Although prior studies suggest that managers can impose bias over their earnings forecast as *ex post* (Pownall et al., 1993), perceived locus of causality would intervene in the accuracy of earning forecast as *ex ante*. However, this study finds that the *ex ante* accuracy of *point* earnings forecast is not influenced by self-serving bias in locus of causality. The findings could be explained by a range sensitivity principle (Fischer, 1995). Because a *point* form is implicit the best estimate and less elasticity in outcomes (Han and Tan, 2007, 2010), participants may be less sensitive to locus of causality. The perceived locus of causality does not affect the accuracy of issuing management

[22] The results were unchanged if I used absolute *point* forecast bias as a dependent variable (F = 3.39, p = 0.02).

earnings forecast in a *point* form. Therefore, the results do not support my hypothesis. Figure 11 Panel B shows the pattern of the results.

H3b predicts that when facing future earnings disappointment, the difference in accuracy of point earnings forecasts among managers with directive and transparency incentives under an external factor would be greater than that under an internal factor. The two-way ANOVA results in Panel B of Table 5 show that the interactive effect of management incentives and locus of causality on the accuracy of issuing point earnings forecast is statistically significant (p = 0.04). Specifically, the results of the contrast tests in Panel C show that in the presence of an internal factor, the mean bias responses of management earnings forecast between directive and transparency managers are insignificantly different (mean = 0.08 and 0.08, p = 0.38, one-tailed). In contrast, when facing an external factor, the mean bias responses of management earnings forecast between directive and transparency managers are statistically significant (mean = 0.11 and 0.05, p = 0.00, one-tailed). In addition, the accuracy of point earnings forecast disclosure is statistically different for directive managers between an internal and an external factor (mean = 0.08 and 0.11, respectively, p = 0.05, one-tailed). In sum, the results are consistent with H3b. Figure 11 Panel C shows the pattern of these results[23].

Table 5: The accuracy of quarterly earnings forecast in *point* form

(Dependent Variable = the bias of management earnings forecast in *point* form [a])

Panel A: Descriptive Statistics – Mean (Standard Deviation) *N* = Sample Size

Management Incentives	Locus of Causality		
	Internal	External	Total
Directive	0.08	0.11	0.10
	(0.07)	(0.06)	(0.07)
	N = 25	N = 24	N = 49
Transparency	0.08	0.05	0.06
	(0.07)	(0.08)	(0.07)
	N = 27	N = 25	N = 52
Total	0.08	0.08	0.08
	(0.07)	(0.08)	(0.07)
	N = 52	N = 49	N = 101[b]

[23] The results were robust if I used *point* forecast bias of treatment groups apart from a control group as a dependent variable.

Panel B: Two-way ANOVA – Point Forecast Bias [a]

Sources	Sum of squares	Df	Mean Square	*F*-statistics	*p*-value
Management Incentives	0.03	1	0.03	6.31	0.01**
Locus of Causality	0.00	1	0.00	0.09	0.77
Incentives x Causality	0.02	1	0.02	4.28	0.04**
Error	0.46	97	0.01		

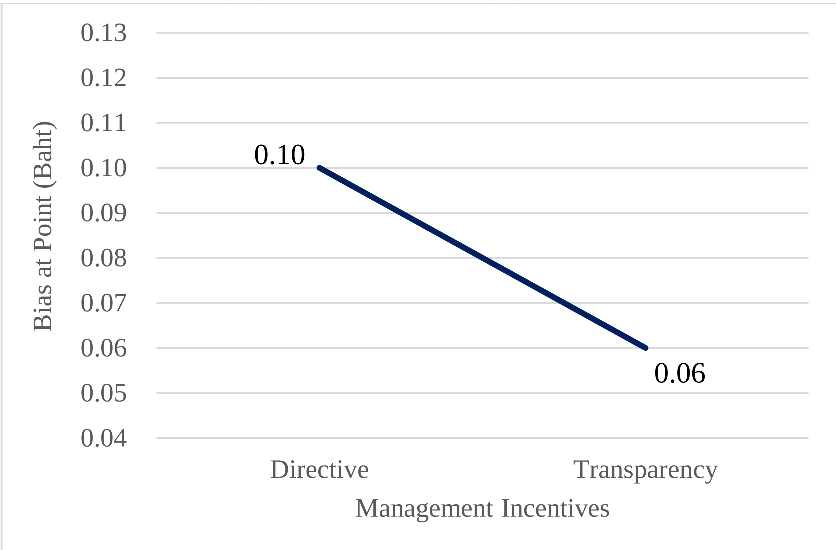
Panel C: Contrast Tests

Sources	Mean difference	*t*-statistics	*p*-value [c]
The effect of management incentives given internal factor			
Directive vs. Transparency	0.00	0.32	0.38
The effect of management incentives given external factor			
Directive vs. Transparency	0.06	3.19	0.00***
The effect of locus of causality given directive incentive			
Internal vs. External	-0.03	-1.65	0.05**
The effect of locus of causality given transparency incentive			
Internal vs. External	0.03	1.27	0.11
One-way ANOVA: F = 3.46, *p*-value = 0.02**			

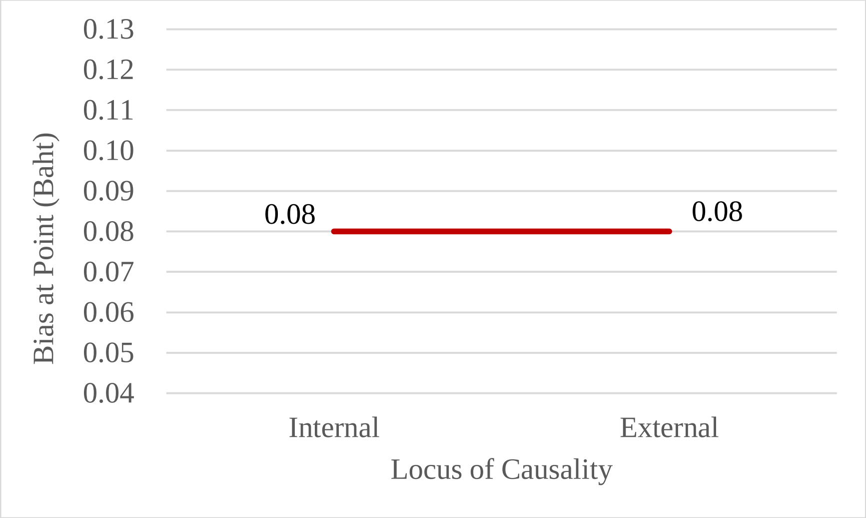
[a] Point forecast bias is the deviation between the pre-determined earnings forecast in case materials (0.90 THB) and the point earnings forecast given by participants. High amount indicates less accuracy.
[b] Given that eight participants (out of 116) expressed an unwillingness to disclose forecast numbers (scoring 0 on the likelihood of issuing management earnings forecast question), three participants did not complete a point forecast question, and there were four aberrations, there remained 101 participants for in analysis of point forecast bias.
[c] One-tailed equivalent.
***,**, and * respectively denote the 1%, 5% and 10% significance levels.

Figure 11: The Accuracy of Management Earnings Forecast in *Point* Form

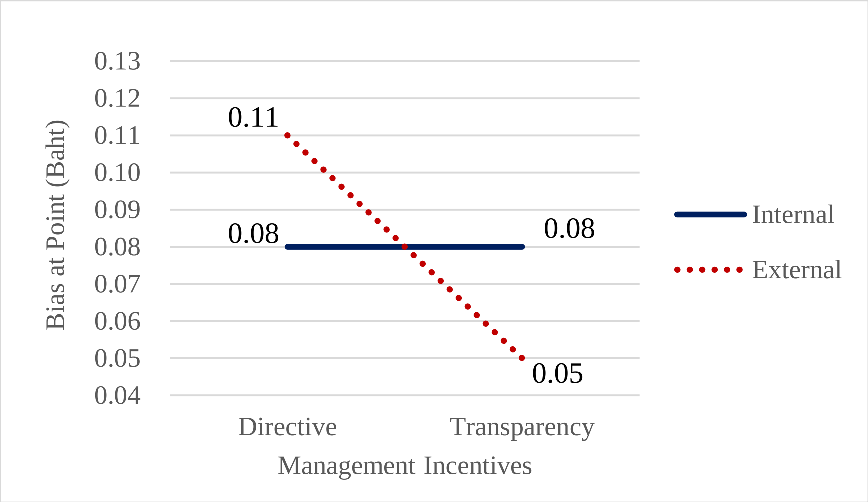
Panel A: The main effect of management incentives



Panel B: The main effect of locus of causality



Panel C: The interaction effect of management incentives and locus of causality



4.2.2.2 Range Form

Table 6 shows the results of management incentives and locus of causality on the accuracy of *range* earnings forecast. Panel A presents descriptive statistics by experiment condition, and Panel B shows the results of a 2 x 2 analysis of variance (ANOVA), with management incentives and locus of causality conditions as between-subjects design on the accuracy of issuing management earnings forecast for the next quarter in a *range* form. Panel C, finally, presents the one-way ANOVA results for the interaction effect along with contrast tests. A graphical summary of the results of the participants' accuracy of issuing management earnings forecast in a *range* form is shown in Figure 8[24].

H1c predicts that when facing future earnings disappointment, *range* earnings forecasts of directive managers are less accurate than those of transparency managers. Panel A of Table 6 finds that the mean bias responses in range earnings forecast of directive are higher than that of transparency managers (mean = 0.12 and 0.09, respectively). The higher amount (bias) indicates less accurate earnings forecast. The results of the two-way ANOVA in Panel B show that the main effect of management incentives is statistically significant (p = 0.01). Hence, the results consisted with H1c that directive managers tend to disclose less accurate earnings forecast than that of transparency incentive managers in a *range* forecast form. Figure 12 Panel A shows the pattern of the results.

H2c predicts that when an internal factor is caused by unfavorable future earnings, a *range* earning forecast under an internal factor are more accurate than under an external factor. Panel A of Table 6 shows that the mean bias responses at range earnings forecast between an internal and an external factor are 0.09 and 0.11, respectively. Again, high amount of mean responses (bias) indicates less accuracy. The two-way ANOVA results in Panel B of Table 6 show that the main effect of locus of causality on the accuracy of issuing management earnings forecast in a *range* form is marginally significant (p = 0.06). The findings suggest that management earnings forecast in a range form under the presence of an internal factor is more accurate than that of under the presence of an external factor. The results show that perceived locus of causality impacts the different accuracy of issuing management earnings forecast in a *range* form. Therefore, the results support my prediction. Figure 12 Panel B shows the pattern of the results.

H3c predicts that when facing future earnings disappointment, the difference in accuracy of range earnings forecasts among managers with directive and transparency incentives under an external factor would be greater than that of an internal factor. The two-way ANOVA results in Panel B of Table 6 show that the interactive effect of management incentives and locus of causality on the accuracy of issuing earnings

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[24] The results were unchanged if I used absolute *range* forecast bias as a dependent variable (F = 3.20, p = 0.03). If I used the width of *range* forecast, results were insignificant (F = 0.92, p = 0.43).

forecast in a *range* form is small ($p = 0.75$). However, the results of the contrast tests in Panel C shows that in the presence of an internal factor, the mean bias responses of management earnings forecast between directive and transparency managers is significantly different (mean = 0.11 and 0.07, respectively, $p = 0.02$, one-tailed). In addition, when facing an external factor, the mean bias of management earnings forecast between directive and transparency manager is still statistically significantly different (mean = 0.13 and 0.10, respectively, $p = 0.00$, one-tailed). Interestingly, transparency forecasters with an internal factor are less likely to produce bias on their *range* earnings forecast than those with an external factor (mean = 0.07 and 0.10, respectively, $p = 0.05$, one-tailed). Thus, these findings are not consistent with H3c. However, these results could be explained by a range sensitivity principle (Fischer, 1995). As mentioned earlier, *range* represents upper and lower limit in values and is a more elastic form. Thus, individuals' judgments are more likely to be influenced by the range levels. Directive managers are more sensitive to a *range* form because the elastic format aligns with their preferences. Consequently, they impose more bias when facing both an internal and external factor conditions to conceal their outcome failure. Nevertheless, this study expects that the elasticity of a range form would not impact transparency managers either facing internal or external cause of earnings disappointment. The findings indicate that transparency managers are also responsive to an elastic form when aligning with the uncertainty in an external factor; thus, they add more bias on their earnings forecast. In contrast, since transparency managers realize that unfavorable earnings are caused by their own failure (internal factor), they disclose a more accurate earnings forecast to represent transparent operating. In short, directive managers disclose a less accurate forecast than transparency managers both in the presence of an internal and external factor conditions. Figure 12 Panel C suggest the pattern of the results[25].

[25] The results were robust if I used *range* forecast bias of treatment groups apart from a control group as a dependent variable.

Table 6: The accuracy of quarterly earnings forecast in *range* form

(Dependent Variable = the bias of management earnings forecast in *range* form [a])

Panel A: Descriptive Statistics – Mean (Standard Deviation) *N* = Sample Size

Management Incentives	Locus of Causality		
	Internal	External	Total
Directive	0.11	0.13	0.12
	(0.05)	(0.08)	(0.07)
	N = 24	*N* = 25	*N* = 49
Transparency	0.07	0.10	0.09
	(0.05)	(0.08)	(0.07)
	N = 27	*N* = 26	*N* = 53
Total	0.09	0.11	0.10
	(0.06)	(0.08)	(0.07)
	N = 51	*N* = 51	*N* = 102[b]

Panel B: Two-way ANOVA – Bias at Range [a]

Sources	Sum of squares	Df	Mean Square	*F*-statistics	*p*-value
Management Incentives	0.03	1	0.03	6.52	0.01**
Locus of Causality	0.02	1	0.02	3.67	0.06*
Incentives x Causality	0.00	1	0.00	0.10	0.75
Error	0.43	98	0.00		

Panel C: Contrast Tests

Sources	Mean difference	*t*-statistics	*p*-value [c]
The effect of management incentives given internal factor			
Directive vs. Transparency	0.04	2.03	0.02**
The effect of management incentives given external factor			
Directive vs. Transparency	0.03	1.58	0.06*
The effect of locus of causality given directive incentive			
Internal vs. External	-0.02	-1.11	0.14
The effect of locus of causality given transparency incentive			
Internal vs. External	-0.03	-1.61	0.05**
One-way ANOVA: F = 3.51, *p*-value = 0.02**			

[a] Range forecast bias is the deviation between the pre-determined earnings forecast in case materials (0.90 THB) and the midpoint of the range earnings forecast numbers given by participants. High amount indicates less accuracy.

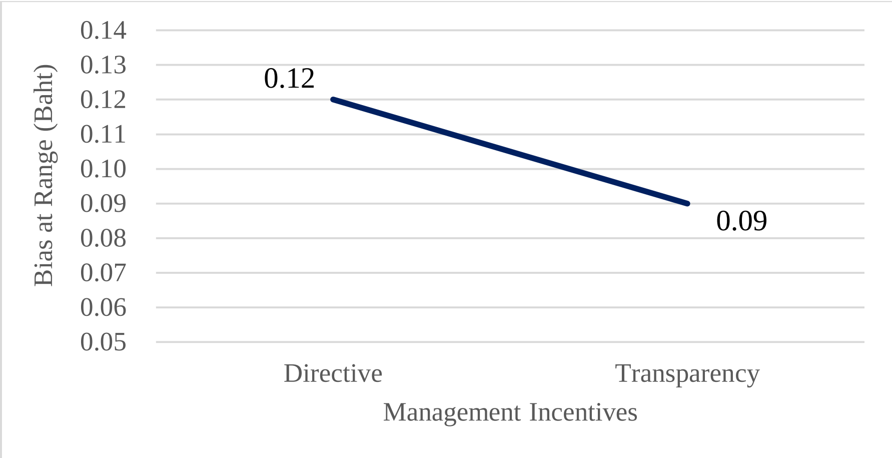
[b] Given that eight participants (out of 116) expressed an unwillingness to disclose forecast numbers (scoring 0 on the likelihood of issuing management earnings forecast question), three participants did not complete a range forecast question, and there were three aberrations, there remained 102 participants for the analysis of range forecast bias.

[c] One-tailed equivalent.

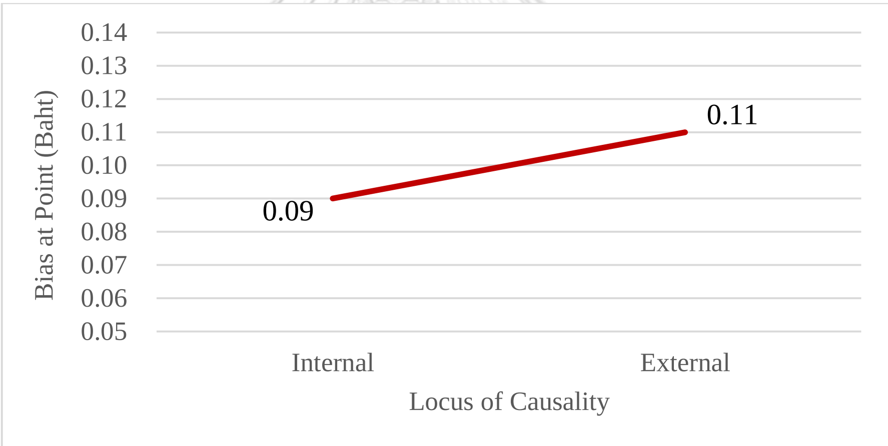
***,**, and * respectively denote the 1%, 5% and 10% significance levels.

Figure 12: The Accuracy of Management Earnings Forecast in *Range* Form

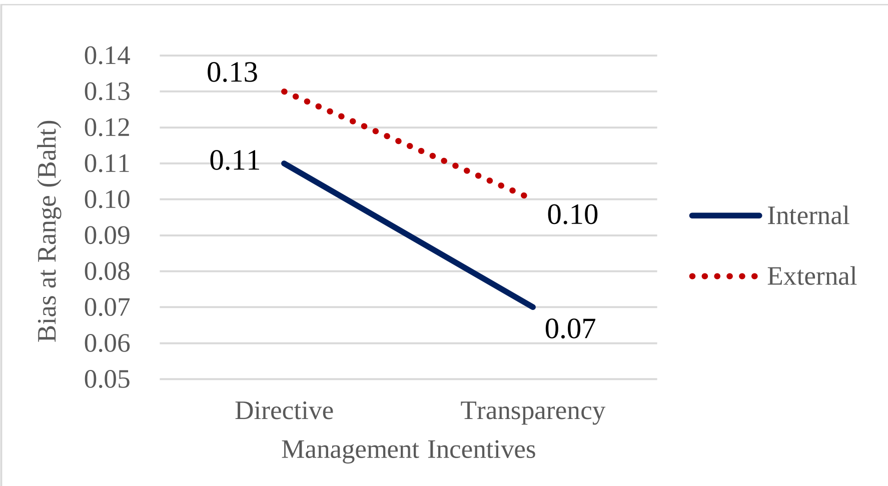
Panel A: The main effect of management incentives



Panel B: The main effect of locus of causality



Panel C: The interaction effect of management incentives and locus of causality



4.3 Mediation Analysis

4.3.1 Management earnings forecast disclosure decisions

Decision makers may trade-off conflicting between given incentives and their own preferences. Thus, it is plausible that participants prioritize their personal preference over given management incentives. With respect to misplaced priority, this study further asked the participants four questions related to the concerns over market expectation and transparency and reputation on their disclosure decisions by 11-point Likert scale from 0 (not at all concerned) to 10 (extremely concerned). The questions are presented in Appendix D. I use the average assessment of each two questions relevant to market expectation and transparency and reputation concerns (the questions are listed in Appendix D). The Cronbach's alpha is 0.75 and 0.74, respectively. The values are above the accepted reliability of 0.70 (Cortina, 1993). Untabulated results reveal the positive correlation between the likelihood of issuing management earning forecast and transparency concerns (Pearson correlation = 0.53, p = 0.00) Thus, I use transparency and reputation concerns as a mediator.

I began by conducting a mediation analysis following the two-step procedure (Kenny et al., 1998). In the first stage, I examined the mediating role of market expectation concerns and concerns over transparency and reputation as a dependent variable related to the independent variables. If the mediator relates to the independent variables, it should be added into the ANCOVA model in the second stage. Since concerns over transparency and reputation are relevant to the independent variables, they were added into the ANCOVA model related to the dependent variables in the second stage. Table 7 provides a summary of the results of the mediation analysis.

To establish the first stage, I conducted an ANOVA test with management incentives and locus of causality as the independent variables on the mediator as the dependent variable. The results in Table 7 show that the main effect of management incentives is marginally significant (p = 0.09). Thereafter, the second stage was established by ANCOVA test with management incentives and locus of causality as the independent variables, the mediator as a covariate, and the likelihood of issuing management earnings forecast as the dependent variable. The results indicate that the transparency and reputation concerns are relevant to the likelihood of issuing management earnings forecast (p = 00). However, after controlling the transparency and reputation concerns, the main effect of management incentives remains statically significant (p = 0.00). In sum, the concerns over transparency and reputation mediate the effects of management incentives and locus of causality on the management earnings forecast disclosure decisions.

Table 7: Mediation Analysis of Management Disclosure Decisions

	Stage 1		Stage 2	
	ANOVA on Mediator [a]		ANCOVA on The likelihood [b]	
	F-statistics	p-value	F-statistics	p-value
Management Incentives	2.97	0.09*	11.54	0.00***
Locus of Causality	1.98	0.16	0.06	0.84
Incentives x Causality	2.28	0.13	0.92	0.34
Mediator			24.12	0.00***

Participants were asked four questions to indicate the levels of their concerns over market expectations and transparent operation when making management earnings forecast disclosure decisions by an 11-point Likert scale rating from 0 (not at all concerned) to 10 (extremely concerned). Total concerned is 100%.
[a] Mediator Variable = Transparency and reputation concerns
[b] Dependent Variable = the likelihood of issuing management earnings forecast
***,**, and * respectively denote the 1%, 5% and 10% significance levels.

4.3.2 The accuracy of issuing earning forecast disclosure

As mentioned earlier, the accuracy of earnings forecast disclosure is governed by a number of factors, including organizational culture and governance (Hutton and Stocken, 2009). However, some managers are incentivized to issue biased forecast to meet or beat the market expectation (Aboody and Kasznik, 2000, Kothari et al., 2009, Wang and Tan, 2013). Thus, it is plausible that participants prioritize their personal preferences over the accuracy of issuing management forecast. This study additionally asked the participants two questions related to the participants' bias in management earnings forecast contributing positively to the company's future stock price and contributing negatively to the company's transparency and reputation by using an 11-

point Likert scale from 0 (not at all concerned) to 10 (extremely concerned). The questions are presented in Appendix D.

The results (untabulated) suggest that neither the positive nor negative consequences of issuing bias forecast are related to participant's bias forecast in *point* and *range* earnings forecast forms (p>0.10 for both questions). However, the Pearson correlation results (untabulated) indicate the significantly negative relation between transparency and reputation concerns and forecast bias in *point* and *range* forms (p = 0.00). Specifically, under a *range* form, the correlation results also show the positive relation between forecast bias and the market expectation (p = 0.02). Therefore, concerns over transparency and reputation are used as a mediator to relate bias in a *point* form, and both market expectation and concerns over transparency and reputation are used to test the role of mediate variables.

To analyze a mediator related to the bias in a *point* form, I used transparency and reputation concerns as the dependent variables, and management incentives and locus of causality as the independent variables in the first stage. The ANOVA results in Table 8 Panel A indicate that the main effect of management incentives and locus of causality and the interactive effect are insignificant in all conditions (p = 0.30, 0.11, and 0.12, respectively). The first step fails to establish the mediator underlying bias in a *point* earnings forecast form. However, the results of a further analysis of ANCOVA suggest that after controlling transparency and reputation concerns, the main effect of management incentives and the interaction effect of management incentives and locus of causality remain significant (p = 0.03 and 0.09, respectively).

To test a mediator role related to the bias in a *range* form, I used transparency and reputation concerns as a mediator and as the dependent variables in the first stage. In Table 8 Panel B, the ANOVA results reveal that the main effect of locus of causality and interaction effect of management incentives and locus of causality are significant (p = 0.08). The ANCOVA results in the second stage also show that transparency and reputation concerns relate to the bias of *range* earnings forecast (p = 00). However, after controlling the transparency and reputation concerns, only the main effect of management incentives is significant (p = 0.00). In sum, the transparency and reputation concerns mediate the effects of management incentives and locus of causality on the accuracy of management earnings forecast in a *range* form.

Next, I used the market expectation as a mediator. In Table 8 Panel C, the ANOVA results in the first stage suggest that the main effect of management incentives is significant (p = 0.01). The further analysis of ANCOVA in the second stage also shows that the market expectation concerns relates to the bias of range earnings forecast (p = 0.05). However, after controlling the market expectation concerns, the main effect of management incentives and locus of causality is still significant (p = 0.06 and 0.04, respectively). Overall, the market expectation concerns also mediate the effects of management incentives and locus of causality on the accuracy of management earnings forecast in a *range* form.

Table 8: Mediation analysis of the accuracy of issuing earnings forecast

Panel A: Mediator = Transparency and reputation concerns, DV = Point Bias [a]

	Stage 1 ANOVA on Mediator		Stage 2 ANCOVA on Point Bias	
	F-statistics	*p*-value	*F*-statistics	*p*-value
Management Incentives	1.07	0.30	4.63	0.03**
Locus of Causality	2.66	0.11	0.14	0.71
Incentives x Causality	2.46	0.12	2.92	0.09*
Mediator			12.46	0.00***

Panel B: Mediator = Transparency and reputation concerns, DV = Range Bias [b]

	Stage 1 ANOVA on Mediator		Stage 2 ANCOVA on Range Bias	
	F-statistics	*p*-value	*F*-statistics	*p*-value
Management Incentives	0.81	0.37	5.34	0.02**
Locus of Causality	3.23	0.08*	1.64	0.20
Incentives x Causality	3.23	0.08*	0.97	0.33
Mediator			14.42	0.00***

Panel C: Mediator = Market expectation concerns, DV = Range Bias [b]

	Stage 1 ANOVA on Mediator		Stage 2 ANCOVA on Range Bias	
	F-statistics	*p*-value	*F*-statistics	*p*-value
Management Incentives	6.72	0.01**	3.76	0.06*
Locus of Causality	1.23	0.27	4.47	0.04**
Incentives x Causality	0.68	0.41	0.21	0.65
Mediator			4.13	0.05**

Participants were asked four questions to indicate the levels of their concerns over market expectations and transparent operation when making management earnings forecast disclosure decisions by an 11-point Likert scale rating from 0 (not at all concerned) to 10 (extremely concerned). Total concerned is 100%.

[a] Point forecast bias is the deviation between the pre-determined earnings forecast in case materials (0.90 THB) and the point earnings forecast given by participants. High amount indicates less accuracy.

[b] Range forecast bias is the deviation between the pre-determined earnings forecast in case materials (0.90) and the midpoint of the range earnings forecast numbers given by participants. High amount indicates less accuracy.

***,**, and * respectively denote the 1%, 5% and 10% significance levels.

5. ADDITIONAL ANALYSIS

5.1 Debriefing

This study argues that directive incentive managers have greater concerns over missing the market expectation than transparency managers. As such, participants were asked two questions to identify the levels of their concerns over missing investors' expectation and analysts' forecast consensus when they decided to disclose their earnings forecast by using an 11-point Likert scale (where 0 denotes not at all concerned, and 10 extremely concerned). Because the Cronbach's alpha of the two questions is 0.75 (above the accepted norm) indicating high reliability for both questions, I used an average assessment of the two questions to represent market expectation concerns.

In contrast, this study also predicts that participants with transparency incentive are more concerned about their transparent operation and management's reputation than those of directive incentive. In the post-experimental questions, participants were asked two questions to identify the levels of their concerns that forecast disclosure (non-disclosure) is positive (negative) for management' reputation and transparency using an 11-point Likert scale (where 0 denotes not at all concerned, and 10 extremely concerned). Because the Cronbach's alpha of the two questions is 0.74 (above the accepted norm) indicating high reliability for both questions, I used an average assessment of the two questions to represent transparency and reputation concerns. To compare the effect of the given treatments, I added one control group who did not receive any treatments for the further analysis.

Consistent with my argument, Table 9 shows that the mean responses of market expectation concerns of directive managers are higher than those of transparent managers (mean = 7.53 and 6.56, p = 0.00, one-tailed). However, the difference in concerns between managers with directive incentive condition and a control group is not significant (mean = 7.53 and 7.28, p = 0.30, one-tailed). In addition, the mean market expectation concerns of transparency incentive condition are significantly less than a control group (mean = 6.56 and 7.28, p = 0.08, one-tailed). The results suggest that directive incentive managers pay more attention to the market expectation and the company's stock price than transparency incentive managers do.

In Table 9, the results also indicate that the mean responses of transparency and reputation concerns for transparency incentive managers are higher than both directive managers and a control group (mean = 7.28, 6.68, and 6.37, respectively, p = 0.07 and 0.08, one-tailed). However, the difference in concerns between managers with directive incentive condition and a control group is not significant (mean = 6.68 and 6.37, p = 0.31, one-tailed). In sum, these results are consistent with my prediction that managers with transparency incentive pay more attention to the positive consequence of transparent operation and management's reputation when they decided to disclose earnings forecast. In addition, management's credibility and reputations could be destructive if they fail to disclose their future earnings information[26].

Table 9: The effect of considerations associated with disclosure decisions

Panel A: Descriptive Statistics – Mean (Standard Deviation) *N* = Sample Size

Consideration	Management Incentives		
	Directive	Transparency	Control
Market expectation	7.53	6.56	7.28
	(1.35)	(2.01)	(2.38)
	N = 56	N = 58	N = 30
Transparency and reputation	6.68	7.28	6.37
	(2.45)	(2.12)	(2.88)
	N = 56	N = 58	N = 30

Panel B: Contrast Tests

Sources	Mean difference	*t*-statistics	*p*-value [a]
The effect of market expectation			
Directive vs. Control	0.25	0.54	0.30
Transparency vs. Control	-0.72	-1.42	0.08*
Directive vs. Transparency	0.97	3.04	0.00***
The effect of transparency and reputation			
Directive vs. Control	0.31	0.50	0.31
Transparency vs. Control	0.91	1.53	0.07*
Directive vs. Transparency	-0.60	-1.39	0.08*

Participants were asked four questions to indicate the levels of their concerns over market expectations and management's transparency and reputation when making management earnings forecast disclosures decision by an 11-point Likert scale rating from 0 (not at all concerned) to 10 (extremely concerned). Total concerned is 100%.

[a] One-tailed equivalent.

***,**, and * respectively denote the 1%, 5% and 10% significance levels.

[26] Participants were additionally asked two questions to indicate the levels of their concerns over forecast bias which is positive to a company's stock price and is negative to management's reputations and transparency by using an 11-point Likert scale rating from 0 (not at all concerned) to 10 (extremely concerned). The results (untabulated) indicate that there are no different forecast bias concerns over positive stock price across treatment conditions and a control group. However, participants both directive and transparency incentive condition are more concerned about the negative effect of forecast bias on the management's reputations and transparency than a control group (p = 0.09 and 0.02, one-tailed).

5.2 Earnings Forecast Horizon

Forecast horizon plays an important role in earnings forecast bias such that quarterly earnings forecast tends to be more pessimistically biased, compared to the longer term forecast (Rogers and Stocken, 2005). Moreover, issuing management earnings forecasts for a half year does not violate practical guidelines of SET[27]. Therefore, this study provides supported evidence by assessing whether management incentives and locus of causality affects participants' perception for the issuing of future earnings estimations in a longer period. This study performs an additional test to examine the effect of management incentives and locus of causality on the likelihood and the accuracy of issuing a longer-term management earnings forecast (a half year).

In post-experimental questions, participants were asked about the likelihood of issuing earnings forecast on a half-year basis by assuming the same information, using an 11-point Likert scale, where 0 denotes not at all likely and 10 extremely likely. Afterwards, they were asked to produce the number of earnings forecast issuing (point) and the minimum and maximum number of earnings forecast (range) for half a year of 2017 respectively. The results of the likelihood of issuing management earnings forecast for half a year are shown in Table 10, the *point* earnings forecast accuracy in Table 11, and the *range* earnings forecast accuracy in Table 12.

The results in Table 10 Panel B show that the simple main effect of management incentives is statistically significant on the likelihood of issuing a half-year earnings forecast (p = 0.00). However, the main effect of locus of causality is insignificant (p = 0.31). The interactive effect of management incentives and locus of causality on the likelihood of issuing management earnings forecast is also insignificant (p = 0.65). In addition, the results of the contrast test in Table 10 Panel C reveal that the mean likelihood of issuing management earning forecast of directive managers is less than that of transparency managers both internal and external factor conditions. (p = 0.04 and 0.01, respectively, one-tailed). These results suggest that only management incentives influence management's disclosure decision for the future earning information in a longer period.

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[27]SET's Disclosure Guidelines does not permit management to disclose any quarterly financial projections to the public.

In Table 11 Panel B, the two-way ANOVA results show that there is no significant main effect of management incentives and locus of causality on the accuracy of a half-year earnings forecast in a *point* form (p = 0.41 and 0.63, respectively). The interaction effect is also insignificant (0.89). In Table 11 Panel C, the contrast tests also result in a insignificant effect (p<0.10, one-tailed for all conditions). The results suggest that management incentives and locus of causality are not affected the accuracy of *point* earnings forecast in a longer period.

The two-way ANOVA results in Table 12 Panel B also show that there is no significant main effect of management incentives and locus of causality on the accuracy of a half-year earnings forecast in a *range* form (p = 0.75 and 0.20, respectively). The interaction effect is also small (0.40). However, the results of the contrast test in Table 12 Panel C reveal the significant difference in the accuracy of *range* earnings forecast of transparency incentives when facing an internal and external factor (p = 0.06, one-tailed). The contrast results support the main findings that managers with transparency incentives and an internal factor will be more likely to disclose an accurate forecast than those with an external factor. In sum, the effect of locus of causality on the accuracy of *range* earnings forecast persists in long-term earnings forecast disclosure decisions only in transparency incentive managers.

Table 10: The likelihood of issuing a half-year management earnings forecast

(Dependent Variable = the likelihood of issuing a half-year management earnings forecast [a])

Panel A: Descriptive Statistics – Mean (Standard Deviation) *N* = Sample Size

Management Incentives	Locus of Causality		
	Internal	External	Total
Directive	6.08	5.40	5.73
	(2.73)	(2.73)	(2.73)
	N = 27	N = 29	N = 56
Transparency	7.21	6.95	7.09
	(2.25)	(2.06)	(2.15)
	N = 31	N = 27	N = 58
Total	6.68	6.15	6.42
	(2.53)	(2.53)	(2.53)
	N = 58	N = 56	N = 114 [b]

Panel B: Two-way ANOVA

Sources	Sum of squares	Df	Mean Square	*F*-statistics	*p*-value
Management Incentives	51.15	1	51.15	8.46	0.00***
Locus of Causality	6.22	1	6.22	1.03	0.31
Incentives x Causality	1.25	1	1.25	0.21	0.65
Error	664.72	110	6.04		

Panel C: Contrast Tests

Sources	Mean difference	*t*-statistics	*p*-value [c]
The effect of locus of causality given directive incentive			
Internal vs. External	0.68	1.03	0.15
The effect of locus of causality given transparency incentive			
Internal vs. External	0.26	0.40	0.35
The effect of management incentive given internal factor			
Directive vs. Transparency	-1.13	-1.75	0.04**
The effect of management incentive given external factor			
Directive vs. Transparency	-1.55	-2.36	0.01**
One-way ANOVA: F = 3.33, *p*-value = 0.02**			

[a] The participants were asked to specify the likelihood of issuing a half-year management earnings forecast using an 11-point (0-10) Likert scale, where 0 and 10 respectively denote not at all likely and extremely likely. Total likelihood is 100%.

[b] Due to two aberrations (out of 116), there remained 114 participants for the analysis of the likelihood of issuing a half-year management earnings forecast.

[c] One-tailed equivalent.

***,**, and * respectively denote the 1%, 5% and 10% significance levels.

Table 11: The accuracy of a half-year earnings forecast in *point* form

(Dependent Variable = the bias of issuing a half-year management earnings forecast in *point* form [a])

Panel A: Descriptive Statistics – Mean (Standard Deviation) *N* = Sample Size

Management Incentives	Locus of Causality		
	Internal	External	Total
Directive	0.06	0.07	0.07
	(0.06)	(0.10)	(0.09)
	N = 25	*N* = 23	*N* = 48
Transparency	0.05	0.06	0.05
	(0.07)	(0.08)	(0.08)
	N = 27	*N* = 24	*N* = 51
Total	0.06	0.06	0.06
	(0.07)	(0.09)	(0.08)
	N = 52	*N* = 47	*N* = 99[b]

Panel B: Two-way ANOVA – Point Forecast Bias [a]

Sources	Sum of squares	Df	Mean Square	*F*-statistics	*p*-value
Management Incentives	0.01	1	0.01	0.69	0.41
Locus of Causality	0.00	1	0.00	0.23	0.63
Incentives x Causality	0.00	1	0.00	0.02	0.89
Error	0.63	95	0.01		

Panel C: Contrast Tests

Sources	Mean difference	*t*-statistics	*p*-value [c]
The effect of management incentives given internal factor			
Directive vs. Transparency	0.01	0.70	0.24
The effect of management incentives given external factor			
Directive vs. Transparency	0.01	0.47	0.32
The effect of locus of causality given directive incentive			
Internal vs. External	-0.01	-0.23	0.41
The effect of locus of causality given transparency incentive			
Internal vs. External	-0.01	-0.45	0.33
One-way ANOVA: F = 0.03, *p*-value = 0.81			

[a] Point forecast bias is the deviation between the pre-determined earnings forecast in case materials (0.90 THB) and the point earnings forecast given by participants. High amount indicates less accuracy.

[b] Given that eight participants (out of 116) expressed an unwillingness to disclose forecast numbers (scoring 0 on the likelihood of issuing management earnings forecast question), five participants did not complete a dependent variable question, and four aberrations, there remained 99 participants for the analysis of point forecast bias.

[c] One-tailed equivalent.

***,**, and * respectively denote the 1%, 5% and 10% significance levels.

Table 12: The accuracy of a half-year earnings forecast in *range* form

(Dependent Variable = the bias of issuing a half-year management earnings forecast in *range* form[a])

Panel A: Descriptive Statistics – Mean (Standard Deviation) *N* = Sample Size

Management Incentives	Locus of Causality		
	Internal	External	Total
Directive	0.09	0.10	0.09
	(0.10)	(0.09)	(0.10)
	N = 24	*N* = 24	*N* = 48
Transparency	0.07	0.11	0.09
	(0.05)	(0.08)	(0.07)
	N = 27	*N* = 26	*N* = 53
Total	0.08	0.10	0.09
	(0.08)	(0.09)	(0.08)
	N = 51	*N* = 50	*N* = 101[b]

Panel B: Two-way ANOVA – Bias at Range [a]

Sources	Sum of squares	Df	Mean Square	*F*-statistics	*p*-value
Management Incentives	0.00	1	0.00	0.10	0.75
Locus of Causality	0.01	1	0.01	1.68	0.20
Incentives x Causality	0.01	1	0.01	0.71	0.40
Error	0.67	97	0.01		

Panel C: Contrast Tests

Sources	Mean difference	*t*-statistics	*p*-value [c]
The effect of management incentives given internal factor			
Directive vs. Transparency	0.02	0.82	0.21
The effect of management incentives given external factor			
Directive vs. Transparency	-0.01	-0.37	0.36
The effect of locus of causality given directive incentive			
Internal vs. External	-0.01	-0.31	0.38
The effect of locus of causality given transparency incentive			
Internal vs. External	-0.04	-1.55	0.06*

One-way ANOVA: F = 0.87, *p*-value = 0.46

[a] Range forecast bias is the deviation between the pre-determined earnings forecast in case materials (0.90 THB) and the midpoint of the range earnings forecast numbers given by participants. High amount indicates less accuracy.

[b] Given that eight participants (out of 116) expressed an unwillingness to disclose forecast numbers (scoring 0 on the likelihood of issuing management earnings forecast question), four did not complete a dependent variable question, and three aberrations, there remained 101 participants for the analysis of point forecast bias.

[c] One-tailed equivalent.

***,**, and * respectively denote the 1%, 5% and 10% significance levels.

5.3 Within-Subjects Tests

Previous literature suggests that managers may be motivated to disclose bad news early because of legal concerns and reputation costs (Skinner, 1994, 1997). In my experimental setting, it allows me to test these concerns. I further examine whether managers are more likely to disclose future bad news for the upcoming quarterly period) rather than the longer period (a half-year). This study performs an additional test to examine the effect of management incentives and locus of causality on the likelihood of issuing a short-term (quarterly) and a long-term (a half-year) management earnings forecast. As discussed earlier, participants were asked about the likelihood of issuing earnings forecast on a half-year basis by assuming the same information, using an 11-point Likert scale, where 0 denotes not at all likely and 10 extremely likely. The results of the effect of management incentives and locus of causality on the likelihood of issuing management earnings forecast comparing between quarterly and a half-year disclosure are shown in Table 13.

Table 13 shows tests of within-subjects on the likelihood of issuing management earnings forecast in different horizons (quarterly and a half-year). The mean responses of issuing management earnings forecast between quarterly forecast and a half-year are 6.46 and 6.42, respectively. The likelihood of issuing management earnings forecast in quarterly does not significantly differ from that in a half-year forecast (p = 0.75). The results are incongruent with the prior literature. The findings in this study indicate that the likelihood to disclose future earnings for short-term horizon insignificantly differ from that for long-term horizon.

Table 13: Within-subjects test: Forecast horizon

(Dependent Variable = the likelihood of issuing management earnings forecast [a])

Panel A: Descriptive Statistics – Mean (Standard Deviation) *N* = Sample Size

Management	Quarterly Locus of Causality			Half-year Locus of Causality		
Incentives	Internal	External	Total	Internal	External	Total
Directive	6.17	5.09	5.61	6.08	5.40	5.73
	(2.59)	(2.97)	(2.82)	(2.73)	(2.73)	(2.73)
	$N = 27$	$N = 29$	$N = 56$	$N = 27$	$N = 29$	$N = 56$
Transparency	7.04	7.57	7.29	7.21	6.95	7.09
	(2.44)	(1.82)	(2.17)	(2.25)	(2.06)	(2.15)
	$N = 31$	$N = 27$	$N = 58$	$N = 31$	$N = 27$	$N = 58$
Total	6.64	6.29	6.46	6.68	6.15	6.42
	(2.52)	(2.76)	(2.64)	(2.53)	(2.53)	(2.53)
	$N = 58$	$N = 56$	$N = 114$	$N = 58$	$N = 56$	$N = 114$[b]

Panel B: Within-Subjects Tests

Sources	Sum of squares	Df	Mean Square	*F*-statistics	*p*-value
Horizon	0.11	1	0.11	0.10	0.75
Error	125.21	113	1.11		

[a] The participants were asked to specify the likelihood of issuing management earnings forecast for quarterly and a half-year using an 11-point (0-10) Likert scale, where 0 and 10 respectively denote not at all likely and extremely likely. Total likelihood is 100%.

[b] Due to three aberrations (out of 116), there remained 114 participants for the analysis of the likelihood of issuing management earnings forecast.

***,**, and * respectively denote the 1%, 5% and 10% significance levels.

5.4 Experience

Previous behavioral research in accounting focuses on the effects of working experience on the performance in the accounting setting (Libby and Luft, 1993, Bonner and Lewis, 1990, Bonner, 1990). For example, according to Libby and Luft (1993), more experienced decision makers make better task-related decisions than their counterparts with less work experience. Since participants in this study are MBA students of young executive and executive program[28], their mean working experience is significantly different (mean = 6.55 and 15.47, p = 0.00, one-tailed)[29]. 65 and 49 participants are categorized in the less and more experienced group.

For less experienced group, the two-way ANOVA results in Table 14 show that the main effect of management incentives on the likelihood of issuing management earnings forecast is significant (p = 0.01). The mean likelihood of issuing management earnings forecast with directive incentive is lower than that with transparency incentive (mean = 5.27 and 7.03, respectively). The results are consistent with the main findings that less experienced managers with directive incentive are less likely to disclose their unfavorable earnings forecast than those with transparency incentive. In addition, the interaction effect of management incentives and locus of causality on the likelihood of issuing management earnings forecast is statistically significant (p = 0.02).

Table 14 Panel C shows the contrast test results in which the mean responses of directive incentive managers between internal and external factor condition are significantly different (means = 6.07 and 4.51, respectively, p = 0.04, one-tailed). Besides, mean responses of transparency incentive managers between internal and external factor condition are also significantly different (means = 6.33 and 7.73, respectively, p = 0.07, one-tailed). Given an external factor, directive managers are less likely to issue earnings forecast than transparency managers (mean = 4.51 and 7.73, respectively, p = 0.00, one-tailed). However, the likelihood among managers with these two incentives is not significantly different under the presence of an internal factor

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[28]MBA students in the young executive program have at least 3 years of working experience while MBA students in the executive program have at least 5 years of working experience as required by the program.

[29]The mean knowledge related to consequences of management earnings forecast between the two groups is not significantly different between young and executive MBA students (p = 0.33), and mean of the accounting and finance and business courses is also not significantly different between the two groups (p>0.10 for all courses).

(mean = 6.07 and 6.33, respectively, p = 0.39, one-tailed). These results are consistent with the main findings.

For the more experienced group, the two-way ANOVA model show insignificant results (untabulated). Management incentives and locus of causality do not affect the likelihood of issuing management earnings forecast among the more experienced managers. Thus, I further investigate whether different levels of experience lead to different decisions of issuing management earnings forecast. Table 15 shows the effect of experience on the likelihood of issuing management earnings forecast. The one-way ANOVA results in Table 15 Panel C suggest that the mean likelihood between the less and more experienced managers is significantly different (mean = 6.08 and 6.97, respectively, p = 0.04, one-tailed).

Table 15 Panel C also shows the contrast test results. The findings indicate that when given directive incentives with internal factors, less and more experienced managers are different significantly in the likelihood of issuing management earnings forecast (mean = 6.07 and 6.34, respectively, p = 0.40, one-tailed). However, in the presence of external factors, directive managers with less experience are less likely to issue their earnings forecast than those with more experience (mean = 4.51 and 6.05, respectively, p = 0.08, one-tailed). Besides, in the presence of internal factors, the likelihood of issuing management earnings forecast between transparency incentive with less experience and more experience is statistically significant (mean = 6.33 and 7.71, respectively, p = 0.06, one-tailed). Finally, in the presence of external factor, the likelihood of issuing management earnings forecast between transparency incentive with less experience and more experience is small (mean = 7.73 and 7.36, respectively, p = 0.30, one-tailed). Overall, these results suggest that less experienced managers are less likely to issue management earnings forecast than those of more experienced managers in almost all treatment conditions. However, the experience does not impact the accuracy of issuing earnings forecast in *point* and *range* forms[30].

[30] I additionally perform a one-way ANOVA test to explore the effect of experiences on *point* and *range* earnings forecast accuracy. The model results are not significant in both *point* and *range* forecast accuracy (p = 0.39 and 0.56, respectively).

Table 14: Less experience group

(Dependent Variable = the likelihood of issuing management earnings forecast [a])

Panel A: Descriptive Statistics – Mean (Standard Deviation) *N* = Sample Size

Management Incentives	Locus of Causality		
	Internal	External	Total
Directive	6.07	4.51	5.27
	(2.49)	(3.19)	(2.94)
	N = 17	*N* = 18	*N* = 35
Transparency	6.33	7.73	7.03
	(2.26)	(1.75)	(2.11)
	N = 15	*N* = 15	*N* = 30
Total	6.19	5.98	6.08
	(2.35)	(3.07)	(2.72)
	N = 32	*N* = 33	*N* = 65

Panel B: Two-way ANOVA

Sources	Sum of squares	Df	Mean Square	*F*-statistics	*p*-value
Management Incentives	48.84	1	48.84	7.71	0.01**
Locus of Causality	0.09	1	0.09	0.02	0.90
Incentives x Causality	35.51	1	35.51	5.61	0.02*
Error	386.48	61	6.34		

Panel C: Contrast Tests

Sources	Mean difference	*t*-statistics	*p*-value [b]
The effect of locus of causality given directive incentive			
Internal vs. External	1.56	1.83	0.04*
The effect of locus of causality given transparency incentive			
Internal vs. External	-1.40	-1.53	0.07*
The effect of management incentive given internal factor			
Directive vs. Transparency	-0.26	-0.29	0.39
The effect of management incentive given external factor			
Directive vs. Transparency	-3.22	-3.66	0.00***

One-way ANOVA: F = 4.53, *p*-value = 0.01**

[a] The participants were asked to specify the likelihood of issuing management earnings forecast using an 11-point (0-10) Likert scale, where 0 and 10 respectively denote not at all likely and extremely likely. Total likelihood is 100%.

[b] One-tailed equivalent.

***,**, and * respectively denote the 1%, 5% and 10% significance levels.

Table 15: Group comparison between less and more experience groups

(Dependent Variable = the likelihood of issuing management earnings forecast [a])

Panel A: Descriptive Statistics – Mean (Standard Deviation) *N* = Sample Size

Management	Less experience Locus of Causality			More experience Locus of Causality		
Incentives	Internal	External	Total	Internal	External	Total
Directive	6.07	4.51	5.27	6.34	6.05	6.19
	(2.49)	(3.19)	(2.94)	(2.88)	(2.41)	(2.58)
	$N = 17$	$N = 18$	$N = 35$	$N = 10$	$N = 11$	$N = 21$
Transparency	6.33	7.73	7.03	7.71	7.36	7.56
	(2.26)	(1.75)	(2.11)	(2.47)	(1.96)	(2.23)
	$N = 15$	$N = 15$	$N = 30$	$N = 16$	$N = 12$	$N = 28$
Total	6.19	5.98	6.08	7.18	6.73	6.97
	(2.35)	(3.07)	(2.72)	(2.67)	(2.24)	(2.46)
	$N = 32$	$N = 33$	$N = 65$	$N = 26$	$N = 23$	$N = 49$

Panel B: Contrast tests

Sources	Mean difference	*t*-statistics	*p*-value [b]
Less experience vs. more experience	-0.89	-1.80	0.04**
DI less vs. more experience	-0.27	-0.25	0.40
DE less vs. more experience	-1.54	-1.47	0.08*
TI less vs. more experience	-1.38	-1.63	0.06*
TE less vs. more experience	0.38	0.52	0.30
One-way ANOVA: F = 3.07, *p*-value = 0.01**			

DI = Directive incentive and internal factor DE = Directive incentive and external factor
TI = Transparency incentive and internal factor TE = Transparency incentive and external factor

[a] The participants were asked to specify the likelihood of issuing management earnings forecast using an 11-point (0-10) Likert scale, where 0 and 10 respectively denote not at all likely and extremely likely. Total likelihood is 100%.

[b] One-tailed equivalent.

***,**, and * respectively denote the 1%, 5% and 10% significance levels.

6. DISCUSSION

6.1 Conclusion

This study investigates whether and how management incentives and locus of causality affect management's willingness and the accuracy of issuing voluntary earnings forecasts. Management incentives are manipulated into directive and transparency types, and locus of causality is manipulated into internal and external factors. The participants of the experiment were MBA students assuming the role of an executive manager. They had the authority to make a decision to disclose a quarterly management earnings forecast. The main instrument was a set of case materials and questionnaires designed to investigate the willingness of issuing management earnings forecast with an 11-point Likert scale, the earnings forecast numbers (*point* form), and the minimum and maximum of earnings forecast numbers (*range* form). This study captures the accuracy of issuing earnings forecast in *point* and *range* forms by measuring the deviation (forecast bias) from participants' earnings numbers against the pre-determined benchmark (actual management earnings forecast in case materials). High deviation amount (bias) represented low accuracy of issuing management earnings forecast.

The results reveal that the factors that affect management's earnings forecast disclosure decision when facing future earnings disappointment are given management incentives. Not only are directive managers less likely to disclose management earnings forecast, but they also disclose less accurate earnings forecast than those transparency managers do both in *point* and *range* forms. In addition, the likelihood of issuing earnings forecast under an internal factor is not different from that under an external factor, a cause of future earnings failure. Besides, the accuracy of *point* earnings forecast disclosure between managers with either an internal or an external factor is also not different. However, in a *range* forecast, managers with an internal factor issue more accurate earnings forecast than those with external factor.

Moreover, the management incentives and locus of causality have an impact on the likelihood of issuing management earnings forecast and *point* forecast accuracy but insignificantly influence *range* forecast accuracy. The difference in the likelihood of issuing management earnings forecasts among managers with internal and external factors of directive incentive is greater than that of transparency incentive. In other words, directive managers impose more bias on a *point* earnings forecast than those of transparency managers when facing an external factor while the accuracy of *point* earnings forecast among directive and transparency managers is not different when facing an internal factor. However, the interaction effect of management incentives and locus of causality on the *range* earnings forecast accuracy is insignificant. In fact, both directive and transparency managers also impose bias on earnings forecast when facing an external factor than when facing an internal factor. Importantly, transparency managers are more likely to issue an accurate forecast in a *range* form rather than directive managers either facing an internal or an external factor. Overall, the findings suggest that transparency managers are likely to issue accurate forecast either facing an internal or an external factor both in *point* and *range* forms.

In addition, this study also investigates the mediator role of management incentives and locus of causality on the likelihood of issuing management earnings forecast. The results suggest that the transparency and reputation concerns mediate the effects of management incentives and locus of causality on the management earnings forecast disclosure decisions. Even though this study fails to establish the mediator variable for the effect of management incentives and locus of causality on the *point* earnings forecast accuracy, both market expectations and concerns over transparency and reputation can be established as the mediator variables for *range* earnings forecast accuracy. After controlling the influence of mediator variables, the results tend to be consistent with the main findings.

In additional analyses, this study provides evidence on the assumptions related to my hypothesis. Debriefing analysis finds that directive managers are more concerned about market expectations than transparency managers. Nevertheless, there is no difference in concerns over market expectations between directive managers and a control group. On the other hand, the results suggest that transparency incentive is more concerned about transparent operation and reputation than both directive managers and a control group. In addition, this study also examines the effect of management incentives and locus of causality on the likelihood and the accuracy of issuing management earnings forecast in the longer forthcoming period (a half year). The findings indicate that only management incentives have an influence on the likelihood of issuing a half-year earnings forecast, and the effect of management incentives and locus of causality on the accuracy of *point* and *range* earnings forecast is not persistent in a long forecast horizon. Moreover, this study categorizes participants into less and more working experience and finds that, on average, more experienced managers tend to be more likely to disclose their future earnings information. After comparing all treatment conditions, the results suggest that less experienced managers are less likely to disclosure earnings forecast in almost all conditions except in the group comparing transparency incentive under an external factor treatment.

6.2 Implication

This study has implications for academics as it provides additional insights into voluntary disclosure literature. Specifically, this study focuses on decision makers rather than users of management earnings forecast because there are asymmetric management behaviors documented in earlier studies (e.g., Kothari et al., 2009, Skinner, 1994). Prior literature cannot rule out the potential endogeneity that is the critical consideration of the archival research in studying voluntary disclosure. For example, Lang and Lundholm (1993) show that the firms with the highest performance also have the highest disclosure rating. However, disclosure rating may be the result of performance rather than disclosure itself. This study finds more evidence by showing that management's disclosure decisions depend on incentives *per se* when managers concern.

First of all, this study provides evidence regarding the effect of management incentives on management's judgment and disclosure decisions. This study finds that not only do different incentives lead to different levels of disclosure decisions, but they also lead to different levels of the accuracy in earnings forecast disclosure. This finding is consistent with prior research among the mixed evidence on the incentive and timeliness of bad news disclosure (Kothari et al., 2009, Skinner, 1994). Kothari et al. (2009) find that, on average, managers withhold or delay bad news disclosure in hope of boosting or maintaining their stock price while Skinner (1994) finds that managers may be motivated to disclose bad news early because of litigation risks and reputation costs. This study provides the evidence that directive managers are less likely to disclose their future earnings information since they have missed market expectation. In contrast, transparency managers are more likely to disclose their future earnings disappointment since they realize transparent reporting and management's reputation. Importantly, such management incentives lead to different levels of earnings forecast accuracy. As a result, transparency incentive leads to improved earnings forecast accuracy for establishing transparent reporting and reputation. This is consistent with prior arguments that firms develop reputations from prior accurate forecasting (Hutton and Stocken, 2009).

Second, this study extends the evidence of management' disclosure choices by fulfilling the picture of the linkage between causal thinking and economic decision making and suggests the starting point of voluntary manipulations. In the business context, using defensive attributions (external factor) is associated with less market penalties for bad news releasing when industry peers also have earnings disappointment (Kimbrough and Wang, 2014). However, the recent experimental evidence suggests the adverse effect of investor judgments when managers provide negative earnings guidance with external attributions (Chen et al., 2016). This study fulfills prior literature by demonstrating that the effect of the locus of causality (internal or external factor) does not vary across participants' judgments on the likelihood of issuing future earnings information. However, the causality effects appear only in the *range* earnings forecast form after participants have decided to disclose their future earnings information. This study finds that given an external factor is caused of future earnings failure, the accuracy of *range* earnings forecast is less accurate than given an internal factor. This suggests that participants perceived an external factor as an uncertain and uncontrollable factor. Moreover, they add more bias into the *range* forecast. Particularly, this phenomenon could be attributed to an uncertain number in a *range* form. Because of certain numbers in a *point* form, there is no effect of locus of causality on the *point* earnings forecast accuracy. This findings support prior literature in that using attributions for performance explanation are more likely to relate to larger firms, bad news, and the maximum type of forecasts (Baginski et al., 2004).

Third, this study adds a stream of research on accounting and psychology by providing the interactive role of management incentives and perceived locus of causality on the earnings forecast disclosure decisions including earnings forecast accuracy. Attribution literature suggests that internal and external causes of outcomes could not be equally weighed on individual's perception (Kelley, 1967, Miller and Ross, 1975). This study finds that the effect of locus of causality (internal and external factors) is contingent on management incentives. Transparency managers do not over-attribute to the locus of causing future earnings failure;, therefore, they are more willing to disclose their earnings forecast by either facing an internal or an external factor, unlike directive managers. Again, the effect of locus of causality on the earnings forecast accuracy is conditional on management incentives, especially, in a *point* forecast form. When facing an external factor, the levels of earnings forecast accuracy in a *point* form depend on management incentives, but there is no effect of an internal factor among different management incentives on the *point* forecast accuracy. Note that the interactive role of management incentives and locus of causality does not matter when it comes to earnings forecast accuracy in a *range* form. This could be explained by a range sensitivity theory. Because a *range* forecast form represents uncertain numbers, managers with both incentives seem to add alongside bias forecast their own incentives. Importantly, when facing an external factor, transparency managers also disclose bias forecast in a *range* form as well as directive managers. Hence, these results also have the implication for the regulators. While the regulators attempt to promote good corporate governance of transparent disclosure, the benefit of transparency does not always result in the accurate information disclosures. Transparency will lead to accurate information disclosure only when the information is put into certain forms.

Finally, the findings of this study have implications for the regulators particularly in Thailand. Although SET's regulations restrict a quantitative form in quantitative-based financial projections, almost two-thirds (59%) of listed firms fail to comply with the SET's Disclosure Guidelines (Jarutakanont and Supattarakul, 2011). However, SET seems to be more lenient in the recent SET's Investor Relations Best Practice training materials informing that listed firms could make quantitative financial forecast disclosures as long as they are accompanied by assumptions. Therefore, this study not only provides useful evidence for the regulators working on forecast forms (*point* and *range*) but also compares forecast horizon practices (quarterly and a half-year). In addition, the study contributes to the management earnings practice by providing the evidence that the effects of management incentive and locus of causality is less influential in the managers' judgments to the forest accuracy when they disclose earnings forecast in the longer period. Moreover, the results support the debate around the forecast horizon that a short-term forecast drives the myopic managerial behavior caused by attempts to meet market expectations (Houston et al., 2010). Besides, survey evidence from NIRI shows that a number of firms have moved from the short-term to the longer-term forecast disclosures.

6.3 Limitation and Future Research

I acknowledge a number of limitations in my study. First of all, this study takes account of one single factor underlying the effect of locus of causality on the willingness and the accuracy of issuing management earnings forecast. Since prior research suggests that managers sometimes use mixed internal and external attributions to explain their performance (Kimbrough and Wang, 2014), future research may investigate whether other management disclosure decisions could be affected by mixed factors of causality.

Second, this study does not investigate other strategic forecasts that could impact the forecast accuracy (i.e., prior forecast accuracy experiences). This study focuses on two main incentives (directive and transparency) and hold prior forecast experiences constant. Future research may investigate the impact of prior forecast earnings predictability on the current earing forecast accuracy.

Finally, I do not examine the impact of forecast frequency on management earnings forecast disclosure decision documented in prior research (Wang and Tan, 2013), but I restrict one single forecast frequency. Substituting for concerning forecast frequency, I hold forecast frequency constant and try to identify the reasons underlying the effect of long-term management incentives and short-term perceived locus of causality. Future research could, thus, investigate whether prior experienced forecast frequency moderates my predictions. Despite these limitations, I believe my analyses are uniquely suited to informing future research on the impact of management incentives and locus of causality on the likelihood of issuing management forecasts and the accuracy of earnings forecast disclosure.

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Appendix A: Informed Consent Form

Informed Consent Form

Address …………………………………………
Date …………………………………………….

Code number of participant …………………………………………………………

I who have signed here below agree to participate in this research project

Study Title:	The joint effects between management incentives and perceived locus of causality on management earnings forecast disclosures
Researcher's name:	Miss Kanjana Phonsumlissakul
Address:	Department of Accountancy, 2nd Fl., Chaiyos Sombat Bldg.3, Chulalongkorn Business School, Chulalongkorn University, Phayathai Road, Patumwan, Bangkok 10330
Phone no.	089-8236723 E-mail: kanjanakae@hotmail.com

I have **been informed** about rationale and objectives of the project, what I will be engaged with in details, risk/harm and benefit of this project. The researcher has explained to me and I **clearly understand with satisfaction.**

I willingly **agree** to participate in this project and consent the researcher to response to questionnaires. The time for participation is about 20 – 30 minutes.

I have **the right** to withdraw from this research project at any time as I wish with no need to **give any reason**. This withdrawal **will not have any negative impact upon me.**

Researcher has guaranteed that procedure(s) acted upon me would be exactly the same as indicated in the information. Any of my personal information will be **kept confidential.** Results of the study will be reported as total picture. Any of personal information which could be able to identify me will not appear in the report.

If I am not treated as indicated in the information sheet, I can report to the Research Ethics Review Committee for Research Involving Human Research Participants, Health Sciences Group, Chulalongkorn University (RECCU). Jamjuree 1 Bldg., 2nd Fl., 254 Phyathai Rd., Patumwan district, Bangkok 10330, Thailand, Tel./Fax. 0-2218-3202 E-mail: eccu@chula.ac.th.

I also have received a copy of information sheet and informed consent form

Sign ………………….……………	Sign ………………….……………
(Miss Kanjana Phonsumlissakul)	(……………………..………)
Researcher	Participant
	Sign ………………….……………
	(……………………..………)
	Witness

Appendix B: Experimental Materials

ENVELOP 1

INSTRUCTIONS

Thank you for participating in this study. The purpose of this experimental study is to investigate how management makes disclosure decisions to publication based on financial and non-financial information. There are no right or wrong answers to the questions you will be asked in this study.

For the purposes of this study, assume that **you are <u>Mr. (Ms.) A, an executive manager</u>** of a company called "***We Electronics***" or **"*the Company*"**. This study consists of two parts:

Part 1: The company background and the financial information of *We Electronics*.
Part 2: Additional information about *We Electronics*.

After reading both parts, you will be given a question sheet that asks about your opinions and decisions on earnings forecast disclosure and numbers based on the case material. Please bear in mind that the case material does not contain all the information necessary for the decision making. For the purposes of this study, **<u>please base your answers on the information provided.</u>**

Please open the envelope (Envelope 1) and answer the questions in given sequence. If you have any questions, please do not hesitate to ask the researcher. Discussion with other participants is prohibited. Doing so could invalidate the study.

Your answers are very important to this study. Thank you again for your participation.

Kanjana Phonsumlissakul

PhD Student, Department of Accountancy

Chulalongkorn Business School, Chulalongkorn University

Please indicate the time you begin this study…................Assume that today is March 15, 2017

Definition of Management Earnings Forecast

<u>Management earnings forecast</u> is a voluntary managerial disclosure concerned with a firm's expected performance prior to actual performance announcement. Issuance of earnings forecast is voluntary (i.e. not required by law).

PART 1

BACKGROUND INFORMATION

We Electronics Public Company Limited (hereafter, "*We Electronics*" or "the Company") is a leading electronics parts manufacturer and distributor. The core products include circuit boards, electric circuitry, automotive electronics, and electronic instruments. Domestic sales account for 60% of its revenue and the remaining 40% from exports to the European market. *We Electronics'* business has grown steadily over the last five years, and its stocks are traded on the Stock Exchange of Thailand (SET). However, the Company is facing fierce competition from other players in the industry.

We Electronics' Earnings History

Annual Income Statement (partial)	(in million baht, except per share data)		
Year Ended	**2014**	**2015**	**2016**
Net Sales	9,294	11,284	12,449
Gross profit	2,451	3,567	3,914
Net Income	1,574	1,923	2,240
Earnings Per Shares (EPS)	3.60	3.90	4.10

Management Earnings Forecasts of We Electronics

The forecast division has provided you with the earnings forecast information for the first quarter of 2017 (Q1 of 2017) for consideration. The quarterly earnings forecast is estimated based on the financial models that incorporate historical earnings patterns and other information. The financial consultant believes that the estimated earnings for the first quarter of 2017 would be realized at the 95% confidence level. **<u>The expected earnings per share (EPS) for the first quarter of 2017 is 0.90 Baht.</u>** (1 USD = THB 33).

Appendix C: Manipulations

1. Internal Factor and Directive Incentive Condition

PART 2

ADDITIONAL INFORMATION ABOUT WE ELECTRONICS

Management Earnings Forecasts of *We Electronics*

The additional information for the first quarter earnings forecast (Q1 of 2017) is as follows:

	Actual earnings of the last quarter of 2016	**Expected earnings for Q1 of 2017**	**Change**
Earnings Per Share (THB)	1.10	0.90	(0.20)

The company expects the earnings per share (EPS) for the first quarter of 2017 to be ***below*** last quarter's actual earnings, which could **largely be attributed to the company's marketing initiatives**. Our main competitor's new marketing activity plays a negligible role in the Company's earnings expectation.

Analysts' Consensus Forecasts for *We Electronics*

Because of the Company's continuous historical growth and interests from investors, *We Electronics* has attracted a following by certain financial analysts. The analysts have a positive view of the company's growth, and **the analysts' consensus** earnings per share (EPS) forecast for the first quarter of 2017 is **1.10 Baht.**

We Electronics' Disclosure Policy

As you are an executive manager of We Electronics, you have authority to make decisions to disclose management's earnings forecast to publication. However, issuing earnings forecast are not compulsory disclosure, **it is voluntarily disclosed.**

It is of paramount importance that you provide **biased** information by **highlight good news and downplaying bad news in order to maintain or boost the company's stock price.** Furthermore, bear in mind that:

- Earnings forecast is influenced to the company's stock price.
- Your compensations as an executive manager are based on a fixed salary, but bonuses are tied to either net income or stock price. Therefore, your compensations might be affected by management forecast disclosure.

2. External Factor and Directive Incentive Condition

PART 2

ADDITIONAL INFORMATION ABOUT WE ELECTRONICS

Management Earnings Forecasts of *We Electronics*

The additional information for the first quarter earnings forecast (Q1 of 2017) is as follows:

	Actual earnings of the last quarter of 2016	**Expected earnings for Q1 of 2017**	**Change**
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The company expects the earnings per share (EPS) for the first quarter of 2017 to be ***below*** last quarter's actual earnings, which could **largely be attributed to our main competitor's new marketing activity**. Our own marketing initiatives play a negligible role in the Company's earnings expectation.

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- Your compensations as an executive manager are based on a fixed salary, but bonuses are tied to either net income or stock price. Therefore, your compensations might be affected by management forecast disclosure.

3. Internal Factor and Transparency Incentive Condition

PART 2

ADDITIONAL INFORMATION ABOUT WE ELECTRONICS

Management Earnings Forecasts of *We Electronics*

The additional information for the first quarter earnings forecast (Q1 of 2017) is as follows:

	Actual earnings of the last quarter of 2016	**Expected earnings for Q1 of 2017**	**Change**
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Because of the Company's continuous historical growth and interests from investors, *We Electronics* has attracted a following by certain financial analysts. The analysts have a positive view of the company's growth, and **the analysts' consensus** earnings per share (EPS) forecast for the first quarter of 2017 is **1.10 Baht.**

We Electronics' Disclosure Policy

As an executive manager of *We Electronics*, you have the decision-making authority to disclose management's earnings forecast to publication. However, issuing earnings forecast is not compulsory; **it is voluntarily disclosed.**

It is of paramount importance that you provide **unbiased and accurate information in the event of good (favorable) and bad news (unfavorable outcomes) in a transparent fashion** in accordance with good corporate governance. Furthermore, bear in mind that:

- Earnings forecast is useful information for investors to predict the company's future earnings.
- Your compensation as an executive manager is based on a fixed salary and bonuses that are tied neither to net incomes nor stock prices. Therefore, your compensation will not be affected by management forecast disclosure.

4. External Factor and Transparency Incentive Condition

PART 2

ADDITIONAL INFORMATION ABOUT WE ELECTRONICS

Management Earnings Forecasts of *We Electronics*

The additional information for the first quarter earnings forecast (Q1 of 2017) is as follows:

	Actual earnings of the last quarter of 2016	**Expected earnings for Q1 of 2017**	**Change**
Earnings Per Share (THB)	1.10	0.90	(0.20)

The company expects the earnings per share (EPS) for the first quarter of 2017 to be ***below*** last quarter's actual earnings, which could **largely be attributed to our main competitor's new marketing activity**. Our own marketing initiatives play a negligible role in the Company's earnings expectation.

Analysts' Consensus Forecasts for *We Electronics*

Because of the Company's continuous historical growth and interests from investors, *We Electronics* has attracted a following by certain financial analysts. The analysts have a positive view of the company's growth, and **the analysts' consensus** earnings per share (EPS) forecast for the first quarter of 2017 is **1.10 Baht.**

We Electronics' Disclosure Policy

As an executive manager of *We Electronics*, you have the decision-making authority to disclose management's earnings forecast to publication. However, issuing earnings forecast is not compulsory; **it is voluntarily disclosed.**

It is of paramount importance that you provide **unbiased and accurate information in the event of good (favorable) and bad news (unfavorable outcomes) in a transparent fashion** in accordance with good corporate governance. Furthermore, bear in mind that:

- Earnings forecast is useful information for investors to predict the company's future earnings.
- Your compensation as an executive manager is based on a fixed salary and bonuses that are tied neither to net incomes nor stock prices. Therefore, your compensation will not be affected by management forecast disclosure.

QUESTIONS:

Feel free to consult the case material when answering the following questions.
Assume that the date on which you are answering the questions is **March 15, 2017.**

Based on the aforesaid information about We Electronics Public Company Limited, please answer the following questions. (Note: Questions in the subsequent sections also refer to information about *We Electronics*).

As an executive manager of *We Electronics,*

1. You are likely to **"publicly issue management earnings forecast**" for the first quarter of 2017. Please response with slash (/) on the provided line that most describes your though or opinion.

0	1	2	3	4	5	6	7	8	9	10
Not at all Likely										Extremely Likely

If your answer is 0 (not at all likely), please skip questions 2 and 3.

2. Please indicate **"the EPS forecast number"** for the first quarter of 2017 that you are likely to issue to the public…........................Baht.
3. Please indicate **"the range of EPS forecast"** for the first quarter of 2017 that you are likely to issue to the public (e.g., between 0.70 and 1.30 Thai baht).
   Between……Baht (the minimum number) and ……Baht (the maximum number).

Please indicate the time you have completed this study ……………………

You have completed this section.
Please return this page to Envelope 1 and proceed to Envelope 2.

Appendix D: Manipulation Checks

ENVELOPE 2

Please answer following questions based on your understanding of We Electronics.
Please do NOT consult the case material in Envelope 1

1. Based on the case material, what should be emphasized from We Electronics' Disclosure Policy, when making the decision to issue management earnings forecasts? *(please circle one)*
   a. Directive guidance by highlighting good news and downplaying bad news in order to maintain or boost the company's stock price.
   b. Transparent guidance by providing accurate information in the event of both good and bad news to establish operational transparency.
2. Based on the case material, which is the management compensation scheme implemented by We Electronics? *(please circle one)*
   a. Fixed salary and bonuses are tied neither to earnings nor stock prices.
   b. Fixed salary but bonuses are tied to earnings and stock prices.
3. Based on the case material, what is the cause of the earnings forecast number? *(please circle one)*
   a. The company's marketing initiative
   b. The competitor's new marketing activity

3.1 Based on the case material, the earnings forecast number is attributable to *(please circle a number that most describes your opinion)*.

-5 -4 -3 -2 -1 0 1 2 3 4 5

Internal Factor External Factor

4. Based on the case material, what is the forecast horizon of earnings forecast number supplied by the forecast division? *(please circle one)*
   a. Annual b. Quarterly
5. Based on the case material, the recent earnings forecast provided by the forecast division is higher or lower than last quarter's actual earnings. *(please circle one)*
   a. Higher b. Lower
6. Based on the case material, the recent earnings forecast provided by the forecast division is higher or lower than the analysts' consensus forecast. *(please circle one)*
   a. Higher b. Lower
7. Regardless of the number in the case material, as an executive manager of We Electronics, please rank the importance (1 - 3) you attach to the following earnings benchmarks, where 1 denotes most important and 3 least important.
   ______Meet or beat last year's actual earnings
   ______Meet or beat analysts' consensus forecast
   ______Meet or beat own management earnings forecast
8. Assume that you have decided to publicly issue management earnings forecast, you will issue *(please circle one)*
   a) Only earnings per share forecast
   b) Only future earnings potential
   c) Earnings per share forecast and its explanation
   d) Future earnings potential and its explanation

9. As an executive manager of *We Electronics*, **when making the management earnings forecast disclosure decision, what is the degree of consideration on the ramifications associated with the decision** in each of the following statements, where 0 = not at all concerned and 10 = extremely concerned. (Please mark ✓ in the blank that most describes your opinion.

	0	1	2	3	4	5	6	7	8	9	10
1) Management earnings forecast disclosure that is below investors' expectations adversely affects the company's future stock price.											
2) Management earnings forecast disclosure that is below analysts' consensus forecast adversely affects the company's future stock price.											
3) Management earnings forecast disclosure is positive for management's reputation and transparency.											
4) Management earnings forecast non-disclosure due to missed investors' and analysts' expectations is negative for management's reputation and transparency.											
5) Optimistic bias in management earnings forecast disclosure contributes positively to the company's future stock price.											
6) Optimistic bias in management earnings forecast disclosure damages the company's reputation and transparency.											

10. Assume that the earnings per shares (EPS) for the **half year of 2017** is approximately THB 0.90, which is ***below*** the half-year EPS of 2016 and analysts' consensus by **0.20 Baht**, due to the same reasons previously discussed.

10.1 You are likely to **"publicly issue management earning forecast"** for the half year of 2017 Please response with slash (/) on the provided line that most describes your though or opinion.

0 1 2 3 4 5 6 7 8 9 10

Not at all Likely — Extremely Likely

If your answer to question 10.1 is 0 (not at all likely), please skip questions 10.2 and 10.3.

10.2 Please indicate **"the EPS forecast number"** for the half year of 2017 that you are likely to issue to the public…...............……..Baht.

10.3 Please indicate **"the range of EPS forecast"** for the half year of 2017 that you are likely to issue to the public (e.g., between 0.70 and 1.30 Thai baht).

Between……Baht (the minimum number) and ……Baht (the maximum number).

You have completed this section.
Please return this page to Envelope 2 and proceed to Envelope 3.

Appendix E: Demographic and Post Experimental Questions

ENVELOPE 3

The next section contains general questions about your personal information. All responses will remain confidential.

Please mark ✓ in the ☐ or fill in the blank.

1. Gender ☐ Female ☐ Male
2. Age ___________years old
3. Years of total work experience (including part-time jobs)

   _____________years
4. Have you ever worked in the following capacity? If yes, please fill in the number of years. If no, *please mark "X"*.

Corporate finance	_____years
Corporate accounting/Auditor	_____years
Engineering, operations, or other technical position	_____years
Government officer related to accounting	_____years
Government officer unrelated to accounting	_____years
Management	_____years
Other (please specify)_________________________	_____years

5. The highest work title in your previous (current) company_______________
6. Your undergraduate background

   ☐ Accounting ☐ Finance/Banking ☐ Marketing

   ☐ Engineering ☐ Other (please specify)___________________________
7. Numbers of undergraduate and graduate finance, accounting, and strategy courses you have taken, including those in which that you are currently enrolling

   Financial accounting________________ Management accounting______________

   Financing_________________________ Management strategy________________
8. Have you ever invested in the common stock of a company? *(Investment in the common stock traded in a securities exchange only)* ☐ Yes ☐ No

   If yes, please answer the following questions.

   8.1 Approximately how many times (total number of buy and sell transactions) have you invested directly in the stock market (not through an LTF or mutual fund)?________times.

   8.2 Approximately how many years of experience do you have of investing directly in the common stock of a company?______________years_____________months

<u>Visualize a company in general.</u> Please mark ✓ in the blank that most describes your opinion. **<u>Do NOT refer to *We Electronics*</u>**.

0 = Strongly disagree 10 = Strongly agree

I am of the view that:	0	1	2	3	4	5	6	7	8	9	10
1) Accurate management earnings forecast disclosure <u>reflects management's ability</u> to communicate relevant information to the capital market.											
2) Management earnings forecast disclosure <u>affects the investment decisions of potential investors.</u>											
3) Accurate management earnings forecast disclosure <u>contributes positively to management's reputation and credibility</u>.											
4) Neglecting (abstaining) management earnings forecast disclosure <u>adversely affects management's reputation and transparency</u>.											
5) Management earnings forecast disclosure <u>influences analysts' earnings forecast adjustments</u>.											
6) Higher or lower actual earnings disclosure relative to analysts' earnings forecast <u>affects the company's stock price.</u>											
7) Higher or lower management earnings forecast disclosure vis-à-vis the actual earnings numbers <u>affects the company's stock price.</u>											
8) Management is able to bias earnings forecast numbers to <u>meet or beat market expectations</u>.											

THANK YOU FOR PATICIPATING IN THE STUDY

Appendix F: Results of Knowledge Test

In order to test whether participants have sufficient knowledge to complete the experimental task. Participants were tested by eight post experimental questions to measure participant's understanding the antecedents and consequences of issuing management earnings forecast. These questions are modified from (Wang and Tan, 2013). Participants were asked to indicate their assessments of questions on 11-point Likert scale rating from 0 (not at all) to 10 (extremely agree). If all mean responses are significantly above mid-point of 5, it can be indicated that participants understand the impact of issuing management earnings forecast. These questions are as follows:

1. Accurate management earnings forecast disclosure reflects management's ability to communicate relevant information to the capital market (mean = 7.58, p = 0.00).

2) Management earnings forecast disclosure affects the investment decisions of potential investors (mean = 8.83, p = 0.00).

3) Accurate management earnings forecast disclosure contributes positively to management's reputation and credibility (mean = 8.24, p = 0.00).

4) Neglecting (abstaining) management earnings forecast disclosure adversely affects management's reputation and transparency (mean = 7.60, p = 0.00).

5) Management earnings forecast disclosure influences analysts' earnings forecast adjustments (mean = 7.97, p = 0.00).

6) Higher or lower actual earnings disclosure relative to analysts' earnings forecast affects the company's stock price (mean = 8.39, p = 0.00).

7) Higher or lower management earnings forecast disclosure vis-à-vis the actual earnings numbers affects the company's stock price (mean = 8.31, p = 0.00).

8) Management is able to bias earnings forecast numbers to meet or beat market expectations (mean = 7.18, p = 0.00).

Appendix G: Experimental Instrument (Thai Version)

หนังสือแสดงความยินยอมเข้าร่วมการวิจัย

ทำที่...

วันที่.............เดือน.....................พ.ศ. ....

เลขที่ ประชากรตัวอย่างหรือผู้มีส่วนร่วมในการวิจัย..

ข้าพเจ้า ซึ่งได้ลงนามท้ายหนังสือนี้ ขอแสดงความยินยอมเข้าร่วมโครงการวิจัย

ชื่อโครงการวิจัย ผลกระทบร่วมระหว่างแรงจูงใจของผู้บริหารและสาเหตุที่รับรู้ที่มีต่อการเปิดเผยข้อมูลประมาณการกำไรของฝ่ายบริหาร

ชื่อผู้วิจัย นางสาวกาญจนา พรสัมฤทธิสกุล

ที่อยู่ที่ติดต่อ ภาควิชาการบัญชี คณะพาณิชยศาสตร์และการบัญชี ชั้น2 อาคารไชยยศสมบัติ 3 จุฬาลงกรณ์มหาวิทยาลัย ถนนพญาไท แขวงวังใหม่ เขตปทุมวัน กทม. 10330

เบอร์โทรศัพท์ 089-823-6723 E-mail kanjanakae@hotmail.com

ข้าพเจ้า **ได้รับทราบ**รายละเอียดเกี่ยวกับที่มาและวัตถุประสงค์ในการทำวิจัย รายละเอียดขั้นตอนต่างๆ ที่จะต้องปฏิบัติหรือได้รับการปฏิบัติ ความเสี่ยง/อันตราย และประโยชน์ซึ่งจะเกิดขึ้นจากการวิจัยเรื่องนี้ โดยได้อ่านรายละเอียดในเอกสารชี้แจงผู้เข้าร่วมการวิจัยโดยตลอด และ**ได้รับคำอธิบาย**จากผู้วิจัย **จนเข้าใจเป็นอย่างดี**แล้ว

ข้าพเจ้าจึง**สมัครใจ**เข้าร่วมในโครงการวิจัยนี้ ตามที่ระบุไว้ในเอกสารชี้แจงผู้เข้าร่วมการวิจัย โดยข้าพเจ้ายินยอมเข้าร่วมการวิจัย และตอบแบบสอบถาม ระยะเวลาในการทดลองและตอบแบบสอบถามใช้เวลาทั้งหมดโดยประมาณ 20-30 นาที

ข้าพเจ้ามีสิทธิ**ถอนตัว**ออกจากการวิจัยเมื่อใดก็ได้ตามความประสงค์ **โดยไม่ต้องแจ้งเหตุผล** ซึ่งการถอนตัวออกจากการวิจัยนั้น จะไม่มีผลกระทบต่อการเรียนของข้าพเจ้าทั้งสิ้น

ข้าพเจ้าได้รับคำรับรองว่า ผู้วิจัยจะปฏิบัติต่อข้าพเจ้าตามข้อมูลที่ระบุไว้ในเอกสารชี้แจงผู้เข้าร่วมการวิจัย และข้อมูลใดๆ ที่เกี่ยวข้องกับข้าพเจ้า ผู้วิจัยจะ**เก็บรักษาเป็นความลับ** โดยจะนำเสนอข้อมูลการวิจัยเป็นภาพรวมเท่านั้น ไม่มีข้อมูลใดในการรายงานที่จะนำไปสู่การระบุตัวข้าพเจ้า

หากข้าพเจ้าไม่ได้รับการปฏิบัติตรงตามที่ได้ระบุไว้ในเอกสารชี้แจงผู้เข้าร่วมการวิจัย ข้าพเจ้าสามารถร้องเรียนได้ที่คณะกรรมการพิจารณาจริยธรรมการวิจัยในคน กลุ่มสหสถาบัน ชุดที่ 1 จุฬาลงกรณ์มหาวิทยาลัย 254 อาคารจามจุรี 1 ชั้น 2 ถนนพญาไท เขตปทุมวัน กรุงเทพฯ 10330 โทรศัพท์/โทรสาร 0-2218-3202 **E-mail: eccu@chula.ac.th**

ข้าพเจ้าได้ลงลายมือชื่อไว้เป็นสำคัญต่อหน้าพยาน ทั้งนี้ข้าพเจ้าได้รับสำเนาเอกสารชี้แจงผู้เข้าร่วมการวิจัย และสำเนาหนังสือแสดงความยินยอมไว้แล้ว

ลงชื่อ..	ลงชื่อ..
(นางสาวกาญจนา พรสัมฤทธิสกุล)	(..)
ผู้วิจัยหลัก	ผู้มีส่วนร่วมในการวิจัย
	ลงชื่อ..
	(..)
	พยาน

เอกสารที่ชุดที่ 1 เลขที่.......................

ซองคำถามที่ 1

คำแนะนำ

ขอขอบคุณสำหรับการเข้าร่วมการวิจัยในครั้งนี้ งานวิจัยนี้เป็นงานวิจัยเชิงทดลอง โดยมีวัตถุประสงค์เพื่อศึกษาว่าผู้บริหารจะตัดสินใจเปิดเผยข้อมูลของบริษัทต่อสาธารณชนอย่างไร จากข้อมูลทางการเงินและไม่ใช่ข้อมูลทางการเงินที่จัดเตรียมให้ ซึ่งจะไม่มีคำตอบที่ถูกหรือผิดแต่อย่างใด

เพื่อให้เป็นไปตามวัตถุประสงค์ของงานวิจัย **สมมติให้ท่านคือ นาย (นางสาว) เอ ซึ่งเป็น "ผู้บริหารระดับสูง"** ของบริษัท วี อิเล็คทรอนิคส์ จำกัด (มหาชน) ซึ่งในการศึกษาครั้งนี้จะเรียกว่า ***"วี อิเล็คทรอนิคส์"*** หรือ ***"บริษัท"*** โดยการศึกษาประกอบไปด้วย 2 ส่วนคือ

ส่วนที่ 1 ประกอบไปด้วยข้อมูลทั่วไป และข้อมูลทางการเงินของบริษัท วี อิเล็คทรอนิคส์ จำกัด (มหาชน)
ส่วนที่ 2 ประกอบด้วย ข้อมูลเพิ่มเติมเกี่ยวกับ วี อิเล็คทรอนิคส์

หลังจากจบส่วนที่ 2 ท่านจะได้รับคำถามโดยให้แสดงความเห็นเกี่ยวกับ วี อิเล็คทรอนิคส์ โดยข้อมูลในกรณีศึกษาที่ท่านจะได้รับ ไม่ได้รวบรวมข้อมูลทั้งหมดที่ท่านอาจต้องใช้ในการตัดสินใจของท่าน อย่างไรก็ตาม เพื่อให้เป็นไปตามวัตถุประสงค์ของการวิจัยในครั้งนี้ **กรุณาแสดงความคิดเห็นของท่านจากข้อมูลที่ได้จัดเตรียมให้**

กรุณาเปิดซองคำถามและตอบคำถามเรียงตามลำดับ หากท่านมีคำถามใด ๆ ระหว่างการทำการทดลอง ให้ซักถามผู้ทำการวิจัยได้ทันที แต่อย่างไรก็ตาม กรุณาอย่าปรึกษาผู้เข้าร่วมการวิจัยท่านอื่น ซึ่งการปรึกษากับผู้เข้าร่วมการวิจัยท่านอื่นจะทำให้ผลการศึกษาครั้งนี้ผิดพลาดไป

คำตอบของท่านมีความสำคัญเป็นอย่างยิ่งในงานวิจัยครั้งนี้ ขอขอบคุณอีกครั้งในการเข้าร่วมการวิจัย

น.ส.กาญจนา พรสัมฤทธิสกุล
นิสิตปริญญาเอก ภาควิชาการบัญชี
คณะพาณิชยศาสตร์และการบัญชี จุฬาลงกรณ์มหาวิทยาลัย

กรุณาระบุเวลาที่เริ่มทำ.................................สมมติว่า วันนี้คือวันที่ <u>15 มีนาคม 2560</u>

คำนิยามที่ใช้ในงานวิจัย

<u>ประมาณการกำไรจากฝ่ายบริหาร</u> (Management Earnings Forecasts) คือ การเปิดเผยข้อมูลทางการเงินเพื่อใช้คาดการณ์ผลการดำเนินงานในอนาคตก่อนวันที่บริษัทประกาศผลการดำเนินงานจริง อย่างไรก็ตาม การเปิดเผยข้อมูลการประมาณการกำไรจากฝ่ายบริหารเป็นการเปิดเผยโดยสมัครใจ ไม่ได้บังคับตามกฎหมาย

ส่วนที่ 1

ข้อมูลทั่วไป

บริษัท วี อิเล็คทรอนิคส์ จำกัด (มหาชน) (“บริษัท” หรือ“วี อิเล็คทรอนิคส์”) เป็นผู้นำในธุรกิจชิ้นส่วนอิเล็คทรอนิคส์ โดยธุรกิจหลักประกอบด้วยการผลิตและการจัดจำหน่ายแผงวงจรอิเล็คทรอนิคส์ วงจรไฟฟ้า วงจรอิเล็คทรอนิคส์รถยนต์ และอุปกรณ์อิเล็คทรอนิคส์ต่าง ๆ รายได้ของบริษัทประกอบด้วยการขายสินค้าในประเทศในสัดส่วนร้อยละ 60 ส่วนอีกร้อยละ 40 มาจากการส่งออกสินค้าไปยังตลาดยุโรป ธุรกิจของบริษัทมีความเจริญเติบโตอย่างรวดเร็วใน 5 ปีที่ผ่านมา และหุ้นของบริษัทก็ได้รับความสนใจจากนักลงทุนในการทำการซื้อขายอย่างแพร่หลายในตลาดหลักทรัพย์แห่งประเทศไทย อย่างไรก็ตาม บริษัทกำลังประสบกับภาวะการแข่งขันที่รุนแรงในอุตสาหกรรม

ผลการดำเนินงานในอดีตของวี อิเล็คทรอนิคส์

กำไร (ขาดทุน) สำหรับปี (บางส่วน)	(หน่วย: ล้านบาท ยกเว้นข้อมูลต่อหุ้น)		
รอบระยะเวลาบัญชี	**2557**	**2558**	**2559**
รายได้สุทธิ	9,294	11,284	12,449
กำไรขั้นต้น	2,451	3,567	3,914
กำไรสุทธิ	1,574	1,923	2,240
กำไรต่อหุ้น (บาท)	3.60	3.90	4.10

ประมาณการกำไรของวี อิเล็คทรอนิคส์

ฝ่ายงบประมาณได้จัดเตรียมข้อมูลตัวเลขประมาณการกำไรสำหรับไตรมาสที่ 1 ของปี 2560 ให้ท่านพิจารณา ซึ่งตัวเลขประมาณการกำไรรายไตรมาสจัดทำขึ้นจากตัวแบบทางเงินโดยมีสมมติฐานจากแนวโน้มกำไรในอดีตประกอบกับข้อมูลอื่น ๆ โดยที่ปรึกษาทางการเงินมีความเชื่อมั่นที่ร้อยละ 95 **<u>คาดว่าประมาณการกำไรต่อหุ้น (EPS) สำหรับไตรมาสที่ 1 ของปี 2560 เท่ากับ 0.90 บาท</u>**

1. ปัจจัยภายในและแรงจูงใจของผู้บริหารที่คำนึงถึงความคาดหวังของตลาด

ส่วนที่ 2

ข้อมูลเพิ่มเติมของ วี อิเล็คทรอนิคส์

ประมาณการกำไรของวี อิเล็คทรอนิคส์

ข้อมูลเพิ่มเติมสำหรับประมาณกำไรในไตรมาสที่ 1 ของบริษัท สรุปได้ดังต่อไปนี้

	กำไรที่เกิดขึ้นจริง ไตรมาสที่ 4 ของปี 2559	**ประมาณการกำไร ไตรมาส 1 ของปี 2560**	**เปลี่ยนแปลง เพิ่มขึ้น (ลดลง)**
กำไรต่อหุ้น (บาท)	1.10	0.90	(0.20)

บริษัทคาดการณ์ว่า ประมาณการกำไรต่อหุ้นไตรมาสที่ 1 ของปี 2560 ***ต่ำกว่า*** กำไรต่อหุ้นที่เกิดขึ้นจริงในไตรมาสก่อน โดยมี**สาเหตุหลัก**มาจากการใช้**แผนการตลาดใหม่ของบริษัท** ถึงแม้ว่าคู่แข่งจะมีการปรับแผนการตลาดใหม่ด้วย แต่ก็ส่งผลกระทบเพียงเล็กน้อยต่อการคาดการณ์กำไรของบริษัท

ความคาดหมายของนักวิเคราะห์หลักทรัพย์ต่อวี อิเล็คทรอนิคส์

เนื่องจากบริษัทมีอัตราการเจริญเติบโตอย่างต่อเนื่องในอดีต และได้รับความสนใจจากนักลงทุนตลอดมา จึงทำให้มีนักวิเคราะห์หลักทรัพย์ให้ความสนใจและติดตามเป็นจำนวนหนึ่ง โดยความเห็นของนักวิเคราะห์หลักทรัพย์ยังคงมองแนวโน้มการเติบโตของบริษัทเป็นไปในทิศทางบวก ดังนั้น **ความเห็นของนักวิเคราะห์หลักทรัพย์โดยรวม** (Analyst Consensus) ต่อกำไรต่อหุ้น (EPS) ของบริษัทสำหรับไตรมาสที่ 1 ของปี 2560 อยู่ที่ **1.10 บาทต่อหุ้น**

นโยบายในการเปิดเผยข้อมูลของวี อิเล็คทรอนิคส์

ในฐานะที่ท่านเป็นผู้บริหารระดับสูงของบริษัท และเป็นผู้มีอำนาจในการตัดสินใจเปิดเผยข้อมูลประมาณการกำไรจากฝ่ายบริหารของบริษัทต่อสาธารณชน อย่างไรก็ตามกฎหมายไม่ได้บังคับให้บริษัทต้องเปิดเผยข้อมูลดังกล่าว ดังนั้น **การเปิดเผยประมาณการกำไรของท่านเป็นการเปิดเผยด้วยความสมัครใจ**

สิ่งสำคัญคือ ท่าน**ไม่ควร**ให้ข้อมูลอย่างตรงไปตรงมา แต่**เน้นให้ข้อมูลที่เป็นข่าวดีมากกว่าข่าวร้าย เพื่อประโยชน์ต่อราคาหุ้นของบริษัท** นอกจากนี้

- ข้อมูลประมาณการกำไรเป็นข้อมูลที่อาจส่งผลกระทบต่อราคาหุ้นของบริษัทได้
- ผลตอบแทนของท่านในฐานะผู้บริหาร ได้แก่ เงินเดือน ที่กำหนดในอัตราคงที่ แต่โบนัสจะขึ้นอยู่กับผลกำไรสุทธิหรือราคาหุ้นของบริษัท ดังนั้น การเปิดเผยประมาณการกำไรของบริษัท อาจส่งผลกระทบต่อผลตอบแทนของท่าน

2. ปัจจัยภายนอกและแรงจูงใจของผู้บริหารที่คำนึงถึงความคาดหวังของตลาด

ส่วนที่ 2

ข้อมูลเพิ่มเติมของ วี อิเล็คทรอนิคส์

ประมาณการกำไรของวี อิเล็คทรอนิคส์

ข้อมูลเพิ่มเติมสำหรับประมาณกำไรในไตรมาสที่ 1 ของบริษัท สรุปได้ดังต่อไปนี้

	กำไรที่เกิดขึ้นจริง ไตรมาสที่ 4 ของปี 2559	**ประมาณการกำไร ไตรมาส 1 ของปี 2560**	**เปลี่ยนแปลง เพิ่มขึ้น (ลดลง)**
กำไรต่อหุ้น (บาท)	1.10	0.90	(0.20)

บริษัทคาดการณ์ว่า ประมาณการกำไรต่อหุ้นไตรมาสที่ 1 ของปี 2560 ***<u>ต่ำกว่า</u>*** กำไรต่อหุ้นที่เกิดขึ้นจริงในไตรมาสก่อน โดยมี**<u>สาเหตุหลัก</u>**มาจากการปรับ**<u>แผนการตลาดใหม่ของคู่แข่ง</u>** ถึงแม้ว่าบริษัทจะมีการใช้แผนการตลาดใหม่ด้วย แต่ก็ส่งผลกระทบเพียงเล็กน้อยต่อการคาดการณ์กำไรของบริษัท

ความคาดหมายของนักวิเคราะห์หลักทรัพย์ต่อวี อิเล็คทรอนิคส์

เนื่องจากบริษัทมีอัตราการเจริญเติบโตอย่างต่อเนื่องในอดีต และได้รับความสนใจจากนักลงทุนตลอดมา จึงทำให้มีนักวิเคราะห์หลักทรัพย์ให้ความสนใจและติดตามเป็นจำนวนหนึ่ง โดยความเห็นของนักวิเคราะห์หลักทรัพย์ยังคงมองแนวโน้มการเติบโตของบริษัทเป็นไปในทิศทางบวก ดังนั้น **<u>ความเห็นของนักวิเคราะห์หลักทรัพย์โดยรวม</u>** (Analyst Consensus) ต่อกำไรต่อหุ้น (EPS) ของบริษัทสำหรับไตรมาสที่ 1 ของปี 2560 อยู่ที่ **<u>1.10 บาทต่อหุ้น</u>**

นโยบายในการเปิดเผยข้อมูลของวี อิเล็คทรอนิคส์

ในฐานะที่ท่านเป็นผู้บริหารระดับสูงของบริษัท และเป็นผู้มีอำนาจในการตัดสินใจเปิดเผยข้อมูลประมาณการกำไรจากฝ่ายบริหารของบริษัทต่อสาธารณชน อย่างไรก็ตามกฎหมายไม่ได้บังคับให้บริษัทต้องเปิดเผยข้อมูลดังกล่าว ดังนั้น **<u>การเปิดเผยประมาณการกำไรของท่านเป็นการเปิดเผยด้วยความสมัครใจ</u>**

สิ่งสำคัญคือ ท่าน**<u>ไม่ควร</u>**ให้ข้อมูลอย่างตรงไปตรงมา แต่**<u>เน้นให้ข้อมูลที่เป็นข่าวดีมากกว่าข่าวร้าย เพื่อประโยชน์ต่อราคาหุ้นของบริษัท</u>** นอกจากนี้

- ข้อมูลประมาณการกำไรเป็น<u>ข้อมูลที่อาจส่งผลกระทบต่อราคาหุ้น</u>ของบริษัทได้
- ผลตอบแทนของท่านในฐานะผู้บริหาร ได้แก่ <u>เงินเดือน ที่กำหนดในอัตราคงที่ แต่โบนัสจะขึ้นอยู่กับผลกำไรสุทธิหรือราคาหุ้น</u>ของบริษัท ดังนั้น การเปิดเผยประมาณการกำไรของบริษัท<u> อาจส่งผลกระทบต่อผลตอบแทนของท่าน</u>

3. ปัจจัยภายในและแรงจูงใจของผู้บริหารที่คำนึงถึงความโปร่งใสในการดำเนินงาน

ส่วนที่ 2

ข้อมูลเพิ่มเติมของ วี อิเล็คทรอนิคส์

ประมาณการกำไรของวี อิเล็คทรอนิคส์

ข้อมูลเพิ่มเติมสำหรับประมาณกำไรในไตรมาสที่ 1 ของบริษัท สรุปได้ดังต่อไปนี้

	กำไรที่เกิดขึ้นจริง ไตรมาสที่ 4 ของปี 2559	**ประมาณการกำไร ไตรมาส 1 ของปี 2560**	**เปลี่ยนแปลง เพิ่มขึ้น (ลดลง)**
กำไรต่อหุ้น (บาท)	1.10	0.90	(0.20)

บริษัทคาดการณ์ว่า ประมาณการกำไรต่อหุ้นไตรมาสที่ 1 ของปี 2560 ***ต่ำกว่า*** กำไรต่อหุ้นที่เกิดขึ้นจริงในไตรมาสก่อน โดยมี**สาเหตุหลัก**มาจากการใช้**แผนการตลาดใหม่ของบริษัท** ถึงแม้ว่าคู่แข่งจะมีการปรับแผนการตลาดใหม่ด้วย แต่ก็ส่งผลกระทบเพียงเล็กน้อยต่อการคาดการณ์กำไรของบริษัท

ความคาดหมายของนักวิเคราะห์หลักทรัพย์ต่อวี อิเล็คทรอนิคส์

เนื่องจากบริษัทมีอัตราการเจริญเติบโตอย่างต่อเนื่องในอดีต และได้รับความสนใจจากนักลงทุนตลอดมา จึงทำให้มีนักวิเคราะห์หลักทรัพย์ให้ความสนใจและติดตามเป็นจำนวนหนึ่ง โดยความเห็นของนักวิเคราะห์หลักทรัพย์ยังคงมองแนวโน้มการเติบโตของบริษัทเป็นไปในทิศทางบวก ดังนั้น **ความเห็นของนักวิเคราะห์หลักทรัพย์โดยรวม** (Analyst Consensus) ต่อกำไรต่อหุ้น (EPS) ของบริษัทสำหรับไตรมาสที่ 1 ของปี 2560 อยู่ที่ **1.10 บาทต่อหุ้น**

นโยบายในการเปิดเผยข้อมูลของวี อิเล็คทรอนิคส์

ในฐานะที่ท่านเป็นผู้บริหารระดับสูงของบริษัท และเป็นผู้มีอำนาจในการตัดสินใจเปิดเผยข้อมูลประมาณการกำไรจากฝ่ายบริหารของบริษัทต่อสาธารณชน อย่างไรก็ตามกฎหมายไม่ได้บังคับให้บริษัทต้องเปิดเผยข้อมูลดังกล่าว ดังนั้น **การเปิดเผยประมาณการกำไรของท่านเป็นการเปิดเผยด้วยความสมัครใจ**

สิ่งสำคัญคือ ท่าน**ควร**ให้ข้อมูลอย่างตรงไปตรงมา โดย**เน้นให้ข้อมูลที่มีความถูกต้องทั้งข่าวดีและข่าวร้ายเพื่อสร้างความโปร่งใสในการดำเนินงาน** ตามหลักการกำกับดูแลกิจการที่ดี นอกจากนี้

- ข้อมูลประมาณการกำไรเป็นข้อมูลที่เป็นประโยชน์ต่อนักลงทุนในการคาดการณ์กำไรในอนาคตของบริษัท
- ผลตอบแทนของท่านในฐานะผู้บริหาร ได้แก่ เงินเดือน ที่กำหนดในอัตราคงที่ และโบนัสซึ่งไม่ได้ขึ้นอยู่กับผลกำไรสุทธิหรือราคาหุ้นของบริษัท ดังนั้น การเปิดเผยประมาณการกำไรของบริษัทจะไม่ส่งผลกระทบต่อผลตอบแทนของท่านแต่อย่างใด

4. ปัจจัยภายนอกและแรงจูงใจของผู้บริหารที่คำนึงถึงความโปร่งใสในการดำเนินงาน

ส่วนที่ 2

ข้อมูลเพิ่มเติมของ วี อิเล็คทรอนิคส์

ประมาณการกำไรของวี อิเล็คทรอนิคส์

ข้อมูลเพิ่มเติมสำหรับประมาณกำไรในไตรมาสที่ 1 ของบริษัท สรุปได้ดังต่อไปนี้

	กำไรที่เกิดขึ้นจริง ไตรมาสที่ 4 ของปี 2559	**ประมาณการกำไร ไตรมาส 1 ของปี 2560**	**เปลี่ยนแปลง เพิ่มขึ้น (ลดลง)**
กำไรต่อหุ้น (บาท)	1.10	0.90	(0.20)

บริษัทคาดการณ์ว่า ประมาณการกำไรต่อหุ้นไตรมาสที่ 1 ของปี 2560 ***ต่ำกว่า*** กำไรต่อหุ้นที่เกิดขึ้นจริงในไตรมาสก่อน โดยมี**สาเหตุหลัก**มาจากการปรับ**แผนการตลาดใหม่ของคู่แข่ง** ถึงแม้ว่าบริษัทจะมีการใช้แผนการตลาดใหม่ด้วย แต่ก็ส่งผลกระทบเพียงเล็กน้อยต่อการคาดการณ์กำไรของบริษัท

ความคาดหมายของนักวิเคราะห์หลักทรัพย์ต่อวี อิเล็คทรอนิคส์

เนื่องจากบริษัทมีอัตราการเจริญเติบโตอย่างต่อเนื่องในอดีต และได้รับความสนใจจากนักลงทุนตลอดมา จึงทำให้มีนักวิเคราะห์หลักทรัพย์ให้ความสนใจและติดตามเป็นจำนวนหนึ่ง โดยความเห็นของนักวิเคราะห์หลักทรัพย์ยังคงมองแนวโน้มการเติบโตของบริษัทเป็นไปในทิศทางบวก ดังนั้น **ความเห็นของนักวิเคราะห์หลักทรัพย์โดยรวม** (Analyst Consensus) ต่อกำไรต่อหุ้น (EPS) ของบริษัทสำหรับไตรมาสที่ 1 ของปี 2560 อยู่ที่ **1.10 บาทต่อหุ้น**

นโยบายในการเปิดเผยข้อมูลของวี อิเล็คทรอนิคส์

ในฐานะที่ท่านเป็นผู้บริหารระดับสูงของบริษัท และเป็นผู้มีอำนาจในการตัดสินใจเปิดเผยข้อมูลประมาณการกำไรจากฝ่ายบริหารของบริษัทต่อสาธารณชน อย่างไรก็ตามกฎหมายไม่ได้บังคับให้บริษัทต้องเปิดเผยข้อมูลดังกล่าว ดังนั้น **การเปิดเผยประมาณการกำไรของท่านเป็นการเปิดเผยด้วยความสมัครใจ**

สิ่งสำคัญคือ ท่าน**ควร**ให้ข้อมูลอย่างตรงไปตรงมา โดย**เน้นข้อมูลที่มีความถูกต้องทั้งข่าวดีและข่าวร้ายเพื่อสร้างความโปร่งใสในการดำเนินงาน** ตามหลักการกำกับดูแลกิจการที่ดี นอกจากนี้

- ข้อมูลประมาณการกำไรเป็นข้อมูลที่เป็นประโยชน์ต่อนักลงทุนในการคาดการณ์กำไรในอนาคตของบริษัท
- ผลตอบแทนของท่านในฐานะผู้บริหาร ได้แก่ เงินเดือน ที่กำหนดในอัตราคงที่ และโบนัสซึ่งไม่ได้ขึ้นอยู่กับผลกำไรสุทธิหรือราคาหุ้นของบริษัท ดังนั้น การเปิดเผยประมาณการกำไรของบริษัทจะไม่ส่งผลกระทบต่อผลตอบแทนของท่านแต่อย่างใด

คำถาม: ส่วนที่ 2

ท่านสามารถย้อนกลับไปดูข้อมูลในกรณีศึกษาได้ทุกเมื่อเพื่อตอบคำถามด้านล่างนี้

สมมติว่า วันที่ท่านตอบคำถามคือวันที่ **15 มีนาคม 2560**

จากข้อมูลของบริษัท วี อิเล็คทรอนิคส์ จำกัด (มหาชน) ข้างต้น กรุณาตอบคำถามดังต่อไปนี้ (เมื่อท่านตอบคำถามในส่วนนี้เสร็จ ท่านอาจจะต้องอ้างอิงถึงข้อมูลที่กำหนดให้ข้างต้นเพื่อตอบคำถามในส่วนถัดไป)

ในฐานะที่ท่านเป็นนาย (นางสาว) เอ ซึ่งเป็นผู้บริหารระดับสูงของวี อิเล็คทรอนิคส์

1. ท่านยินดีที่จะ "**เปิดเผยข้อมูลประมาณการกำไร**" สำหรับไตรมาสที่ 1 ของปี 2560 ต่อสาธารณชนในระดับใด (กรุณาขีดเส้นตรง (|) ลงไปที่เส้นวัดด้านล่างนี้ ที่ตรงกับความรู้สึกหรือความคิดเห็นของท่านมากที่สุด)

0	1	2	3	4	5	6	7	8	9	10
เป็นไปไม่ได้อย่างแน่นอน					ปานกลาง					เป็นไปได้อย่างแน่นอน

หากท่าน**เลือก 0** ในข้อ 1 (เป็นไปไม่ได้อย่างแน่นอน) ท่าน**ไม่ต้อง**ตอบคำถามในข้อ 2 และ 3

2. กรุณาระบุ "**ตัวเลขประมาณการกำไรต่อหุ้น**" สำหรับไตรมาสที่ 1 ของปี 2560 ที่ท่านยินดีที่จะเปิดเผยต่อสาธารณชน..บาท

3. กรุณาระบุ "**ช่วงต่ำที่สุดและสูงที่สุดของตัวเลขประมาณการกำไรต่อหุ้น**" สำหรับไตรมาสที่ 1 ของปี 2560 ที่ท่านยินดีที่จะเปิดเผยต่อสาธารณชน (เช่น ระหว่าง 0.70 บาท ถึง 1.30 บาท เป็นต้น) ช่วงระหว่าง...........................บาท (ตัวเลขต่ำที่สุด) ถึง.............................บาท (ตัวเลขสูงที่สุด)

กรุณาระบุเวลาที่ทำเสร็จ...

เมื่อท่านตอบคำถามในส่วนนี้เสร็จเรียบร้อยแล้ว กรุณานำเอกสารชุดนี้ใส่ซองที่ 1 และเปิดซองคำถามที่ 2 ต่อไป

ซองคำถามที่ 2

<u>กรุณาตอบคำถามดังต่อไปนี้ตามความเข้าใจของท่านเกี่ยวกับข้อมูลของ วี อิเล็คทรอนิคส์</u>
กรุณา<u>อย่าย้อนกลับไปเปิดดูข้อมูลและคำตอบในซองที่ 1</u>

1. จากข้อมูลที่กำหนดให้ สิ่งที่นาย (นางสาว) เอ ในฐานะผู้บริหารระดับสูง **<u>สิ่งที่ท่านต้องให้ความสำคัญจาก นโยบายในการเปิดเผยข้อมูลของวี อิเล็คทรอนิคส์</u>** ในการตัดสินใจเปิดเผยประมาณการกำไรของท่าน คือข้อใด *(กรุณาวงกลมเลือกหนึ่งข้อ)*
   ก. <u>เน้นให้ข่าวดีมากกว่าข่าวร้าย</u> เพื่อประโยชน์ต่อราคาหุ้นของบริษัท
   ข. <u>เน้นให้ข้อมูลที่มีความถูกต้องทั้งข่าวดีและข่าวร้าย</u> เพื่อสร้างความโปร่งใสในการดำเนินงาน
2. จากข้อมูลที่กำหนดให้ <u>ผลตอบแทนที่ผู้บริหารระดับสูงได้รับ</u> คือข้อใด *(กรุณาวงกลมเลือกหนึ่งข้อ)*
   ก. เงินเดือนกำหนดในอัตราคงที่ และ<u>โบนัสไม่ได้ขึ้นอยู่กับผลกำไรสุทธิหรือราคาหุ้น</u>ของบริษัท
   ข. เงินเดือนกำหนดในอัตราคงที่ <u>แต่โบนัสขึ้นอยู่กับผลกำไรสุทธิหรือราคาหุ้น</u>ของบริษัท
3. จากข้อมูลที่กำหนดให้ การคาดการณ์กำไรในอนาคตของบริษัทเกิดจากข้อใด *(กรุณาวงกลมเลือกหนึ่งข้อ)*
   ก. แผนการตลาดใหม่ของบริษัท ข. แผนการตลาดใหม่ของคู่แข่ง

3.1 จากข้อมูลที่กำหนดให้ การคาดการณ์กำไรในอนาคตของบริษัทเกิดจาก**<u>สาเหตุหลัก</u>**ใด *(กรุณาวงกลมเลือกข้อที่ตรงกับความรู้สึกหรือความคิดเห็นของท่านมากที่สุดหนึ่งข้อ)*

-5 -4 -3 -2 -1 0 1 2 3 4 5

ปัจจัยจากการดำเนินงานภายในบริษัท | เป็นกลาง | ปัจจัยจากสภาพแวดล้อมภายนอกบริษัท

4. จากข้อมูลที่กำหนดให้ <u>ประเภทของประมาณการกำไรต่อหุ้น</u> ที่จัดเตรียมโดยฝ่ายงบประมาณของบริษัทคือข้อใด *(กรุณาวงกลมเลือกหนึ่งข้อ)*
   ก. รายปี ข. รายไตรมาส
5. จากข้อมูลที่กำหนดให้ ประมาณการกำไรต่อหุ้นที่จัดเตรียมโดยฝ่ายงบประมาณของบริษัท <u>สูงหรือต่ำกว่ากำไรสุทธิต่อหุ้นจริงของไตรมาสก่อน</u> *(กรุณาวงกลมเลือกหนึ่งข้อ)*
   ก. สูงกว่า ข. ต่ำกว่า
6. จากข้อมูลที่กำหนดให้ ประมาณการกำไรต่อหุ้นที่จัดเตรียมโดยฝ่ายงบประมาณของบริษัท <u>สูงหรือต่ำกว่าการคาดการณ์กำไรต่อหุ้นของนักวิเคราะห์หลักทรัพย์โดยรวม</u> (Analyst Consensus) *(กรุณาวงกลมเลือกหนึ่งข้อ)*
   ก. สูงกว่า ข. ต่ำกว่า
7. หากไม่คำนึงถึงตัวเลขในกรณีศึกษา <u>ในฐานะที่ท่านเป็นผู้บริหารระดับสูงของวี อีเล็คทรอนิคส์</u> กรุณาเรียงลำดับความสำคัญของกำไรเป้าหมายที่ท่านต้องการจะทำให้ได้สูงกว่า (กรุณาเรียงลำดับ 1 ถึง 3 โดย “1” มีความสำคัญมากที่สุด และ “3” มีความสำคัญน้อยที่สุด)
   ______สูงกว่ากำไรปีก่อน______สูงกว่าการคาดการณ์กำไรของนักวิเคราะห์_____สูงกว่าประมาณการกำไรของตนเอง
8. สมมติว่าท่านได้ตัดสินใจ**<u>เปิดเผย</u>**ประมาณการกำไรของบริษัทต่อสาธารณชน ท่านจะเปิดเผย *(กรุณาวงกลมเลือกหนึ่งข้อ)*
   ก. เฉพาะตัวเลขประมาณการกำไรต่อหุ้น
   ข. เฉพาะแนวโน้มของประมาณการกำไร

ค. ตัวเลขประมาณการกำไรต่อหุ้นและสาเหตุของการคาดการณ์ตัวเลข

ง. แนวโน้มของประมาณการกำไรและสาเหตุของการคาดการณ์แนวโน้ม

9. **ในการตัดสินใจเปิดเผยประมาณการกำไรของ วี อิเล็คทรอนิคส์ ของท่าน** ในฐานะที่เป็นผู้บริหารระดับสูง **ท่านได้คำนึงถึงเรื่องดังต่อไปนี้ ในระดับใด** (กรุณาทำเครื่องหมาย✓ลงในช่องที่ตรงกับความรู้สึกหรือความคิดเห็นของท่านมากที่สุด)

0 = ไม่คำนึงถึงเลย 10 = คำนึงถึงมากที่สุด

	0	1	2	3	4	5	6	7	8	9	10
1) การเปิดเผยประมาณการกำไรของบริษัทที่ต่ำกว่าความคาดหวังของนักลงทุน จะส่งผลเสียต่อราคาหุ้นของบริษัทในอนาคต											
2) การเปิดเผยประมาณการกำไรของบริษัทที่ต่ำกว่าการคาดการณ์กำไรของนักวิเคราะห์หลักทรัพย์ จะส่งผลเสียต่อราคาหุ้นของบริษัทในอนาคต											
3) การเปิดเผยประมาณการกำไรของบริษัท จะส่งผลดีต่อชื่อเสียงของฝ่ายบริหารและความโปร่งใสในการดำเนินงาน											
4) การไม่เปิดเผยประมาณการกำไรของบริษัทที่ต่ำกว่าความคาดหวังของนักลงทุนและนักวิเคราะห์หลักทรัพย์จะส่งผลเสียต่อชื่อเสียงของฝ่ายบริหารและความโปร่งใสในการดำเนินงาน											
5) การเปิดเผยประมาณการกำไรของบริษัทที่สูงกว่าความเป็นจริงจะส่งผลดีต่อราคาหุ้นของบริษัทในอนาคต											
6) การเปิดเผยประมาณการกำไรของบริษัทที่สูงกว่าความเป็นจริงจะส่งผลเสียต่อชื่อเสียงของฝ่ายบริหารและความโปร่งใสในการดำเนินงาน											

10. สมมติว่า **ประมาณการกำไรต่อหุ้นสำหรับครึ่งรอบระยะเวลาบัญชีของปี 2560 เท่ากับ 0.90 บาท** ซึ่ง **ต่ำกว่า** กำไรต่อหุ้นของครึ่งรอบระยะเวลาบัญชีของปี 2559 และ **ต่ำกว่า** ประมาณการกำไรของนักวิเคราะห์หลักทรัพย์เท่ากับ **0.20 บาท** โดยมีสาเหตุหลักมาจากเรื่องที่กล่าวไปก่อนหน้านี้

10.1 ท่านยินดีที่จะ **"เปิดเผยข้อมูลประมาณการกำไร"** สำหรับครึ่งรอบระยะเวลาบัญชีของปี 2560" ต่อสาธารณชนในระดับใด (กรุณาขีดเส้นตรง (|) ลงไปที่เส้นวัดด้านล่างนี้ ที่ตรงกับความรู้สึกหรือความคิดเห็นของท่านมากที่สุด)

0 1 2 3 4 5 6 7 8 9 10

เป็นไปไม่ได้อย่างแน่นอน ปานกลาง เป็นไปได้อย่างแน่นอน

หากท่าน**เลือก 0** ในข้อ 10.1 (เป็นไปไม่ได้อย่างแน่นอน) ท่านไม่ต้องตอบคำถามในข้อ 10.2 และ 10.3

10.2 กรุณาระบุ **"ตัวเลขประมาณการกำไรต่อหุ้น"** สำหรับครึ่งรอบระยะเวลาบัญชีของปี 2560 ที่ท่านยินดีที่จะเปิดเผยต่อสาธารณชน...บาท

10.3 กรุณาระบุ **"ช่วงต่ำที่สุดและสูงที่สุดของตัวเลขประมาณการกำไรต่อหุ้น"** สำหรับครึ่งรอบระยะเวลาบัญชีของปี 2560 ที่ท่านยินดีที่จะเปิดเผยต่อสาธารณชน (เช่น ระหว่าง 0.70 บาท ถึง 1.30 บาท เป็นต้น)

ระหว่าง....................................บาท (ตัวเลขต่ำที่สุด) ถึง................................บาท (ตัวเลขสูงที่สุด)

เมื่อท่านตอบคำถามในส่วนนี้เสร็จเรียบร้อยแล้ว กรุณานำเอกสารชุดนี้ใส่ซองที่ 2 และเปิดซองคำถามที่ 3 ต่อไป

ซองคำถามที่ 3

ส่วนสุดท้ายเป็นคำถามทั่วไปเกี่ยวกับข้อมูลส่วนตัวของท่าน
โดยคำตอบของท่านจะถูกเก็บเป็นความลับ

กรุณาทำเครื่องหมาย ✓ ลงใน ☐ หรือเติมข้อความลงในช่องว่างตรงตามความเป็นจริง

1. เพศ ☐ หญิง ☐ ชาย
2. อายุ ________________ปี
3. ท่านมีประสบการณ์การทำงานรวมทั้งสิ้น (รวมถึงงานนอกเวลา) เป็นจำนวนกี่ปี__________________ปี
4. ท่านเคยทำงานเกี่ยวข้องกับอาชีพดังต่อไปนี้หรือไม่ ถ้าใช่ กรุณากรอกจำนวนปี ถ้าไม่ใช่ *ให้ระบุ “X”*

นักการเงิน/ที่ปรึกษาทางการเงิน ___________ปี
นักบัญชี/ผู้ตรวจสอบบัญชี ___________ปี
วิศวกร/นักปฏิบัติการทางเทคนิค/นักวิเคราะห์ทางเทคนิค ___________ปี
รับราชการโดยมีหน้าที่เกี่ยวข้องกับทางบัญชี/การเงิน ___________ปี
รับราชการโดยไม่มีหน้าที่เกี่ยวข้องกับทางบัญชี/การเงิน ___________ปี
ผู้บริหารบริษัท/องค์กร ___________ปี
อื่น ๆ (กรุณาระบุ)______________________________ ___________ปี

5. ตำแหน่งสูงสุดที่ท่านได้รับในอดีต (ในปัจจุบัน) คือตำแหน่งใด______________________
6. ท่านสำเร็จปริญญาตรีในสาขาใด

☐ การบัญชี ☐ การเงิน/การธนาคาร ☐ การตลาด
☐ วิศวกร ☐ อื่น ๆ (กรุณาระบุ)______________________

7. ท่านผ่านการเรียนวิชาบัญชี การเงิน และกลยุทธ์ทางการบริหาร มาแล้วเป็นจำนวนกี่รายวิชา (โดยประมาณ) นับตั้งแต่ปริญญาตรีและปริญญาโทรวมถึงรายวิชาที่ท่านลงทะเบียนเรียนในเทอมนี้ด้วย (ตอบได้มากกว่า 1 ข้อ)

☐ บัญชีการเงิน จำนวน____________ ☐ บัญชีบริหาร จำนวน__________
☐ การเงิน จำนวน____________ ☐ กลยุทธ์ทางการบริหาร จำนวน____________

8. ท่านเคย “ลงทุน” ในหลักทรัพย์ (หุ้น) ในตลาดหลักทรัพย์หรือไม่? *(“ลงทุน” ในที่นี้ ให้หมายความเฉพาะการลงทุนซื้อหรือขายหลักทรัพย์ (หุ้น) ของบริษัทจดทะเบียนในตลาดหลักทรัพย์เท่านั้น)*

☐ เคย ☐ ไม่เคย

หากเคย กรุณาตอบคำถามด้านล่างนี้

8.1 ในอดีตที่ผ่านมา ท่านลงทุนเป็นจำนวนรวมประมาณกี่ครั้ง (จำนวนรวมทั้งรายการซื้อและรายการขาย) ที่ซื้อขายในหลักทรัพย์ (หุ้น) โดยตรง (ไม่รวมการลงทุนผ่านกองทุนรวมหุ้นระยะยาว (LTF) และกองทุนรวม __________________ครั้ง (โดยประมาณ)

8.2 ท่านมีประสบการณ์ในการลงทุนในหลักทรัพย์ (หุ้น) โดยตรง เป็นระยะเวลาประมาณ
_____________ปี__________เดือน

ให้คำนึงถึงบริษัทโดยทั่วไป กรุณาตอบคำถามด้านล่างนี้โดยทำเครื่องหมาย ✓ ลงในช่องที่ตรงกับความรู้สึกหรือความคิดเห็นของท่านมากที่สุด โดย**ไม่ต้องอ้างอิงถึง วี อิเล็คทรอนิคส์**

0 = ไม่เห็นด้วยเลย   10 = เห็นด้วยมากที่สุด

โดยทั่วไป ข้าพเจ้าเชื่อว่า	0	1	2	3	4	5	6	7	8	9	10
1) การเปิดเผยประมาณการกำไรที่ถูกต้องจากฝ่ายบริหารสะท้อนความสามารถของฝ่ายบริหารในการสื่อสารข้อมูลของบริษัทไปยังตลาดทุน											
2) การเปิดเผยประมาณการกำไรจากฝ่ายบริหารมีผลกระทบต่อการตัดสินใจลงทุนในอนาคตของนักลงทุน											
3) การเปิดเผยประมาณการกำไรที่ถูกต้องจากฝ่ายบริหารมีผลกระทบต่อชื่อเสียงและความน่าเชื่อถือของฝ่ายบริหารจากความสามารถในการคาดการณ์ผลประกอบการในอนาคตอย่างถูกต้อง											
4) การละเลย (ไม่เปิดเผย) ประมาณการกำไรจากฝ่ายบริหารมีผลกระทบต่อชื่อเสียงและความโปร่งใสในการดำเนินงานของฝ่ายบริหาร											
5) การเปิดเผยประมาณการกำไรจากฝ่ายบริหารมีอิทธิพลต่อการปรับเพิ่มหรือลดการคาดการณ์กำไรของนักวิเคราะห์หลักทรัพย์											
6) หากตัวเลขกำไรจริงของบริษัทสูงหรือต่ำกว่าตัวเลขการคาดการณ์กำไรของนักวิเคราะห์หลักทรัพย์จะส่งผลกระทบต่อราคาหุ้นของบริษัท											
7) การเปิดเผยประมาณการกำไรจากฝ่ายบริหารที่สูงหรือต่ำกว่าตัวเลขกำไรจริงของบริษัทในปีก่อนจะส่งผลกระทบต่อราคาหุ้นของบริษัท											
8) ผู้บริหารสามารถทำให้ตัวเลขประมาณการกำไรจากฝ่ายบริหารเป็นไปตามความคาดหวังหรือสูงกว่าความคาดหวังของตลาดได้											

ขอขอบพระคุณอีกครั้งที่เสียสละเวลาในการเข้าร่วมการวิจัยเชิงทดลองครั้งนี้

Appendix H: Pilot Experimental Materials and Pilot Results

เอกสารชุดที่ 1 เลขที่..........................

ซองคำถามที่ 1

คำแนะนำ

ขอขอบคุณสำหรับการเข้าร่วมการวิจัยในครั้งนี้ งานวิจัยนี้เป็นงานวิจัยเชิงทดลอง โดยมีวัตถุประสงค์เพื่อศึกษาว่า ผู้บริหารจะตัดสินใจเปิดเผยข้อมูลของบริษัทต่อสาธารณชนอย่างไร จากข้อมูลทางการเงินและไม่ใช่ข้อมูลทางการเงินที่จัดเตรียมให้ ซึ่งจะไม่มีคำตอบที่ถูกหรือผิดแต่อย่างใด

เพื่อให้เป็นไปตามวัตถุประสงค์ของงานวิจัย **สมมติให้ท่านคือ นาย (นางสาว) เอ ซึ่งเป็น "ผู้บริหารระดับสูง"** ของบริษัท วี อิเล็คทรอนิคส์ จำกัด (มหาชน) ซึ่งในการศึกษาครั้งนี้จะเรียกว่า ***"วี อิเล็คทรอนิคส์"*** หรือ ***"บริษัท"*** โดยการศึกษาประกอบไปด้วย 2 ส่วนคือ

ส่วนที่ 1 ประกอบไปด้วยข้อมูลทั่วไป และข้อมูลทางการเงินของบริษัท วี อิเล็คทรอนิคส์ จำกัด (มหาชน)
ส่วนที่ 2 ประกอบด้วย ข้อมูลเพิ่มเติมเกี่ยวกับ วี อิเล็คทรอนิคส์

หลังจากจบส่วนที่ 2 ท่านจะได้รับคำถามโดยให้แสดงความเห็นเกี่ยวกับ วี อิเล็คทรอนิคส์ โดยข้อมูลในกรณีศึกษาที่ท่านจะได้รับ ไม่ได้รวบรวมข้อมูลทั้งหมดที่ท่านอาจต้องใช้ในการตัดสินใจของท่าน อย่างไรก็ตาม เพื่อให้เป็นไปตามวัตถุประสงค์ของการวิจัยในครั้งนี้ กรุณาแสดงความคิดเห็นของท่านจากข้อมูลที่ได้จัดเตรียมให้

หากท่านมีคำถามใด ๆ ระหว่างการทำการทดลอง ให้ซักถามผู้ทำการวิจัยได้ทันที แต่อย่างไรก็ตาม กรุณาอย่าปรึกษาผู้เข้าร่วมการวิจัยท่านอื่น ซึ่งการปรึกษากับผู้เข้าร่วมการวิจัยท่านอื่นจะทำให้ผลการศึกษาครั้งนี้ผิดพลาดไป

คำตอบของท่านมีความสำคัญเป็นอย่างยิ่งในงานวิจัยครั้งนี้ ขอขอบคุณอีกครั้งในการเข้าร่วมการวิจัย

น.ส.กาญจนา พรสัมฤทธิสกุล
นิสิตปริญญาเอก ภาควิชาการบัญชี
คณะพาณิชยศาสตร์และการบัญชี จุฬาลงกรณ์มหาวิทยาลัย

กรุณาระบุเวลาที่เริ่มทำ........................สมมติว่า วันนี้คือวันที่ 15 มกราคม 2559

คำนิยามที่ใช้ในงานวิจัย

ประมาณการกำไรจากฝ่ายบริหาร (Management Earnings Forecasts) คือ การเปิดเผยข้อมูลทางการเงินเพื่อใช้คาดการณ์ผลการดำเนินงานในอนาคตก่อนวันที่บริษัทประกาศผลการดำเนินงานจริง อย่างไรก็ตาม การเปิดเผยข้อมูลการประมาณการกำไรจากฝ่ายบริหารเป็นการเปิดเผยโดยสมัครใจ ไม่ได้บังคับตามกฎหมาย ดังนั้น บางบริษัทก็จะเปิดเผยข้อมูลประมาณการกำไรอย่างสม่ำเสมอเป็นปกติ แต่บางบริษัทก็จะเปิดเผยข้อมูลดังกล่าวเป็นครั้งคราว

ส่วนที่ 1

ข้อมูลทั่วไป

บริษัท วี อิเล็คทรอนิคส์ จำกัด (มหาชน) (“บริษัท” หรือ“วี อิเล็คทรอนิคส์”) เป็นผู้นำในธุรกิจชิ้นส่วนอิเล็คทรอนิคส์ โดยธุรกิจหลักประกอบด้วยการผลิตและการจัดจำหน่ายแผงวงจรอิเล็คทรอนิคส์ วงจรไฟฟ้า วงจรอิเล็คทรอนิคส์รถยนต์ และอุปกรณ์อิเล็คทรอนิคส์ต่างๆ รายได้ของบริษัทประกอบด้วยการขายสินค้าในประเทศในสัดส่วนร้อยละ 60 ส่วนอีกร้อยละ 40 มาจากการส่งออกสินค้าไปยังตลาดยุโรป ธุรกิจของบริษัทมีความเจริญเติบโตอย่างรวดเร็วใน 5 ปีที่ผ่านมา และหุ้นของบริษัทก็ได้รับความสนใจจากนักลงทุนในการทำการซื้อขายอย่างแพร่หลายในตลาดหลักทรัพย์แห่งประเทศไทย

ผลการดำเนินงานในอดีตของวี อิเล็คทรอนิคส์

กำไร (ขาดทุน) สำหรับปี (บางส่วน)	(หน่วย: ล้านบาท ยกเว้นข้อมูลต่อหุ้น)		
รอบระยะเวลาบัญชี	31/12/2558	31/12/2557	31/12/2556
รายได้สุทธิ	11,284	9,093	7,477
กำไรขั้นต้น	2,566	1,851	1,345
กำไรสุทธิ	1,723	1,181	646
กำไรต่อหุ้น (บาท)	2.10	1.60	1.10

ประมาณการกำไรของวี อิเล็คทรอนิคส์

ฝ่ายงบประมาณได้จัดเตรียมข้อมูลตัวเลขประมาณการกำไรสำหรับปี 2559 ให้ท่านพิจารณา ซึ่งตัวเลขประมาณการกำไรรายปีจัดทำขึ้นจากตัวแบบทางเงินโดยมีสมมติฐานจากแนวโน้มกำไรในอดีตประกอบกับข้อมูลอื่น ๆ โดยที่ปรึกษาทางการเงินมีความเชื่อมั่นที่ร้อยละ 95 **คาดว่าประมาณการกำไรต่อหุ้น (EPS) สำหรับปีสิ้นสุดวันที่ 31 ธันวาคม 2559 ของบริษัท เท่ากับ 1.90 บาท**

1. **ปัจจัยภายในและแรงจูงใจของผู้บริหารที่คำนึงถึงชื่อเสียงจากการเปิดเผยข้อมูลอย่างถูกต้อง**

ส่วนที่ 2

ข้อมูลเพิ่มเติมของ วี อิเล็คทรอนิคส์

ประมาณการกำไรของวี อิเล็คทรอนิคส์

จากข้อมูลทางการเงินและข้อมูลประมาณกำไรของบริษัทที่แสดงใน**ส่วนที่ 1** สรุปได้ดังต่อไปนี้

	ประมาณการกำไรสำหรับปี 2559	กำไรที่เกิดขึ้นจริงสำหรับปี 2558	เปลี่ยนแปลง เพิ่มขึ้น (ลดลง)
กำไรต่อหุ้น (บาท)	1.90	2.10	(0.20)

ตัวเลขประมาณการกำไรต่อหุ้นสำหรับปี 2559 ***<u>ต่ำกว่า</u>*** กำไรต่อหุ้นที่เกิดขึ้นจริงในปี 2558 มีสาเหตุหลัก คือ บริษัทคาดการณ์ว่า**<u>รายได้จากการส่งออกจะลดลงจากการสูญเสียคำสั่งซื้อจากลูกค้ารายใหญ่ส่วนหนึ่ง</u>** จากการที่ไม่สามารถผลิตสินค้าได้ทันตามความต้องการของลูกค้าได้ เพราะ**<u>วางแผนกำลังการผลิตผิดพลาด</u>**

ความคาดหมายของนักวิเคราะห์หลักทรัพย์ต่อวี อิเล็คทรอนิคส์

เนื่องจากบริษัทมีอัตราการเจริญเติบโตอย่างต่อเนื่องในอดีต และได้รับความสนใจจากนักลงทุนตลอดมา จึงทำให้มีนักวิเคราะห์หลักทรัพย์ให้ความสนใจและติดตามเป็นจำนวนหนึ่ง โดยความเห็นของนักวิเคราะห์หลักทรัพย์ยังคงมองแนวโน้มการเติบโตของบริษัทเป็นไปในทิศทางบวก ดังนั้น **<u>ความเห็นของนักวิเคราะห์หลักทรัพย์โดยรวม</u>** (Analyst Consensus) ต่อกำไรต่อหุ้น (EPS) ของบริษัทสำหรับปี 2559 อยู่ที่ **<u>2.10 บาทต่อหุ้น</u>**

นโยบายในการเปิดเผยข้อมูลของวี อิเล็คทรอนิคส์

ในฐานะที่ท่านคือ นาย (นางสาว) เอ ซึ่งเป็นผู้บริหารระดับสูงของวี อิเล็คทรอนิคส์ และเป็น**<u>ผู้มีอำนาจในการตัดสินใจเปิดเผยข้อมูลประมาณการกำไรจากฝ่ายบริหารของบริษัทต่อสาธารณชน</u>** อย่างไรก็ตามกฎหมายไม่ได้บังคับให้บริษัทต้องเปิดเผยข้อมูลดังกล่าว ดังนั้น **<u>การเปิดเผยประมาณการกำไรของท่านเป็นการเปิดเผยด้วยความสมัครใจ</u>**

<u>สิ่งที่ท่านต้องคำนึงถึงเป็นอันดับแรก</u> เกี่ยวกับการเปิดเผยประมาณการกำไรของบริษัท คือ

- ข้อมูลประมาณการกำไรเป็น<u>ข้อมูลที่สะท้อนความคิดเห็นที่แท้จริงจากฝ่ายบริหารต่อการคาดการณ์กำไรในอนาคต</u>ของบริษัท
- บริษัทได้ให้ความสำคัญต่อ**<u>การเปิดเผยข้อมูลอย่างถูกต้อง</u>**ไม่ว่าข้อมูลจะเป็นไปในทางบวกหรือลบ **<u>เพื่อสร้างชื่อเสียงจากความถูกต้องและความน่าเชื่อถือในรายงานทางการเงินของบริษัท</u>**
- ผลตอบแทนของท่านในฐานะผู้บริหาร ได้แก่ <u>เงินเดือน ที่กำหนดในอัตราคงที่ และโบนัสซึ่งไม่ได้ขึ้นอยู่กับผลกำไรสุทธิหรือราคาหุ้น</u>ของบริษัท ดังนั้น การเปิดเผยประมาณการกำไรของบริษัท<u>จะไม่ส่งผลกระทบต่อผลตอบแทนของท่าน</u>แต่อย่างใด

2. ปัจจัยภายนอกและแรงจูงใจของผู้บริหารที่คำนึงถึงชื่อเสียงจากการเปิดเผยข้อมูลอย่างถูกต้อง

ส่วนที่ 2

ข้อมูลเพิ่มเติมของ วี อิเล็คทรอนิคส์

ประมาณการกำไรของวี อิเล็คทรอนิคส์

จากข้อมูลทางการเงินและข้อมูลประมาณกำไรของบริษัทที่แสดงใน**ส่วนที่ 1** สรุปได้ดังต่อไปนี้

	ประมาณการกำไรสำหรับปี 2559	กำไรที่เกิดขึ้นจริงสำหรับปี 2558	เปลี่ยนแปลง เพิ่มขึ้น (ลดลง)
กำไรต่อหุ้น (บาท)	1.90	2.10	(0.20)

ตัวเลขประมาณการกำไรต่อหุ้นสำหรับปี 2559 ***<u>ต่ำกว่า</u>*** กำไรต่อหุ้นที่เกิดขึ้นจริงในปี 2558 มีสาเหตุหลัก คือ บริษัทคาดการณ์ว่าจะเกิด**<u>ผลขาดทุนจากอัตราแลกเปลี่ยนจากลูกหนี้การค้าต่างประเทศ</u>**ที่จะถึงกำหนดชำระในระหว่างปี 2559 **<u>เพิ่มขึ้นจำนวนมาก</u>** จากความผันผวนของเงินยูโรในทิศทางที่อ่อนค่าลง เพราะ**<u>เหตุการณ์ความไม่สงบในประเทศฝรั่งเศส และประเทศทางฝั่งยุโรป</u>**

ความคาดหมายของนักวิเคราะห์หลักทรัพย์ต่อวี อิเล็คทรอนิคส์

เนื่องจากบริษัทมีอัตราการเจริญเติบโตอย่างต่อเนื่องในอดีต และได้รับความสนใจจากนักลงทุนตลอดมา จึงทำให้มีนักวิเคราะห์หลักทรัพย์ให้ความสนใจและติดตามเป็นจำนวนหนึ่ง โดยความเห็นของนักวิเคราะห์หลักทรัพย์ยังคงมองแนวโน้มการเติบโตของบริษัทเป็นไปในทิศทางบวก ดังนั้น **<u>ความเห็นของนักวิเคราะห์หลักทรัพย์โดยรวม</u>** (Analyst Consensus) ต่อกำไรต่อหุ้น (EPS) ของบริษัทสำหรับปี 2559 ไว้ที่ **<u>2.10 บาทต่อหุ้น</u>**

นโยบายในการเปิดเผยข้อมูลของวี อิเล็คทรอนิคส์

ในฐานะที่ท่านคือ นาย (นางสาว) เอ ซึ่งเป็นผู้บริหารระดับสูงของวี อิเล็คทรอนิคส์ และเป็น**<u>ผู้มีอำนาจในการตัดสินใจเปิดเผยข้อมูลประมาณการกำไรจากฝ่ายบริหารของบริษัทต่อสาธารณชน</u>** อย่างไรก็ตามกฎหมายไม่ได้บังคับให้บริษัทต้องเปิดเผยข้อมูลดังกล่าว ดังนั้น **<u>การเปิดเผยประมาณการกำไรของท่านเป็นการเปิดเผยด้วยความสมัครใจ</u>**

<u>สิ่งที่ท่านต้องคำนึงถึงเป็นอันดับแรก</u> เกี่ยวกับการเปิดเผยประมาณการกำไรของบริษัท คือ

- ข้อมูลประมาณการกำไรเป็น<u>ข้อมูลที่สะท้อนความคิดเห็นที่แท้จริงจากฝ่ายบริหารต่อการคาดการณ์กำไรในอนาคต</u>ของบริษัท
- บริษัทได้ให้ความสำคัญต่อ**<u>การเปิดเผยข้อมูลอย่างถูกต้อง</u>**ไม่ว่าข้อมูลจะเป็นไปในทางบวกหรือลบ **<u>เพื่อสร้างชื่อเสียงจากความถูกต้องและความน่าเชื่อถือในรายงานทางการเงินของบริษัท</u>**
- ผลตอบแทนของท่านในฐานะผู้บริหาร ได้แก่ <u>เงินเดือน ที่กำหนดในอัตราคงที่ และโบนัสซึ่งไม่ได้ขึ้นอยู่กับผลกำไรสุทธิหรือราคาหุ้น</u>ของบริษัท ดังนั้น การเปิดเผยประมาณการกำไรของบริษัท<u>จะไม่ส่งผลกระทบต่อผลตอบแทนของท่าน</u>แต่อย่างใด

3. ปัจจัยภายในและแรงจูงใจของผู้บริหารที่คำนึงถึงความคาดหวังของตลาด

ส่วนที่ 2

ข้อมูลเพิ่มเติมของ วี อิเล็คทรอนิคส์

ประมาณการกำไรของวี อิเล็คทรอนิคส์

จากข้อมูลทางการเงินและข้อมูลประมาณกำไรของบริษัทที่แสดงใน**ส่วนที่ 1** สรุปได้ดังต่อไปนี้

	ประมาณการกำไรสำหรับปี 2559	กำไรที่เกิดขึ้นจริงสำหรับปี 2558	เปลี่ยนแปลง เพิ่มขึ้น (ลดลง)
กำไรต่อหุ้น (บาท)	1.90	2.10	(0.20)

ตัวเลขประมาณการกำไรต่อหุ้นสำหรับปี 2559 ***ต่ำกว่า*** กำไรต่อหุ้นที่เกิดขึ้นจริงในปี 2558 มีสาเหตุหลัก คือ บริษัทคาดการณ์ว่า**รายได้จากการส่งออกจะลดลงจากการสูญเสียคำสั่งซื้อจากลูกค้ารายใหญ่ส่วนหนึ่ง** จากการที่ไม่สามารถผลิตสินค้าได้ทันตามความต้องการของลูกค้าได้ เพราะ**วางแผนกำลังการผลิตผิดพลาด**

ความคาดหมายของนักวิเคราะห์หลักทรัพย์ต่อวี อิเล็คทรอนิคส์

เนื่องจากบริษัทมีอัตราการเจริญเติบโตอย่างต่อเนื่องในอดีต และได้รับความสนใจจากนักลงทุนตลอดมา จึงทำให้มีนักวิเคราะห์หลักทรัพย์ให้ความสนใจและติดตามเป็นจำนวนหนึ่ง โดยความเห็นของนักวิเคราะห์หลักทรัพย์ยังคงมองแนวโน้มการเติบโตของบริษัทเป็นไปในทิศทางบวก ดังนั้น **ความเห็นของนักวิเคราะห์หลักทรัพย์โดยรวม** (Analyst Consensus) ต่อกำไรต่อหุ้น (EPS) ของบริษัทสำหรับปี 2559 อยู่ที่ **2.10 บาทต่อหุ้น**

นโยบายในการเปิดเผยข้อมูลของวี อิเล็คทรอนิคส์

ในฐานะที่ท่านคือ นาย (นางสาว) เอ ซึ่งเป็นผู้บริหารระดับสูงของวี อิเล็คทรอนิคส์ และเป็น**ผู้มีอำนาจในการตัดสินใจเปิดเผยข้อมูลประมาณการกำไรจากฝ่ายบริหารของบริษัทต่อสาธารณชน** อย่างไรก็ตามกฎหมายไม่ได้บังคับให้บริษัทต้องเปิดเผยข้อมูลดังกล่าว ดังนั้น **การเปิดเผยประมาณการกำไรของท่านเป็นการเปิดเผยด้วยความสมัครใจ**

สิ่งที่ท่านต้องคำนึงถึงเป็นอันดับแรก เกี่ยวกับการเปิดเผยประมาณการกำไรของบริษัท คือ

- ข้อมูลประมาณการกำไรเป็นข้อมูลที่อาจส่งผลกระทบต่อราคาหุ้นของบริษัทได้
- บริษัทได้ให้ความสำคัญต่อ**การเปิดเผยข้อมูลในทางบวกเพื่อทำให้ราคาหุ้นของบริษัทปรับเพิ่มขึ้น** เนื่องจากการเปิดเผยข้อมูลในทางลบ จะทำให้นักลงทุนปรับลดความคาดหวังจากผลตอบแทนของบริษัท และส่งผลกระทบต่อราคาหุ้นของบริษัทปรับลดลงตามมา
- ผลตอบแทนของท่านในฐานะผู้บริหาร ได้แก่ เงินเดือน ที่กำหนดในอัตราคงที่ แต่โบนัสจะขึ้นอยู่กับผลกำไรสุทธิหรือราคาหุ้นของบริษัท ดังนั้น การเปิดเผยประมาณการกำไรของบริษัท อาจส่งผลกระทบต่อผลตอบแทนของท่าน

4. ปัจจัยภายนอกและแรงจูงใจของผู้บริหารที่คำนึงถึงความคาดหวังของตลาด

ส่วนที่ 2

ข้อมูลเพิ่มเติมของ วี อิเล็คทรอนิคส์

ประมาณการกำไรของวี อิเล็คทรอนิคส์

จากข้อมูลทางการเงินและข้อมูลประมาณกำไรของบริษัทที่แสดงใน**ส่วนที่ 1** สรุปได้ดังต่อไปนี้

	ประมาณการกำไรสำหรับปี 2559	กำไรที่เกิดขึ้นจริงสำหรับปี 2558	เปลี่ยนแปลง เพิ่มขึ้น (ลดลง)
กำไรต่อหุ้น (บาท)	1.90	2.10	(0.20)

ตัวเลขประมาณการกำไรต่อหุ้นสำหรับปี 2559 ***ต่ำกว่า*** กำไรต่อหุ้นที่เกิดขึ้นจริงในปี 2558 มีสาเหตุหลัก คือ บริษัทคาดการณ์ว่าจะเกิด**ผลขาดทุนจากอัตราแลกเปลี่ยนจากลูกหนี้การค้าต่างประเทศ**ที่จะถึงกำหนดชำระในระหว่างปี 2559 **เพิ่มขึ้นจำนวนมาก** จากความผันผวนของเงินยูโรในทิศทางที่อ่อนค่าลง เพราะ**เหตุการณ์ความไม่สงบในประเทศฝรั่งเศส และประเทศทางฝั่งยุโรป**

ความคาดหมายของนักวิเคราะห์หลักทรัพย์ต่อวี อิเล็คทรอนิคส์

เนื่องจากบริษัทมีอัตราการเจริญเติบโตอย่างต่อเนื่องในอดีต และได้รับความสนใจจากนักลงทุนตลอดมา จึงทำให้มีนักวิเคราะห์หลักทรัพย์ให้ความสนใจและติดตามเป็นจำนวนหนึ่ง โดยความเห็นของนักวิเคราะห์หลักทรัพย์ยังคงมองแนวโน้มการเติบโตของบริษัทเป็นไปในทิศทางบวก ดังนั้น **ความเห็นของนักวิเคราะห์หลักทรัพย์โดยรวม** (Analyst Consensus) ต่อกำไรต่อหุ้น (EPS) ของบริษัทสำหรับปี 2559 อยู่ที่ **2.10 บาทต่อหุ้น**

นโยบายในการเปิดเผยข้อมูลของวี อิเล็คทรอนิคส์

ในฐานะที่ท่านคือ นาย (นางสาว) เอ ซึ่งเป็นผู้บริหารระดับสูงของวี อิเล็คทรอนิคส์ และเป็น**ผู้มีอำนาจในการตัดสินใจเปิดเผยข้อมูลประมาณการกำไรจากฝ่ายบริหารของบริษัทต่อสาธารณชน** อย่างไรก็ตามกฎหมายไม่ได้บังคับให้บริษัทต้องเปิดเผยข้อมูลดังกล่าว ดังนั้น **การเปิดเผยประมาณการกำไรของท่านเป็นการเปิดเผยด้วยความสมัครใจ**

สิ่งที่ท่านต้องคำนึงถึงเป็นอันดับแรก เกี่ยวกับการเปิดเผยประมาณการกำไรของบริษัท คือ

- ข้อมูลประมาณการกำไรเป็นข้อมูลที่อาจส่งผลกระทบต่อราคาหุ้นของบริษัทได้
- บริษัทได้ให้ความสำคัญต่อ**การเปิดเผยข้อมูลในทางบวกเพื่อทำให้ราคาหุ้นของบริษัทปรับเพิ่มขึ้น** เนื่องจากการเปิดเผยข้อมูลในทางลบ จะทำให้นักลงทุนปรับลดความคาดหวังจากผลตอบแทนของบริษัท และส่งผลกระทบต่อราคาหุ้นของบริษัทปรับลดลงตามมา
- ผลตอบแทนของท่านในฐานะผู้บริหาร ได้แก่ เงินเดือน ที่กำหนดในอัตราคงที่ แต่โบนัสจะขึ้นอยู่กับผลกำไรสุทธิหรือราคาหุ้นของบริษัท ดังนั้น การเปิดเผยประมาณการกำไรของบริษัท อาจส่งผลกระทบต่อผลตอบแทนของท่าน

5. ปัจจัยภายในและแรงจูงใจของผู้บริหารที่คำนึงถึงความโปร่งใสในการดำเนินงานของบริษัท

ส่วนที่ 2

ข้อมูลเพิ่มเติมของ วี อิเล็คทรอนิคส์

ประมาณการกำไรของวี อิเล็คทรอนิคส์

จากข้อมูลทางการเงินและข้อมูลประมาณกำไรของบริษัทที่แสดงใน**ส่วนที่ 1** สรุปได้ดังต่อไปนี้

	ประมาณการกำไรสำหรับปี 2559	กำไรที่เกิดขึ้นจริงสำหรับปี 2558	เปลี่ยนแปลง เพิ่มขึ้น (ลดลง)
กำไรต่อหุ้น (บาท)	1.90	2.10	(0.20)

ตัวเลขประมาณการกำไรต่อหุ้นสำหรับปี 2559 ***<u>ต่ำกว่า</u>*** กำไรต่อหุ้นที่เกิดขึ้นจริงในปี 2558 มีสาเหตุหลัก คือ บริษัทคาดการณ์ว่า**<u>รายได้จากการส่งออกจะลดลงจากการสูญเสียคำสั่งซื้อจากลูกค้ารายใหญ่ส่วนหนึ่ง</u>** จากการที่ไม่สามารถผลิตสินค้าได้ทันตามความต้องการของลูกค้าได้ เพราะ**<u>วางแผนกำลังการผลิตผิดพลาด</u>**

ความคาดหมายของนักวิเคราะห์หลักทรัพย์ต่อวี อิเล็คทรอนิคส์

เนื่องจากบริษัทมีอัตราการเจริญเติบโตอย่างต่อเนื่องในอดีต และได้รับความสนใจจากนักลงทุนตลอดมา จึงทำให้มีนักวิเคราะห์หลักทรัพย์ให้ความสนใจและติดตามเป็นจำนวนหนึ่ง โดยความเห็นของนักวิเคราะห์หลักทรัพย์ยังคงมองแนวโน้มการเติบโตของบริษัทเป็นไปในทิศทางบวก ดังนั้น **<u>ความเห็นของนักวิเคราะห์หลักทรัพย์โดยรวม</u>** (Analyst Consensus) ต่อกำไรต่อหุ้น (EPS) ของบริษัทสำหรับปี 2559 อยู่ที่ **<u>2.10 บาทต่อหุ้น</u>**

นโยบายในการเปิดเผยข้อมูลของวี อิเล็คทรอนิคส์

ในฐานะที่ท่านคือ นาย (นางสาว) เอ ซึ่งเป็นผู้บริหารระดับสูงของวี อิเล็คทรอนิคส์ และเป็น**<u>ผู้มีอำนาจในการตัดสินใจเปิดเผยข้อมูลประมาณการกำไรจากฝ่ายบริหารของบริษัทต่อสาธารณชน</u>** อย่างไรก็ตามกฎหมายไม่ได้บังคับให้บริษัทต้องเปิดเผยข้อมูลดังกล่าว ดังนั้น **<u>การเปิดเผยประมาณการกำไรของท่านเป็นการเปิดเผยด้วยความสมัครใจ</u>**

<u>สิ่งที่ท่านต้องคำนึงถึงเป็นอันดับแรก</u> เกี่ยวกับการเปิดเผยประมาณการกำไรของบริษัท คือ

- ข้อมูลประมาณการกำไรเป็น<u>ข้อมูลที่เป็นประโยชน์ต่อนักลงทุนในการคาดการณ์กำไรในอนาคต</u>ของบริษัท
- บริษัทได้ให้ความสำคัญต่อ**<u>การเปิดเผยข้อมูลอย่างโปร่งใส ครบถ้วน เท่าเทียม และทันเวลา</u>** ไม่ว่าข้อมูลนั้นจะเป็นไปในทางบวกหรือลบ**<u>เพื่อสร้างความโปร่งใสในการดำเนินงานของบริษัท</u>**ตามหลักการกำกับดูแลกิจการที่ดี
- ผลตอบแทนของท่านในฐานะผู้บริหาร ได้แก่ <u>เงินเดือน ที่กำหนดในอัตราคงที่ และโบนัสซึ่งไม่ได้ขึ้นอยู่กับผลกำไรสุทธิหรือราคาหุ้น</u>ของบริษัท ดังนั้น การเปิดเผยประมาณการกำไรของบริษัท<u>จะไม่ส่งผลกระทบต่อผลตอบแทนของท่าน</u>แต่อย่างใด

6. ปัจจัยภายนอกและแรงจูงใจของผู้บริหารที่คำนึงถึงความโปร่งใสในการดำเนินงานของบริษัท

ส่วนที่ 2

ข้อมูลเพิ่มเติมของ วี อิเล็คทรอนิคส์

ประมาณการกำไรของวี อิเล็คทรอนิคส์

จากข้อมูลทางการเงินและข้อมูลประมาณกำไรของบริษัทที่แสดงใน**ส่วนที่ 1** สรุปได้ดังต่อไปนี้

	ประมาณการกำไรสำหรับปี 2559	กำไรที่เกิดขึ้นจริงสำหรับปี 2558	เปลี่ยนแปลง เพิ่มขึ้น (ลดลง)
กำไรต่อหุ้น (บาท)	1.90	2.10	(0.20)

ตัวเลขประมาณการกำไรต่อหุ้นสำหรับปี 2559 ***ต่ำกว่า*** กำไรต่อหุ้นที่เกิดขึ้นจริงในปี 2558 มีสาเหตุหลัก คือ บริษัทคาดการณ์ว่าจะเกิด**ผลขาดทุนจากอัตราแลกเปลี่ยนจากลูกหนี้การค้าต่างประเทศ**ที่จะถึงกำหนดชำระในระหว่างปี 2559 **เพิ่มขึ้นจำนวนมาก** จากความผันผวนของเงินยูโรในทิศทางที่อ่อนค่าลง เพราะ**เหตุการณ์ความไม่สงบในประเทศฝรั่งเศส และประเทศทางฝั่งยุโรป**

ความคาดหมายของนักวิเคราะห์หลักทรัพย์ต่อวี อิเล็คทรอนิคส์

เนื่องจากบริษัทมีอัตราการเจริญเติบโตอย่างต่อเนื่องในอดีต และได้รับความสนใจจากนักลงทุนตลอดมา จึงทำให้มีนักวิเคราะห์หลักทรัพย์ให้ความสนใจและติดตามเป็นจำนวนหนึ่ง โดยความเห็นของนักวิเคราะห์หลักทรัพย์ยังคงมองแนวโน้มการเติบโตของบริษัทเป็นไปในทิศทางบวก ดังนั้น **ความเห็นของนักวิเคราะห์หลักทรัพย์โดยรวม** (Analyst Consensus) ต่อกำไรต่อหุ้น (EPS) ของบริษัทสำหรับปี 2559 อยู่ที่ **2.10 บาทต่อหุ้น**

นโยบายในการเปิดเผยข้อมูลของวี อิเล็คทรอนิคส์

ในฐานะที่ท่านคือ นาย (นางสาว) เอ ซึ่งเป็นผู้บริหารระดับสูงของวี อิเล็คทรอนิคส์ และเป็น**ผู้มีอำนาจในการตัดสินใจเปิดเผยข้อมูลประมาณการกำไรจากฝ่ายบริหารของบริษัทต่อสาธารณชน** อย่างไรก็ตามกฎหมายไม่ได้บังคับให้บริษัทต้องเปิดเผยข้อมูลดังกล่าว ดังนั้น **การเปิดเผยประมาณการกำไรของท่านเป็นการเปิดเผยด้วยความสมัครใจ**

สิ่งที่ท่านต้องคำนึงถึงเป็นอันดับแรก เกี่ยวกับการเปิดเผยประมาณการกำไรของบริษัท คือ

- ข้อมูลประมาณการกำไรเป็นข้อมูลที่เป็นประโยชน์ต่อนักลงทุนในการคาดการณ์กำไรในอนาคตของบริษัท
- บริษัทได้ให้ความสำคัญต่อ**การเปิดเผยข้อมูลอย่างโปร่งใส ครบถ้วน เท่าเทียม และทันเวลา** ไม่ว่าข้อมูลนั้นจะเป็นไปในทางบวกหรือลบ**เพื่อสร้างความโปร่งใสในการดำเนินงานของบริษัท**ตามหลักการกำกับดูแลกิจการที่ดี
- ผลตอบแทนของท่านในฐานะผู้บริหาร ได้แก่ เงินเดือน ที่กำหนดในอัตราคงที่ และโบนัสซึ่งไม่ได้ขึ้นอยู่กับผลกำไรสุทธิหรือราคาหุ้นของบริษัท ดังนั้น การเปิดเผยประมาณการกำไรของบริษัทจะไม่ส่งผลกระทบต่อผลตอบแทนของท่านแต่อย่างใด

ท่านสามารถย้อนกลับไปดูข้อมูลในกรณีศึกษาได้ทุกเมื่อเพื่อตอบคำถามด้านล่างนี้

สมมติว่า วันที่ท่านตอบคำถามคือวันที่ **15 มกราคม 2559**

คำถาม: ส่วนที่ 2

จากข้อมูลของบริษัท วี อิเล็คทรอนิคส์ จำกัด (มหาชน) ข้างต้น กรุณาตอบคำถามดังต่อไปนี้ (เมื่อท่านตอบคำถามในส่วนนี้เสร็จ ท่านอาจจะต้องอ้างอิงถึงข้อมูลที่กำหนดให้ข้างต้นเพื่อตอบคำถามในส่วนถัดไป)

ในฐานะที่ท่านเป็นนาย (นางสาว) เอ ซึ่งเป็นผู้บริหารระดับสูงของวี อิเล็คทรอนิคส์

1. ท่านยินดีที่จะ **"เปิดเผยตัวเลขประมาณการกำไรต่อหุ้น" ของบริษัทสำหรับปี 2559** ต่อสาธารณชนในระดับใด กรุณาขีดเส้นตรง (|) ลงไปที่เส้นวัดด้านล่างนี้ ที่ตรงกับความรู้สึกหรือความคิดเห็นของท่านมากที่สุด

0 1 2 3 4 5 6 7 8 9 10

เป็นไปไม่ได้ อย่างแน่นอน	ปานกลาง	เป็นไปได้ อย่างแน่นอน

2. ท่านยินดีที่จะ **"เปิดเผยเฉพาะแนวโน้มของประมาณการกำไร (โดยไม่ระบุตัวเลข)" ของบริษัทสำหรับปี 2559** ต่อสาธารณชนในระดับใด กรุณาขีดเส้นตรง (|) ลงไปที่เส้นวัดด้านล่างนี้ ที่ตรงกับความรู้สึกหรือความคิดเห็นของท่านมากที่สุด

0 1 2 3 4 5 6 7 8 9 10

เป็นไปไม่ได้ อย่างแน่นอน	ปานกลาง	เป็นไปได้ อย่างแน่นอน

กรุณาระบุเวลาที่ทำเสร็จ ....

เมื่อท่านตอบคำถามในส่วนนี้เสร็จเรียบร้อยแล้ว กรุณานำเอกสารชุดนี้ใส่ซองที่ 1

และเปิดซองคำถามที่ 2 ต่อไป

ซองคำถามที่ 2

กรุณาตอบคำถามดังต่อไปนี้ตามความเข้าใจของท่านเกี่ยวกับข้อมูลของ วี อิเล็คทรอนิคส์
กรุณาอย่าย้อนกลับไปเปิดดูข้อมูลและคำตอบในซองที่ 1

1. จากข้อมูลที่กำหนดให้ สิ่งที่นาย (นางสาว) เอ ในฐานะผู้บริหารระดับสูงต้องคำนึงถึงเป็นลำดับแรกจาก **นโยบายในการเปิดเผยข้อมูลของวี อิเล็คทรอนิคส์** ในการตัดสินใจเปิดเผยประมาณการกำไร คือข้อใด *(กรุณาวงกลมเลือกหนึ่งข้อ)*
   ก. การเปิดเผยข้อมูลอย่างถูกต้อง เพื่อสร้างชื่อเสียงจากความถูกต้องและความน่าเชื่อถือในรายงานทางการเงินของบริษัท
   ข. การเปิดเผยข้อมูลในทางบวกหรือลบ จะส่งผลกระทบให้ราคาหุ้นของบริษัทปรับเพิ่มขึ้นหรือลดลง
   ค. การเปิดเผยข้อมูลอย่างโปร่งใส ครบถ้วน เท่าเทียมและทันเวลา เพื่อสร้างความโปร่งใสในการดำเนินงานของบริษัท
2. จากข้อมูลที่กำหนดให้ ผลตอบแทนที่ผู้บริหารระดับสูงได้รับ คือข้อใด *(กรุณาวงกลมเลือกหนึ่งข้อ)*
   ก. เงินเดือนกำหนดในอัตราคงที่ และโบนัสไม่ได้ขึ้นอยู่กับผลกำไรสุทธิหรือราคาหุ้นของบริษัท
   ข. เงินเดือนกำหนดในอัตราคงที่ แต่โบนัสขึ้นอยู่กับผลกำไรสุทธิหรือราคาหุ้นของบริษัท
3. จากข้อมูลที่กำหนดให้ **สาเหตุหลัก** ของการคาดการณ์กำไรในอนาคตของบริษัทเกิดจากข้อใด *(กรุณาวงกลมเลือกหนึ่งข้อ)*
   ก. ปัจจัยจากการดำเนินงานภายในบริษัท　　ข. ปัจจัยจากสภาพแวดล้อมภายนอกบริษัท
4. จากข้อมูลที่กำหนดให้ ประเภทของประมาณการกำไรต่อหุ้น ที่จัดเตรียมโดยฝ่ายงบประมาณของบริษัทคือข้อใด *(กรุณาวงกลมเลือกหนึ่งข้อ)*
   ก. รายปี　　ข. รายไตรมาส
5. จากข้อมูลที่กำหนดให้ ประมาณการกำไรต่อหุ้นที่จัดเตรียมโดยฝ่ายงบประมาณของบริษัท สูงหรือต่ำกว่ากำไรสุทธิต่อหุ้นจริงสำหรับปีก่อน (2558) *(กรุณาวงกลมเลือกหนึ่งข้อ)*
   ก. สูงกว่า　　ข. ต่ำกว่า
6. จากข้อมูลที่กำหนดให้ ประมาณการกำไรต่อหุ้นที่จัดเตรียมโดยฝ่ายงบประมาณของบริษัท สูงหรือต่ำกว่าการคาดการณ์กำไรต่อหุ้นของนักวิเคราะห์หลักทรัพย์โดยรวม (Analyst Consensus) *(กรุณาวงกลมเลือกหนึ่งข้อ)*
   ก. สูงกว่า　　ข. ต่ำกว่า
7. หากไม่คำนึงถึงตัวเลขในกรณีศึกษา ในฐานะที่ท่านเป็นนาย (นางสาว) เอ ซึ่งเป็นผู้บริหารระดับสูงของวี อีเล็คทรอนิคส์ กรุณาเรียงลำดับความสำคัญของกำไรเป้าหมายที่ท่านต้องการจะทำให้ได้สูงกว่า (กรุณาเรียงลำดับ 1 ถึง 3 โดย “1” มีความสำคัญมากที่สุด และ “3” มีความสำคัญน้อยที่สุด)

   ________สูงกว่ากำไรปีก่อน

   ________สูงกว่าการคาดการณ์กำไรของนักวิเคราะห์

   ________สูงกว่าประมาณการกำไรของตนเอง

8. **ในการตัดสินใจเปิดเผยประมาณการกำไรของวี อิเล็คทรอนิคส์ของท่าน**ในฐานะที่เป็นผู้บริหารระดับสูง **ท่านได้คำนึงถึงเรื่องดังต่อไปนี้ ในระดับใด** (กรุณาทำเครื่องหมาย ✓ ลงในช่องที่ตรงกับความรู้สึกหรือความคิดเห็นของท่านมากที่สุด)

0 = ไม่คำนึงถึงเลย 10 = คำนึงถึงมากที่สุด

	0	1	2	3	4	5	6	7	8	9	10
1) การเปิดเผยประมาณกำไรของบริษัท (ไม่ว่าข้อมูลจะเป็นไปในทางบวกหรือลบ) จะส่งผลดีต่อชื่อเสียงและความน่าเชื่อถือในรายงานทางการเงินของบริษัท											
2) การไม่เปิดเผยประมาณการกำไรของบริษัทที่ต่ำกว่าความคาดหวังของนักลงทุนและนักวิเคราะห์หลักทรัพย์จะส่งผลเสียต่อชื่อเสียงและความน่าเชื่อถือในรายงานทางการเงินของบริษัท											
3) การเปิดเผยประมาณการกำไรของบริษัทที่ต่ำกว่าความคาดหวังของนักลงทุน จะส่งผลเสียต่อราคาหุ้นของบริษัทในอนาคต											
4) การเปิดเผยประมาณการกำไรของบริษัทที่ต่ำกว่าการคาดการณ์กำไรของนักวิเคราะห์หลักทรัพย์ จะส่งผลเสียต่อราคาหุ้นของบริษัทในอนาคต											
5) การเปิดเผยประมาณการกำไรของบริษัท (ไม่ว่าข้อมูลจะเป็นไปในทางบวกหรือลบ) จะส่งผลดีต่อความโปร่งใสในการดำเนินงานของบริษัท											
6) การไม่เปิดเผยประมาณการกำไรของบริษัทที่ต่ำกว่าความคาดหวังของนักลงทุนและนักวิเคราะห์หลักทรัพย์จะส่งผลเสียต่อความโปร่งใสในการดำเนินงานของบริษัท											
7) ปัจจัยจากการดำเนินงานภายในบริษัทที่ส่งผลต่อการคาดการณ์กำไรในอนาคตของบริษัท มีผลกระทบต่อการตัดสินใจเปิดเผยประมาณการกำไรของท่าน											
8) ปัจจัยจากสภาพแวดล้อมภายนอกบริษัทที่ส่งผลการคาดการณ์กำไรในอนาคตของบริษัท มีผลกระทบต่อการตัดสินใจเปิดเผยประมาณการกำไรของท่าน											

9. ในฐานะที่ท่านเป็นผู้บริหารของวี อิเล็คทรอนิคส์ **สมมติว่าท่านได้ตัดสินใจเปิดเผยประมาณการกำไรของบริษัท**ต่อสาธารณชน ท่านจะเปิดเผย *(กรุณาวงกลมเลือกหนึ่งข้อ)*

   ก. เฉพาะตัวเลขประมาณการกำไรต่อหุ้น

   ข. เฉพาะแนวโน้มของประมาณการกำไร

   ค. ตัวเลขประมาณการกำไรต่อหุ้นและสาเหตุของการคาดการณ์ตัวเลข

   ง. แนวโน้มของประมาณการกำไรและสาเหตุของการคาดการณ์แนวโน้ม

เมื่อท่านตอบคำถามในส่วนนี้เสร็จเรียบร้อยแล้ว กรุณานำเอกสารชุดนี้ใส่ซองที่ 2

และเปิดซองคำถามที่ 3 ต่อไป

ซองคำถามที่ 3

ส่วนสุดท้ายเป็นคำถามทั่วไปเกี่ยวกับข้อมูลส่วนตัวของท่าน โดยคำตอบของท่านจะถูกเก็บเป็นความลับ

กรุณาทำเครื่องหมาย ✓ ลงใน ☐ หรือเติมข้อความลงในช่องว่างตรงตามความเป็นจริง

1. เพศ ☐ หญิง ☐ ชาย
2. อายุ ______________ปี
3. ท่านมีประสบการณ์การทำงานรวมทั้งสิ้น (รวมถึงงานนอกเวลา) เป็นจำนวนกี่ปี________________ปี
4. ท่านเคยทำงานเกี่ยวข้องกับอาชีพดังต่อไปนี้หรือไม่ ถ้าใช่ กรุณากรอกจำนวนปี ถ้าไม่ใช่ ให้เว้นว่างไว้

   นักการเงิน/ที่ปรึกษาทางการเงิน __________ปี

   นักบัญชี/ผู้ตรวจสอบบัญชี __________ปี

   วิศวกร/นักปฏิบัติการทางเทคนิค/นักวิเคราะห์ทางเทคนิค __________ปี

   รับราชการโดยมีหน้าที่เกี่ยวข้องกับทางบัญชี/การเงิน __________ปี

   รับราชการโดยไม่มีหน้าที่เกี่ยวข้องกับทางบัญชี/การเงิน __________ปี

   ผู้บริหารบริษัท/องค์กร __________ปี

   อื่น ๆ (กรุณาระบุ)___________________________ __________ปี
5. ตำแหน่งสูงสุดที่ท่านได้รับในอดีต (ในปัจจุบัน) คือตำแหน่งใด____________________
6. ท่านสำเร็จปริญญาตรีในสาขาใด

   ☐ การบัญชี ☐ การเงิน/การธนาคาร ☐ การตลาด

   ☐ วิศวกร ☐ อื่น ๆ (กรุณาระบุ)_____________________
7. ท่านผ่านการเรียนวิชาบัญชี การเงิน และกลยุทธ์ทางการบริหาร มาแล้วเป็นจำนวนกี่รายวิชา นับตั้งแต่ปริญญาตรีและปริญญาโท รวมถึง รายวิชาที่ท่านลงทะเบียนเรียนในเทอมนี้ด้วย (ตอบได้มากกว่า 1 ข้อ)

   ☐ บัญชีการเงิน จำนวน__________ ☐ บัญชีบริหาร จำนวน_________

   ☐ การเงิน จำนวน__________ ☐ กลยุทธ์ทางการบริหาร จำนวน_________
8. ท่านเคยลงทุนในหลักทรัพย์ (หุ้น) ในตลาดหลักทรัพย์หรือไม่?

   ☐ เคย ☐ ไม่เคย

   หากเคย กรุณาตอบคำถามด้านล่างนี้

   8.1 ในอดีตที่ผ่านมา ท่านลงทุนเป็นจำนวนรวมประมาณกี่ครั้ง (จำนวนรวมทั้งรายการซื้อและรายการขาย) ที่ซื้อขายในหลักทรัพย์ (หุ้น) โดยตรง (ไม่รวมการลงทุนผ่านกองทุนรวมหุ้นระยะยาว (LTF) และกองทุนรวม)________ครั้ง

   8.2 ท่านมีประสบการณ์ในการลงทุนในหลักทรัพย์ (หุ้น) โดยตรง เป็นระยะเวลาประมาณ_______ปี_______เดือน
9. ท่านคิดว่า **<u>โดยทั่วไป การเปิดเผยข้อมูลจากฝ่ายบริหารของบริษัทจดทะเบียนในตลาดหลักทรัพย์ฯ</u>** มีลักษณะใดในแต่ละข้อด้านล่างนี้ *(กรุณาวงกลมล้อมรอบตัวเลขที่ตรงกับความรู้สึกหรือความคิดเห็นของท่านมากที่สุด)*

   9.1 การเปิดเผยข้อมูลของบริษัทใน<u>เชิงบวก</u> เพื่อประโยชน์ต่อ

-5	-4	-3	-2	-1	0	1	2	3	4	5
ราคาหุ้นของบริษัท					เป็นกลาง					ชื่อเสียงของบริษัท

9.2 การเปิดเผยข้อมูลของบริษัทในเชิงลบ เพื่อ

-5	-4	-3	-2	-1	0	1	2	3	4	5
รักษาชื่อเสียงจากความน่าเชื่อถือของบริษัท					เป็นกลาง					สร้างความโปร่งใสในการดำเนินงานของบริษัท

9.3 ผู้บริหารจะเปิดเผยข้อมูลของบริษัท เพื่อประโยชน์ต่อ

-5	-4	-3	-2	-1	0	1	2	3	4	5
ราคาหุ้นของบริษัทในอนาคต					เป็นกลาง					การตัดสินใจของนักลงทุน

<u>ให้คำนึงถึงบริษัทโดยทั่วไป</u> กรุณาตอบคำถามด้านล่างนี้โดยทำเครื่องหมาย ✓ ลงในช่องที่ตรงกับความรู้สึกหรือความคิดเห็นของท่านมากที่สุด โดย**<u>ไม่ต้องอ้างอิงถึง วี อิเล็คทรอนิคส์</u>**

0 = ไม่เห็นด้วยเลย 10 = เห็นด้วยมากที่สุด

โดยทั่วไป ข้าพเจ้าเชื่อว่า	0	1	2	3	4	5	6	7	8	9	10
1) การเปิดเผยประมาณการกำไรจากฝ่ายบริหาร<u>สะท้อนความสามารถ</u>ของฝ่ายบริหารในการสื่อสารข้อมูลของบริษัทไปยังตลาดทุน											
2) ผู้บริหารสามารถทำให้ตัวเลขประมาณการกำไรจากฝ่ายบริหาร<u>เป็นไปตามความคาดหวังหรือสูงกว่าความคาดหวัง</u>ของตลาดได้											
3) การเปิดเผยประมาณการกำไรที่ถูกต้องจากฝ่ายบริหาร<u>มีผลกระทบต่อชื่อเสียงและความน่าเชื่อถือ</u>ของบริษัทจากความสามารถในการคาดการณ์ผลประกอบการในอนาคตอย่างถูกต้อง											
4) การละเลย (ไม่เปิดเผย) ประมาณการกำไรจากฝ่ายบริหาร<u>มีผลกระทบต่อชื่อเสียงและความน่าเชื่อถือ</u>ของบริษัท											
5) การเปิดเผยประมาณการกำไรจากฝ่ายบริหาร<u>มีอิทธิพล</u>ต่อการปรับเพิ่มหรือลดการคาดการณ์กำไรของ<u>นักวิเคราะห์หลักทรัพย์</u>											
6) หากตัวเลขกำไรจริงของบริษัทสูงหรือต่ำกว่าตัวเลขการคาดการณ์กำไรของนักวิเคราะห์หลักทรัพย์จะ<u>ส่งผลกระทบต่อราคาหุ้น</u>ของบริษัท											
7) การเปิดเผยประมาณการกำไรจากฝ่ายบริหารที่สูงหรือต่ำกว่าตัวเลขกำไรจริงของบริษัทในปีก่อนจะ<u>ส่งผลกระทบต่อราคาหุ้น</u>ของบริษัท											
9) การเปิดเผยประมาณการกำไรจากฝ่ายบริหาร <u>สะท้อนความโปร่งใส</u>ในการดำเนินงานของบริษัท											
10) การเปิดเผยประมาณการกำไรจากฝ่ายบริหาร มี<u>ผลกระทบต่อการตัดสินใจลงทุนในอนาคตของนักลงทุน</u>											

ขอขอบพระคุณอีกครั้งที่เสียสละเวลาในการเข้าร่วมการวิจัยเชิงทดลองครั้งนี้

Pilot Results

Table P1: Likelihood of Issuing Annual Management Earnings Forecast

Panel A: Descriptive Statistics – Mean (Standard Deviation)

	Management Incentives			
Locus of Causality	Accuracy	Directional	Transparency	Total
Internal	5.13 (3.44) *N* = 8	3.44 (2.51) *N* = 8	5.90 (1.82) *N* = 6	4.72 (2.82) *N* = 22
External	6.13 (3.82) *N* = 8	4.00 (1.83) *N* = 7	5.00 (2.83) *N* = 6	5.10 (2.99) *N* = 21
Total	5.63 (3.55) *N* = 16	3.70 (2.16) *N* = 15	5.45 (2.32) *N* = 12	4.90 (2.88) *N* = 43

Panel B: Two-way ANOVA

Sources	Sum of squares	df	Mean Square	*F*-statistics	*p*-value
Locus of Causality	0.52	1	0.52	0.06	0.80
Management Incentives	32.87	2	16.44	1.99	0.15
Incentives x Causality	6.53	2	3.27	0.40	0.68
Error	306.17	37	8.28		

Panel C: Contrast Tests

Locus of Causality	Management Incentives	Mean Difference	*t*-statistics	*p*-value*
	Internal vs. External	-0.38	-0.26	0.40
	Directional vs. Accuracy	-1.93	5.54	0.00
	Directional vs. Transparency	-1.75	1.55	0.03
	Accuracy vs. Transparency	0.18	0.16	0.44
The effect of management incentives given internal factor				
Internal	Directional vs. Accuracy	-1.69	1.12	0.14
	Directional vs. Transparency	-2.46	2.12	0.03
	Accuracy vs. Transparency	-0.78	-0.54	0.30

Panel C: Contrast Tests (continued)

Locus of Causality	Management Incentives	Mean Difference	*t*-statistics	*p*-value*
The effect of management incentives given external factor				
External	Directional vs. Accuracy	-2.13	1.40	0.10
	Directional vs. Transparency	-1.00	0.74	0.24
	Accuracy vs. Transparency	1.13	0.63	0.27

One-way ANOVA: Accuracy vs. Directional vs. Transparency, F = 1.00, *p*-value = 0.43

Participants were asked to indicate the likelihood of issuing annual management earnings forecast by an 11 point Likert scale rating from 0 (not at all likely) to 10 (extremely likely). Total likelihood is 100%.
*One-tailed equivalent given directional prediction.

Table P2: Mediation Analysis

	Stage 1 ANOVA on Mediator (Reputation)		Stage 2 ANCOVA on Dependent variable	
	F-statistics	*p*-value	*F*-statistics	*p*-value
Locus of Causality	1.40	0.24	0.10	0.76
Management Incentives	3.00	0.06	0.41	0.67
Incentives x Causality	1.06	0.36	0.10	0.90
Mediator			9.29	0.00

Participants were asked six questions to indicate the levels of their concerns over management reputation, market expectations, and transparent operating when making management earnings forecast disclosure decision by an 11-point Likert scale rating from 0 (not at all concerned) to 10 (extremely concerned). Total concerned is 100%.
Only reputation concern as a dependent variable is related to management incentives. I add reputation concern as mediator for ANCOVA test with locus of causality and management incentives as independent variables on the likelihood of issuing annual management earnings forecast as a dependent variable.

Table P3: The Effect of Different Levels of Management Concerns

Panel A: Descriptive Statistics – Mean (Standard Deviation)

	Management Incentives			
Concerns	Accuracy	Directional	Transparency	Total
Reputation	7.34 (1.86) *N* = 16	5.63 (2.57) *N* = 15	7.21 (1.56) *N* = 12	6.71 (2.17) *N* = 43
Market expectation	6.91 (1.94) *N* = 16	7.93 (1.67) *N* = 15	6.04 (2.71) *N* = 12	7.02 (2.18) *N* = 43
Transparency	7.13 (2.09) *N* = 16	6.17 (2.26) *N* = 15	5.96 (2.68) *N* = 12	6.47 (2.33) *N* = 43

Panel B: Contrast Tests

Management Incentives	Mean Difference	*t*-statistics	*p*-value*
The effects of reputation concerns			
Accuracy vs. Directional	1.71	2.30	0.01
Accuracy vs. Transparency	0.14	0.17	0.43
One-way ANOVA: Accuracy vs. Directional vs. Transparency, F = 3.14, *p*-value = 0.05			
The effects of market expectation concerns			
Directional vs. Accuracy	1.03	1.36	0.09
Directional vs. Transparency	1.89	2.33	0.01
One-way ANOVA: Accuracy vs. Directional vs. Transparency, F = 2.75, *p*-value = 0.08			
The effects of transparency concerns			
Transparency vs. Accuracy	-1.17	-1.32	0.10
Transparency vs. Directional	-0.21	-0.23	0.41
One-way ANOVA: Accuracy vs. Directional vs. Transparency, F = 1.06, *p*-value = 0.36			

Participants were asked to indicate their concerns over reputation, market expectation, and transparency by 11 point Likert scale rating from 0 (not at all concerned) to 10 (extremely concerned). Total concerned is 100%. *One-tailed equivalent given directional prediction.

VITA

Kanjana Phonsumlissakul was born on September 20, 1979 in Trad, Thailand. She earned the scholarship from the University of the Thai Chamber of Commerce to pursue the Bachelor degree in 1998, and she graduated with a Bachelor's degree in Accounting, a major audit (the second class honors) in 2002. She had worked as an auditor at JTC insight Limited, Thailand, for 6 years. She has then become a Tax Auditor (No.1402) and a Certified Public Accountant of Thailand (No.7981) in 2004 and 2005, respectively.

In 2008, she received a Master of Accountancy from Chulalongkorn Business School, Chulalongkorn University. After graduation in 2008, she had worked as a part-time lecture at Burapha University, Thailand, as well as, worked as an audit manager at K.P.A. Audit Limited.