Pragma-stylistic Analysis of Selected Nigeria Electronic Advanced Fee Fraud Texts

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Abstract

Electronic mails are used to exchange electronic texts among people. Cybercriminals exploit these electronic mails to defraud people. Computational methods such as spam filtering have failed to users from the escapade due to text manipulation and variation. This problem is more pronounced in cases of Nigerian Electronic Fraud popularly referred to as Nigeria Electronic Advanced Fee Fraud targeted at defrauding people of their assets. Hence, the need to understanding the implicit meanings of Nigeria Electronic Advanced Fee Fraud texts becomes significant and urgent. A substantial number of research works exist on language use in Nigeria Electronic Advanced Fee Fraud texts. Those studies have investigated the language of the texts in areas of semantics, pragmatics, sociolinguistics, stylistics, discourse analysis, socio-linguistics and syntax. However, little has been done to explore Pragma-Stylistics in Electronic Advanced Fee Fraud texts, where the styles of texts are explicated through the use of pragmatic elements. This study therefore explores the pragmatic functions of style, as deployed in the selected Nigeria Electronic Advanced Fee Fraud texts. This is applied in developing a framework for characterising and filtering Nigeria Electronic Advanced Fee Fraud texts. A total of fifty samples were selected through purposive and stratified random sampling techniques from a population of 1,200 texts collected from www.fraudgallery.com and analysed using the proposed framework. The study reveals, among others, that cybercrime is a sub-genre of advertisement.

Keywords: Pragmatics, Stylistics, Advanced Fee Fraud, Mey Theory, Contextual Beliefs

1.0 Introduction

The advent of different media usually brings along the creation of text with different characteristics. The advent of cybernet has brought along its unique language use, forming a genre with peculiar way of representing texts. Rotimi Taiwo (2010) asserted that the arrival of the internet has had a great impact on language to the extent that the medium has led to the evolution of new genres that appear to be suitable only in the context of online discourse. Meaning in communication is not static due to contextual preponderance; interlocutors are constantly considering linguistic and extra-linguistic elements.

The rapid spread of Internet use has led to new trends of crime referred to as cybercrime, which are perpetrated through e-mail, social networks, exploit tools, etc. Some cyber-crimes such as phishing, identity theft, cross site scripting, malware attacks, and denial of service can be easily perpetrated through spam. Spams according to Lalor (2004) refers to unsolicited, unwanted, inappropriate bulk email and also often referred to as Unsolicited Bulk E-Mail (UBE), Excessive Multi-Posting (EMP), Unsolicited Commercial E-mail (UCE), Unsolicited Automated E-mail (UAE), Spam mail, bulk email or just junk mail. The techniques to prevent spams revolve around using filters to examine various parts of electronic message to determine whether or not it is Spam. The spam filtering systems consist of either origin or address-based filters which typically use network information for classifying messages and content filters that examine the contents of electronic messages. Despite the attempts by internet security providers, internet scam has risen in Nigeria in the last two decades. The American Federal Bureau of Investigation (FBI), in its 2012 and 2013 Internet Fraud and Complaints Centre Report, issued rather alarming data, putting Nigeria at the forefront of certain types of Internet crime activity. Nigeria accounts for 15.5 per cent of the total Internet crime activity reported to the American FBI in 2012, and Nigerian Electronic Advanced Fee Fraud accounts for the highest media loss. The reports from the Internet Crime Complaint Centre (IC₃)2012- 2013, show that Nigeria is one of the top ten countries where cybercrime is mostly perpetrated. This is represented in the Table 1 below:

In recent times however, the drastic increase in the amount of spam resulted in the development of a number of tools and techniques to filter spam email from legitimate email, or ham. Early spam filters, developed between 1994 and 1997. They simply scanned the contents of email for phrases that were indicative of spam. It was observed that these filters were not very accurate and often condemned legitimate mail, simply because one of the flagged phrases was accidentally Pragma-stylistic Analysis of Nigerian Electronic Fraud Texts

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included. Other approaches generally used in the mid to late 1990s, included blacklisting, rejecting all e-mails from networks that were known to send a large amount of spam, and white-listing, only allowing e-mails from particular users or networks.

Year 2006		Year 2007		Year 2008	
United states	60.9%	United States	63.2%	United States	66.1%
United	15.9%	United	15.3%	United	10.5%
kingdom		Kingdom		Kingdom	
Nigeria	5.9%	Nigeria	5.7%	Nigeria	7.5%
Canada	5.6%	Canada	5.6%	Canada	3.1%
Romania	1.6%	Romania	1.5%	China	1.6%
Italy	1.2%	Italy	1.3%	South Africa	0.7%
Netherland	1.2%	Spain	0.9%	Ghana	0.6%
Russia	1.1%	South Africa	0.9%	Spain	0.6%
Germany	0.7%	Russia	0.8%	Italy	0.5%
South Africa	0.6%	Ghana	0.7%	Romania	0.5%

Table 1: Source Internet Crime Complaint Centre Report (2012-2013)

While both methods are fairly successful in preventing spam, they have the unfortunate side effect of discarding a large amount of legitimate e-mails. Heuristic filtering, a technique developed in the late 1990s, is the most successful method yet, achieving an accuracy rate of nearly 95 percent (Longe, 2011). It relied on developing a set of commonsense rules, used to assign a score to e-mails. If the score were above a specified threshold, the e-mail would be categorized as spams. However, heuristic filtering requires a large amount of maintenance, as one must constantly update the rules to keep up with the newest trends in spam. According to the Mail Abuse Organization, an electronic message is spam if the recipient's personal identity and context are irrelevant because the message is equally applicable to many other potential recipients, and the recipients have not verifiably granted deliberate, explicit, and still-revocable permission for it to be sent, and the transmission and reception of the message appears to the recipient to give a disproportionate benefit to the sender.

Based on these shortcomings, the present work will use the linguistic models of Pragmeme and contextual beliefs to investigate how different stylistic effects are produced by various choices of words, sentences and speech acts interpreted in context in Nigeria Electronic Advanced Fee Fraud text.

2.0 Related Works

Few studies of the studies on electronic messages have explored linguistics. Mayr and Machin (2012) looked at the study of crime and deviance through written, spoken and visual representation. They studied the role of language in the process of crime, showing how critical linguistic analysis can provide further crucial insights into media representations of crime and criminals. Lawrence and Peter (2005) examined the complex role of language within the criminal justice system. Holt and Graves (2007) conducted a study examining 419 fraudulent email messages and analyzed the mechanisms used by email scammers. Particularly, the researchers analyzed the structure and content, and the linguistic compositions within the email solicitations. Among the findings, it was noted that roughly half of the email messages requested that recipients forward personal information to the sender. Their research closely resembles the present study.

Frantzeskou *et al.* (2004), Huffaker & Calvert (2005); Harrison & Thomas (2009), and Suler (2004) did a forensic study of cybercrime texts. The crux of their discussion is on authorship identification. They proffered in their works the guidelines to identify a criminal in the cyberspace. Their study bridged the gap of the uninhibited discourse behaviour on the Internet. Taiwo (2010) did a critical study of international virtual scam emails over a period examining how cyber fraudsters explore experiential, interpersonal and textual language metafunctions for global audiences. Yus (2011) examined the use of language by scammers to create favourable context in the immediate discourse of the Internet. Willard (2007); Hinduija & Patchin (2008), Ramirez, et al. (2010: 731) studied the dissemination of harmful or cruel speech or engaging in other forms of social cruelty using the Internet or other information communication technologies. Also, Tseng (2010) studied the pragmatic act of phishing for personal details in the cyberspace. Odebunmi and Alo (2010), Chiluwa (2012) paid attention to computer mediated communication. They investigated the analysis of GSM text messages based on insights from contextual beliefs, collaborative theory and implicature. The findings revealed that senders of text messages exploit two beliefs; language-based beliefs and subject matter-based beliefs, which are constrained by

participants' conception of co-interactants' relative status in inclusive or exclusive terms, itself a determinant of the degree of the assumptions made.

2.1 Pragma-stylistic Approach

Every text analysis has latent stylistic features (Uffot 2006). Babajide (1990:2) defines stylistics as 'the study of style'. Stylistic is a branch of linguistics devoted to the detailed analysis of style. It is the manner in which a particular writer communicates both aesthetic and informational qualities through language. Stylistics deals with writers' personality or identity: In understanding linguistic meaning, there is a need to first of all understand who says 'what', and also the need to understand 'where' that is the environment in which the proposition is made. These extralinguistic factors aid meaning potentials.

To fully grasp the profundity of meaning in fee fraud text, there is need to fuse the two theories of pragmatics and stylistics. This is because the relationship that exists between the authors and their texts can only be understood with the fusion of a theory that studies both identity and environmental factors. The pragmatics use of language in the cyber space calls for attention but without stylistics we would not fully grasp the profound intentionality of fee fraud writers written in context since their readers are not immediately present. We need the use of inference to arrive at user's meaning and this can only be catered for by inference – a pragmatic element. Leech (1981) explains pragmatics as the aspect of meaning which is derived, not from the formal properties of words and constructions but from the way in which utterances are used and how they relate to the context in which they are uttered. Ostman (1988:28) describes pragmatics as:

The study of language use; the study of langue (competence) against parole (performance); the study of mutual understanding, language use and their appropriateness; the examination of grammaticalized relation between language and context; the explanation of how utterances convey meaning in context; the investigation of the contributions of context and encoding and decoding of utterance meaning in particular situations; the exploration of how speakers and hearers perceive them as conveying meaning; the explication of how speakers can say one thing and mean something else and how deductions

are made in context with respect to what meaning has been encoded in a particular utterance.

The Pragmatic Acts theory and indeed the whole of Pragmatic Theory is essentially concerned with how interlocutors (speakers and listeners) understand one another in spite of the possibility of their saying what they do not mean, and meaning what they do not say. Adejare (1982) explaining how adventurous users are able to widen the elastic scope of language-use says language is the man and whatever he uses language to achieve speaks of his own personality. It is therefore pertinent to study the stylistic features that are displayed in cyber texts and use these stylistic evidences in particular contextual affordances given in the cyberspace.

Pragma–Stylistic approach to cyber fraud texts aim to study how authors use 'self' (identity) to 'mean'. Identity study in cyber space is first to be understood before meaning potential can be arrived at. And the aspect of Stylistics borrowed from a sociolinguistic perspective will cater for the concept of 'self'. Self as a domain term refers to all aspects of being a person. Since 'style is the man', every identity crafted goes with particular self identification or disidentification. Fee fraud authors tend to deploy some of the classifications of self identified by (Marie Mageo 2001b; Mageo and Knauft 2002) as individual (the cumulative result of affirming "That is me"), collective ("That is us"), social and labelled self ("That is not me"). It should be emphasized that the style of writing (stylistics) that is used to generate implicit meanings in fraud text is only derived in context (pragmatics).

A new field called Cyberpragmatics has evolved due to the uniqueness of the genre of the cyber space. The term; 'Cyberpragmatics', was coined in 2001 in a cognitive pragmatic study of internet-mediated communication (Yus 2001a, 2001b, 2010b). Its main interest is the analysis of how information is produced and interpreted within the internet environment. It is also interested in how users access contextual information (often limited, if compared to other context-saturated situations). There are important pragmatic consequences (related to variations in accessibility to context) that the different forms of communication on the internet exhibit, and there are also consequences on the amount and quality of information communicated and interpreted therein. The locus of cyberpragmatics is the study of stylistics (identity) and pragmatic functions of utterances in internet mediated communication.

3.0 Data Collection Technique

This study strategically uses Nigeria Scam Text for the model evaluation. The study relies on a popular repository, Fraud Gallery, consisting of corpus of fraudulent electronic message www.fraudgallery.com, which archives Electronics Advanced Fee Fraud texts. This is chosen because it is readily accessible at all time, regularly updated and contains the fraud texts with variations reflecting the true nature of Advanced Fee Fraud texts. The reports of most of the other sources like 1C3, EFFC archive the Electronics Advanced Fee Fraud texts with little or no variation.

The data are chosen randomly from the ones received from 2000 to date. This is done because of the language advancement and improvement to language use on net through sophistication and globalization

3.1 Theoretical Framework

The analyses are based on the combination of Meyian theory of pragmeme, Uffot (2006) theory of Stylistics (cum Mageo's (2001) Self). The fundamental notion that pragmatic acts are constrained by and derived from situation, as in Mey (2001), still underlies this revision. The left part of the diagram indicates the possible concrete realization of *practs* in fraudulent electronic message texts. Since the texts for analysis are written, they do not contain such communicative meanings as conversational acts, psychological acts, prosodies, and paralinguistic features. This accounts for why such are removed from the diagram. The right column contains speech acts and indirect speech acts. Speech acts, here, refers to a pragmatic act that does not communicate more than what the speaker says. There is a direct relationship between the sentence structure and its function. Indirect speech act refers to a pragmatic act in which the speaker communicates to the hearer more than he actually says. The right column has the contextual elements that are employed in meaning production by both the speaker and the hearer. But this is revised by the addition of two other contextual components from Odebunmi (2006:159): SCK(Shared Sociocultural Knowledge), SBI(Shared Background Knowledge). Based on the interaction between the activity part and the textual part; such practs as introducing, appealing, informing, assuring, reinforcing, requesting, committing, inciting, directing are produced.



ACTIVITY PART

(INTERACTANTS)
SPEECH ACTS
INDIRECT SPEECH ACT
Ø(NULL)

TEXTUAL PART

CO (N) TEXT

INF REF REL VCE SSK MPH 'M'...SCK, SBI

PRACT

Introducing, Appealing
Informing, assuring
Reinforcing, requesting
Committing, inciting
Directing.

Figure 3: A Revised Model of Mey's Pragmatic Act Theory

3.2 Self and Identity

Self is a domain term that refers to all aspects of being a person. Identity, on the other hand, is the cumulative result of affirming "That is me" and "That is not me"; it develops through acts of identification and disidentification with elements of internal experience and with persons, groups, and representations in the cultural world (Marie Mageo 2001b; Mageo and Knauft 2002). Inasmuch as identity is that sense of self that derives from successive acts of identification, it is fluid and ever in transformation, and the transformations are effected in part, which comes from culture or the society.

4.0 SAMPLE ANALYSIS

Example 1

"We are now living in Abidjan as political asylum seekers and financial laws of Cote D Ivoire does not allow asylum seekers certain financial rights to such huge amount of money. In view of this, I cannot invest this money in Abidjan, hence I am asking you to assist me transfer this money out of the security company for investment purposes. However, I will want to believe that you are honest enough and will not raise any misgiving with respect to this transaction. More importantly, you will keep this transaction very confidential so as not to jeopardize ones reputation and ambition."

Example 2

"My father was the famous politician who stood firm against President Mugabe's idea of continuous fight in Democratic Republic of Congo and my father also stood against the seizure of white owned farms and the distribution of it to the blacks without Compensation to the white owners... "Due to the land and political problems in Zimbabwe, as a result of President Robert Mugabe's introduction of new land act reform. This land problem came when Zimbabwean President Mr.Robert Mugabe introduced a new Land Act Reform wholly affected the rich white farmers and some few black farmers. And this resulted to the killing and mob action by Zimbabwean war Veterans and some lunatics in the society. In fact a lot of people were killed because of this Land reform Act for which my father was one of the victims."

Example 3:

"My late Father, Chief Brewa Luseni, a native of Kano District in the Northern Province of Sierra Leone, was the General Manager of Sierra Leone Mining co-operation (S.L.M.C.) Freetown... Though this approach appears desperate, I can assure you that whatever questions you would need to ask or any other thing you will need to know concerning the proposal, will be adequately answered to give you a clearer understanding of it so as to

arrive at a successful conclusion... If you accept to assist me and my family, all I want you to do for me, is to make arrangements with the security company to clear the consignment (funds) from their affiliate office here in Spain."

Example 4:

"If you are conversant with public issues, my country is undergoing terrible civil strife right now. The incumbent president Robert Mugabe, declared war on white farmers through his land re-distribution program which simply but, means grabbing land from us and redistributing them to his cohorts and supporters, action which is solely carried out for political reasons."

One thing is common to the texts, Context. Writers of fee fraud texts act on Shared Contextual Knowledge (SCK), a belief that would-be readers have the same ideological repertoire as the writers. When speakers 'mean', they act with the expectation that their intentions to communicate are mutually recognized. Context is a resource that speakers exploit in inviting and deriving pragmatic inference, as a way to cut costs of speech production by leaving much to be inferred by the listener; the greater the common ground, the less effort interactants have to expend. Context thus refers to the circumstance or situation within which an utterance is produced. Context has ultimately been described as a key element in the pragmatic perspective (Hoye and Kaiser, 2007: 53). The user, within the pragmatic approach depends on the context for negotiation of meaning, but can change or vary the context; that is, "the context is not a given or a constant."

This view is also consistent with Culler's (1988: xiv) view that: "what belongs to a context is determined by interpretive strategies..." The right context is therefore not necessarily constructed in advance of an utterance, but may be constructed in the course of interpreting the utterance.

In 1 above, writer acts on the shared knowledge of the monetary law that disallows refugees from owning foreign accounts. Despite they seek asylum in Abidjan, a place in Cote D Voire known for business boom. Also his referent *the famous politician*, the writer's referent to his father; obviously, if his readers are not from Zimbabwe, they are not likely to know about the land reform saga and about his famous father who stood against the then president. But he used the article Pragma-stylistic Analysis of Nigerian Electronic Fraud Texts

'the' as if his father were known by all. The author acts on the belief that his audience understands what he is passing through and so would see the imagery he has created. The texts are basically Nigerian fraud texts, and obviously authors are from Nigeria and with the mentality of communalism. Authors act on the shared belief that Nigerians (Africans) are empathetic and would relate to his imagery of agony.

Also, the index of shared cultural knowledge is used to prepare the ground for positive talks. Writers make recourse to traditional rulers, beliefs and values of people. In extract 2 above, the writer says his father is the chief of Kano. Kano is known for business boom and religious exigencies. It is therefore knowledge that the son of a chief is not just influential but also truthful and void of evil.

In extracts 2 & 3 above, the writers hinge on situational affordances. They accord to themselves offices that give away their financial experiences, wielding a false ego of wealth, accountability and uprightness. They also share the belief of trust associated with accountants. Since bankers are supposedly honest people and to signing a business transaction, trust must be ensured, it thus becomes a context for fee fraudsters. In 4, the social actor associated himself with a late *Chief* of Kano, a status of honour. Especially in the Northern part of Nigeria where the majority of the population are poor, it is a thing of value to be associated with a Chief. Implicitly, the actor craved for the regard that can be accorded to a Chief's son.

The writer deploys some meaning relations to position their readers. This they achieved through contrastive words e.g. lunatic/famous, mob/chief, terrible/truthful etc. In extract 2, the writer condemns the act of the former Zimbabwe President Robert Mugabe by the use of certain words that provoke certain attitudes. Such as: *killing, lunatics, fight, problem, mob action*, etc. Also the use of self identity is evident here. Authors of fee fraud text use identification for self and disidentification for non-self. In 2, the writer positively labelled his father (the writer's father) with the single adjective "famous". He performs the pragmatic acts of urging and requesting in the proposition. By the act of urging, the writer explicitly denotes that the reader is his last resort but implicitly. Take note of this proposition: '...I am asking you to assist me transfer this money for investment purpose...' this performs the speech act of entreating explicitly, but in-depth, it has

the pragmatic act of urging. The Writer said that the money for the transaction was not meant for only him but would be of benefit to both of them therefore urging the readers (recipients of the message) to do their bits well. And by the act of entreating, by inference, the writer claims that would-be readers are free citizens while he indirectly refers to himself as a bondsman. This is a strategic way of appealing to the readers' freedom.

Also, the pragmatic uses of indexicals in the texts are stylistic. Deictic is used to create contrast between self – 'us' and 'them'. The writer created two selves 'we' and 'you'. The referent 'us' is dominated, ridiculed, humiliated, wanting help while the referent 'you' is exalted and giving significance. According to Mageo's (2009) *self*, author deploys self management through appeal to pity. It should be noted that the deictic referent 'we' does not necessarily refer to other people in the co-text. In extract 1, *we* appeared *18* times without any endophoric personae. This is evident in the following:

We are now living in Abidjan...

We would want USS43.8m (forty three million eight hundred thousand) dollars out of this...

The author then switches to the use of the personal 'I' to show specification

...Hence, I am asking you to assist me...

This evidently shows that the *we* of the writer's referent refers only to the writer and not with other people.

Syntactically, the sentences used in fee fraud texts are complex. Authors pile up statements to describe persons, events or situations. These are used in order to convince readers of the authenticity of proposition. In all texts studied for the analysis, there are 631 sentences, only 51 are simple sentences. And the 51 sentences perform such acts as introducing writers and appreciating audience in anticipation. The remaining 579 sentences inform, clarify, ascertain, affirm, and entreat. Also, the use of sentences in the texts are mostly declarative, the few occurrences of interrogative sentences are implicitly demanding and not really probing for response. In the example: "If you accept to assist me and my family, all I want you to do for me, is to make arrangements with the security company to clear the consignment (funds) from their affiliate office here in Spain."

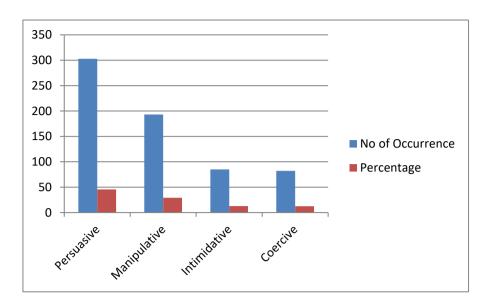
In the above, it is obvious that writer's intention is not to make a polar request where reader answers yes or no but to use language to set reader up and present his demand as urgent.

4.1 Results

The result of the pragma-stylistic analysis shows that the Nigerian Scam texts contain evidence of identity and signature making it easy for a pragma-stylistic analyser set up by the researcher workable. The four styles identified in the texts are: Persuasion, Manipulation, Intimidation and Coercion and the following pragmatic acts achieved:

Table 2: Table Showing Classification of Styles and Practs used for their Realization

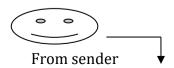
STYLE	PRACT	ALLOPRACT	
PERSUASIVE	Entreating	Pleading, promising, seeking,	
		assuring	
	Asserting	Stating	
	Requesting	Requiring	
	Appraising	Acknowledging	
	Thanking	Appreciating	
MANIPULATIVE	Expressing	Condemning, narrating,	
		negotiating, hoping	
	Informing	Affirming, Indicating	
INTIMIDATING	Threatening	Warning	
	Claiming	Introducing, foregrounding	
COERCIVE	Urging	Inciting	
	Directing	Enjoining, maintaining,	
		notifying, proposing	

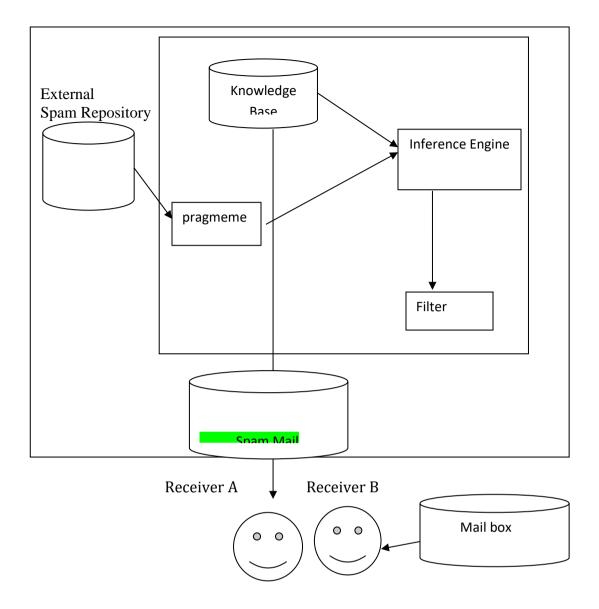


In all, the style of persuasion is achieved through five practs and eight allopracts wielding the highest frequency in the analysis. One can therefore conclude that fee fraud text is persuasive in nature. This further implies that the Nigeria Scam texts are not intended to inform readers of any agonizing predicaments which are what writers present on the surface but a sort of advertisement to partake in business transactions.

Framework for Filtering Fee Fraud Texts

The current work shows that a scam text can be filtered without having to go through the ordeal of Internet Protocol Address trace. One can set up a linguistic analyser which can automatically delete scam mails. This work therefore presents a framework for characterizing and filtering Nigeria Electronic Advanced Fee Fraud texts. The framework is an improvement over the traditional spam filters which often filter spam using spamicity calculated based on message tokens thresholds. In the existing Spam Filtering technique, if the spamicity value exceeds certain threshold, it is tagged spam, otherwise it is a ham. This proposed framework calculates the spamicity of the message based on the pragmatic context of the texts/message in order to overcome manipulation of texts and difficulty of identifying scam messages.





The framework is represented as an inference system as presented in Figure 2. The proposed framework consists of the Knowledge Base which is made up of the propositional meaning; the inference engine contains the contextual indices which are divided into two: the Pragma-Stylistics box and the Strategies Analyzer which ensure that messages are characterized using the Modified Mey's Pragmatic Act model based on the information from external and receiver spam repositories. The Inference engine cum the analyzer determine the spamicity of the fraudulent message which the filter acts on to separate unwanted messages from receivers' solicited messages. Receiver A received an unfiltered (fraudulent) message while receiver B received filtered messages.

CONCLUSION

We examined cyber fee fraud text using features of stylistics and pragmatics. We found out that the texts are not only persuasive in nature but also have latent features of business advertisement. We based the theme of the texts for analysis into five: claims, partnership, business transactions, inheritance, and wealth distribution and found out that the register for business transaction cuts across all and has the highest ratio. We realised that that fee fraud text is a sub-genre of advertisement. We therefore conclude that fee fraud text authors only use various themes to cajole readers but with the sole aim of persuading/tricking readers to take up transactions. Fee fraud text is therefore a genre of business transaction and a sub-genre of advertisement.

This work may be useful to experts in the field of network security, as they can use the pragmastylistic analyzer to determine cyber texts without having to go through the stress of tracing the Internet Protocol (IP) addresses of fee fraud messages. This work has also provided a reference point for cyber-linguists, security agencies, and those interested in studying language of advertisement.

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