The Adoption Post-Linguistic Style and Persuasive Communication of Capital Market Influencers

Lydia Agustina Sinaga[1]*, Arga Hananto[2]
Department of Management, Universitas Indonesia
lydia.agustina@ui.ac.id[1]*, arga.hananto@ui.ac.id[2]

Abstract. Previous research found the use of post-linguistic features (emotionality, complexity, and informality) affect social media communicators success in persuading and attracting audiences. This study aims to explore the differences in linguistic styles used in persuasive communication adopted by capital market social media influencers. Using 5.710 instagram posts from a sample of five influencers and 4.149 instagram posts from a sample of five securities companies, we applied a text mining method to identify linguistic features used by the influencers and compare the characteristics of linguistic features used by individual influencers and institutional influencers. The results suggest that individual influencers adopt more persuasive linguistic model than institution influencers. This study contributes to the literature pertaining to social media influence strategy, particularly in describing the linguistic features used by social media influencers (individual and institutional influencers).
Keywords: Communication; Linguistic style; Social media content; Text mining

I. Introduction

A decade ago, the biggest firm in US had started using at least one social media for channeling their business. Recently, banks and financial institutions worldwide also attempted to use social media for marketing (Torbarina et al., 2020). Because advances in digital technology have catalysed people to seek out the valuable information, advice, experience, and professional opinions from content created by influence people (Delbaere et al., 2020) specifically regarding finance and investment.

A survey conducted by Cogent Research in 2013 disclosed 70% of investors started building relationships with investment providers based on content found on social media. McKinsey stated that 83.6% of individual investors in China use Internet-based social media on their computers and mobile phones as their preferred source of investment information (Han & Li, 2017). Therefore, contents of media social are able to influence the attitudes, decisions and behaviours of follower (Veirmen et al., 2017). Additionally, a study found that the number of contents or postings is a better measure for producing a sizable profit. It implies the amounts of posting are directly proportional to the level of information received by investors. Consequently, social media leads to lower information asymmetry (Meng et al., 2020). The accessibility of new technology, the transparency of social media, and the adoption of user-friendly investment platforms have made the average consumer understand financial products, specifically in stock investments.

As a result of the current digitalization era, financial literacy education and socialization strategies have also been carried out online by the government and financial providers. For instance, financial services companies and influential figures that act as opinion leaders in the stock market (Casaló et al., 2020). They actively provide education and information on digital platforms for their interest. In this paper we categorized capital market influencers into individual and institutional. These influencers may have different linguistic styles when they share post content about stock investment on Instagram. Institutions are organization which provides financial services that are licensed by the authorities. Organizations generally build communication relationship based on institutional values, norms and rules. Therefore, their actions and activities characterize the professionalism (Powell & DiMaggio, 2012). While social media individual influencer is a micro celebrity, self-branded individuals with large number of followers who built their careers online (Schouten et al., 2020) and gain popularity without such institutional intermediaries (Grave, 2017).

As previous research had identified that post content on social media influenced people's behaviour and decision toward investment (Loughran dan Mc Donald, 2011). "What to say" in content and "how to say it" using persuasion knowledge are essential skills for opinion leaders or influencers (Lee & Aaker, 2004). Accordingly, the power of linguistic variation becomes very important in providing information and education on their social media content.

Eventually, the focus of this study examines content often shared by influencers representing institution and individual influencers on Instagram. A text mining method was applied to investigate differences in linguistic features (persuasive communication), namely emotionality, complexity, and informality. Furthermore, it contributes to communication literature by adding insights into the growing stream of research on content marketing, such as financial information, investment, remuneration, and

social/relational contents. It provides insights into the financial community about the linguistic style used by capital market influencers in their persuasive communication efforts.

II. Literature Review

Linguistic style

Previous research has shown the importance of communication for various purposes, using social networks such as marketing activities, information dissemination, product introductions and campaigns (Ahlers et al., 2015). The sociolinguistic literature found that this language is relationship-oriented and can be used to create engagement and closeness with the interlocutor (Rennekamp & Witz, 2020). The research in psycholinguistics shows that linguistic style is more closely linked to the measures of people's social and psychological worlds than content (Tauszcik & Pennebaker, 2010). Therefore, it is being a powerful mechanism for connecting with targeted audiences. The research finds that using style words more than content may indicate people's attention, focus, feelings, social relationships, thinking styles, and personal characteristics (Eckert, 2000). Linguistic elements can positively or negatively violate audiences' expectations and change their attitudes (Averbeck, 2010).

Persuasion theory and research

Persuasion is understood as an attempt to change someone's beliefs and attitudes. In commercial business, it changes a person's attitude towards a product or an idea by appealing to their emotions and reactivating positive memories from the past (Kumar, 2015). Academic research exhibited the information that individuals and consumers acquire from others has a significant impact on their decisions (Roelens et al., 2016). Further research showed that powerful language plays a vital role in persuasive communication. Sparks and Areni (2002) discovered that it triggered more favourable attitudes than powerless language and speakers were more persuasive when using powerful language.

According to Reinforcement Theory, linguistic style increases the message's persuasiveness. A study by Craig and Blankenship (2011) showed that the use of linguistic features such as more emotionality and strong arguments increased persuasion and credibility. Emotionality is one of the criteria to measure persuasive ability, and emotional level is directly proportional to the ability to cognitively influence. Buckley (2018) discovered that the reader's cognitive processing of a text can be affected by rising degrees of emotionality.

Financial literacy and social media

Behavioural finance studies the effects of psychological phenomena and financial science on individual behaviour. This affects the responses and decisions of investors to the information received. Investment decisions can also be influenced by other people's observations in social interactions and tend to be influenced by the dominant behaviour. For example, people will undoubtedly select restaurant based on its popularity (Avery & Zemsky, 1998). As with stock investments, investors make decisions based on trends and influential figures. This behavioural phenomenon is known as "herding", which is the act of everyone doing what other people do, even when they have the information to do different things (Banerjee, 1992). Hung et al. (2009) claimed: "One of the striking things is that financial literacy has been variably defined as (a) a specific form of knowledge, (b) the ability or skills to apply the knowledge, (c) perceived knowledge, (d) good financial behaviour, and (e) financial experiences."

People are increasingly informed about the financial market through the expansion of application platforms and social media technologies for information and communication, making their value to providers significant (Lcyshon & Thrift, 2007). Furthermore, financial providers have integrated technologies and social media to collect data on investors' behaviours and facilitate understanding of their abilities. Investment-related information and insights can be shared through the official accounts of major capital market companies on sites like Instagram, Twitter and YouTube. Digitalizing the financial industry changed consumer behaviours and built new trust between investors and actors. Additionally, intermediaries like financial educators play a crucial role in reducing information asymmetry and influencing market confidence (Chikhi, 2021).

III. Research Method

Data

To explore the linguistic style of individual and institution influencers in social media, this study's method focused on gathering data post content in Instagram. Data was scraped from a sample of five Indonesian and institutional influencers representing individual and institutions groups. Data were collected

since January 01, 2019, to May 31, 2022, and Instagram was selected as the research context because its fame as social media marketing platform worldwide (Statista, 2020; Casaló et al., 2020).

Using the methods advocated in the literature, individual influencers were identified based on their consistent behaviours such as frequency of posts and number of followers, media citation score, popularity indicating by large number of likes and comments, and media citation score (Liu et al., 2015). In terms of followers, categorized as an influencer if has at least 10.000 followers or known as micro influencer (Park et al., 2021). Meanwhile, securities companies were selected from the securities firms listed in the top ranks based on transaction volume and frequency issued by the Indonesia Central Securities Depository website.

The data were analyzed using Rstudio software to perform sample's linguistic features such as emotionality, complexity, and informality. R is an open source and free software that been used in previous works to perform text analytics (Hassan et al., 2021). With Rstudio, there are several ways to perform linguistic analysis using Instagram postings in Rstudio. This research began with pre-processing, cleaning, and extracting the data. Lexicon-based was performed to extract emotion words in the form of negative and positive which indicate features of emotionality in sample posts. While complexity and informality were processed using various R packages; stopwords, stringr, tidytext, tm, dyplr, ggplot2, wordcloud, corpus and others.

Measures of Variables

According to Deng at al. (2021), the three characteristics of post-lingustic style could affect the success of attracting audiences, drawing attention, growing enthusiasm and increasing audience complicity.
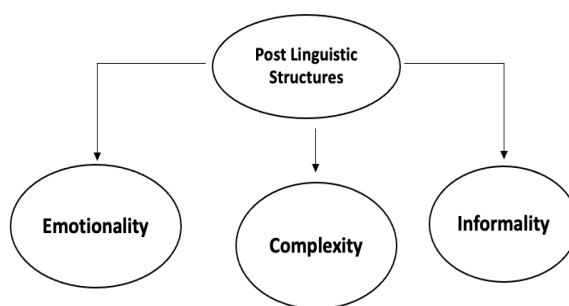

Figure 1. Research model

Therefore, this paper unveils the adoption of post-linguistic model of individual and institutional influencers specifically in discussing stock content on Instagram. To simplify the measurement of linguistic components, we use operationalization that construct the linguistic structures is applied as follows:

Table 1. Description of Variables and Operationalization

Variable type	Notation	Description
emotionality	emo1	- amount of positive sentiment posts in content divided to post length
	emo2	- amount of negative sentiment posts in content divided to post length
complexity	comp1	- post length (total words)
	comp2	- average words per sentence divided to post length
	comp3	- number of words with more than six characters (long words) divided to post length
	comp4	- number of hashtag (#) divided to post length
	comp5	- number of at-mention (@) divided to post length
informality	inf	- number of words netspeak and contraction words divided to post length

Source: Deng at el. (2021)

IV.   Results and Discussion

Post-Linguistic Style

Over more 8.000 postings from financial market influencers clarify that frequent or dominant words represent the topics content discussed by content providers. The words that most often appeared in content posts are "stock", "investment", "trading", "profit" "come on", "fall", "risk" and "saving".

Table 2. Descriptive Statistics of Variables on Individual Influencers

	emo1	emo2	comp1	comp2	comp3	comp4	comp5	inf
mean	0,315	0,120	67,844	11,617	0,454	0,218	0,092	0,035
std dev	0,141	0,098	58,532	6,792	0,201	0,258	0,193	0,063

Table 2 and 3 describe the summary measurement of the adoption of post-linguistic components of each influencer. These statistic results inform that there are many differences in the linguistic components adopted by influencers (individual and institutional).

Table 3. Descriptive Statistics of Variables on Institutional Influencers

	emo1	emo2	comp1	comp2	comp3	comp4	comp5	inf
mean	0,310	0,098	80,844	17,069	0,471	0,173	0,055	0,019
std dev	0,101	0,075	58,489	10,186	0,176	0,174	0,114	0,032

Emotionality

We used lexicon-based analysis of NRC by Mohammad and Turney (2017) in the Indonesian version to identify the types of emotion negative-positive, including trust, joy, anticipation, fear, disgust, sadness, surprise and anger. Lexicon is a widely used dictionary-based text analytics software to detect emotional words in social media text (Dhaoui & Webster, 2021). The NRC Lexicon was selected because it provides a broader range of emotions to analyse data text. The positivity and negativity scores were computed according to 14,182 unigrams (word dictionary of NRC lexicon). Statistical results show that the two groups of influencers have linguistic differences in their persuasive communication style. Individual on average posted more emotionality text than institutional, both emotion positive and emotion negative words.

Complexity

Complexity level was measured through two basic features namely, syntactic complexity and visual complexity. To perceive syntactic can through post length, average words per sentence or long words (words with more than six characters). Then, to perceive visual complexity can through number of hashtag and at-mention symbols (Deng et al., 2021). Complexity refers to the efforts needed to process and understand a message. This is because people prefer and respond more to simple messages than complex messages (Jones et al., 2004). Text with a high-level complexity negatively affects the ability to process and understand messages and decreases persuasiveness.

The result showed that institutional influencers used more syntactic complexity while individual used more visual complexity. Regarding the measurement result data, it can be said that institution influencers demonstrated a more dominant complexity than individual influencers. Recent academic study found that complexity features could increase distraction and enact difficulty for readers, thereby reducing the curiosity (Davis et al., 2019).

Informality

Informal communication is communication non-official, familiar, casual, and often colloquial language, and contrasts these senses with formal. Informality reflects the perceptions of social norms, soften hierarchical power relationships, reduce social distance, and convey closeness, therefore is often adopted to improve relationships (Gretry et al., 2017).

To measure post informality, we construct our own slang word dictionary. Refers to previous research, we determine slang word's characters to identify informality expression. For example (1) netspeak such as otw, fomo, cuan, lol, ijo, thx; assent such as ok, yes; non-fluencies such as waaahhh, hmm, and sssttt; (2) contractions including yg, dgn, and blm. Informal words or slang words were manually labelled to avoid losing valuable informal language contained in the data set. Two coders observed manual labelling with a reliability test using Cohen Kappa with a measurement value of 0.908 (p-value = 0.05). When the measurement value is above 0.9, the reliability level of the two coders is almost perfect (Casagrande et al., 2020; McHugh, 2012). The labeled slang words can be continued to obtained informality feature. The results showed that individual influencers adopt more informality features than institutional influencers.

V. Conclusions

After analysing more than 8,000 post contents, the descriptive results showed there are differences in the adoption of linguistic styles. In other words, these capital market influencers have different choice

of communication style. In short, our results indicate that individual influencers are more dominant in adopting linguistic structures that have the power to influence the perception and acceptance of others (more emotionality, less complexity and more informality) than institutional influencers. Pertaining the literature, this communication style has an excellent effect on increasing public enthusiasm. Thus, the use of post-linguistic structures can be a strategy to increase the audience, particularly in capital market.

Accordingly, the result renders some valuable insights to the financial community (including all capital market influencers, regulators, and financial parties) about the linguistic style used by capital market influencers in their persuasive communication efforts. This also offers a new perspective on the activities of financial persuaders/influencers and how to broaden an approach to financial literacy. Subsequent research can enhance other valuable information in analysing the effect of using linguistic style on audience engagement/response on social media in the form of likes, comments and shares.

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