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# Manager's Perception, Accounting Training and Chinese Tone



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## Abstract

The purpose of this paper is to measure if the undergraduates majored in accounting could more clear identification about management perception embedded in the Chinese financial reports. After comprehensive research designs and detailed questionnaires, this study finds that the more solid the accounting professional training, the more clearly the students interpret the financial statements, and the less likely they are to be disturbed by the language sentiment (tone) embedded in financial disclosures. Our findings contribute the importance of the socialized accounting education, which could minimize the level of misunderstanding by uninformed investors, and so do managers hold opportunism.

**Keywords:** Accounting professionals; Chinese tone; Manager's perception; Financial reports.

## 1. Introduction

The Chinese accounting standards demonstrates that the goal of financial reporting is to satisfy the need of investors for decision-making. Most investors also refer to financial reports to understand the prospects of business operations and to make decisions. However, the imperfect capital market system and the self-interest motivation of managers cause opportunism in the financial report, which might manipulate investors' misunderstanding to make wrong decision. Therefore, if there is no effective professional training of accounting professional, uninformed investors will bear the potential loss.

The purpose of this paper is to understand whether the undergraduate students trained by accounting classes have the potential to identify the "real" information content. If their accounting training in universities could not give them enough judgment from the firm's financial report, the accountants graduated from the higher education might not be effective to monitor the managers' inappropriate activities. Therefore, in the commercial management of colleges and universities, the accounting education for the financial reports is very important (Byrne and Flood, 2008).

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Since most people hold bounded rationality mentioned in behavioral finance, even the Chinese graduates from universities might need more cultivated experience to make professional identification. By the complication of the Chinese expression, the Chinese uninformed investors could suffer more loss from the securities market. Meanwhile, the disclosure of corporate information by the text of the sentiment (tone) could misunderstand investors more easily (Elliott, 2006; Li, 2008). Thus, this paper would examine if the university students after accounting training could not easily confused by managers' tone embedded in the financial reports.

After a field survey from the undergraduate students in their accounting classes, our empirical results show that the accounting professional training helps students to make more clear understanding of the business prospects, which is consistent with Tan *et al.* (2014). That is, the accounting students in universities could identify the tone sentiment hidden in the managers' statements of financial reports. However, this ability is consistent with the belief they value their accounting knowledge, not significant in their acquired academic performance. This condition might attribute to the inadequate question methods in the final. At last, we found that the more confidence the accounting students hold, the better they could identify the tone management based on the managers' opportunism. In short, the professional training of college undergraduate accounting helps to understand the future and reduces the impact of textual emotions.

The rest is arranged as follows: the next is the literature review and the establishment of our hypotheses, the third is the data and research methods, the fourth is our empirical results, the fifth is the robustness and the final is our conclusion and suggestion.

## 2. Literature and Hypothesis Development

Hunter (2016), identified that the actions of schools play an important role in shaping the age of mass education in society. Especially for those classes that made students boring and teachers' frustration, how to improve the achievement of student learnings is promoted and diversified (Carnaghan *et al.*, 2011). Among these educational suggestion, the textual emotional expression (tone) to simulate teaching skills and learning effectiveness has focused on learning to make appropriate decisions in many professional fields (Benjamin, 2012; Cabedo-Mas and Diaz-Gomez, 2015). Even Kirke and Miranda (2014) applied computer programming to represent the tone embedded in the music. The tone is also used in the communication of the market, to divide market categories into each well-known stakeholder (Hunter, 2019).

The importance of accounting educational socialization has been more notification increasingly. Since Enron incident occurred in 2001, the managers found there is more opportunity to disclosure their perception in the financial reports. On the one hand, it's called "non-GAAP earnings" that hurt uninformed investors by manipulating the accounting standard (Bhattacharya *et al.*, 2007). On the other hand, the managers could also insert emphasis in their earnings announcements to influence investors' understanding of the company (Bowen *et al.*, 2005; Henry, 2008; Tetlock, 2007). After Zhang and Zheng (2011) pointed out that the regulation execution has limited the opportunistic explanation of the accounting information, Brown *et al.* (2012) also found that managers would be like to use "tone management" to create a pleasant surprise, thereby manipulate investors into positive expectations of the company's prospects.

Even though Perols (2011) could use machine learning and statistical algorithms to detect earnings fraud, it is suggested that apart from earnings numbers in the financial statements, the qualitative information content embedded in earnings announcements could also influence the understanding of investors indirectly (Davis and Piger, 2012; Loughran and McDonald, 2011). Therefore, the literatures tried to improve the "tone effect" on the graduates who had experienced in commercial education. For example, Willits (2010) discusses several strategies for enhancing the value of the general education component of each student's accounting education. Byrne and Flood (2008), found that students' confidence in their skills and abilities and perceptions regarding the role of university in career development could help their identification in the accounting fraud. Russell *et al.* (2020), also illustrated that educators would do well to discuss compassion with their students in the accounting class, making them aware of its benefit to boost their learning effectiveness.

Combined with the educational literatures and the accounting research above, this paper focuses on the educational effectiveness in the accounting class. That is, we want to make sure whether the accounting students could identify the managerial tone manipulated in the financial reports or not, and what factors contribute to their ability in the understanding of tone differentiation. Instead of the computer intelligence and the accounting regulation, we expect that the improvement in the accounting education could fill in the gap between the business communication and the firm's operating perception. Thus we construct our concepts in Figure 1 [Figure 1 near here].

### 2.1. Research Design

#### 2.1.1. Questionnaire Design Process and Pre-Test Results

According to our research purpose that examines the detection of "tone" by undergraduate students who have learned accounting, we randomly selected 90 firms' financial reports from Shanghai Stock Exchange listed companies in 2015. Among these financial reports, we focused on the "management discussion and analysis" part in each report, which should appropriately represent managerial perception represented to outside investors. Based on the difficulty of reading the text expression in the "discussion and analysis" part, we first divided each managerial discussion into three grades: difficult, middle, and easy. For each grade, we hand-collected some paragraphs that were easily read for undergraduate level, and combined them into our samples. The second, we confirm our samples whose characteristics match the variations from Figure 1 and also make pre-test on the 4 undergraduate students to filter out the questionnaires by the students' clear comprehension. We take this step to make sure that the other

undergraduate test-takers could perceive the differences among our variations. At the last, for balancing the industrial difference by their wording, we select the 4 questionnaires from the banking, hi-tech, manufacturing, and servicing industries to construct our questionnaire sheet. And we would apply this sheet to investigate if the undergraduate students could figure out what the managers represent their business perceptions.

In the questionnaire sheet, we construct 4 kinds of managerial “tone” into individual discussion. That is, we input strong positive tone into the first discussion case, neutral positive tone into the second, strong negative tone into the third, and neutral negative tone into the last discussion case. Appendix A illustrates the example of the first case (with strong positive tone). Since the managerial tone is correlated with their type of news (i.e. good news or bad news), we refer the first and the second cases to “good news”, and the third and the last cases to “bad news”. In each case, we design 2 questions for the student’s judgment about the future business of the firm, 2 questions to measure the student’s accounting training, 1 question for the tone effect on his/her judgment, and another 1 question to test the student’s commercial knowledge background. Appendix B shows the questions designed by Likert’s five-point scale for all the questions.

### 2.1.2. Data Proceeding and Samples

To ensure that the undergraduate students hold enough accounting training, we randomly select the senior students in a Chinese university. Thus there are 396 students attended our survey and 1,584 data obtained (i.e. 396 x 4). However, we delete 132 data by the contradictory answers from the questions which the student’s judgment about the future business is not clear. After the data proceeding we finally get 1,420 sample as shown in Table 1. By their tone type, we could also conclude that there are 706 samples from good news (including 387 with positive tone and 319 with neutral tone), and 714 samples from bad news (including 359 with positive tone and 355 with neutral tone) [Table 1 near here].

### 2.1.3. Examination on the Measures of Tone

We first measure the reliability of our questionnaire sheet. We get the Cronbach’s alpha 0.7698 that means our questionnaires are reliability. In addition, to confirm that our samples are representative of textual sentiment, we follow the examination from Tan *et al.* (2014) on how to test the effectiveness of “tone”. By comparing the average points of students’ judgment from the positive (negative) tone of the samples, we figure out their difference as shown in Figure 2 [Figure 2 near here].

Figure 2 shows the average scores of students’ judgment (from +1 to +5) among different tone types. The scores from positive tone (good news) are [2.72, 2.86] and that from negative tone (bad news) are [1.78, 2.48]. Therefore, it’s clear that the judgment from good news is superior than that from bad news. However, the slope of positive-tone line (dashed) is much lower than that of negative-tone line, which infers that the undergraduate student is more sensitive on managerial tone when they announce bad news rather than good news. In addition, we make the hypothesis test based on these positive (negative) tone samples and find that their variance is not different sufficiently (i.e. The F-statistics of these two groups are 1.12 and 1.05, separately). Thus the results of our test on tone effect is consistent with Naveed *et al.* (2011) that demonstrates shocks from “bad news” is faster rather than that from “good news”.

### 2.1.4. Models and Variations

The purpose of this paper is to explore whether the undergraduate students with professional accounting training will affect their prospect of business information, and test if the managerial perception expressed by the tone could affect the students’ judgment. Therefore, based on our hypotheses in Figure 1, we first design the models as follow:

$$\text{Jud} = \alpha_0 + \alpha_1 * \text{Pro} + \alpha_2 * \text{Tone} + \varepsilon \quad (1)$$

$$\text{Jud} = \beta_0 + \beta_1 * \text{Scr} + \beta_2 * \text{Tone} + \varphi \quad (2)$$

In the two models, we input the judgment of the individual student (represented as Jud) to disclosure his/her prospect after reading the managerial discussion. Since we have designed relevant positive/negative questions in good/bad news attributed to the reading, the bigger of Jud means he higher level of reaction and vice versa. In addition, the managerial tone (represented as Tone) denotes the response that student identifies about the managerial tone. To get better measures of students’ accounting training, we use two variables from either the student’s self-estimates about his/her accounting knowledge (Pro) or his/her accounting academic score (Scr). We respect the coefficients of accounting training ( $\alpha_1$  and  $\beta_1$ ) are positive and observe whether the coefficients of managerial tone ( $\alpha_2$  and  $\beta_2$ ) are positive or not.

While model (1) and model (2) are the univariate models for our hypotheses, we also construct model (3) and model (4) to include other variables about the student’s learning characteristics. That is, we bring in the student’s basic commercial knowledge (Basic), past learning experience (Hist) and his/her future career planning (Fu). We apply all measures of Chinese accounting training in model (5) to capture how they affect the student’s judgment about the managerial perception, and summarize our variable definition in Figure 2 [Figure 2 near here].

$$\text{Jud} = \gamma_0 + \gamma_1 * \text{Pro} + \gamma_2 * \text{Tone} + \gamma_3 * \text{Basic} + \gamma_4 * \text{Hist} + \gamma_5 * \text{Fu} + \epsilon \quad (3)$$

$$\text{Jud} = \delta_0 + \delta_1 * \text{Scr} + \delta_2 * \text{Tone} + \delta_3 * \text{Basic} + \delta_4 * \text{Hist} + \delta_5 * \text{Fu} + \omega \quad (4)$$

$$\text{Jud} = \theta_0 + \theta_1 * \text{Pro} + \theta_2 * \text{Scr} + \theta_3 * \text{Tone} + \theta_4 * \text{Basic} + \theta_5 * \text{Hist} + \theta_6 * \text{Fu} + v \quad (5)$$

### 3. Empirical Results and Discussion

We first examine the descriptive statistics for the selected variables as shown in Table 3 [Table 3 near here]. We find the standard deviation (Std) of students' academic scores (Scr) is lower than that of their self-estimates (Pro). It might infer that the student's self-estimate about his/her accounting knowledge could be more effective than their performance in academics. Also, the standard deviation of "Tone" is big relatively. However, the biggest standard deviation occurs in students' career planning (Fu) represented that not all of the undergraduate students hold clear vision for their future. Thus we verify the correlation among our variables as Table 4 [Table 4 near here].

Table 4 shows the Pearson correlation coefficient of our variables. We observe that the students' self-estimates about their accounting professionals (Pro) is significantly correlated with other variables. However, their academic scores for accounting classes represents significant correlations only among the past learning experience (Hist) and the future career planning (Fu). Among all variables, only that is "Tone" appeared in negative relationship with other variables. This might infer that the students finished the accounting classes could speculate the managerial tone embedded in their perception of discussions.

According to the univariate and multiple models, we make regressions from model (1) to (5). The empirical results are shown in Table 5 [Table 5 near here]. At first, the accounting training measured by the students' self-estimate is significantly positive correlated to their judgment on managerial discussion and analysis, which means that the accounting training could help people to figure out what management perception is in the financial reports. Second, even though Chinese is one of the most difficult language in the world, the student trained by accounting knowledge could "find the truth" from the misleading of managerial tone. Thus the coefficient of "Tone" emphasized by managers is significantly negative correlated to the student's judgment. Third, we find that the accounting training measured by the academic score is not significant, but positive correlated to the student's judgment. It gives us the enlightenment that the academic score system might not be very suitable for knowledge evaluation. At last, among controlled variables, the basic commercial knowledge absorbed by the undergraduate student (Basic) is also significantly positive correlated with his/her judgment. It might reflect that other commercial business knowledge, rather than accounting, could help students to avoid managers' misleading in their discussion.

### 4. Robustness Test

To confirm whether the controlled variables could exist in the intermediary effect or not, we construct the model (6), (7) and (8) to examine our empirical results. In addition, some literatures (such like Finn (2014) and Russell et al. (2020)) identify that the gender and family background could affect the student's success in the accounting and business fields. Therefore, we introduce the gender (Gend) and the student's family background (Family) to construct model (9) and model (10). The variable "Gend" is a dummy and equal to 1 if the student is female. Since many Chinese female students majored in accounting, the average of "Gend" is 0.7528 in our sample. On the other hand, the variable "Family" is also a dummy and equal to 1 if the student's families work in business. We hypothesizes that if the student's families engage in the commercial world, he/she would learn more about the business knowledge. Since we have investigated about the gender and family information in our raw data, we can know the average of "Family" is 0.3915. Thus our robust models are shown as below:

$$\text{Jud} = \kappa_0 + \kappa_1 * \text{Pro} + \kappa_2 * \text{Tone} + \kappa_3 * \text{Basic} + \kappa_4 * \text{Hist} + \kappa_5 * \text{Fu} + \kappa_6 * \text{Pro} * \text{Basic} + \zeta \quad (6)$$

$$\text{Jud} = \lambda_0 + \lambda_1 * \text{Pro} + \lambda_2 * \text{Tone} + \lambda_3 * \text{Basic} + \lambda_4 * \text{Hist} + \lambda_5 * \text{Fu} + \lambda_6 * \text{Pro} * \text{Hist} + \xi \quad (7)$$

$$\text{Jud} = \mu_0 + \mu_1 * \text{Pro} + \mu_2 * \text{Tone} + \mu_3 * \text{Basic} + \mu_4 * \text{Hist} + \mu_5 * \text{Fu} + \mu_6 * \text{Pro} * \text{Fu} + \varphi \quad (8)$$

$$\text{Jud} = \nu_0 + \nu_1 * \text{Pro} + \nu_2 * \text{Tone} + \nu_3 * \text{Basic} + \nu_4 * \text{Hist} + \nu_5 * \text{Fu} + \nu_6 * \text{Gend} + \psi \quad (9)$$

$$\text{Jud} = \eta_0 + \eta_1 * \text{Pro} + \eta_2 * \text{Tone} + \eta_3 * \text{Basic} + \eta_4 * \text{Hist} + \eta_5 * \text{Fu} + \eta_6 * \text{Family} + \vartheta \quad (10)$$

The results of robustness appear consistency in our empirical results in Table 6 [Table 6 near here]: the coefficients of Pro, Tone and Basic are still highly significant in all models. Compared with model (1) to model (5), the adjusted R-squares in robustness is higher. Especially, the coefficient of the cross term (Pro\*Basic) is highly significant, that implies the more knowledgeable the student is, the more correctly he/she makes judgment. However, even though the female accounting student with business families could improve her understanding about management perception, the coefficients of "Gend" and "Family" are not significant. It might conclude that the personal characteristics of the student could not completely cover his/her professionals in accounting.

### 5. Conclusion

The purpose of this paper is to understand if the Chinese undergraduate students could identify the managers' perception in the "managerial discussion and analysis" part of the financial report. We investigate the students with accounting majored by making the detailed questionnaire surveys. Especially, we select those "managerial discussions" in which managers emphasize positive, neutral, or negative tone. After the extensive investigation and data proceeding, we collect 1,420 samples to make our completely regressions. As a result, we conclude that the accounting training could help people to understand the business perception of the firm more clearly. Further, it would avoid the readers to be misunderstood by managers' tone embedded in the financial reports.



Our empirical results could make contributions in three ways. First, we highlight the importance of business knowledge for socialized education. To make accounting knowledge more universal could decline the misunderstanding of the uninformed investors. Second, this paper identifies the Chinese academic scoring system in universities could be more flexible to evaluate students' learning performance. Finally, we suggest that regulators could increase the socialization of accounting training to reduce economic loss by managers' opportunism.

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## Appendices

### APPENDIX A

The example of the first case with strong positive tone in the questionnaire sheet

#### 【Management Discussion of Y&L Company】\*

In 2015, the stock market in China experienced sharply. The A-share stock market went up accelerated at the beginning of 2015. The SSSI (Shanghai-Shenzhen Stock Index) 300 Index hit the highest record of recently seven years in June. However, the market tumbled sharply in the following three months, dropping 45.1% from its highest point. Dramatic changes in the stock market prompted the introduction of regulation, including restrictions on the reduction of shareholding of listed companies, and limitations on stock index futures, and other series of rescuing steps for the market. Thus the market has gradually stabilized from September, 2015.

Compared with the stock market volatility, the bond market is still in a bull market as a whole. The amount of financing in the primary market has increased by 66.9% compared with last year, and the CBPI (China Bond Price Index) in the secondary market has increased by 4.5% compared with the beginning of this year. With the acceleration of interest rate and exchange rate marketization, the Chinese bond market and the interest-rate swap market will be going with rapid development opportunities.

In response to market challenges such as excess liquidity caused by the interest rate declining, the company deepens its strategic transformation: to build up "the Internet brokerage and wealth management, "the modern investment bank", "the institutional, corporate and private banking service systems", and participate in the global financial market. The company targets introducing high-end talents from the domestic Internet field, stock exchanges, and the Wall Street. Through optimizing performance management mechanisms, IT systems, and operating procedures, the company composes an excellent talent team system to provide comprehensive guarantees for the implementation of strategic upgrades.

In the future, the company will accelerate the use of comprehensive financing to enhance its asset and liability strength, and also will deliver the potential of the teamwork and its mechanism. Through developing in the east, south, and north major regions, the company will create differentiated competitive advantages by "big brokers, big investment banks, big sales, big transactions, and big investments."

\* The original Chinese text is transferred to English above, but may not represent fully expression based on the Chinese complexity of content expression.

### APPENDIX B

The questionnaire of the first case to measure the student's accounting training, his/her understanding about managerial Perception, and the interference of Chinese Tone

1. The company revealed a great opportunity for profit.		
<input type="checkbox"/> Very disagree	<input type="checkbox"/> Agree	Very disagree
<input type="checkbox"/> Disagree	<input type="checkbox"/> Very agree	<input type="checkbox"/> disagree
<input type="checkbox"/> General		<input type="checkbox"/> general
2. If the company's strategic plan can be simply explained, it can reduce the difficulty of my reading.		
<input type="checkbox"/> Very disagree	<input type="checkbox"/> Agree	<input type="checkbox"/> Very disagree
<input type="checkbox"/> Disagree	<input type="checkbox"/> Very agree	<input type="checkbox"/> disagree
<input type="checkbox"/> General		<input type="checkbox"/> general
3. When there are many numbers demonstrated in a paragraph, it is not conducive to my understanding.		
<input type="checkbox"/> Very disagree	<input type="checkbox"/> Agree	<input type="checkbox"/> Very disagree
<input type="checkbox"/> Disagree	<input type="checkbox"/> Very agree	<input type="checkbox"/> disagree
<input type="checkbox"/> General		<input type="checkbox"/> general
4. When the company's policies are simply expressed, it is conducive to my further understanding.		
<input type="checkbox"/> Very disagree		<input type="checkbox"/> Agree
<input type="checkbox"/> Disagree		<input type="checkbox"/> Very agree
<input type="checkbox"/> General		
5. I can understand the conditions of the stocks market introduced in the discussion.		
<input type="checkbox"/> Very disagree		<input type="checkbox"/> Agree
<input type="checkbox"/> Disagree		<input type="checkbox"/> Very agree
<input type="checkbox"/> General		

6. I think the future prospects of the company are good and the profits can be expected.	
<input type="checkbox"/> Very disagree	<input type="checkbox"/> Agree
<input type="checkbox"/> Disagree	<input type="checkbox"/> Very agree
<input type="checkbox"/> General	

The questionnaire is designed to measure the undergraduate accounting student's professional training, future perception and whether he/she is affected by managers' tone. Based on the article demonstrated from Appendix A that includes positive tone (such like "big brokers, big investment banks, ..." in the last paragraph), the student should apply his/her understanding to answer 6 questions like Appendix B. We design 2 questions to assess his/her accounting professionals (item 2 and 3), 2 questions for the understanding of the company's prospects (item 5 and 6), 1 question examined the tone effect on the student (item 1), and another 1 question measured other business knowledge from the student (item 4). To make sure there is no bias, all students answered this questionnaire at the same time. Also, to avoid cheating we test this questionnaire by the computers and randomly change the order of the questions for each student.

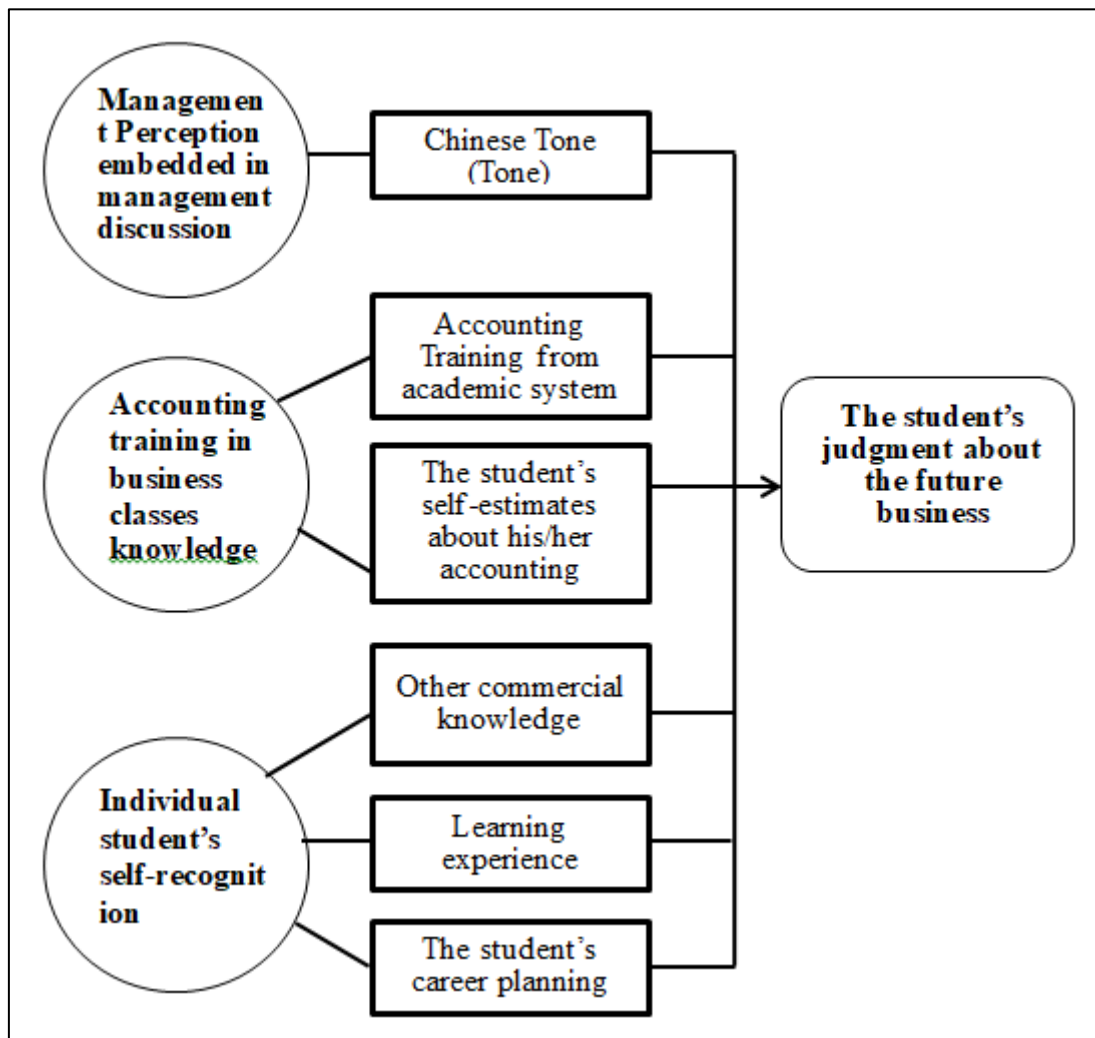


Figure-1. The Judgment Process of the Students Based on the Financial Reports

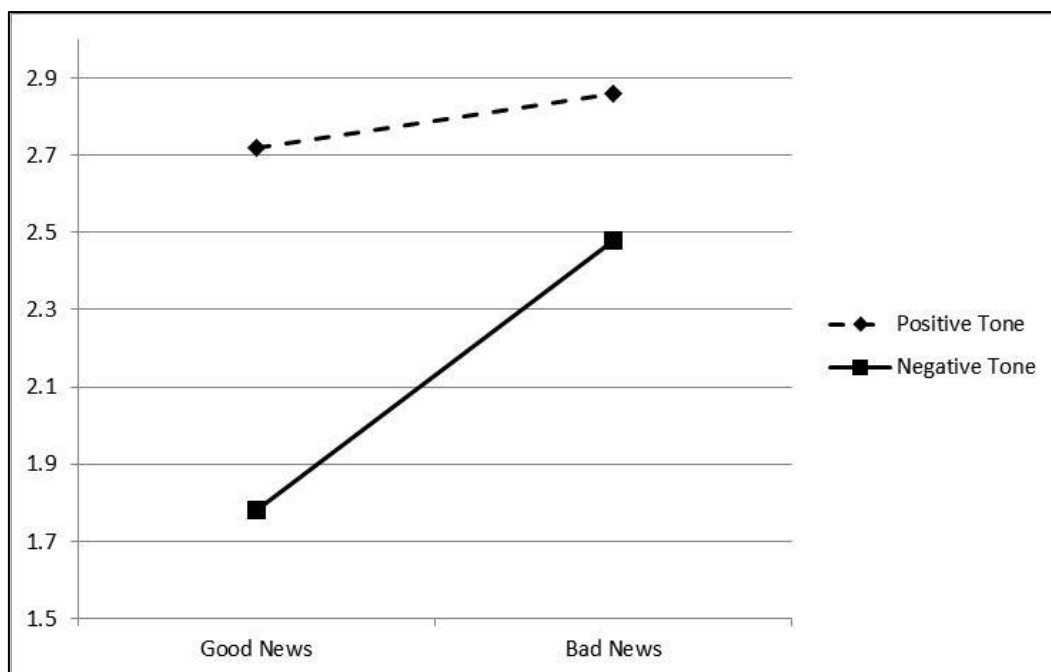


Figure-2. the Judgment among Different Tone Types

Table-1. Data Proceeding of the Samples

Description	Num. of data
Raw data (396 students x 4 cases)	1,584
Less: Contradictory answers which the student's judgment about the future business is not clear.	132
Less: Final academic score missing (8 students x 4 cases)	32
Final samples	1,420

Table-2. Variable Definitions and Their Measurement

Variation	Variable	Definition	Measurement
Dependent Var.	Jud	The individual student's prospect after reading the managerial discussion	Five-point Likert scale questionnaire from 0 to 4 that is consistent with Tan et al. (2014). A higher score implies the more consistence with the management discussion and vice versa.
Independent Var.	Pro	Student self-estimates about his/her accounting knowledge	Five-point Likert scale questionnaire from 1 to 5. A higher score means better self-estimates of accounting knowledge that the student regards him-/her-self.
	Scr	Accounting training from academic system	The average of professional accounting-training score in the current academic period, divided by 10.
	Tone	Chinese tone embedded in management discussion	The criteria of 0 points (strongly disagree) to +4 points (strongly agree) for measuring the tone effect on the student's judgment. This measurement is consistent with Tan et al. (2014).
Control Var.	Basic	Other knowledge or commercial understanding held by the individual student	Five-point Likert scale questionnaire from 1 to 5. A higher score means better commercial knowledge hold from the student.



	Hist	Past learning experience history from the individual student	Five-point Likert scale questionnaire from -2 to 2. It denotes whether the student's learning experience is good or not.
	Fu	Student's career planning for the future	Five-point Likert scale questionnaire from -2 to 2. It denotes the student's interest about the accountant career. It is 2 if the student plans to work in an accounting career after his/her graduation, and -2 if he/she will never be involved in the accounting field. It is 0 if the student has not decided yet.

**Table-3.** Descriptive Statistics for Variables

Variables	Mean	Mode	Std	Q1	Median	Q3
Jud	2.45	3.00	0.80	2.00	2.50	3.00
Pro	3.50	3.50	0.77	3.00	3.50	4.00
Scr	8.09	8.30	0.72	7.80	8.20	8.50
Tone	2.76	3.00	0.96	2.00	3.00	3.00
Basic	3.70	4.00	0.81	3.00	4.00	4.00
Hist	0.58	1.00	0.71	0.00	1.00	1.00
Fu	1.05	2.00	1.01	0.00	1.00	2.00

**Table-4.** Correlation Coefficients of the Variables

Vari.	Jud		Pro		Scr		Tone		Basic		Hist		Fu
Jud	1												
Pro	0.18	***	1										
Scr	0.01		0.10	***	1								
Tone	-0.08	***	-0.27	***	-0.01		1						
Basic	0.17	***	0.22	***	0.03		-0.24	***	1				
Hist	0.05	*	0.12	***	0.34	***	-0.02		0.08	***	1		
Fu	0.01		0.05	*	0.18	***	-0.02		0.03		0.31	***	1

\*, \*\*, and \*\*\* indicate significant difference from zero at the 10, 5, 1 percent levels, respectively.

**Table-5.** Perception Co-effected by Accounting Professionals and Tone

Models	(1)		(2)		(3)		(4)		(5)	
Intercept	1.997	***	2.608	***	1.570	***	2.147	***	1.802	***
	(19.50)		(10.63)		(12.7)		(8.19)		(6.85)	
Pro	0.221	***			0.190	***			0.192	***
	(7.91)				(6.77)				(6.82)	
Scr			0.003				0.016		0.03	
			(0.12)				(0.53)		(1)	
Tone	-0.115	***	-0.067	***	-0.144	***	-0.108	***	-0.145	***
	(-5.13)		(-3.03)		(-6.38)		(-4.86)		(-6.4)	
Basic					0.169	***	0.197	***	0.169	***
					(6.42)		(7.45)		(6.41)	
Hist					0.032		0.056	*	0.041	
					(1.04)		(1.74)		(1.3)	
Fu					0.027		0.024		0.025	
					(1.27)		(1.09)		(1.18)	
n	1,420		1,420		1,420		1,420		1,420	
Adj. R <sup>2</sup>	22.0%		8.1%		27.8%		21.7%		27.9%	

The t-statistics is shown in parentheses for each variable. \*, \*\*, and \*\*\* indicate significant difference from zero at the 10, 5, 1 percent levels, respectively.

**Table-6.** Intermediary Effect on Accounting Professionals and Tone

<b>Models</b>	<b>(6)</b>		<b>(7)</b>		<b>(8)</b>		<b>(9)</b>		<b>(10)</b>	
Intercept	0.845	***	1.689	***	1.672	***	1.586	***	1.580	***
	(2.87)		(11.82)		(10.45)		(12.39)		(12.74)	
Pro	0.935	***	0.156	***	0.162	***	0.189	***	0.190	***
	(10.72)		(4.54)		(4.10)		(6.76)		(6.78)	
Tone	-0.159	***	-0.146	***	-0.145	***	-0.144	***	-0.145	***
	(-7.23)		(-6.47)		(-6.41)		(-6.35)		(-6.4)	
Basic	0.861	***	0.168	***	0.168	***	0.169	***	0.170	***
	(10.62)		(6.37)		(6.36)		(6.42)		(6.46)	
Hist	0.045		0.155		0.033		0.032		0.033	
	(1.50)		(1.33)		(1.09)		(1.06)		(1.07)	
Fu	-0.022		0.027		0.122		0.027		0.027	
	(-1.06)		(1.28)		(1.26)		(1.27)		(1.28)	
Pro*Basic	0.208	***								
	(9.00)									
Pro*Hist			0.056	*						
			(1.66)							
Pro*Fu					0.027					
					(1.01)					
Gend							0.023			
							(0.49)			
Family									0.039	
									(0.93)	
n	1,420		1,420		1,420		1,420		1,420	
Adj. R <sup>2</sup>	35.6%		28.1%		27.9%		27.8%		27.9%	

The t-statistics is shown in parentheses for each variable. \*, \*\*, and \*\*\* indicate significant difference from zero at the 10, 5, 1 percent levels, respectively.