

Like, comment, and share! Analyzing post types and content categories of selected Philippine social enterprises' Facebook posts

Patrick Adriel Aure and Ian Benedict Mia

De La Salle University

patrick.aure@dlsu.edu.ph, ianbrmia@gmail.com

Abstract

This study examines the current social media practices of ECHOstore and Human Nature, two social enterprises in the Philippines engaged in retail of organic consumer products with at least 10,000 Facebook Fan Page likes. By assessing the possible effects of the various independent variable groups (specific social enterprise's fan page, post type, and post content categories), this study intends to understand the characteristics of social media messages that are most likely to facilitate specific customer responses (reactions, comments, and shares).

Inspired by the research design of Kim, Spiller, and Hettche (2015), the findings of Tafesse and Wien (2017), and the media richness theory (Daft and Lengel, 1984, 1986), this paper analyzed all Facebook posts of ECHOstore and Human Nature from April 1, 2017 to June 30, 2017. Data that generated from each post include its post type (e.g. link, text/status, photo or video), its content category (e.g. general and specific categories as proposed by Tafesse & Wien, 2017), and the number and type of customer responses (reactions, shares, and comments).

The study found that photos have significantly more reactions and shares than videos, general categories of transformational, interactional, and informational posts have no collective significant effect on the dependent variables, and specific content categories have a collective significant effect on reactions, comments, and shares. This research fills the gap of understanding how social enterprises use social media in the Philippines as most papers published using this study's design focus on big corporations and nonprofits.

Key Words: Social enterprise, social media marketing, customer engagement, marketing communications, public relations, media richness theory

Background of the Study

Informally branded as the 'social networking capital of the world', the Philippines was featured in a global report published by (WeAreSocial.com, 2017)—showcasing the country as the worldwide leader in terms of social media usage (Camus, 2017; Rappler.com, 2017). As such, it is no surprise that various organizations have attempted to utilize popular platforms such as Facebook to engage with their target stakeholders.

In a case study research conducted in the country (Habaradas & Aure, 2016), the researchers observed that social enterprises—organizations that simultaneously pursue both financial and social objectives—capitalize on social media to reach their target customers. Establishing a digital presence is made easier by Facebook through its Fan Page feature, through which social enterprises can encourage customers to follow their public profiles and interact with the content they publish. Given the popularity of Facebook as a means of reaching customers, it is important to learn which posts tend to generate more user engagement—activities that Facebook tracks as reactions, comments, and shares.

As such, this study aims to uncover the link between Facebook post characteristics (content categorization, post type) and user engagement metrics (reactions, comments, shares). For this paper, we examined two Filipino social enterprises engaged in the retail of consumer goods (ECHOstore and Human Nature). While previous studies focused on comparing as many top global brands via a one-month snapshot (Kim et al., 2015; Tafesse & Wien, 2017), our study prioritized depth and explored two social enterprises belonging in the same category covering a three-month period. This research also sought to understanding of nuances brought about by the Philippine social media context—increasing the study’s applicability for practice.

Literature review

Various scholars and practitioners have studied, via content analysis and application, the usefulness of social media for marketing strategy and customer engagement. Social media has also been utilized by social enterprises and nonprofits for the purpose of advocacies and engaging stakeholders to be involved with the organization’s mission. Tables 1 to 3 feature salient findings about these phenomena and how they were researched.

Table 1

Prior literature utilizing social media for research, marketing, and customer engagement

Authors	Summary of findings	Methodology	Management implications	Areas for future research
Baird & Parasnis, 2011	Companies are no longer in control of the relationship with customers; the highly influential networks of customers drive conversation.	Two online surveys of (1) 1,056 customers globally across different generations and household incomes and (2) 351 business executives	Organizations should shift their mindset from controlling the conversations to collaborating with customers how online conversations should happen.	There is a need to further study how customers want to engage with social media, given its difference against other media channels.
De Vries & Carlson, 2014	“The findings show that co-creation value, social value, usage intensity and brand strength influence customer engagement (CE) with brand pages. CE was also found to influence brand performance outcomes of CE behaviours	Survey of 404 consumers of various brand pages analyzed through the use of structural equation modelling.	The findings are of value to brand managers of social media sites and focus on how managing critical user gratifications together with customer-brand relationship variables acts as a mechanism for unlocking CE with brand pages.	Specific product or industry categories should be researched. Larger random sample of respondents should be adopted by studies adopting the same methodology. Utilize mixed-methods approach to get deeper

Authors	Summary of findings	Methodology	Management implications	Areas for future research
	directed at the brand page and brand loyalty.”			insights about consumer responses.
Hsu, 2012	Although use of Facebook as an international e-marketing strategy varied among Taiwan hotels, it is successful in allowing organizations to build relationships with regional and global customers.	Qualitative study using observation methods of the organizations’ respective fan pages.	Facebook is a useful tool to communicate with target segments that transcend geographical limitations.	Pursue quantitative and mixed methods research design to explore specifically how Facebook can be better used to engage stakeholders.
Kang, Tang, & Fiore, 2014	Facebook Fan Pages help organizations establish and maintain consumer-brand relationships. Members tend to visit restaurant fan pages when they receive hedonic and social-psychological benefits.	Survey to explore relationship between four benefit components (functional, social-psychological, hedonic, and monetary benefits)	Managers should develop strategies that deliver hedonic and psychological benefits to customers if the marketing strategy revolves on engaging them online.	Build on findings that Facebook is a useful platform and marketing tool for building online communities and developing brand strategies through other research methods.
Kosinski, Matz, Gosling, Popov, & Stillwell, 2015	Facebook can be used as an innovative research tool for primary data gathering (surveying respondents with consent) and archival research (mining publicly available data ethically).	Various Facebook-based research, with a cumulative sample of over 10 million participants (collected through snowball sampling), allowed the researchers to synthesize research design.	Scholars and practitioners should consider Facebook as innovative data gathering tool and even a repository of publicly available data to understand stakeholders.	Opportunities and challenges should be explored in utilizing Facebook as a research tool, such as implementation procedures and discussing ethical considerations.
Ruiz-Mafe, Marti-Parreno, & Sanz-Blas, 2014	“Data analysis shows that attitude appears as a key variable in increasing loyalty to fan pages. The empirical study also found a significant positive influence of perceived usefulness, attitude, trust and dependency on loyalty in fan pages, and an indirect influence of perceived ease of use mediated by perceived usefulness and attitude.”	“The impact of trust, fan page content dependency, attitude and consumer beliefs on loyalty to fan pages was tested through structural equation modelling techniques. The sample consisted of 691 Spanish Facebook users”	“This research enables managers to know what aspects to highlight in their communication strategies to increase fan page use and positive word-of-mouth. Research findings show managers that Facebook fan page content should provide valuable information, be fun and foster user interactions in order to improve user attitude and loyalty”	There continues to be few papers that study trust and fan page dependency of customers. More research about these fields are desirable.

Table 2

Literature review matrix on utilizing social media for advocacy and mission

Authors	Summary of findings	Methodology	Management implications	Areas for future research
Campbell, Lambright, & Wells, 2014	Nonprofits tend to use social media for raising awareness, promoting activities, and conversing with stakeholders. Barriers to usage of managers include stringent institutional policies, concerns about the inappropriateness of using social media, and client confidentiality.	Qualitative design -use of interviews and examination of publicly available data.	Managers should be aware how to navigate through existing policies and processes, get buy-in from leaders regarding the appropriate use of social media, and overcome sensitive issues.	“Future research should investigate not only the different ways organizations use social media but also whether organizations use it strategically to advance goals”
Cho, Schweickart, & Haase, 2014	There is high engagement of stakeholders when two-way symmetrical communications was utilized.	Randomly sampled 36 organizations from the “Nonprofit Times 100” list. A total of 678 posts from October 1-20, 2012 were analyzed.	Public organizations should explore crafting social media campaigns capitalizing on two-way symmetrical communications.	Widen sample size and / or timeframe of posts to be analyzed to test findings.
Hall-Phillips, Park, Chung, Anaza, & Rathod, 2015	“Findings suggest a positive influence of engagement and attractiveness on C-SV identification. Two aspects of consumer social media experience, escapism and educational value, were found to enhance consumer engagement, while identity similarity and identity distinctiveness contributed to the attractiveness of a social venture's identity.”	Survey of 304 social venture consumers connected to the ventures via social media websites.	“The research provides social ventures with practical knowledge about the strategic use of social media sites as a vehicle for enhancing emotional and behavioral bonds with consumers.”	Research is still limited about social media's effect on customer identification and customer engagement.
Satar, John, & Siraj, 2016	Marketing concepts, which can be extended to social media marketing, can be useful for social entrepreneurship.	Qualitative case study methodologies of various social enterprises in western countries	Social marketing can be combined with social media marketing for effecting behavioral change among stakeholders, beneficiaries, and customers.	Explore other marketing strategies that are useful for managing social enterprises.
Saxton & Waters, 2014	In terms of engagement, stakeholders prefer dialogic posts	1000 updates from organizations on the Nonprofit Times 100 list were analyzed.	For strategies revolving on engaging customers, managers should craft posts that encourage interaction and dialog.	Public relations research can be extended further by researching how social media can be used for engaging customers.

Table 3

Literature review matrix on content analysis applied on social media

Authors	Summary of findings	Methodology	Management implications	Areas for future research
Čeněk, Smolík, & Svatošová, 2016	“All of the analysed e-shops should increase the frequency of contact with their fans through more frequent posting and modification in the content of the posts”	Quantitative content analysis of Facebook profiles of three Czech electronic shops. Qualitative analysis and explanations were utilized for interesting findings.	Frequency of posts can increase engagement with fans.	Test whether increasing frequency of posts, and increased contact with fans, facilitate better customer engagement.
Kim, Spiller, & Hetteche, 2015	“Research findings reveal that global brands actively utilize social media, posting on average three messages per week and generally use photos (as a media type) and interaction-focused content (as a content orientation) to secure consumer responses. However, differences in consumer responses exist along various product categories, message media type and message content orientation.”	“A content analysis of 1,086 social media posts was conducted from the corporate Facebook pages of 92 global brands during a one-month (snapshot) time horizon in July 2013. The data collected from each individual post include its media type (i.e. text, photo or video), its content orientation (i.e. task, interaction and self-oriented) and the number and type of consumer response it generated (i.e. likes, comments and shares).”	“Findings imply that marketers should not only carefully consider the media type they use to message consumers on social media but should also try to consider the individual consumer’s motive for interaction.”	Find other content categorizations which may be useful for classifying Facebook content. Extend time horizon of studying posts.
Lai & To, 2015	Social media affects beliefs, attitudes, values, intentions, and behaviors (as evidenced by a systematic study on customer perceptions on Macao as a destination image).	“In this paper, we introduce a grounded theory approach that involves (i) defining the goal and scope of a study; (ii) logically and systematically identifying social media sources, total sample size, and the sample size of every source category; (iii) employing computer-aided lexical analysis with statistical and graphical methods to identify the key dimensions of the topic while minimizing human errors, as well as coding and categorization biases; and (iv) interpreting the findings of the study”	Social media posts can be analyzed to understand customer perceptions.	Test the grounded theory and methodology proposed by the authors.

Authors	Summary of findings	Methodology	Management implications	Areas for future research
McGetrick, Bubela, & Hik, 2016	“Automated content analysis (ACA) techniques can provide a rapid, replicable, inductive, and systematic way to examine public hearing transcripts, consisting of the critical development and application of computer programming scripts that synthesize evidence from extensive document sets.”	ACA was used for a case illustration of the methodology.	Content analysis, specifically ACA, is a valid procedure in understanding rich qualitative data.	Further test content analysis techniques in other sources (e.g. social media).
Tafesse & Wien, 2017	3 general categories and 12 specific, exhaustive, and mutually exclusive categories of brand posts were developed in pursuit of refining social media marketing strategies.	Deductive and inductive coding was utilized to develop a new framework for categorizing social media posts.	Social media marketers can specifically craft their content based on the specific categories to drive customer engagement.	Test the proposed framework for categorizing posts and whether it can be approved or is applicable in other settings.

The media richness theory (Daft and Lengel, 1984, 1986) may also help explain how variables such as the social enterprise fan page, post type, and post content categories elicit specific customer responses such as reactions, comments and shares. The premise of the media richness theory is that messages will be understood more effectively by a particular consumer only if the appropriate communication channel is used. These communication channels range from face-to-face, telephone, electronic media, memos, letters, and computer reports, among many others. In this case, the usage of a fan page, post type, and post content category can be considered as “electronic media” by which ECHOstore and Human Nature used to convey their message to consumers. The question, therefore, lies on the effectiveness of these media in eliciting specific customer responses such as reactions, comments, and shares. These will be discussed further in the corresponding analyses section.

Synthesis of Literature Review and Significance of the Study

Reconciling the usefulness of social media in enabling social organizations to engage their stakeholders, we build on the results of the literature review with the articles of Daft and Lengel (1984, 1986), Kim et al. (2015), and Tafesse and Wien (2017) as the main articles. The research methodology of Kim et al., which used multivariate analysis of covariance in analyzing content, proved to offer explanatory power in understanding the effects of certain independent variables on likes/reactions, comments, and shares in Facebook. However, we intend to utilize the proposed categories of Tafesse and Wien (2017) given its novelty. Meanwhile, in a qualitative perspective, the media richness theory of Daft and Lengel (1984, 1986) provides additional insights as to how using electronic media as the main communication channel helps elicit specific forms of customer engagement through comments, reactions, and shares.

This study is significant because it provides new ways to study how social enterprises can strategically utilize social media towards customer engagement—be it for building the social enterprises' brands or advocating mission. By finding out which factors affect customer engagement, operationalized by Facebook reactions, comments, and shares, managers of social enterprises' fan pages can craft more pointed strategies and develop compelling content. Moreover, this research fills a local and global gap in terms of understanding how social enterprises use social media in the Philippines as most papers published using this study's design focus on big corporations and nonprofits all over the world.

Statement of the Problem and Assumptions

Generally, the research questions and hypotheses were derived from the most salient findings of literature, particularly that of Kim et al. (2015) and Tafesse and Wien (2017). The findings of this research will be further assessed using the media richness theory of Daft and Lengel (1984, 1986). We propose a main research question and its corresponding hypotheses, which are based on previous findings.

Research question: What is the effect of the independent variables (post types and content categories) on reactions, comments, and shares?

- H1. Post types, as a whole, have a significant effect on reactions, comments, and shares.
 - H1-1. Among the specific post types, photos have a significant effect on reactions, comments, and shares.
 - H1-2. Among the specific post types, videos have a significant effect on reactions, comments, and shares.
- H2. General content categories, as a whole, have a significant effect on reactions, comments, and shares.
 - H2-1. Among the general content categories, interactional posts have a significant effect on reactions, comments, and shares.
 - H2-2. Among the general content categories, transformational posts have a significant effect on reactions, comments, and shares.
- H3. Specific content categories, as a whole, have a significant effect on reactions, comments, and shares.
 - H3-1. Among the specific content categories, cause-related brand posts have a significant effect on reactions, comments, and shares.
 - H3-2. Among the specific content categories, sales interaction brand posts have a significant effect on reactions, comments, and shares.

Scope and Limitations

Our study deliberately focuses on two social enterprises over a three-month period. ECHOstore and Human Nature were chosen due to the following factors: (1) have at least 10,000 followers in their Facebook Page, (2) have at least three years of experience, and (3) have posted at least 20 times per month during the time period April 1, 2017 to June 30, 2017. The time period was chosen as an improvement to Kim et al.'s limitation of only conducting a one-month snapshot.

Moreover, three months correspond to a quarter of the enterprises' business cycle, which allows researchers to analyze more posts.

Conceptual Framework

The following conceptual framework guided us in our analysis. It suggests that the characteristics of Facebook posts, such as post type (link, text, photo, and video) and content category (general and specific content category) would have an effect on customer engagement in Facebook as shown by the number of reactions (likes, love, haha, wow, and angry), number of comments, and number of shares.

A link, text, photo, or video, for instance, may elicit different levels of customer engagement. As links, texts, photos, or videos also have varying characteristics ranging from the use of words, images, animations, and recordings, the researchers suggest that this may impact the level of customer engagement. Tafesse and Wien (2017) narrated several concrete examples by which links, texts, photos, or videos help in eliciting customer engagement among Facebook users. For instance, a link in a Facebook post leading to a particular YouTube video would have an additional impact to the user as it may provide them additional information and entertainment, to name a few.

On the other hand, general and specific content categories have different intended uses and impacts among Facebook users (Tafesse and Wien, 2017). For instance, cause-related brand posts may elicit emotional feelings and the drive to become part of a cause or movement. Depending on how the cause-related brand post made the Facebook user feel, the user may react accordingly. Based on cause-related brand posts in Facebook such as those from non-government organizations and social enterprises, for instance, certain Facebook users will express additional insights through the comments section. Their comments range from adding more information on the cause, asking for inquiries on how they can be part, and sharing personal experiences and learnings, among others. Some users also opt to spread more awareness on the cause-related brand post, and this can be done through the sharing feature of Facebook. Hence, this conceptual framework suggests that different content categories elicit different types of customer engagement.

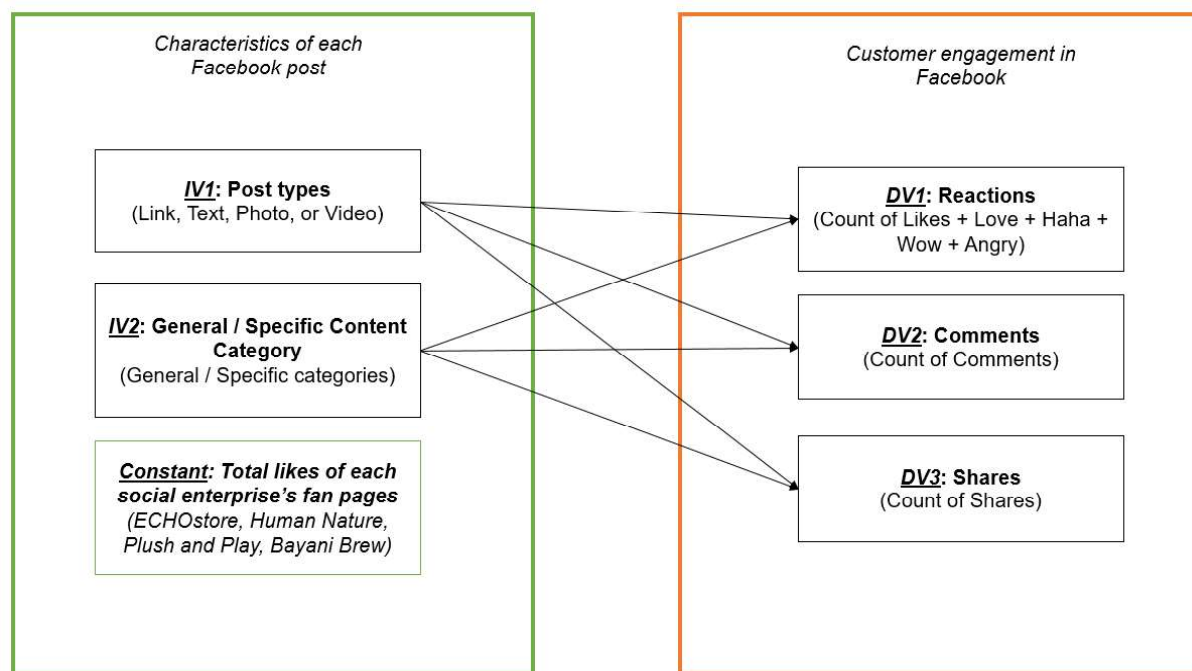


Figure 1. Conceptual framework

Methodology

For this study, we replicate the methods of Kim et al. (2015) in doing multivariate statistical analyses to infer which independent variables have significant effects on various dependent variables. We also adopted a qualitative approach by using the media richness theory of Daft and Lengel (1984, 1986) to make sense of our quantitative results.

Given the relationship of the various independent and dependent variables we wanted to explore, we utilized ANOVA as our core statistical analysis tool. However, the research design of Kim et al. (2015) overcomes the limitation of multiple univariate ANOVAs—multiplying the error term and lessening the presence of bias. This is why a multivariate analysis of variance is the desirable statistical method. To better understand the relationships of the identified variables and to try lessening the effect of spurious variables, Kim et al. (2015) used multivariate analysis of covariance—with the total number of likes of each Facebook page serving as a constant or the covariate. This method intensifies the ability to analyze the effects of the independent variables to customer engagement.

MANCOVA is a sophisticated statistical method that needs to satisfy various assumptions. Recently, the study of Blanca et al. (2017) showed how ANOVA processes are somewhat robust to violations of its assumptions as long as samples are sufficiently large. Nevertheless, we did pre-statistical treatments (such as tests of normality on data and residuals, logarithmic transformations of data if needed) to examine whether all MANCOVA assumptions can be met. In case assumptions of univariate ANOVA and MANCOVA will be violated, the researchers will explicitly state them while acknowledging the limitations of the results (Spencer, Lay, & de Lopez,

2017). We also conducted post-hoc analyses (Bonferroni method) on significant results from the MANCOVA, which resembles the design of Kim et al. (2015)

The coding procedure for this study is straightforward—we used deductive coding based on the proposals of Tafesse and Wien (2017). Table 4 shows a summary of general and specific content categories compiled by Tafesse and Wien (2017), which we used as a guide.

Table 4
General and specific content categorizations (Tafesse & Wien, 2017)

General categories	Specific categories	Definition and common message themes
Informational	Functional brand posts	These brand posts highlight the functional attributes of company products and services. Typically, these posts promote the benefits of company products and services according to performance, quality, affordability, design and style criteria Common themes: product functional claims, product reviews, awards, green credentials, and so forth
Informational	Educational brand posts	These brand posts educate and inform consumers. These posts help consumers acquire new skills on proper ways of applying products, or discover new information about broader industry trends and developments Common themes: do it yourself tips, instructions, blog posts, external articles, technical interviews with employees, and so forth
Informational	Employee brand posts	These are brand posts about employees. Employee brand posts present employees' perspective on a range of issues, such as employees' technical expertise, their managerial philosophies, or their personal interests, hobbies and worldviews
Interactional	Current event	These brand posts comment on themes that capture active talking points in the target audience, such as cultural events, holidays, anniversaries, and the weather/season. These brand posts initiate conversations with consumers using timely and widely talked about events Common themes: weather, cultural events (i.e. sport, film, TV shows), holiday, special day and anniversaries
Interactional	Personal brand posts	These brand posts center around consumers' personal relationships, preferences and/or experiences. These brand posts typically invoke personally meaningful themes, such as family, friendship, personal anecdotes or future plans to initiate deeply personal conversations with consumers Common themes: friends, family, personal preferences, anecdotes and future plans
Interactional	Brand community	These brand posts promote and reinforce the brand's online community. These brand posts foster a sense of community identification and engagement with the community, by recruiting new community members, as well as encouraging participation from existing members

General categories	Specific categories	Definition and common message themes
Interactional	Brand Community	Common themes: encouraging fans to become members of the brand's online community, acknowledging fans (e.g. mentioning their name, tagging them), using/soliciting user-generated content
Interactional	Customer relationship	These brand posts solicit information and feedback about customers' needs, expectations and experiences. These brand posts seek to deepen the impact of customer relationships in social media channels by encouraging customer feedback, reviews and testimonies Common themes: customer feedback, customer testimony and customer reviews and customer services
Interactional	Sales promotion	These are brand posts that entice consumers to take actions toward a buying decision. These brand posts often contain transactional details such as price and availability points, as well as concrete promotional offers, such as price discounts, coupons and competitions Common themes: price discounts, coupons, free samples, customer contests and product competitions
Transformational	Emotional brand posts	These brand posts evoke consumers' emotions. To this end, the posts typically employ emotion-laden language, inspiring stories or humor and jokes to arouse affective responses, such as fun, excitement and wonder Common themes: emotionally worded posts, emotional storytelling, jokes and trivia
Transformational	Brand resonance	These brand posts direct attention to the brand promise and identity of the focal brand. These posts highlight some of the main tropes of brand identity, such as brand image, brand personality, brand association and branded products with the goal of differentiating the brand and favorably influencing consumers' brand attitude and association Common themes: brand image (i.e. brand logo, brand slogan, brand character, etc.), photos of branded products, celebrity association, and brand history
Transformational	Experiential brand posts	These brand posts evoke consumers' sensory and behavioral responses. Experiential brand posts highlight the sensory and embodied qualities of the brand and often associate the brand with pleasurable consumer experiences Common themes: sensory stimulation (i.e. visual, auditory, taste, odor, etc.), physical stimulation (i.e. physical actions, performances, activities, etc.), brand events (product launches, festivals, fan events, sponsored events, etc.)
Transformational	Cause-related brand posts	These brand posts highlight socially responsive programs supported by the focal brand. These brand posts promote worthy social causes and initiatives and encourage customers and fans to support them

As recommended by Tafesse and Wien (2017), it is useful to code the posts under the three general content categories. However, the specific content categories of each post were coded as well to help arrive at context-specific insights that may be unique to the social enterprises. We worked together to categorize each post according to their general and specific categories (Tafesse & Wien, 2017). In cases of difference in categorization between us, we engaged in a discussion

until we agreed on the more appropriate code. While coding, we found out that ECHOstore and Human Nature also used their Facebook page for announcements and news about store hours. These kinds of posts do not properly fit specific categories under the informational category. As such, we resolved to introduce a specific category called “general announcements and updates”. These are posts that only intend to inform followers about website maintenance, store hours, and other miscellaneous updates that do not fall in any other informational subcategories. The limitation of the coding procedure is that it only accounts for the most salient general and specific content categories; the procedure disregards the other general and specific content categories in cases where posts fall under two or more categorizations.

The sampling design (that is, the rationale of choosing social enterprises to be part of the study) is purposive based on two criteria: (1) the social enterprise’s fan page should have at least 10,000 likes (albeit an arbitrary criterion that aims to limit the sample to include only those which have substantial followers); (2) the social enterprise should have been in operation for at least three years (also an arbitrary criterion that aims to limit samples to include those who have undergone at least three business cycles, indicating that the enterprise has spent some time marketing its brand).

The data source is publicly available Facebook data from the social enterprises’ fan pages. We manually collected the publicly available data and processed them via Excel. We used SPSS to perform MANCOVA on the data.

Results

Table 5 summarizes the number of general content categories used by the social enterprises’ Facebook pages. Overall, there were 326 social media posts from Human Nature and ECHOstore that were studied in the research. Informational posts topped the most number of posts with 45.10%, whereas transformational posts were the least used with 14.40%. Table 5 shows that the social enterprises commonly use informational posts in their social media posts in Facebook.

Table 5
General content categories studied in the research

General content categories	Total number of posts	%
Informational	147	45.10
Interactional	132	40.50
Transformational	47	14.40
Total	326	100.00

Table 6 summarizes the specific content categories that were used by the social enterprises. The table shows that social enterprises made use of sales promotion posts the most (31.00%). The least used, on the other hand, are customer relationship (2.00%) and personal brand posts (2.00%).

Table 6

Specific content categories studied in the research

Specific content categories	Total number of posts	%
Sales promotion	101	31.00
Functional brand posts	65	19.90
Educational brand posts	55	16.90
Brand resonance	23	7.10
Cause-related brand posts	22	6.70
General announcements and updates	20	6.10
Brand community	17	5.20
Current event	9	2.80
Employee brand posts	7	2.10
Experiential brand posts	3	0.90
Personal brand posts	2	0.60
Customer relationship	2	0.60
Total	326	100.00

For post types, table 7 shows that the most frequently used were photos (50.6%). On the other hand, the least post type being used were the statuses (2.1%). This shows that Human Nature and ECHOstore use photos more frequently in their Facebook posts as compared to links, statuses, and videos.

Table 7

Post types studied in the research

Post types	Total number of posts	%
Photo	165	50.60
Video	108	33.10
Link	46	14.10
Status	7	2.10
Total	326	100.00

Table 8 shows the number and percentages of general content categories used per social enterprise of ECHOstore and Human Nature. According to the table, ECHOstore had the most number of social media posts throughout April 1, 2017 to June 30, 2017 (N=297). On the other hand, Human Nature had N=29 social media posts. For ECHOstore, the least used general content category are transformational posts (14.48%). The same goes with Human Nature (13.79%). On the other hand, both ECHOstore and Human Nature used informational posts the most (44.44% and 51.72%, respectively). This shows that ECHOstore and Human Nature use mostly informational posts in their social media campaigns in Facebook.

Table 8

Frequency distribution of general content categories used per social enterprise

General content categories	ECHOstore		Human Nature		Total	%
	f	%	f	%		
Informational	132	44.44	15	51.72	147	45.10
Interactional	122	41.08	10	34.48	132	40.50
Transformational	43	14.48	4	13.79	47	14.40
Total	297	100%	29	100%	326	100%

Table 9 shows that ECHOstore and Human Nature used sales promotion posts the most (26.75% and 40.82%, respectively). On the other hand, the least used specific content category are customer relationship posts (0.04%) and personal brand posts (0.04%). Note that ECHOstore and Human Nature has a total number of specific content categories that are not equal to the total number of posts per social enterprise as shown in table 8. This is because in the identification of specific content categories during the data mining process, one post may have at least two specific content categories. Considering the flexibility of some posts to be categorized under several specific content categories, the researchers took this into account as shown on table 9. In summary, table 9 shows that both social enterprises make use of sales promotion posts the most.

Table 9

Frequency distribution of specific content categories used per social enterprise

Specific content categories	ECHOstore		Human Nature		Total	%
	f	%	f	%		
Sales promotion	61	26.75	40	40.82	101	30.98
Functional brand posts	48	21.05	17	17.35	65	19.94
Educational brand posts	41	17.98	14	14.29	55	16.87
Brand resonance	19	8.33	4	4.08	23	7.06
Cause-related brand posts	20	8.78	2	2.04	22	6.75
General announcements and updates	11	4.82	9	9.18	20	6.13
Brand community	8	3.51	9	9.18	17	5.21
Current event	9	3.95	0	0	9	2.76
Employee brand posts	6	2.63	1	1.02	7	2.15
Experiential brand posts	3	1.31	0	0	3	0.09
Personal brand posts	1	0.04	1	1.02	2	0.06
Customer relationship	1	0.04	1	1.02	2	0.06
Total	228	100%	98	100%	326	100%

Data transformations and covariate

Consistent with the past content analyses examined by Kim et al. (2015) the data for our dependent variables, namely individual posts' number of reactions, comments and shares, were not normally distributed. The distribution of the reactions, comments, and shares was skewed positively, with skewness coefficients of 8.2, 8.4, and 7.3 respectively. Similar to the procedures of Kim et al. (2015), to normalize the distributions while reducing influence of unusual cases, logarithmic transformations were applied to the data. Logarithmic transformations were applied to positively skewed data with nonnegative and non-zero values (Kim et al., 2015). The transformations improved the normality of the data—producing skewness coefficients of 1.2, 2.1,

and 1.8. Although the data, strictly speaking, is not normal, the study of Blanca et al. (2017) showed that ANOVA-based statistical methods are generally robust to nonnormality of data, as long as the data analyzed are sufficiently large. With 326 posts analyzed, we contend that the number of posts are sufficiently large to offset the mild violations of normality.

The total number of followers, or the total number of fan page likes in each social enterprises' Facebook pages, were also transformed and controlled as a covariate. This is to account for the different popularities of the social enterprise's fan pages in measuring the effects of post types and content categories to the dependent variables. Similar to the findings of Kim et al., the covariate has a very significant effect in all of the statistical analyses performed ($p < 0.001$).

MANCOVA and post-hoc analyses

To answer the research question, it is essential to utilize MANCOVA and perform post-hoc analysis through the Bonferroni method (Kim et al., 2015). To test H1, which expected that post types collectively have a significant effect on reactions, comments, and shares, a MANCOVA was performed through the use of the SPSS software. The MANCOVA's explanatory power on reactions ($r^2 = .524$; adjusted $r^2 = .468$), comments ($r^2 = .437$; adjusted $r^2 = .371$), and shares ($r^2 = .597$; adjusted $r^2 = .550$) were desirable. The results showed that post type, collectively, has a significant effect on all customer responses (Pillai's trace = .103, $F(9, 873) = 3.46$, partial $\eta^2 = .034$, $p < .001$; Wilk's lambda = .899, $F(9, 704) = 3.51$, partial $\eta^2 = .035$, $p < .001$; Hotelling's trace = .111, $F(9, 863) = 3.54$, partial $\eta^2 = .036$, $p < .001$; Roy's largest root = .086, $F(3, 291) = 8.35$, partial $\eta^2 = .079$, $p < .001$). A post-hoc analysis utilizing the Bonferroni method showed that photos have more reactions ($p = .018$) and shares ($p = .027$) than videos. Surprisingly, videos have lesser reactions than links ($p < .001$) and photos ($p = .018$); lesser comments than links ($p = .046$); and lesser shares than links ($p < .001$) and photos ($p = .027$). The most surprising result is that links have more reactions than photo ($p < .001$) and video ($p < .001$); have more comments than video ($p = .046$); and have more shares than photo ($p < .001$), status ($p < .001$), and video ($p < .001$).

To test H2, the MANCOVA results showed that collectively, general categories (transformational, interactional, informational posts) do not have a significant effect on the three dependent variables (Pillai's trace = .007, $F(6, 624) = .364$, partial $\eta^2 = .003$, $p = .902$; Wilk's lambda = .993, $F(6, 622) = .363$, partial $\eta^2 = .003$, $p = .902$; Hotelling's trace = .007, $F(6, 620) = .363$, partial $\eta^2 = .003$, $p = .902$; Roy's largest root = .007, $F(3, 312) = .714$, partial $\eta^2 = .007$, $p = .545$). Since general categories do not have a significant effect on customer responses, no further post-hoc analysis is required.

To test H3, another MANCOVA was performed. Specific categories replaced general categories in the model. The results showed that specific categories collectively have a significant effect on the three dependent variables (Pillai's trace = .212, $F(33, 873) = 2.013$, partial $\eta^2 = .071$, $p = .001$; Wilk's lambda = .800, $F(33, 852) = 2.026$, partial $\eta^2 = .071$, $p = .001$; Hotelling's trace = .234, $F(33, 863) = 2.038$, partial $\eta^2 = .072$, $p = .001$; Roy's largest root = .131, $F(11, 291) = 3.478$, partial $\eta^2 = .116$, $p < .001$). A post-hoc analysis utilizing the Bonferroni method showed that specific categories have no significant differences with each other on their effect on comments.

In terms of reactions, a post-hoc analysis utilizing the Bonferroni method showed the following results. Brand community posts have a positive significant difference compared to

functional brand posts ($p = .016$). Educational brand posts have a positive significant difference compared to functional brand posts ($p = .003$).

In terms of shares, a post-hoc analysis utilizing the Bonferroni method showed the following results. Educational brand posts have a positive significant difference compared to cause-related brand posts ($p = .021$), functional brand posts ($p < .001$), and sales promotion ($p = .006$).

Conclusion

This study aspired to build on the research of Kim et al. (2015) by replicating their methodology while using new content categories. The general and specific categories advanced by Tafesse and Wien (2017) have the potential to offer crisper insights about what content categories lead to particular customer responses. Meanwhile, using the media richness theory by Daft and Lengel (1984, 1986) provides a qualitative, complementary perspective on the effectiveness of the general and specific categories in terms of eliciting customer responses.

With regards to testing H1, this study validates that photos have significantly more reactions and shares than videos. The findings of Kim et al. (2015) and Tafesse and Wien (2017) surmise that the Facebook browsing habits of customers tend to feature relatively short attention spans; customers may want to wholly consume rich content in an instant. Photos provide the balance between instant consumption of content while still providing rich and visual stimuli. This is not to say videos should not be posted; rather, the lesson from the success of photos is that videos should be crafted in a way that engages customers in the first few seconds of viewing.

Meanwhile, it is a surprise that links have more reactions than photo and video; have more comments than video; and have more shares than photo, status, and video. Given the current trends where Facebook seamlessly works with third-party applications and websites, the finding makes sense. Perhaps customers are engaged when fan pages serve as a curator of content that are still related to the brand. ECHOstore and Human Nature maximize the capability of links by showing product reviews, product tutorials, and other useful content.

With regards to testing H2, we find it interesting that general categories do not have a collective significant effect on the dependent variables. Although a little bit surprising, the finding does make sense because each general category (transformational, interactional, informational) could have many reasons why customers will react, share, or comment on them. For transformational posts, it could have significant customer engagement when a brand is well-known, and customers can be considered as possible loyal fans of a brand. Interactional posts could have significant customer engagement because it encourages fans to participate via contests and online activities. Informational posts could have significant customer engagement especially for brands that are involved with teaching customers new ways to use innovative products, similar to what ECHOstore and Human Nature did in their pages. As such, it makes sense that generally, transformational, interactional, and informational posts have no significant differences from each other on their effects on reactions, comments, and shares.

With regards to testing H3, the specific content categories have a collective significant effect on reactions and shares. However, when digging deeper, there is no significant difference among the specific categories in terms of their effect on comments.

In terms of reactions, brand community posts have a positive significant difference compared to functional brand posts. This makes sense because brand community posts are interactional in nature and they encourage customers to participate in online activities or even real-life events. On the other hand, functional brand posts only serve to inform customers on the benefits of products.

Educational brand posts have a positive significant difference compared to functional brand posts. Although educational brand posts are informational in nature, these posts engage customers because they are immersed with learning new things about using products and solve existing problems, needs, and wants they might have. Given that ECHOstore and Human Nature continuously introduce new products, educational brand posts allow customers to better understand and be engaged with the brand.

In terms of shares, educational brand posts have a positive significant difference compared to cause-related brand posts, functional brand posts, and sales promotion. The finding that cause-related brand posts have lesser shares compared to educational brand posts is crucial, especially because ECHOstore and Human Nature are social enterprises. Our a priori belief is that cause-related brand posts will have significant effects on customer engagement, given the socially-oriented nature of social enterprises. However, this finding emphasizes that social enterprises, in communicating with customers, need to make sure that the brand has real commercial benefits for the customers beyond advocating mission.

The findings on educational brand posts' positive significant difference compared to functional brand posts on shares is consistent with the findings on reactions. Customers tend to share useful tutorials or new learnings that truly benefit how they patronize the brand. Specific to the case of ECHOstore and Human Nature, customers appreciate the efforts of the brands to teach them varying uses of innovative organic products. When these are deemed effective, the customers become evangelizers to fellow fans—an effective way for digital word-of-mouth marketing activities.

Sales promotion having a negative significant difference compared to educational brand posts makes sense as well, given that customers browse Facebook not to shop, but to be updated with news from friends and even the brands they follow. Similar to real life, customers do not want in-your-face hard selling; and this behavior can be translated to their digital browsing habits. However, one of the key qualitative findings of this research is that ECHOstore and Human Nature combine sales interaction with their more engaging posts. For example, one post may start as educational, but in the end there is a call-to-action for the fans to order online or seek the brands in their retail stores. As such, marketers must find ways to seamlessly reconcile engaging posts with call-to-action (such as sales promotions).

Recommendations

This study aimed to contribute to the evolving literature of social media engagement, specifically in the field of social entrepreneurship. Utilizing a quantitative method to make sense of ECHOstore and Human Nature's social media activities, we were able to understand what potentially works in terms of customer engagement. The study can be advanced further by including more social enterprises and expanding the time period, so as to increase the number of posts and make the statistical model of MANCOVA more robust to nonnormality of data.

For further research, the researchers recommend the following:

1. For a more generalizable study, the research can be expanded to including more social enterprises, and can cover a longer period
2. Although analyzing archival data through the different fan page's posts provide useful quantitative insights, it is limited to what Kosinski et al. (2015) call as digital footprints. As such, it is a good idea to test the findings of this research through replication and even performing an explanatory sequential mixed method approach. A follow-up qualitative research, which can be testing different types of posts in interviews and focus group discussions, can help explain the behavior of respondents on what causes them to react, comment, or share on a particular post.
3. Experimental designs can also help to isolate specific variables in terms of what causes customer engagement. For example, there are many reasons why customers will react on a particular post – maybe it is the brand name, maybe it is because of one's certain mood that was influenced by prior posts seen before the brand's posts. Meanwhile, commenting on posts and sharing them are more deliberate – it takes more conscious effort to share and comment on posts than it is to react on them. Further research that tests these behaviors can lead to better insights.

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