

# Exploring Elements of Content Marketing Using a Natural Language Processing: The Case of Native Woven Clothing

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## ABSTRACT

The extensive implementation of online social media among Thai small and medium-sized enterprises (SMEs) underlines a significance of effective use of content marketing strategies. However, most Thai SMEs still suffer from applying content marketing without a clear expertise. This study adopts Ashley and Tuten's (2015) message strategies to investigate elements of text messages necessary for content marketing among SMEs in a native woven clothing market by categorizing them into three message appeals (i.e., functional, emotional, and experiential appeals). The study used a natural language processing to adopt a pre-train model, fine-tune the model, and subsequently proceed to a deployment. Training data was collected from 137 text messages posted by eight native woven clothing SMEs on Facebook pages. The findings offer Thai native woven clothing SME managers, and managers of small and medium enterprises in general, guidelines for creating content marketing economically and effectively. We also extend the application Ashley and Tuten's (2015) message strategies into an SME context in a growing economy country.

**Keywords:** Content Marketing, Natural Language Processing, Native Woven Clothing, SMEs

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## บทคัดย่อ

การใช้สื่อสังคมออนไลน์อย่างแพร่หลายในกลุ่มธุรกิจขนาดกลางและขนาดย่อม (SMEs) ของไทยชี้ให้เห็นถึงความสำคัญของการใช้กลยุทธ์การตลาดเชิงเนื้อหาอย่างมีประสิทธิภาพ อย่างไรก็ตามธุรกิจ SMEs ส่วนใหญ่ในประเทศไทยยังคงประสบปัญหาในการประยุกต์ใช้การตลาดเชิงเนื้อหาโดยขาดความเชี่ยวชาญที่ชัดเจน งานวิจัยนี้นำกลยุทธ์ข้อความของ Ashley และ Tuten (2015) มาศึกษาองค์ประกอบของข้อความที่จำเป็นต่อการตลาดเชิงเนื้อหาในตลาดเสื้อผ้าทอพื้นเมือง โดยแบ่งประเภทข้อความออกเป็น 3 รูปแบบ คือ การจูงใจเชิงหน้าที่ การจูงใจเชิงอารมณ์ และการจูงใจเชิงประสบการณ์ งานวิจัยนี้ใช้กระบวนการประมวลผลภาษาธรรมชาติเพื่อพัฒนารูปแบบปัญญาประดิษฐ์ ตั้งแต่การใช้แบบจำลองสำเร็จรูป การปรับแต่งแบบจำลองและนำไปใช้ในขั้นตอนสุดท้าย ข้อมูลที่ใช้ในการฝึกฝนแบบจำลองมาจากข้อความจำนวน 137 ข้อความที่โพสต์โดย SMEs ด้านเสื้อผ้าทอพื้นเมือง 8 แห่งบนเพจเฟซบุ๊ก ผลการวิจัยให้ข้อเสนอแนะแก่ผู้บริหารธุรกิจเสื้อผ้าทอพื้นเมืองในประเทศไทย รวมถึงผู้บริหารธุรกิจ SMEs โดยทั่วไป เกี่ยวกับแนวทางในการสร้างการตลาดเชิงเนื้อหาที่มีประสิทธิภาพและคุ้มค่า นอกจากนี้ งานวิจัยยังขยายขอบเขตการประยุกต์ใช้กลยุทธ์ข้อความของ Ashley และ Tuten (2015) ในบริบทของ SMEs ในประเทศที่เศรษฐกิจกำลังเติบโต

**คำสำคัญ:** การตลาดเชิงเนื้อหา กระบวนการประมวลผลภาษาธรรมชาติ เสื้อผ้าทอพื้นเมือง ธุรกิจขนาดกลางและขนาดย่อม

## 1. INTRODUCTION

The growing application of content marketing has been apparent among Thai firms since 2015. This is due to an escalating number of online social media usage in Thailand as the media is extensively known for delivering firms' messages in the most influential way. Although communication via online social media operates in non-verbal approaches, its capabilities in satisfying human's needs are as equivalent to a face-to-face communication. Relationship development and network formation are some of the abilities online social media offers to firms. To signify moods and feelings, consumers adopt verbal communication at a lesser amount (7%) compared to non-verbal communication through texts (93%). Thus, messages communicated in online social media are as meaningful as in a real-world situation, causing studies of content marketing to become predominantly vital (McLean & Breen, 2009).

Content marketing is the process of creating and sharing valuable content to target audiences. It draws attention, interactions, and impressions in a way that builds brand awareness and loyalty. For firms, developing a strategy for content marketing requires a deep understanding in planning that includes setting objectives as well as identifying marketing communication and distribution tools and channels. A lack of market insights and planning could result in firms failing to implement content marketing or succeeding for only a short term. Therefore, an efficient way of implementing content marketing is essential in leading firms to success in their digital marketing strategies (Kotler, 2010).

The most mistakes found in applying content marketing involves disregarding a true understanding of the target audience and, consequently, having no guidance when developing messages or content. This oversight is found mostly among Thai small and medium-sized enterprises (SMEs), or businesses that encompass 15 – 30 employees and fixed asset of 30 – 60 THB million for a retail sector (The Office of SMEs Promotion, 2002). Thai SMEs and micro business, comprising of 3.2 million firms, are projected to accounted for 35.2 percent of Thai total GDP in 2023 (The Office of SMEs Promotion, 2022). The major barriers to most Thai SMEs' growth include market knowledge, particularly in promoting and advertising their product effectively (SET, 2022).

One of the most competitive markets for SMEs in Thailand is clothing (Rungrueang, Khantanapha, & Piriyaku, 2020) being offered by 37,503 enterprises in 2022 (The Office of SMEs Promotion, 2022), including native woven clothing. However, native woven clothing SMEs aiming to apply content marketing efficiently must place considerable efforts, as in time and monetary cost, to learn, develop, execute, and potentially recruit new employees for continuously developing and managing the contents. With this burden, it is difficult for most Thai SMEs in native woven clothing, that are on a relatively limited budget and typically low experience in using digital marketing strategies, to implement content marketing effectively and proficiently.

The purpose of this study is to understand and discover elements of content marketing for Thai SMEs in a native woven clothing market. In that, we identify message appeals required in text contents following previous literature's (Ashley & Tuten, 2015) types of message strategies (i.e., functional, emotional, and experiential appeals). We posit that each appeal consists of different wordings to convey the attributes and conditions of purchasing clothing products (e.g., qualities of textile, designs, different types of benefits, etc.). The messages would correspond with a particular use of content marketing in the clothing industry. This study employs a natural language processing to investigate the elements of text developed by SMEs as a part of content marketing. Particularly, we take on a pre-train model, fine-tuned the model adopted, before bringing the results into a deployment.

This study aims to benefit Thai native woven clothing SME managers, and managers of small and medium enterprises in general, by offering directions for developing content marketing economically and effectively. We also validate and extend the application of previous literature's (Ashley & Tuten, 2015) message appeals into an SME context of a growing economy country. Also, we further their findings by suggesting the essential messages with a specific use of marketing communication purpose. We now commence with a literature review, followed by our explanation of methodology, results, and discussion.

## **2. LITERATURE REVIEW**

### **2.1 Content Marketing**

As a part of marketing communication, content marketing has started its roles since 1900s. Nowadays, content marketing is developed into various methods through online social networks. It is defined as a marketing process aiming at creating and communicating beneficial content to target audience for drawing attention, building interactions, and forming impressions that result in customers' brand awareness, loyalty, and business opportunities. Instead of boosting sales, content marketing concentrates on building brand trust by offering contents that are concise, unique, and filled with values and excitement. Customers who are target audience would gain positive attitude towards brands and consequently be motivated to purchase (Kotler, Kartajaya, & Setiawan, 2010). Correspondingly, content marketing is a business and marketing process of creating and sharing valuable content for attracting interests, needs, and build relations with target markets through a variety of channels, particularly digital channels (DeMers, 2013; Pulizzi & Handley, 2014). Its goals are to encourage activities that benefit and add value to a firm and consumers. Therefore, content marketing is a vital activity that reinforces firm success.

The implications of content marketing depend on target audience, types of content, communication channels, timing, frequency, and evaluation that could be adjusted to match with firms' objectives (Baltes, 2015). The purpose of most content marketing includes gaining brand awareness, building relationships through trust, drawing interests, solving small audience reach, generating needs for a specific product, developing customer loyalty, and testing new products. Thus, literature examining content marketing is found in various contexts, including tourism (e.g., Mathew & Soliman, 2021), business-to-business marketing (e.g., Holliman & Rowley, 2014), and social media (e.g., Peng, Agarwal, Hosanagar, & Iyengar, 2018). This research concentrates on the usage of content marketing in social media for business in effectively promoting products.

The scope of content marketing goes beyond creating business' content but incorporates consumers' involvement of sharing their topics of interest and engaging with business in public spaces (Kilgour, Sasser, & Larke, 2015). Studies addressed that content marketing involves sharing information of products and brands that attract consumers' engagement in purchasing activities, leading to relationships between consumers and firms (Ahmad, Musa, & Harun, 2016). Particularly, recent research increasingly examines consumers' sharing, opinions, and reviews in digital platform so as to gain understanding of their needs, preferences, and, subsequently, to advance suitable marketing activities (e.g., Khumtaveeporn & Wattanasuwan, 2023; Peng et al., 2018; Phumchusri & Chugh, 2022). However, marketing research that investigate content or advertising messages in the context of clothing industries are still limited.

## **2.2 Message Strategies**

According to previous literature, the most commonly used appeals in social media communication are functional appeals, emotional appeals, and experiential appeals.

Functional appeals are effective as a part of content marketing when communicating products' utility or functionality. Studies indicated that functional messages mostly match with high-involvement consumers, or a person's perceived high relevance of the product based on inherent needs, values, and interests. Studies revealed that functional appeals are the most commonly used appeals among brands in their social media communication channel. Functional contents are drivers of consumer participation in brand profile pages on an online social media like Facebook. The contents subsequently lead to usage (Jahn & Kunz, 2012; Ashley & Tuten, 2015).

Emotional appeals involve messages that correspond to psychological/social needs of consumers, including how the appeals would make them feel. Studies found that emotional appeals have a negative relationship with brand's engagement score, suggesting that some brands with high engagement scores employ other appeals rather than focusing on consumers' emotions. However, emotional appeals still appear as one of the most frequently used in social media communication channel among brands (Ashley & Tuten, 2015).

Experiential appeals describe messages that represent how consumers will experience brands through sight, sound, taste, touch, and smells. Studies found that experiential appeals have a positive association with brands' engagement scores. The appeals are also found to be one of the most frequently used appeals in social media communication channel among brands. This is due to the experiential, participating character of social media that makes experiential appeals attract most brand communication (Ashley & Tuten, 2015).

### **2.3 Natural Language Processing**

Natural Language Processing or NLP is a computer technology aimed at understanding texts and human words. Specifically, it is an analytical process of information in a text form that is naturally used by humans. Manning and Schutze (1999) categorized NLP into two main approaches; the first is a rationalist or theory-driven approach and the second is an empiricist or data-driven approach.

The rationalist approach (Chomsky, 1961) was found under the concept of poverty of stimulus that explains how human brain works in two ways; learning on languages since birth and learning on languages as transcended genetically. The concept describes that a child could not learn a language unless his brain initially contains knowledge on it and the child is interested in comprehending the language through the use of grammars (rule-based) for an analyzing purpose.

The empiricist approach was found in 1920. This approach deems that a human brain contains a fundamental element for learning languages. However, writing under language rules for explaining the grammar could not be completely enclosed. This approach thus explores information from a catalogue of sentences or understanding the language through a corpus-based method. It uses probability theory for decision making and adopts statistical principles, machine learning, and pattern recognition to learn languages.

In the present days, both approaches are constantly employed for language learning. Studies have shown a combination of both approaches for understanding languages. For performing NLP in Thai language, challenges occur in the precise scope of sentences (similarly to Japanese and Chinese). To effectively perform NLP, firms must develop the

process particularly for a certain language. Currently, researchers in Thailand develop several analyzing tools. For example, a library called PyThaiNLP that contains numerous functions for developing Thai NLP. In January 2022, PyThaiNLP version 3.0 is developed with additional features of translating from Chinese to Thai and from Thai to Chinese, revising a word-spitting dictionary, as well as APT for subword tokenization and Word vector (Phatthiyaphaibun, 2022).

NLP techniques have been applied to many marketing activities through predicting and classifying unstructured data. Particularly, statistical NLP models are employed to marketing issues (Shankar & Parsana, 2022). Regarding the field of content marketing, Reutterer, Schweidel and Dan (2022) suggest that natural language generated (NLG), as part of NLP, establishes human-like content marketing by drafting content for marketer's landing pages that subsequently contribute to the website's search engine optimization (SEO). The development of NLP tools for analyzing marketing content has been launched for many decades. Marketing academics can benefit from the arrival of pretrained transformer models, involving text generation, text summarization, and multimodal content representation (Hartmann & Netzer, 2023). Researchers' attention in content marketing is also found in a Thai context. Suttanurak, Aryuwat, Pongsart and Thamrongyoswittayakul (2022) successfully employed an NLP-processing DialogFlow platform to develop an artificial intelligence (AI) chatbot in assisting a Thai SME community in communicating with customers. In the field of tourism, Phumchusri and Chugh (2022) used NLP and other analysis (e.g., sentiment analysis, association rules mining in text) to gain insights of tourist preference and tourism trends in Thailand through TripAdvisor's online reviews. Specifically, it suggests the tourist preference and classifies the data by tourists' ratings. Furthermore, Khumtaveeporn and Wattanasuwan (2023) performed NLP in the tourism and hospitality setting through a sentiment analysis of online travel reviews in order to establish destination branding. They employed Natural Language Toolkit (NLTK) which is Python library to preprocess and analyze customers' opinions.

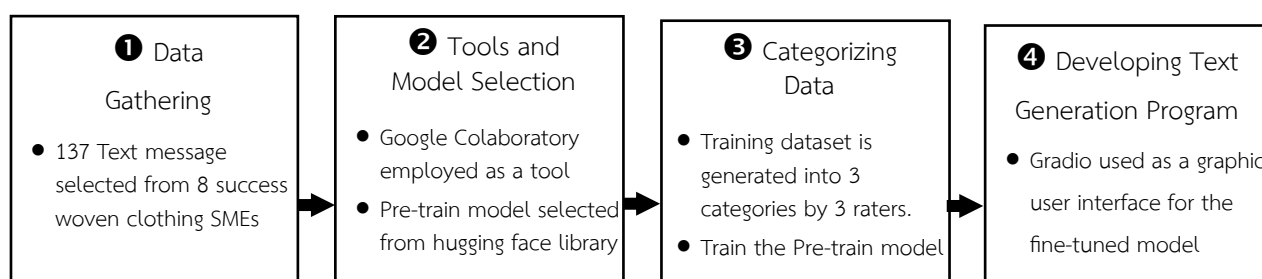
In the clothing industry, Norman et al. (2019) examined online clothing fashion products to predict the category and subcategory of items based on the textual contents of the title by developing a model that capture the future changes in terminology, popularity,



and classification through NLP. Nawaz, Zhao, Nawaz, Safeer and Irshad (2021) apply sentimental analysis (i.e., the process of mining and reviewing data or sentence to forecast the sentence's emotion using NLP) as a method to analyze real-time emotions and behavioral intention of women's e-clothing reviews. However, an investigation on discovering elements of content marketing for clothing market by identifying theoretic message appeals showing in text is still scant.

### 3. METHODOLOGY

The methodology of this research consists of four vital steps as shown in Figure 1 below.



**Figure 1** Steps of research methodology

Firstly, the researchers gathered the data by selecting the text messages from Facebook pages of eight successful SMEs (i.e., gaining more than 500 followers) in native woven clothing. As the products are generally offered to a niche market, the number of SMEs and their social media followers are limited. We chose messages from Facebook pages as they represent the most commonly adopted social commerce and social media in Thailand (ETDA, 2022). Specifically, the target markets of native woven clothing are baby boomers and generation X customers. Facebook is one of the main channels used by these particular segments (Wisights, 2023). Moreover, messages from Facebook pages are suitable for our training dataset as they focus explicitly on marketing communication messages of the native woven clothing. Our developing model will learn the specific messages from the dataset while the general messages are stored within the pre-train model.

Secondly, for the tools and model selection, we employed Google Colaboratory as it is the host program of Jupyter notebook on Google Cloud. Google Colaboratory utilizes Python3 as the main language for its capabilities in instantly developing a highly efficient model, offering Tensorflow supports, and reducing the analyzing duration (Carneiro et al., 2018). While executing a pre-train model, we employed a ‘Hugging face library’ (previously known as ‘Transformer’) that contains numerous pre-train models. For the purpose of this study, the researcher adopted a model called ‘Task’ as a zero-shot classification, through spaCy model for predicting text messages. The model is applicable to be generalized into other industry. This is because the pre-train model is trained on corpus of various Thai words and sentences from multiple sources, such as Wongnai, Twitter, online social media, and online newspaper. Therefore, the ability of the pre-train model is not limited only to the native woven clothing industry. The model allows us to categorize the three main groups for data analysis: Functional appeals, experimental appeals, and emotional appeals.

Thirdly, we generated a training dataset to categorize the data retrieved. We invited three raters who are experts in marketing to classify the messages into functional, emotional, or experiential messages. Since the market of SMEs in native woven clothing is niche with limited successful cases, we arrived at the final set of categorizations or the training dataset that contains 137 messages. Figure 2 illustrates our process that is based on the “pre-training then fine-tuning” framework (Tay et al., 2021) that involves an open-source library, allowing researchers to use a collection of pre-train models and datasets.

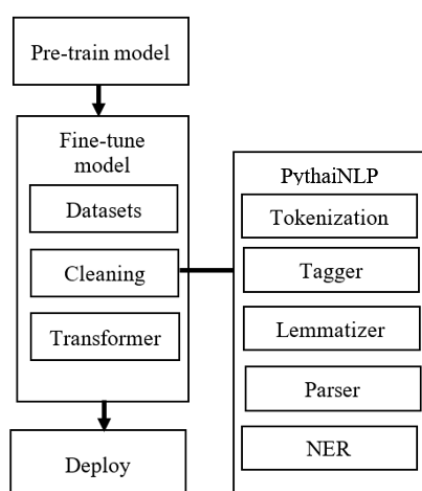


Figure 2 Data analysis framework

Table 1 explains the examples of dataset being trained (in Thai) for the analysis, with a label showing the three message appeals. Table 2 shows a translated version of the trained dataset examples.

**Table 1** Example of training dataset

Texts	Label
กระโปรงผ้าฝ้ายหมักโคลนพิมพ์ลายอัดกาอย่างดี จีบทวิสด้านหน้า ติดซิปปด้านข้าง ด้านหลังสมีอคล้ายยัด	Functional
ชุดเดรสผ้าฝ้ายยาว 1 ชิ้นติดกัน ซิปด้านหลัง มีเชือกผูกด้านหลังเพื่อให้เข้ารูป ตรงคอ และตรงอกเพิ่มกิมมิกด้วยระบายเล็ก ๆ และลายผ้าแต่งด้วยผ้าพิมพ์ลายช่วงอกและชาย	Functional
เสื้อคอปกสาวขาวดอย พร้อมเสิร์ฟ 3 สี ดำ กรม ขาว เสื้อมัดเชือกสลับซ้ายขวา แต่งผ้าแถบสีขอ แถบใหญ่	Functional
เสื้อทรงนี้ใส่กับอะไรก็สวย ใส่ไปทำงานก็สบาย ใส่ออกงานก็ได้เพิ่มความหรูหรา ด้วยเครื่องประดับเงิน สวยงามลงตัวสุด ๆ	Emotional
ลายผ้ามีเอกลักษณ์เฉพาะตัว ให้อารมณ์ของความเป็นล้านนา	Emotional
ผ้าไทยแพชั่น ผ้าไทยโครว่าเขย ผ้าไทยเก๋ ๆ	Emotional
ใส่แล้วดูผอม ดูสูง 180 เนื้อผ้านุ่มใส่สบาย	Experiential
สวมใส่สบาย ระบายอากาศ ยิ่งซักยิ่งนิ่ม อยู่ทรงสวย	Experiential
สีผ้ามีหลากหลาย ถ้าจะเทียบเรื่องสีผ้าของร้านเราก็ไม่แพ้ใคร เราทำมารองรับผ้าไทย โดยเฉพาะ เนื้อผ้าของเรา ใช้ทน สีไม่ตก ซักได้ง่ายไม่ต้องไปซักที่ร้าน ดูแลเองง่ายมาก ๆ	Experiential

**Table 2** Translation of the training dataset example

Texts	Label
Mud-fermented cotton skirt with well-glued print, Pleat twist in front side, zip at the sides, elastic smock at the back	Functional
One-piece long cotton dress, zip at the back, a drawstring at the back for fitting, added a gimmick on the neck and chest with a small vent, and the fabric pattern is decorated with printed fabric on the chest and hem.	Functional
Hill tribe-styled crop top, available in 3 colors; black, navy, and white, a left-right switch drawstring designed, large Lisu strip cloth decoration	Functional
This shirt design looks great with anything. It gives a simple look when wearing to work. It can be worn for an event by adding silver jewelry for a luxury style. Perfectly beautiful.	Emotional
The fabric pattern is unique. Giving the feeling of being Lanna.	Emotional
Thai fashion fabric, who said Thai fabrics are old-fashioned? chic Thai fabric.	Emotional
Looking slim when wearing, looking like 180 cm tall, comfortable to wear	Experiential
Comfortable to wear, breathable, the more you wash, the softer it is, the size isn't changed when washed, beautiful.	Experiential
There are many different fabric colors. When comparing the color of the fabric of our shop, we don't lose to anyone. We are made specially to support Thai fabrics. Our fabrics are durable, colors do not fade, easy to wash, no need to wash at the store. Very easy to take care of.	Experiential

The researchers transferred the 137 text messages from the eight SMEs Facebook pages to set up labels according to three raters' categorizations and allocations. Then, we divided the data into 'training' and 'testing'. After that, implementing a fine-tune model (i.e., a model to train a dataset specific to a task), in the stage of cleaning the Thai messages, the researchers used PythaiNLP (Phatthiyaphaibun, 2022) to executing tokenization (i.e., a process to split messages into words or terms), tagger (i.e., a process to mark linguistic and other annotation to different parts of a text including part-of-speech (POS) tags), lemmatizer (i.e., a process to convert words to their derivations), and parser (i.e., a process to analyze the grammatical

structure in a sentence and find out related words and the type of the relationship between them). The advantages of implementing the dependency parsing are, firstly, it causes computers to memorize sentence structures and better understand them, secondly, it assists in a text generation in the way that the wording outputs seem natural, thirdly, it helps in monitoring grammars of each sentence, and lastly, it could also be adapted to use with chatbots and text generation task. Lastly, we execute a name entity recognizer.

Finally, the stage of generating a text program is to create words or sentences. We started by manually entering initial messages. Then, we let the model creating sentences based on the dataset that it learned automatically. This stage allows the model to produce suitable messages for marketers or managers of SMEs in native woven clothing. The researchers created wordings by inserting information from the sentence structures and dataset. We used Gradio (<https://gradio.app/>) which is a tool for building web interfaces for filling out messages and displaying results for users.

#### 4. RESULTS

The results of the cleaning process (Stage 3) reveal an accuracy of the tools in recognizing entities and keywords, and structure of sentence as displayed in Figure 3.

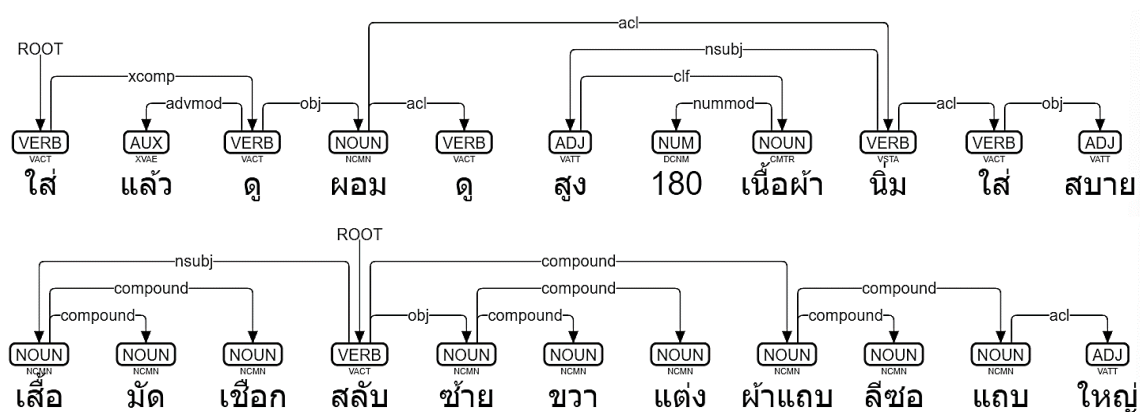


Figure 3 Thai word recognition

The researchers grouped the messages through a supervised learning approach (training the model for 15 epochs) and compared the results of two models that adopted different pre-trains. The results are shown in Table 3, revealing the best forecasting results of the two models. Model 1 used a pre-train from airesearch/wangchanberta-base-att-spm-uncased (Lowphansirikul, Polpanumas, Jantrakulchai, & Nutanong, 2021) which is a pretrained RoBERTa BASE model on assorted Thai texts (78.5 GB). Model 2 employed a pre-train from xlm-roberta-large, which is a model that is trained with a 2.5TB dataset from 100 different languages (Conneau et al., 2019).

**Table 3** Comparison of model results

No.	Accuracy	Precision	Recall	F1	Loss
Model 1	0.8776	0.9167	0.8776	0.8116	0.5455
Model 2	0.9388	0.9325	0.9325	0.9325	0.2058

From the results, Model 2 delivers a better accuracy and overall efficiency than Model 1. This could be due to the larger dataset of the pre-train model, making data on vocabularies and keywords become numerous. However, the analyzing duration of Model 2 took longer than the other model. In general, the results of grouping the messages into three appeals are achieved with a satisfactory efficiency.

The results of Stage 4 are displayed in Figure 4 which shows that, our model can assist marketers or managers of SMEs in native woven clothing to generate proper messages for their content marketing activities in online social media platform. Specifically, they can enter particular words related to their products (e.g., “wearing to look nice”, “looking unique” as presented in the Figure 3) in the ‘input’ box. The model can identify the message appeal of the entered words (e.g., emotional appeals) before constructing sentences that contain similar appeals for them in the ‘output’ box. The constructed sentences from the model are based on algorithms of the pre-train model that we employed and sentences that the model has learned from other SMEs in native woven clothing through the process of NPL.

## Thai Content Marketing Generator

Content Marketing Using Natural Language Processing. The Case of Native Woven Clothing

Figure 4 Example interface of application

## 5. CONCLUSIONS AND RECOMMENDATIONS

Content marketing plays a vital role in creating and communicating beneficial messages to target audience for marketing communication purpose (e.g., driving customers' brand awareness, engagement, purchase, relationship, and loyalty with a brand). Types of the content, appearing as message appeals, thus become one of the factors driving consumers' purchase decisions. With the advantages and the growth of online social media usage in the present days, marketers must employ the media as a channel to deliver content marketing effectively and efficiently. Especially for Thai SMEs that have been extensively adopting online social media to communicate content marketing since 2015.

Although studies in content marketing is conducted in various field (e.g., tourism marketing, business-to-business marketing, and social media marketing), specifically on both content created and shared by business and consumers, an examination of content marketing in the setting of clothing industry is scant. Moreover, NLP techniques, despite being employed in numerous marketing activities (e.g., establishing landing pages for SEO purpose), their implication in supporting content marketing in Thailand's clothing industry is still limited. This research fills this gap.

Clothing industry, as one of the most competitive markets for Thai SMEs, needs a guidance on developing contents that carry message appeals suitable for their marketing communication purpose in order to endure in the current market environment. This study assists them in identifying message appeals necessary in text contents following previous

study's (Ashley & Tuten, 2015) types of message strategies. Through an application of a natural language processing and the “pre-train model, fine-tune model, deployment” framework, our results offer that each appeal consists of different wordings suitable to marketing communication purposes in online social media.

This study offers managerial implications for native woven clothing SMEs in Thailand to apply content marketing efficiently, with a less burden in expertise, time, and monetary cost to learn, develop, and execute effective content marketing. The SMEs marketers and managers could use our model to enter specific words (e.g., words that express their unique selling points) and select the recommended sentences from the model for their content marketing practice. Therefore, the marketers could enter words in any appeals (functional, emotional, or experiential) to the model as it will systematically generate related sentences for them to use effectively.

Managers of small and medium enterprises in other industries of Thailand might also apply the findings to their content development. For example, SME managers could include functional appeals to content marketing in food industries or using experiential appeals to communicate their products in home decorations industries, through the use of effective and precise wordings). Theoretically, this study extends the application of previous study's (Ashley & Tuten, 2015) message appeals into an SME context of the second-largest economy in Southeast Asia. We advance their conclusions by recommending the essential wordings to use in a specific marketing communication purpose.

This study still encompasses some limitations that could be fulfilled by future research. Firstly, we found the perplexity of the messages, some of them were not conveying proper meanings. Therefore, future studies could rectify this issue by entering more datasets for training the model to increase the accuracy of the messages. Secondly, we examine and perform the data analysis only for one industry: Native woven clothing SMEs and only in Facebook. Future research could investigate in other market dominants SME industries in Thailand, such as food industries, beverages industries, herb industries, or decoration industries and examine the model by adopting text messages from other social media platform (e.g., Tiktok, Instagram, etc.). Additionally, future research could compare similarities and differences



between industries to identify essential messages for overall use of content marketing. However, researchers should be cautious that the pre-train model, despite its ability to be generalized into other industry, still does not cover some technical terms from professional services industries such as medical or engineering industries. Furthermore, we adopt Ashley and Tuten's (2015) message strategies as our only underpinning principle to identify message appeals. Future research could replicate our methodology to examine the message appeals with an integrating of other literature in communication and psychology. They can perform an investigation in the context of international markets where consumers hold different cultural value orientation (e.g., among Western countries) to pinpoint the similarities and differences found contrarily to the findings in Thailand.

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