

Marketing Cooperative Extension Organizations and Extension Local Foods Educational Programs:

A Review of Online Practices Used Across the South*

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1.0 INTRODUCTION

Using websites, social media, social media advertisements, search engine optimization, e-mail marketing campaigns, and much more are all part of online marketing (American Marketing Association, 2018). Online marketing can be complex for any company or organization because a strategic choice must be made to use some or all of these online marketing tools to sell a product. Selling multiple products adds to complexity because limited marketing resources have to be allocated across multiple products or brands.¹ The bottom line: online marketing of multiple brands can be even more complex than marketing a single company brand.

Online marketing of multiple brands at a university is even more complex than marketing multiple company brands.² Why? Institutions, such as universities, are slow to adapt to market changes and are largely characterized by bureaucracy with hierarchical leadership structures that determine how limited resources are to be used across multiple departments (North, 1990). Other factors also increase online marketing complexity for universities.

According to Rauschnabel et al. (2016), three other factors add significant complexity to online marketing of multiple brands within universities. First, brand architectures within universities are complex. Universities are comprised of colleges, departments, governing bodies, and multiple layers of team-based production across and within these entities, all of which complicates the decision to allocate marketing resources toward promoting a brand or brands. For example,



¹ A brand is, generally speaking, a name, term, sign, symbol, or design, or a combination of those components, intended to identify the goods and services of one seller or group of sellers and to differentiate them from those of competitors (American Marketing Association, 2018). The brand identity for any particular brand can then be defined as a unique combination of interconnected liabilities and assets that enhance or detract from the brand value provided by a product or service (Aaker, 1996).

² In this context, brands can refer to individual faculty, departments, colleges, or specific educational programs for the consumers or businesses.

should a department head allocate her resources to promote the department brand only or seed marketing investments to promote smaller teams that have organized within a department that focus on specific needs expressed by consumers or businesses within her state? How does she allocate resources to successfully brand all of these faculty and their programs within her state and more broadly? And how is this done equitably so faculty who are more likely to have figured out “the system” do not exclude others from receiving attention for their programs?

Another factor that adds complexity to online marketing within universities is how internal resources are allocated across departments. Chapelo (2010) concluded that a consistent structure for the marketing function within universities is lacking. With limited marketing resources, universities often allocate their efforts using centralized marketing teams, but the tasks of the marketing team are extremely diverse, from student recruitment, faculty recruitment and retention, and international and public relations. Chapelo (2010) noted that resources devoted to university branding of faculty programs were simply lacking, yet a large part of faculty promotion depends on the degree of their national reputation for scholarly work and programs.

The third factor that adds complexity to online marketing within universities is meeting the diverse needs of multiple stakeholder groups. Waeraas and Solbakk (2009) concluded that branding research is lacking within the walls of universities. Further, they noted that the marketing literature would be highly informed by case study research that documented how specific programs are branded successfully from start to finish, with an internal focus of understanding the keys to success, and the overall process in place. The idea is to research one aspect of a university’s branding efforts, say, for an individual faculty within a department, and identify the steps in a marketing process that led to specific outcomes for the program, whether greater participation or longer-term impacts.

Brand architecture, internal marketing resource allocation, and meeting the diverse needs of community stakeholders add significant complexity to online marketing within universities. One of the consequences of added online marketing complexity is marketing messages can be unclear. When marketing messages are unclear, customers do not listen (Miller, 2017). Further, unclear marketing can persist within universities amidst complexity, and a lack of a consistent marketing message that is clear can make or break brands for departments and faculty. The question is: How can universities add marketing message clarity and consistency to deliver quality services for multiple diverse groups given all of its complexities?³

³ While this is described in more detail in another section, marketing message clarity refers to a message that requires an audience to spend only a small amount of energy to understand its meaning (Miller, 2017). Consistency means the same clear marketing messages are repeatedly posted on social media. Where we find high frequency of this, we say

Understanding how to clearly develop and communicate faculty-developed educational programs as brands within universities has been studied at length. Following Waeraas and Solbakk (2009), we conducted research on how websites and social media were used to market educational programs within universities. Specifically, we examined how Cooperative Extension organizations within land-grant universities in the Southern U.S. used websites and social media to promote local foods educational programs.⁴

Cooperative Extension is a nationwide educational and outreach network that was formalized by the Smith-Lever Act in 1914. Congress created the Extension system to address rural, agricultural issues (APLU, 2018). Local foods educational programs are relatively new and have emerged as the local foods movement has also emerged. Cooperative Extension offers a variety of educational programs, but we chose local foods because it is foundational to this organization's mission to assist the local food system in its development in counties across the United States. We specifically examined Cooperative Extension organizations across the Southern Region of the U.S., as defined by the U.S. Department of Agriculture.⁵

A total of 25 Cooperative Extension organizations at land-grant universities were reviewed. In concert, we collected more than 30 variables across 1,380 Facebook and Twitter posts that relate to the type of marketing messages used and the resulting clientele engagement. We categorized these posts across several dimensions including, but not limited to, the type of educational program categories marketed as Agriculture and Natural Resources (ANR), 4-H, Family and Consumer Sciences (FCS), or Community Development (CD). Local foods Extension programs can appear in any of these categories. We also evaluated 25 Extension websites and present some preliminary results for the Southern Region as a whole and discuss how to improve the online marketing of Extension programs aimed at developing local food systems.

We used the StoryBrand marketing framework (Miller, 2017) to evaluate websites and some aspects of social media posts. We used the brand value framework from Bricks-To-Clicks™ (Barnes, 2017) to understand how online marketing practices were used to create brand value for Extension programs aimed at developing local food systems in the Southern Region.⁶

⁴ Land-grant universities are institutions designated by a state's legislature or Congress to receive the benefits of the Morrill Acts of 1862, 1890, and 1994 (APLU, 2018).

⁵ The Southern Region includes: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia.

⁶ Aaker (1996) defined several dimensions of brand value that include: (1) brand loyalty; (2) brand awareness; (3) perceived quality; (4) brand associations; and (5) other proprietary assets such as patents, trademarks, and channel relationship (Kotler, et al., 2007). Attempting to increase brand value through effecting changes along brand value dimensions can be extremely complex, especially within such institutions as universities.

The remainder of this study has been organized as follows. First, we explain why unclear marketing is the problem for companies and Extension organizations alike, how this occurs, and what can be done to eliminate unclear marketing of Extension programs aimed at developing local food systems. The same online marketing approach could be implemented for any Extension program. The discussion centers on how to improve marketing message clarity using the StoryBrand framework, yet, the foundation of this framework is based in advancements in neuroeconomics.⁷

Next, we explain how the StoryBrand marketing (Miller, 2017) and the Bricks-To-Clicks™ social media (Barnes, 2017) frameworks were used in concert to create an overall set of metrics for measuring brand equity as three core components: 1) brand assets; 2) brand awareness; and 3) brand engagement with Extension.

Third, we explain the methods used to collect the website and social media post data and how those fit the brand equity model used herein. Fourth, we present some preliminary results for the Southern Region. Finally, we make specific recommendations to improve the online marketing of Extension programs aimed at developing local food systems.

⁷ Neuroeconomics studies various aspects of economic decision-making based on neuroscience and its effects on consumer choice (Glimcher, 2004).

2.0 UNCLEAR MARKETING IS THE PROBLEM

Marketing an Extension program focused on the development of local food systems is no different from marketing a company's products or services to its customers. The marketing message has to be clearly and quickly understood by customers, and the message should be repeatedly shared across websites and social media to increase sales. For Extension programs, sales would typically be synonymous with more clientele participation in a program.



In the world of online marketing, customers do not necessarily buy the best products and services. Instead, they buy the ones they understand the fastest (Miller, 2018). Customers do

not read all content on websites or social media posts. Instead, they scan content. Generally, customers create a first impression of a business based on its website in only 2.6 seconds (SWEOR, 2018). This means we have only a few seconds to clearly communicate three fundamental things on a website or social media post:

1. What is the product or service offered?
2. How will using said product or service make a customer's life better, or how does said product or service solve a customer's problem?
3. How do I buy or use the product or service?

Failing to clearly communicate these three fundamentals creates confusion for customers, or Extension clientele. Confusion leads to marketing failures.

Schneider and Hall (2011) researched company product launches and concluded the biggest reason for failure was that entrepreneurs failed to prepare to market their products because they focused so much of their time on production and design. The result: marketing messages are hurriedly developed to launch a product. The take-home message: Entrepreneurs should spend adequate time marketing and making the message clear. If not, unclear marketing will not connect with customers and that means lower sales. Worse yet, unclear marketing could result in the financial collapse of a company, or any organization.

But there are marketing strategies for entrepreneurs to employ that build their brands around clear and succinct marketing messages. Likewise, Extension can use clear marketing to increase participation in educational programs. A three-part plan can be used to eliminate the problem of unclear marketing: 1) Increase marketing message clarity; 2) Increase marketing message frequency; and 3) Increase strategic marketing resources.

Increase Marketing Message Clarity

Unclear marketing costs companies millions of dollars every year from poorly developed websites to misaligned social media postings to failed product launches (Schneider and Hall, 2011; Miller, 2017). Why does unclear messaging not work? Unclear messaging causes our brains to use more calories to understand images, videos, the words used on websites, and social media posts (Miller, 2017). When customers expend lots of calories understanding a marketing message, they simply do not listen and that means lost sales. Customers want clarity of marketing messages first and foremost.

Extension clientele want the same thing as customers: a marketing message that is clear about an Extension program, so they too can decide to engage. If marketing messages are unclear,

Extension clientele do not scan our websites and social media posts. Potential clientele simply will not listen, and that means fewer people will participate in our Extension programs about local food system development. Marketing message clarity across websites and social media is a critical factor in marketing any Extension program online.

Increase Marketing Message Frequency

Another critical factor to marketing any Extension program online is the frequency of the marketing message pushed across websites and social media. Assuming an Extension program's marketing message is clearly positioned on its website and used throughout its social media, the message has to be repeatedly marketed.

What does this look like in practice? Assume an Extension local foods program has its own Twitter account that is separate from the main Extension Twitter account. Typically, the following for an Extension agency-level Twitter account is substantially larger than that for any one Extension program Twitter account, so there exists a network advantage in retweeting content from a specific program to the larger audience that follows the main Extension Twitter account. The same holds true on Facebook and Instagram. Sharing content from an Extension local foods program to the larger Extension social media audience is one way to increase marketing frequency. This is an extremely low-cost effort. Others exist as well.

Increase Strategic Marketing Resources

The problem of unclear marketing messages can be made worse because Extension program managers can find themselves overwhelmed with the daunting task of managing all of their website and social media content, and doing so consistently. Extension program managers generally lack significant time and marketing expertise to invest in marketing their programs alone. Instead, they often rely heavily on their Extension organization's website and social media platforms to assist in the promotion of their Extension programs, including those devoted to promoting the development of local food systems.

However, most Extension organizations are limited in resources devoted to equally marketing all programs. Increasing strategic marketing resources could alleviate the problem of unclear marketing. By strategic, we mean implementing a marketing framework that adds marketing message clarity and frequency to all Extension programs. This could be accomplished by integrating program evaluation, program, and marketing specialists within an Extension organization to create a standardized approach to marketing each Extension program, including those for local food system development. A standardized marketing framework would need to be implemented and measured across Extension programs. Each of the program evaluation,

program, and marketing specialists would have to be trained in a standardized marketing framework designed specifically to add clarity to marketing messages across Extension programs. The components of the brand value system described herein could be such a unifying framework.

3.0 BRAND VALUE SYSTEM AS A METHOD

This research was exploratory in nature as we primarily used observational post data from social media platforms. The principle focus was to seek a deeper understanding of how Extension Services use social media and websites to brand Extension programs as well as to evaluate the resulting engagement with Extension clientele.



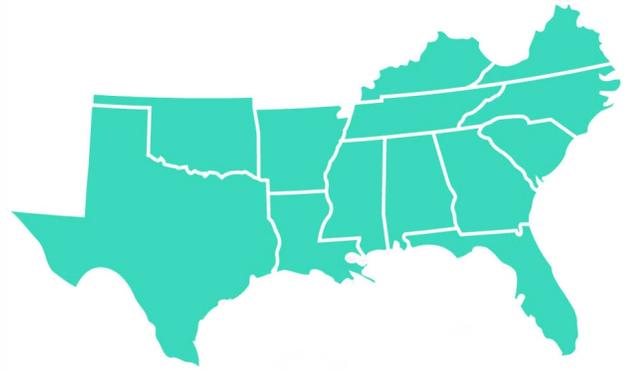
The brand value system as a method operationalizes the conceptual frameworks used herein. This creates a set of social media and online marketing metrics that can then be used for additional research. Extension Services could also create dashboards with these metrics to monitor engagement per marketing message used on social media. Further, the model used herein identifies a comprehensive framework to understand branding.

Conceptual Model

We believe unclear marketing is the problem for companies and Extension organizations alike. Approximately 38 percent of consumers will leave a website if the layout or design is unattractive (Adobe, 2015). When design or layout confuse, consumers simply do not want to continue struggling with understanding why a product or service will make their lives better. The main point is: clear marketing affects sales.

Increasing marketing message clarity, marketing message frequency, and strategic marketing resources can alleviate unclear marketing. An important step that could help substantially is to implement a new marketing framework for all Extension programs that adds clarity so clientele engage. Although it is beyond the scope of this study to explore all the details of how to implement such a marketing framework and its process, we do refer to the Bricks-To-Clicks™

Extension program at Mississippi State University (Barnes, 2018) and the marketing framework called StoryBrand (Miller, 2017) as one alternative approach that could provide some solutions to add greater clarity in marketing of Extension programs.



In concert, these two marketing frameworks create the overall brand value system that was used in this study. In what follows, we outline the core components of this system and explain how we collected data across each of its components for websites and social media posts for each land-grant university's Extension service in the Southern region. Table 1 shows the Southern region states and their corresponding universities. Table 2 shows the list of universities as well as data collected across Facebook, Twitter, and websites per university.

Table 1. Southern Region States and Universities in the Study

<u>State</u>	<u>Universities</u>
Alabama	<ul style="list-style-type: none"> • Alabama A&M University and Auburn University • Tuskegee University
Arkansas	<ul style="list-style-type: none"> • University of Arkansas • University of Arkansas at Pine Bluff
Florida	<ul style="list-style-type: none"> • Florida A&M University • University of Florida
Georgia	<ul style="list-style-type: none"> • University of Georgia • Fort Valley State University
Kentucky	<ul style="list-style-type: none"> • Kentucky State University • University of Kentucky
Louisiana	<ul style="list-style-type: none"> • Louisiana State University • Southern University
Mississippi	<ul style="list-style-type: none"> • Alcorn State University • Mississippi State University
North Carolina	<ul style="list-style-type: none"> • North Carolina A&T State University • North Carolina State University
Oklahoma	<ul style="list-style-type: none"> • Langston University • Oklahoma State University
South Carolina	<ul style="list-style-type: none"> • Clemson University • South Carolina State University
Tennessee	<ul style="list-style-type: none"> • Tennessee State University • University of Tennessee
Texas	<ul style="list-style-type: none"> • Prairie View A&M University • Texas A&M University
Virginia	<ul style="list-style-type: none"> • Virginia State University and Virginia Tech

Table 2. Southern Region Universities and Data Collected from Facebook, Twitter, and Websites

University	Facebook	Twitter	Website
Alabama Cooperative Extension (Alabama A&M University and Auburn University)	X	X	X
Tuskegee University	X	X	X
University of Arkansas	X	X	X
University of Arkansas at Pine Bluff	X	---	X
Florida A&M University	X	X	X
University of Florida	X	X	X
University of Georgia	X	X	X
Fort Valley State University	X	X	X
Kentucky State University	X	X	X
University of Kentucky	X	X	X
Louisiana State University	X	X	X
Southern University	X	X	X
Alcorn State University	---	---	X
Mississippi State University	X	X	X
North Carolina A&T State University	X	X	X
North Carolina State University	X	X	X
Langston University	X	X	X
Oklahoma State University	X	X	X
Clemson University	X	X	X
South Carolina State University	---	---	X

Defining Brand Value

The brand value system used in this study is shown in Figure 1. Several frameworks for understanding how brand equity or value can be built exist in the literature. We followed some of the elements of Aaker's (1996) model of brand equity including brand assets, awareness, and engagement, but the operationalization of these dimensions depends on factors related to the StoryBrand (Miller, 2017) and brand value marketing frameworks (Barnes, 2017). We simply combine the underlying factors into some of the dimensions developed by Aaker (1996). In this way, brand value changes when brand assets, awareness, and engagement change.

Simplistically, brand assets include websites and social media channels per organization. Brand assets are used to create organizational value by aggregating more followers and visits to websites. To do that, images, video, and other types of content are used to engage clientele. Performance refers to the size of the assets in terms of followers relative to the population of online users in a particular state. If a state has a population of 3 million people and the Extension Service's Facebook account has 1 million people connected, then its performance would be 1/3.

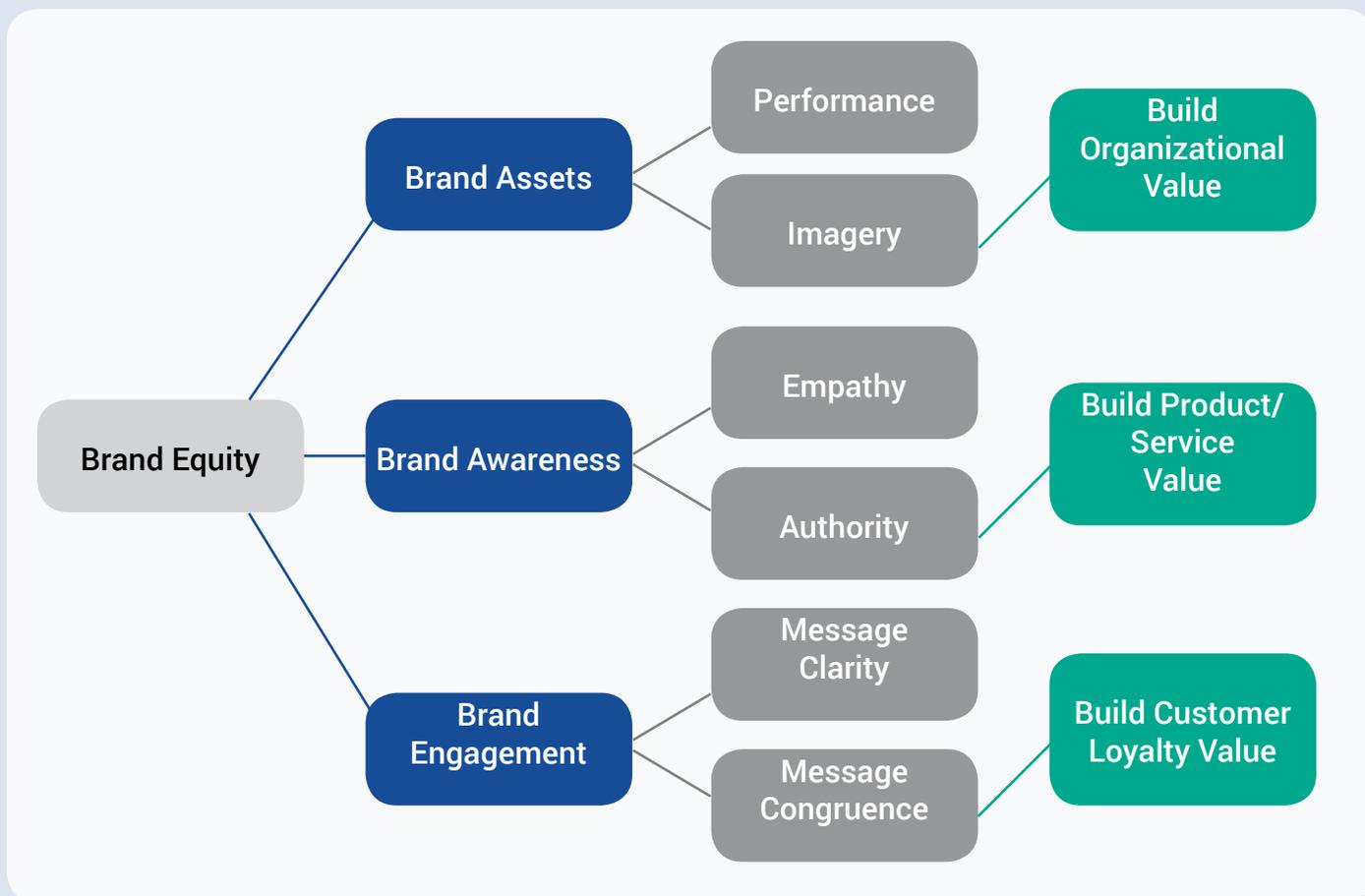


The larger the size of the asset, the greater its performance and overall value, other things equal.

Brand awareness includes several dimensions of marketing messages used on Facebook and Twitter that capture the idea of marketing message clarity and frequency. Marketing messages that are clear, express empathy, and position the Extension Service's educational program as an authority to solve a client's problem receive high scores in our analysis. In this way, marketing messages that meet these conditions build product or service value with customers. Customers buy products and services that solve their problems (Miller, 2017). Extension clientele participate in educational programs that solve their problems, too.

Brand engagement includes the response clientele have to brand awareness marketing messages. How clear was the marketing message on each social media post? Was the message congruent with the images or videos used in each post? When brand assets are used to push marketing messages that are clear, express empathy for a client's problem, offer a solution to a client's problems in the form of an educational program, and the messages are congruent with words and images or videos used, brand engagement increases. Engagement builds customer loyalty value (Aaker, 1996).

Figure 1. The Bricks-To-Clicks™ Brand Value System



Social Media Measures of Brand Value

For each section of the brand value system, we developed a set of variables that proxy brand value given by brand assets, awareness, and engagement dimensions. Figure 2 shows all the empirical measures developed for each component of the brand value system as well as to its corresponding brand dimensions of assets, awareness, or engagement. Brand asset measures represent the size of a social media following. Social media refers specifically to Facebook and Twitter. We also measured the quality of a social media account in terms of profile, cover, logo, and if the account was verified. Verified accounts typically show up higher in search engines, so this is an important aspect of marketing.

Brand awareness represents the type of marketing messages used and clarity. Marketing message clarity was measured by the length of a post, its grammatical correctness, and variables associated with the use of hashtags. We used Hashtagify.com to identify the top “local foods” hashtags that are currently being used by top influencers across social media channels and evaluated whether any of these hashtags appeared in postings. We identified 8 important hashtags related to local foods. Each post was scored as to how many of these 8 hashtags were present—this variable is identified as PostGlobalHash.

Figure 2. The Bricks-To-Clicks™ Brand Value System Dimensions and Variables

<u>Brand Assets</u>	<u>Brand Awareness</u>	<u>Brand Engagement</u>	<u>Variable Name</u>	<u>Variable Type</u>
x			NumPPLLike	Count
x			NumPPLFollow	Count
			Post Category	Categorical
x			PageLogoQ	Scale
x			Page Verified	Binary
x			PageCoverVideo	Binary
x			PageCoverQ	Scale
	x		PageAbout	Scale
	x		PostExtEvent	Binary
	x		OptImage	Binary
	x		PostType	Categorical
	x		Emotions	Binary
	x		WebLocalFood	Binary
	x		WebOther	Binary
	x		PostLength	Scale
	x		PostGrammar	Binary
	x		PostPromote	Binary
	x		PostHash	Count
	x		PostLFHash	Count
	x		PostGlobalHash	Count
	x		PostGeo	Binary
		x	PostHeroClient	Binary
		x	PostProdServ	Binary
		x	MsgCong	Scale
		x	PostCallAction	Binary
		x	PostReactions	Count
		x	Comments	Count
		x	Shares	Count
		x	PostVidViews	Count
		x	PostReplies	Count
		x	PostReplyReactions	Count
		x	PostContest	Binary
		x	PostContestFail	Binary
		x	PostPgsTag	Count
		x	PostTagPPL	Count
		x	PostSentScore	Scale
		x	PostSentPos	Binary
		x	PostSentNeg	Binary
		x	PostSentNeu	Binary
		x	PostVal	Scale
		x	PostValPos	Binary
		x	PostValNeg	Binary
		x	PostValNeu	Binary

We also observed how many hashtags were used in each post (PostHash), and if specific hashtags were used to capture an Extension’s local foods program (PostLFHash). Specifically to local foods, we reviewed each post to observe whether a post contained a link to a website that was devoted to an Extension Service’s local foods program (WebLocalFood). Similarly, we reviewed whether a post included a link to a website to any other type of Extension website (WebOther).

Finally, we examined the page about section (PageAbout), image quality (OptImage), type of post (ANR, 4-H, FCS, or CD) to understand marketing message clarity (TypeofPost) and frequency (PostType), the use of feelings in postings (Emotions), and if a post included information about a particular location (PostGeo). Table 3 shows a complete listing of all variables, definitions, and types of variables.

Brand engagement represents a two-way conversation between clientele and those who manage social media channels. Measures were developed to capture marketing message clarity (PostHeroClient, PostProdServ, MsgCong, PostCallAction, PostPgsTag, and PostTagPPL), marketing message promotion (PostContest, PostContestFail), marketing message sentiment (PostSentScore, PostSentPos, PostSentNeg, PostSentNeu, PostVal, PostValPos, PostValNeg, and PostValNeu), marketing message clientele interactions (PostReactions, Comments, Shares, PostVidViews, PostReplies), and marketing message replies by social media channel managers (PostReplyReactions). Table 3 shows a complete listing of all variables, definitions, and types of variables. The variables in bold relate directly to local foods program marketing.



Table 3. The Bricks-To-Clicks™ Brand Value System Variables

Variable Name	Definition	Type
NumPPLLike	Number of people who like the page	Count
NumPPLFollow	Number of people who follow the page	Count
PostCategory	Extension: 1: Ag and Natural Resources; 2: 4-H; 3: Family and Consumer Sciences; 4: Econ/Community Development; 5: Other-post does not fall in any category or falls into multiple/all categories	Categorical
PostLogoQ	Logo as profile picture and quality. 0-10: Logo as profile: 2; correct size: 5; good quality*: 3. 0 if logo is not profile picture. *Quality=clarity, color, angle, etc.	Scale

PageVerified	Is the page verified (has a grey check mark for Facebook or a blue check mark for Twitter)? 1: yes; 0: otherwise	Binary
PageCoverVideo	Did the cover feature a video? 1: yes; 0: otherwise	Binary
PageCoverQ	Quality of the cover photo/video. Is the Logo somewhere in the cover and quality? 0-10: Logo included: 2; correct size:5; good quality* : 3. 0 if logo is not included in the cover. *Quality=clarity, color, angle, etc.	Scale
PageAbout	Is the About section completed? 0-10 points: thoroughly completed (more than 3 sentences and adequate information). Lower score for 1-3 sentences, and for incompleteness. 1: incomplete	Scale
PostHeroClient	Does the post message feature Extension clientele as the hero in the post or story? 1: yes; 0: otherwise.	Binary
PostExtEvent	Does the post message market an Extension event? 1: yes; 0: otherwise.	Binary
OptImage	Does the image or video meet the optimal size requirement by the social media platform? What is the quality of the image or video? 1-10.	Scale
PostProdServ	Does the post message tell about a product or service offered? 1: yes; 0: otherwise.	Binary
MsgCong	Does the image/video match what is stated in the post caption? 1-10.	Scale
PostCallAction	Does the post message use a call to action (an action a follower can take or is encouraged to take) to increase engagement with the brand? 1: yes; 0: otherwise.	Binary
PostReactions	Total number of reactions (likes, loves, emoticons, etc.) by fans	Count
Comments	Total number of comments by fans	Count
Shares	Total number of shares by fans	Count
PostType	Type of post: 1: photo; 2: video; 3: link; 4: status update with no image; 5: FB live video; 6: shared post with no text	Categorical
PostVidViews	If post is a video, how many views it had	Count
Emotions	Did the post express a feelings? Ex: "Feeling determined" 1: yes; 0: otherwise.	Binary

WebLocal	Does the post link to an Extension website about local foods? 1: yes; 0: otherwise	Binary
WebOther	Does the post link to another type of Extension website other than local foods related? 1: yes; 0: otherwise.	Binary
PostLength	Does the post exceed normal length such that “Read more” appears? 0: yes; 10: otherwise	Scale
PostGrammar	Does the post use good grammar? 1: yes; 0: otherwise	Binary
PostPromote	<p>Was a mobile or desktop page post engagement ad served at the time of data collection? 1: yes; 0: otherwise</p> <p>This data is collected by 1) Liking the FB page and following the Twitter account for each of these Extension services in the project; 2) Visiting each page on a mobile (first) then desktop to see if viewer is served an ad aimed at a ‘fan of the page’.</p>	Binary
PostReplies	Number of comments as replies made to fans by social media managers.	Count
PostReplyReactions	Number of likes/emoticons given to fans as replies by social media managers	Count
PostContest	Does the post offer fans the chance to participate in a contest/giveaway/ sweepstakes? 1: yes; 0: otherwise	Binary
PostContestFail	Does the post offer fans the chance to participate in a contest/giveaway/ sweepstakes AND require them to either “SHARE the post or LIKE the page” to enter? 1: yes; 0: otherwise	Binary
PostPgsTag	The number of times another organization was tagged in the post	Count
PostTagPPL	The number of times anyone was tagged personally in the post	Count
PostHash	Number of hashtags used in the post	Count
PostLFHash	Number of organization-specific hashtags used for LF program	Count
PostGlobalHash	Number of hashtags equal to the Hashtagify.com set of top hashtags for local foods: Of the LF hashtags used in the post, how many match the baseline hashtags? 0-8.	Count

PostGeo	Did the post include a location “check in?” 1: yes; 0: otherwise	Binary
PostSentScore	The difference between positive and negative sentiment scores for the post	Scale
PostSentPos	A binary variable equal to 1 if the post expressed positive sentiment; 0 otherwise	Binary
PostSentNeg	A binary variable equal to 1 if the post expressed negative sentiment; 0 otherwise	Binary
PostSentNeu	A binary variable equal to 1 if the post expressed neutral sentiment; 0 otherwise	Binary
PostVal	The valence score for the post	Scale
PostValPos	A binary variable equal to 1 if the post received a positive valence score; 0 otherwise	Binary
PostValNeg	A binary variable equal to 1 if the post received a negative valence score; 0 otherwise	Binary
PostValNeu	A binary variable equal to 1 if the post received a neutral valence score; 0 otherwise	Binary

To further understand brand engagement and marketing message clarity, we examined the degree of sentiment (positive, neutral, or negative) for each social media post. We hypothesize that the sentiment of a social media post may be associated with marketing message clarity and engagement. Positive (negative) sentiment would increase (decrease) marketing message clarity, and engagement. Our study is strictly observational, as we do not perform any type of controlled experiment. Using sentiment analysis to review some of the brand value framework, we can glean some insights as to how Extension clientele connect to marketing messages, either positively or negatively. This is important because a negative sentiment on a social media post can spread like a contagion and damage any type of brand.

We analyzed sentiment using a state-of-the-art lexicon-based sentiment classifier, SentiStrength (Thelwall, M. et al., 2010). SentiStrength has been shown to outperform other sentiment classifiers (Nelson, 2011), and has been widely applied in social media research (Kramer et al., 2014; Gao et al., 2015).

SentiStrength classifies each post as being positive, neutral, or negative. Each post is scored on sentiment found within the post ranging between 1 (neutral) and 5 (strongly positive or negative). We followed a protocol to determine sentiment per Tweet and Facebook post using SentiStrength as follows:

- 1) Use SentiStrength (<http://sentistrength.wlv.ac.uk/>);
- 2) Empty all fields for text, keyword text, topic text;
- 3) Select domain to auto detect;
- 4) Insert post from social platform under “Enter text”;
- 5) Select Output as “scale”;
- 6) Press “Detect Sentiment”; and
- 7) Record the SentiStrength score.

For example, if the phrase “Most brands do a terrible job of presenting themselves to consumers on Facebook” is entered, the sentiment score should be -3 if this protocol is followed.

Following Ferrara and Yang (2015), we estimated a valence score for the entire sample of Facebook and Twitter posts per Extension Service as an additional, complementary measure of sentiment whereby neutral sentiments are removed to focus purely on emotional contagion – the continuum between positive and negative emotions related to a post. The valence score removes all the neutral observations from the sentiment scores across posts. This creates a distribution of values ranging between -1 (negative emotions) and +1 (positive emotions). We hypothesize that a positive (or negative) valence score positively (or negatively) affects engagement with clientele, other things equal. Likewise, we would expect marketing message clarity to be positively or negatively affected by a positive or negative valence score respectively. If the message used invoked a negative emotional response with clientele, it does not build positive brand value.

Website Measures of Brand Value

Following the StoryBrand marketing framework (Miller, 2017) for website design and overall effectiveness for selling to customers, we identified 12 empirical measures to capture marketing message clarity, marketing message frequency, and reviewed whether these three fundamental questions were answered:

- 1) What is the product or service offered?
- 2) How will using said product or service make a customer’s life better, or, how does said product or service solve a customer’s problem?
- 3) How do I buy or use the product or service?

Following Miller (2018), we used the StoryBrand marketing framework to evaluate each Extension Service’s website for marketing message clarity and frequency. In doing so, we used the 12 questions found within to benchmark one website against another, or to compare to the Southern Region. The list of questions that were evaluated for each website can be found in Table 4.

Table 4. The StoryBrand Website Evaluation Framework Questions (Miller, 2018)

StoryBrand Website Evaluation Framework Question

Does your website showcase an obvious call to action?

Does your website showcase an easy-to-understand tagline?

Does your website break down your products and services into bite-sized categories?

Why are you an authority to solve your customer's problem?

Does your website visually display the success your client will experience if they use your product or service?

What does your customer want?

What's the external problem they are dealing with?

What's your plan to ease your customer's fear and confusion?

What's the internal problem? (How is the external problem making them feel?)

What empathetic statement can your brand make toward your customer's internal problem?

What does life look like for your customer if you solve their problem?

Does a lead generating PDF or otherwise appear as a pop-up on the site to collect contact emails?

4.0 DATA

We chose to use data from Facebook and Twitter for two reasons. First, obtaining historical data series on posts and tweets was much simpler and more complete for these two platforms than for Instagram or other social media platforms. Second, Facebook and Twitter have been large social networks over time. The larger the network, the more likely we could observe posts and tweets for our study's purpose. However, we did some preliminary work reviewing observational data from Instagram posts, but, in many cases, historical posts on Instagram were not available. Also, we did not have access to an application program interface (API) that could pull a complete data set from all Facebook pages and Twitter accounts. Instead, we opted to observe the data online on each platform. This same study could be repeated in the future using an API method to identify a historical data series that includes Extension Facebook and Twitter data across all institutions.



The social media data from Facebook and Twitter were collected by first randomly selecting 30 posts for each account from August 2, 2016 to August 31, 2017. Each post was analyzed according to Table 3. Data collection occurred in late fall 2017 and early 2018. A total of 660 post observations were collected from Facebook, while 600 post observations were collected from Twitter. The difference related to the following: 1) the University of Pine Bluff, Arkansas did not have a Twitter account; 2) NC A&T University and Tuskegee University had Twitter accounts, but no tweets existed for our sample period; and 3) the University of Tennessee Extension and Virginia Extension only had some tweets that fell within our sample period. However, in total, we collected data for 1,260 social media posts.

Finally, website data were collected according to answers to questions found in Table 4. Website data were collected in February 2018.

5.0 PRELIMINARY RESULTS

These preliminary results represent the Southern Region only, and all data were aggregated for website and social media metrics. We focus on results related to brand assets, awareness, and engagement used to brand Extension programs aimed at developing local food systems.



Four results sections exist: network and content strategy differences, Facebook, Twitter, and websites. The first section provides results that show the size of the social media networks used by Extension Services relative to clientele living in each state as well as the distribution of various types of content used on these social media networks across ANR, 4-H, FCS, and CD Extension programs. Local foods Extension programs can be found throughout all four types of these Extension programs. Because of the enormous variation across the Southern Region, we did not categorize local foods Extension programs as a separate category. However, such a distinction could be reviewed in a future report.

For the Facebook, Twitter, and website sections, we highlight results for brand assets, awareness, and engagement dimensions of brand value, all of which we refer to as key performance indicators (KPIs). Although we collected many KPIs across social platforms and websites, we report the main KPIs related to branding of Extension programs aimed at developing local food systems across the Southern Region.

Network and Content Strategy Differences

Network size difference comparisons can depend on several factors when evaluating social media networks. However, a simple measure is always preferable to a complex one. For this study, we reviewed each Facebook and Twitter network size based on how many fans and followers were connected to each.

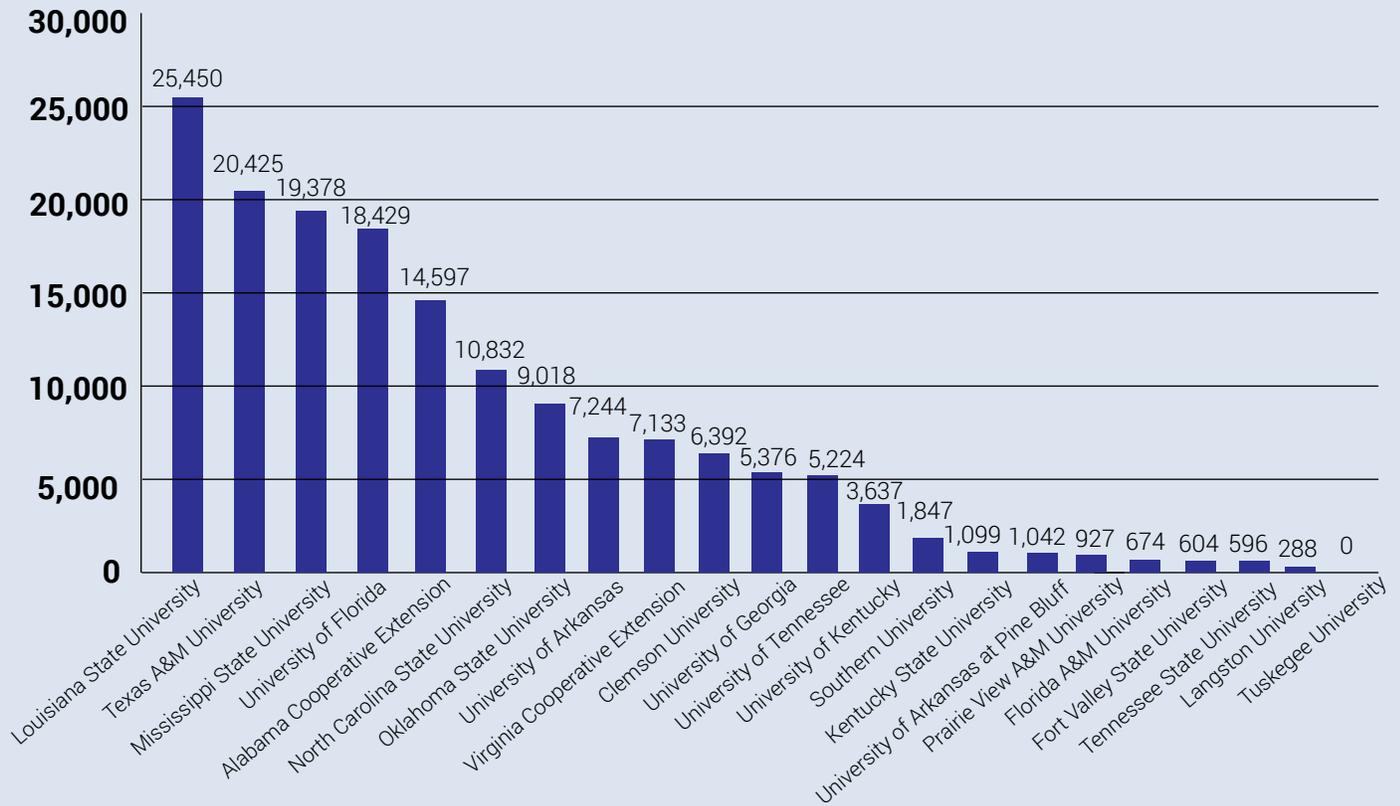
To compare relative network sizes, each state's population was used to create relative network comparisons. We chose state population because this represents each Extension Service's primary target market – the people who live in each state. One criticism of this approach could be that the entire population does not have access to social media networks or websites. We used a conservative estimate of the adults who were online equal to 79 percent of the total population (Pew Research Center, 2017). We applied this to each state population to give us an estimate of a state's online population – the people who live in each state and who can access such online networks as Facebook, Twitter, and websites.

Figure 3 shows each state's Facebook and Twitter fans and followers combined into one social network size value. Assuming that these networks do not overlap, we can combine each of these platforms to create a total number of followers for both social networks. The top five Extension Service social networks include: Louisiana State University AgCenter Extension, Texas A&M AgriLife Extension, Mississippi State University Extension Service, University of Florida IFAS Extension, and the Alabama Cooperative Extension Service. Each of these networks had more than 14,500 followers, with Louisiana State University AgCenter Extension having the largest network at 25,450 followers (Figure 3).

The social network size number can then be compared to a state's online population to evaluate the strength of connectedness to clientele who live in each state. Simply put, we can divide the total number of social network followers by the state's online population to understand the market reach of each state's Extension Service across both of these social networks. The higher the percentage of followers compared to a state's online population, the greater the degree of connectedness and market reach within that state, other things equal.

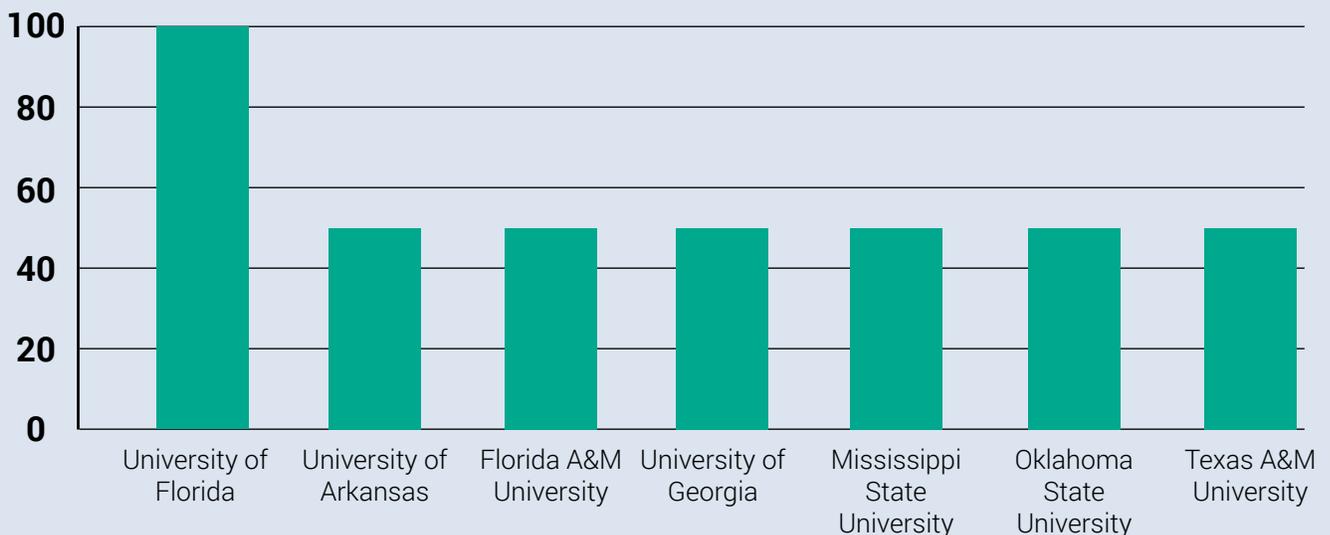
Results suggest that social network size relative to state market reach was very low, with most less than 1 percent. This means social network size represents a small portion of a state's online population.

Figure 3. Extension Service Social Network Size Distribution for the Southern Region



Finally, we examined whether social networks were verified on Twitter and Facebook. Verified pages and accounts can be found more easily and show up higher in Facebook and Twitter searches, making it easier for Extension clientele to find Extension’s information on Facebook and Twitter (Figure 4). Facebook verification is somewhat easier to obtain than Twitter verification; however, it is still worth noting that, while some states have verified their Facebook pages, only Florida has been able to verify one Twitter account at the University of Florida. Universities not shown in Figure 4 did not have any verified accounts on either Facebook or Twitter.

Figure 4. Percent of Extension Facebook and Twitter Accounts That Are Verified in the Southern Region



Content Strategy Differences

Figure 5 shows the distribution among six types of content used on Facebook. The primary content used in a Facebook post was a photo (45 percent), followed by a post that only provided a link to a website (32 percent), sharing of a post from another page (11 percent), and a post that presents a video (9 percent).

The most surprising thing to note here is the lack of use of Facebook Live. Facebook Live is a Facebook video feature that allows users to share live video content from their phones directly to their Facebook personal accounts or business pages rather than requiring users to record a video and then upload it. Using Facebook Live has been a mainstay of online marketers for some time now, given the importance Facebook has placed on this type of content. Only two posts in our sample featured something done on Facebook Live. All Extension Services would benefit from using more Facebook Live content.

Figure 6 shows the distribution among six types of content used on Twitter. Tweets (marketing messages) are much shorter on Twitter compared to Facebook. Twitter uses far more hashtags, as well. The primary content used on Twitter was a tweet featuring a photo (48 percent), followed by a link (40 percent), and status updates and video content were equally used (6 percent).

The most notable thing to observe in Figure 6 is the lack of retweeting and the lack of using live video (Periscope) on Twitter. Retweeting represents the least-cost method of creating content for user audiences. Extension Services that have a Twitter account could retweet other Extension programs' content and thereby market those programs to users on Twitter. That does not appear to happen based on these results. Extension Services could engage more clientele and market more Extension programs by incorporating a retweeting strategy combined with the use of live video using Periscope.

Figure 5. Facebook Content Strategy Differences for the Southern Region

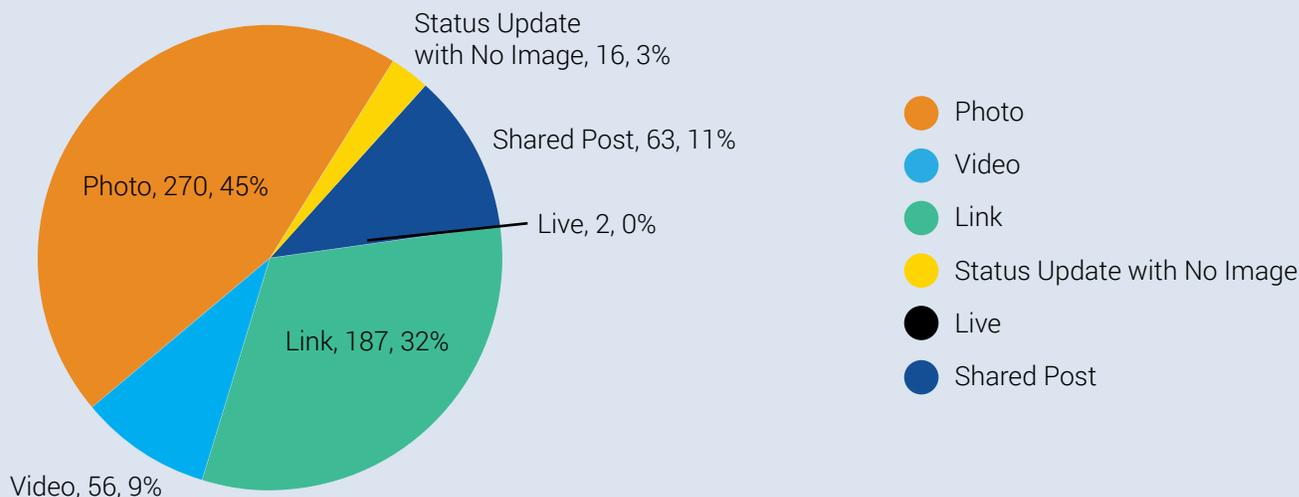
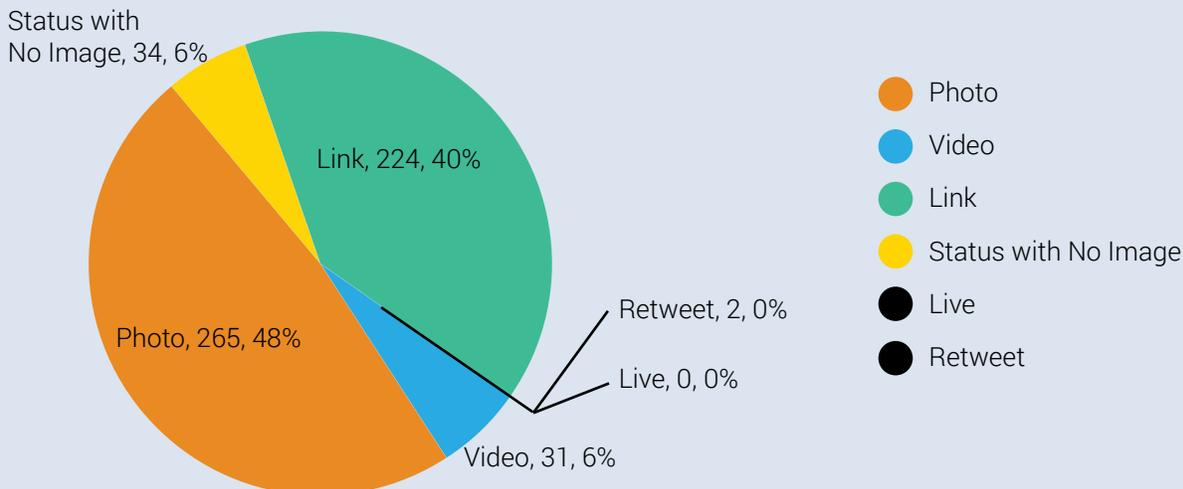


Figure 6. Twitter Content Strategy Differences for the Southern Region



Facebook

Figure 7 shows the distribution of Facebook posts for each Extension program area. Across 660 Facebook posts that we sampled, agriculture/ANR was the main program or set of programs marketed on Facebook, with ANR posts topping off at 52 percent. 4-H (11 percent), FCS (10 percent), and CD (5 percent) were far less marketed. Missing post data (10 percent) represented posts that were not available on Facebook once we reviewed a page’s history of postings. This could be because posts were hidden or deleted by Facebook page managers.

Figure 7. Distribution of Facebook Posts by Extension Program Areas

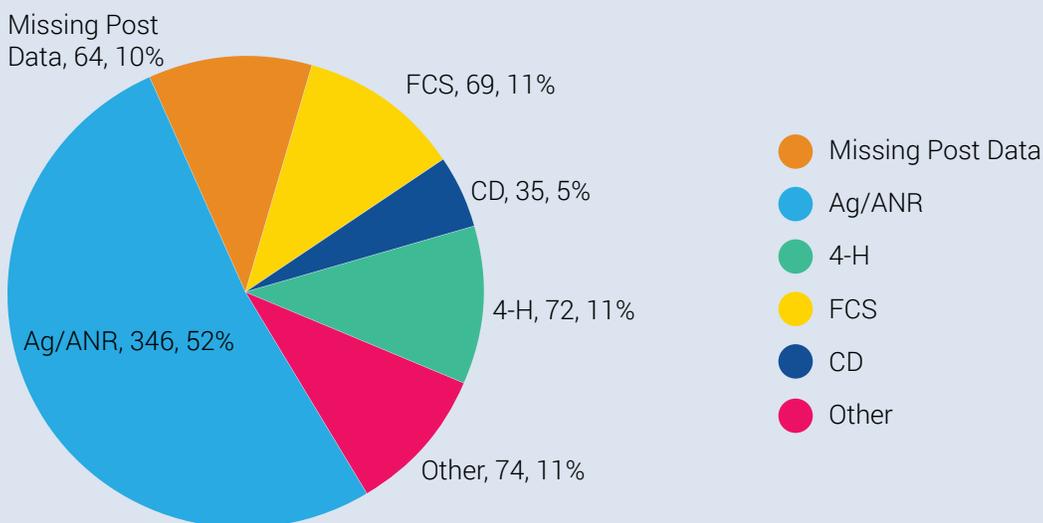


Table 5 shows all the KPIs for building brand value across assets, awareness, and engagement dimensions. Several key observations have been highlighted.

Table 5. Brand Value KPIs for Facebook

Brand Assets	Mean	Median	Std. Deviation	Local Food KPI
NumPPLLike	5,249	3,158	5,614	
PageLogoQ	4.82	5	1.27	
PageCoverVideo	0.05	0	0.21	
PageCoverQ	3.82	3	2.46	
PageAbout	7.55	9	3.06	
Brand Awareness				
PostExtEvent	0.17	0	0.41	
OptImage	3.41	4	1.69	
Emotions	0.00	0	0.00	
WebLocal	0.00	0	0.07	x
WebOther	0.30	0	0.46	
PostLength	8.32	10	3.74	
PostGrammer	0.90	1	0.30	
PostPromote	0.05	0	0.21	
PostHash	0.37	0	1.09	
PostLFHash	0.00	0	0.06	x
PostGlobalHash	0.00	0	0.04	x
PostGeo	0.02	0	0.14	
Brand Engagement				
PostHeroClient	0.22	0	0.42	
PostProdServ	0.34	0	0.58	
MsgCong	6.72	9	4.21	
PostCallAction	0.26	0	0.44	
PostReactions	12.46	5	26.56	
Comments	0.63	0	2.75	
Shares	4.90	0	16.97	
PostVidViews	408.15	0	7180.16	
PostReplies	0.04	0	0.35	
PostReplyReactions	0.13	0	0.77	
PostContest	0.01	0	0.16	
PostContestFail	0.00	0	0.00	
PostPgsTag	0.31	0	0.61	
PostTagPPL	0.04	0	0.25	
PostSentScore	0.35	0	0.92	
PostSentPos	0.34	0	0.47	
PostSentNeg	0.10	0	0.29	
PostSentNeu	0.57	1	0.50	

Brand Assets

- ✓ The average social network size per Extension Service (fans of Facebook pages plus Twitter followers) equaled 7,282;
- ✓ The average Extension Facebook page was connected to 5,249 fans. However, there is no possible way to determine whether all of these fans are within each state. Some fans may be located in other states. For the purposes of this study, we have assumed all fans are living in-state;
- ✓ The average score for overall quality of a Facebook page's profile image quality was very low at only 4.8 out of 10. Correct size of this image was worth 5 points on the overall scale of 10. Facebook pages that have incorrect profile and cover photo sizes reach fewer people on Facebook. Each page is simply identified in Facebook's algorithm as discounted by some amount that affects all post reach. The good news is this can be changed easily.
- ✓ Only 5 percent of Facebook pages use a video as its cover content;
- ✓ The average score for overall Facebook page cover content quality was very low at only 3.82 out of 10. Correct size of a cover photo was worth 5 points on the overall scale of 10. Correct sizes affect the reach that marketing messages on Facebook have.
- ✓ Facebook pages generally had sufficient information shared on each page's about section. The average score for Facebook pages' about section was 7.6 out of 10.

Brand Awareness

- ✓ Marketing messages aimed at announcing an Extension event on Facebook were used on average about 17 percent of the time;
- ✓ The image and or video used on Facebook rarely was the correct size as we found that optimal image size was very low at 3.4 on a 10 point scale;
- ✓ No Facebook posts expressed any emotions such as "Feeling Determined";
- ✓ No Facebook posts were used to market a local foods Extension program's website;
- ✓ On average, only 30 percent of Facebook posts were used to market any other type of Extension program;
- ✓ Both post length and post grammar were excellent;

- ✓ A Facebook fan engagement ad appeared an average of only 5 percent of the time when data collection occurred on a Facebook page;
- ✓ No Facebook posts included a “checking in” or the use of location in postings;
- ✓ The average number of hashtags used across all Facebook posts was less than one per post;
- ✓ No Facebook posts used hashtags associated with marketing local foods in the global Facebook community; and
- ✓ No Facebook posts used hashtags associated with local foods Extension programs.

Brand Engagement

- ✓ Only 22 percent of Facebook posts featured Extension clientele as the “hero” in the post; Extension Facebook posts are more about Extension being the hero in the story instead of clientele being the hero;
- ✓ About one-third of Facebook posts featured Extension programs as products and services available to clientele;
- ✓ The matching of an image or video with the copywriting used in Facebook posts tends to be misaligned, as the average message congruence factor was equal to 6.7 on a scale of 10. This indicates the image or video used in the post did not match the copywriting used in the post itself. The lower the message congruence score, the more confused clientele are about Facebook marketing messages as posts. Where confusion exists, clientele ignore messages.
- ✓ Only 26 percent of the time did Facebook posts call clientele to take some specific action (e.g. click on a link, reactions); engagement depends on calling clientele to action;
- ✓ On average, a Facebook post was shared almost 5 times, commented on only once, and accumulated 12 post reactions (e.g. like, love);
- ✓ The average video views per Facebook post was equal to only 408 views;
- ✓ The average response by Facebook managers on postings equaled less than one reply comment and reaction to fans. On average, this means that, once a post is published, the person or people who manage the Facebook account made only one reply to fans as a comment within that same post;
- ✓ Almost no Facebook posts featured any contest to engage clientele;

- ✓ No Facebook posts using contests were done incorrectly; it is against Facebook rules to invite clientele to 'like' a Facebook page or 'share' a post to be entered into a contest. Both are infractions; and
- ✓ Finally, the average sentiment score for Facebook posts was equal to 0.35; the range is -5 to 5. This indicates posts were on average positive in sentiment. However, 67 percent of Facebook posts were either neutral or negative. Low sentiment often leads to low engagement with clientele online.

Twitter

Figure 8 shows the distribution of tweets within our sample period. Across 600 Tweets, we found that the majority was again dedicated to agriculture/ANR Extension programs. ANR tweets represented the lion's share of posts at 47 percent. 4-H (12 percent), FCS (11 percent), and CD (6 percent) were far less marketed. Missing post data (7 percent) represented posts that were not available on Twitter once we reviewed an account's postings. This could be because posts were hidden or deleted by Twitter account managers. Table 6 shows all the KPIs for building brand value across assets, awareness, and engagement dimensions. Results can be summarized accordingly.

Figure 8. Distribution of Tweets by Extension Program Areas

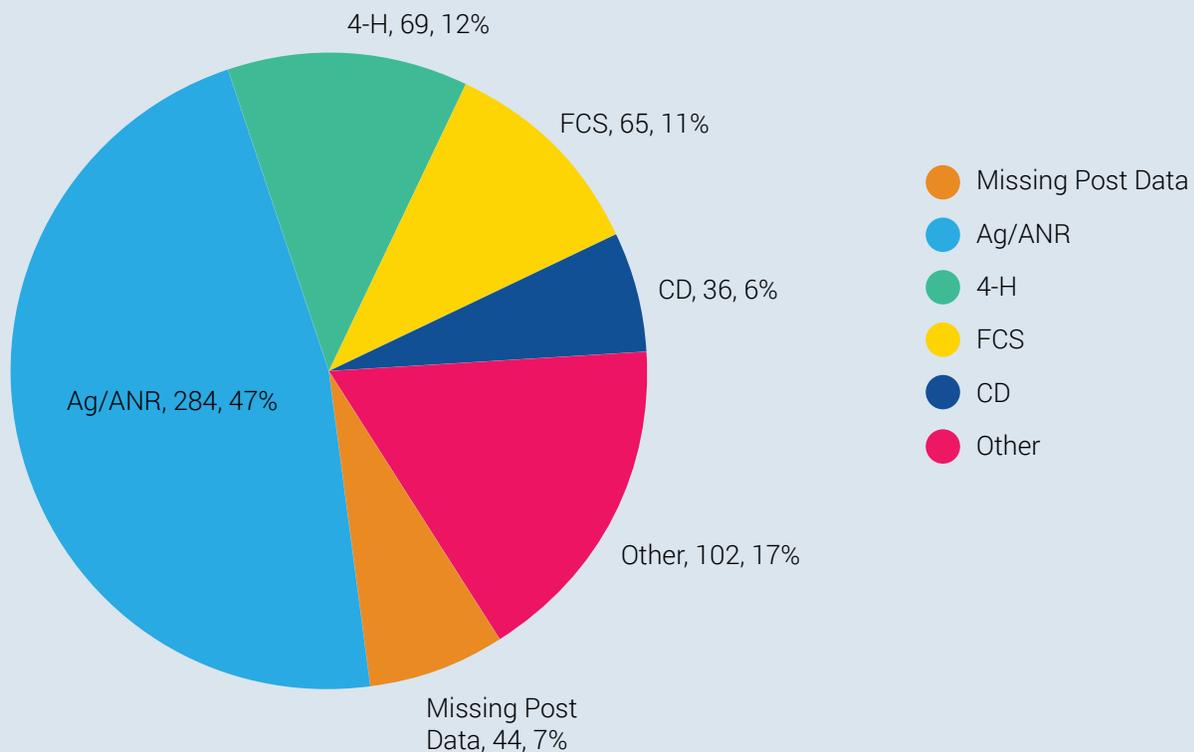


Table 6. Brand Value KPIs for Twitter

Brand Assets	Mean	Median	Std. Deviation	Local Food KPI
NumPPLFollow	2,237	1,693	2,207	
PageLogoQ	8.20	9	2.18	
PageCoverQ	3.55	3.5	1.43	
PageAbout	9.55	10	0.50	
Brand Awareness				
PostExtEvent	0.11	0	0.32	
OptImage	2.33	2	2.57	
Emotions	0.00	0	0.00	
WebLocalFood	0.00	0	0.00	
WebOther	0.41	0	0.49	x
PostLength	8.58	10	3.49	
PostGrammer	0.93	1	0.26	
PostPromote	0.00	0	0.00	
PostHash	0.66	0	1.20	
PostLFHash	0.00	0	0.00	
PostGlobalHash	0.00	0	0.00	x
PostGeo	0.00	0	0.00	x
Brand Engagement				
PostHeroClient	0.17	0	0.37	
PostProdServ	0.31	0	0.55	
MsgCong	4.67	6	4.58	
PostCallAction	0.22	0	0.54	
PostReactions	1.89	1	2.81	
Comments	0.05	0	0.24	
Shares	1.21	0	2.29	
PostVidViews	8.24	0	64.52	
PostReplies	0.01	0	0.07	
PostReplyReactions	0.00	0	0.06	
PostContest	0.00	0	0.04	
PostContestFail	0.00	0	0.00	
PostPgsTag	0.51	0	1.10	
PostTagPPL	0.06	0	0.49	
PostSentScore	0.27	0	0.84	
PostSentPos	0.28	0	0.45	
PostSentNeg	0.09	0	0.28	
PostSentNeu	0.63	1	0.48	

Brand Assets

- ✓ The average Extension Twitter account was connected to 2,237 fans. However, there is no possible way to determine whether all of these fans are within each state. Some fans may be located in other states. For the purposes of this study, we have assumed all fans are living in-state;
- ✓ The average score for overall quality of a Twitter profile image was high, at 8.2 on a scale of 10. Correct size of this image was worth 5 points on the overall scale of 10. Twitter accounts that have incorrect profile and cover photo sizes reach fewer people.
- ✓ Only the University of Florida IFAS Extension has a verified Twitter account;
- ✓ The average score for overall Twitter cover photo quality was very low, at only 3.55 on a scale of 10. Correct size of a cover photo was worth 5 points on the overall scale of 10. Correct sizes affect the reach of marketing messages, or tweets.
- ✓ Twitter accounts generally had sufficient information shared on each page's About section. The average score for Twitter account information about Extension equaled 9.6 on a scale of 10.

Brand Awareness

- ✓ Marketing messages aimed at announcing an Extension event on Twitter were used on average about 11 percent of the time;
- ✓ The image and or video used on Twitter rarely was the correct size as we found that optimal image size score was very low at 2.3 on a 10 point scale;
- ✓ No Tweets expressed any emotions or emoticons as replies;
- ✓ No Tweets were used to market a local foods Extension program's website;
- ✓ On average, 41 percent of Tweets were used to market other types of Extension programs compared to local foods programs;
- ✓ Both Tweet length and grammar were excellent;
- ✓ A Twitter follower engagement ad did not appear when data collection occurred;
- ✓ No Tweets included a "checking in" or the use of location of tweeting;

- ✓ The average number of hashtags used across all tweets was less than one;
- ✓ No tweets used hashtags associated with marketing local foods Extension programs in the global Twitter community; and
- ✓ No tweets used hashtags associated with local foods Extension programs.

Brand Engagement

- ✓ Only 17 percent of Twitter posts featured Extension clientele as the “hero” in the post; Extension tweets were more about Extension being the hero in the story instead of clientele;
- ✓ Almost one-third of Tweets featured Extension programs as products and services available to clientele;
- ✓ The matching of an image or video with the copywriting used in Tweets tends to be misaligned as the average message congruence score equaled a very low 4.7 on a scale of 10. This indicates the image or video used in the post did not match the copywriting used in the post itself. The lower the message congruence score, the more confused clientele are about Tweets as marketing messages. Where confusion exists, clientele ignore our messages.
- ✓ Only 22 percent of the time did Tweets call clientele to take some specific action (e.g. click on a link, reactions); engagement depends on calling clientele to action;
- ✓ On average, a Tweet was shared about 1 time, rarely commented on, and accumulated only 2 reactions (e.g. like, retweet);
- ✓ The average video views per Tweet equaled only 8 views;
- ✓ The average response by Twitter managers on postings equaled less than one reply comment and no reaction to fans. On average, this means, once a post is published, the person or people who manage the Twitter account made only one reply to fans as a comment within that same tweet;
- ✓ No Tweets featured any contest to engage clientele; and
- ✓ Finally, the average sentiment score for Tweets equaled 0.27; the range is -5 to 5. This indicates tweets were on average positive in sentiment. However, 72 percent of tweets were either neutral or negative. Low sentiment leads to low engagement with clientele.

Facebook and Twitter Comparisons

Table 7 shows KPIs for both Facebook and Twitter. On average, Facebook dominated Twitter. Facebook has a larger network following, or brand asset. Marketing messages used on both platforms did not express any emotions (e.g. feeling determined) and did not provide access to a local food Extension website in a post or tweet. More to the point, the use of hashtags was simply absent in Facebook and Twitter marketing messages. This includes hashtags for local food Extension programs specifically, as well as hashtags that would connect posts and tweets to each global platform's messages on local foods.

For brand engagement, Facebook was significantly higher across 68 percent of all KPIs. Far more interactions occurred from fans including shares, comments, and post reactions than Twitter engagement.

Marketing messages used (posts and tweets) did have some areas that could be significantly improved including:

- ✓ The cover photo quality on both platforms should be improved as Facebook and Twitter scored 3.8 and 3.6 on a scale of 10, respectively;
- ✓ Image sizes used on posts and tweets should be improved as Facebook and Twitter scored 3.4 and 2.3 on a scale of 10, respectively; the size dimensions were largely incorrect and this affects fan and follower reach;
- ✓ Posts and tweets should embrace the role of emotions and emoticons, the use of hashtags, and use location when posting to reach more clientele;
- ✓ On average, 80 to 90 percent of the time Extension's posts and tweets were about what Extension does and how it does it. Instead, posts and tweets should place emphasis on a client's problem, how to solve their problems with programs, and generally make clientele the hero in any marketing message. The focus should be on solving client's problems, making them the hero in the story, and providing them with solutions – Extension programs. Unclear marketing can be observed quite easily here: Facebook and Twitter posts focus 80 percent of the time on anything but client problems and solutions to those problems in the form of Extension programs, local foods-based programs, or other. More posts about how using Extension programs solve client problems would solve much of this unclear marketing problem;

Table 7. Brand Value KPIs for Facebook and Twitter

	Facebook	Twitter
Brand Assets	Mean	Mean
NumPPLLike	5,249	2,237
PageLogoQ	4.82	8.20
PageCoverVideo	0.05	---
PageCoverQ	3.82	3.55
PageAbout	7.55	9.55
Brand Awareness		
PostExtEvent	0.17	0.11
OptImage	3.41	2.33
Emotions	0.00	0.00
WebLocal	0.00	0.00
WebOther	0.30	0.41
PostLength	8.32	8.58
PostGrammer	0.90	0.93
PostPromote	0.05	0.00
PostHash	0.37	0.66
PostLFHash	0.00	0.00
PostGlobalHash	0.00	0.00
PostGeo	0.02	0.00
Brand Engagement		
PostHeroClient	0.22	0.17
PostProdServ	0.34	0.31
MsgCong	6.72	4.67
PostCallAction	0.26	0.22
PostReactions	12.46	1.89
Comments	0.63	0.05
Shares	4.90	1.21
PostVidViews	408.15	8.24
PostReplies	0.04	0.01
PostReplyReactions	0.13	0.00
PostContest	0.01	0.00
PostContestFail	0.00	0.00
PostPgsTag	0.31	0.51
PostTagPPL	0.04	0.06
PostSentScore	0.35	0.27
PostSentPos	0.34	0.28
PostSentNeg	0.10	0.09
PostSentNeu	0.57	0.63

- ✓ Unclear marketing can also be seen in these Facebook and Twitter posts because marketing message congruence scores were 6.7 and 4.7, respectively. Again, the image or video used has to match the copywriting in the post or tweet. Otherwise, clients get confused. That means they burn what we call 'brain calories' figuring out marketing message congruence. When we confuse clients with posts and tweets like this, clients lose attention on what we are trying to sell them – Extension programs; and
- ✓ Unclear marketing can also be seen in these Facebook and Twitter posts because posts or Tweets seldom called a client to take some sort of action; we must call clients to take action online with everything we do. They will not engage if we do not invite them to do so.

Websites

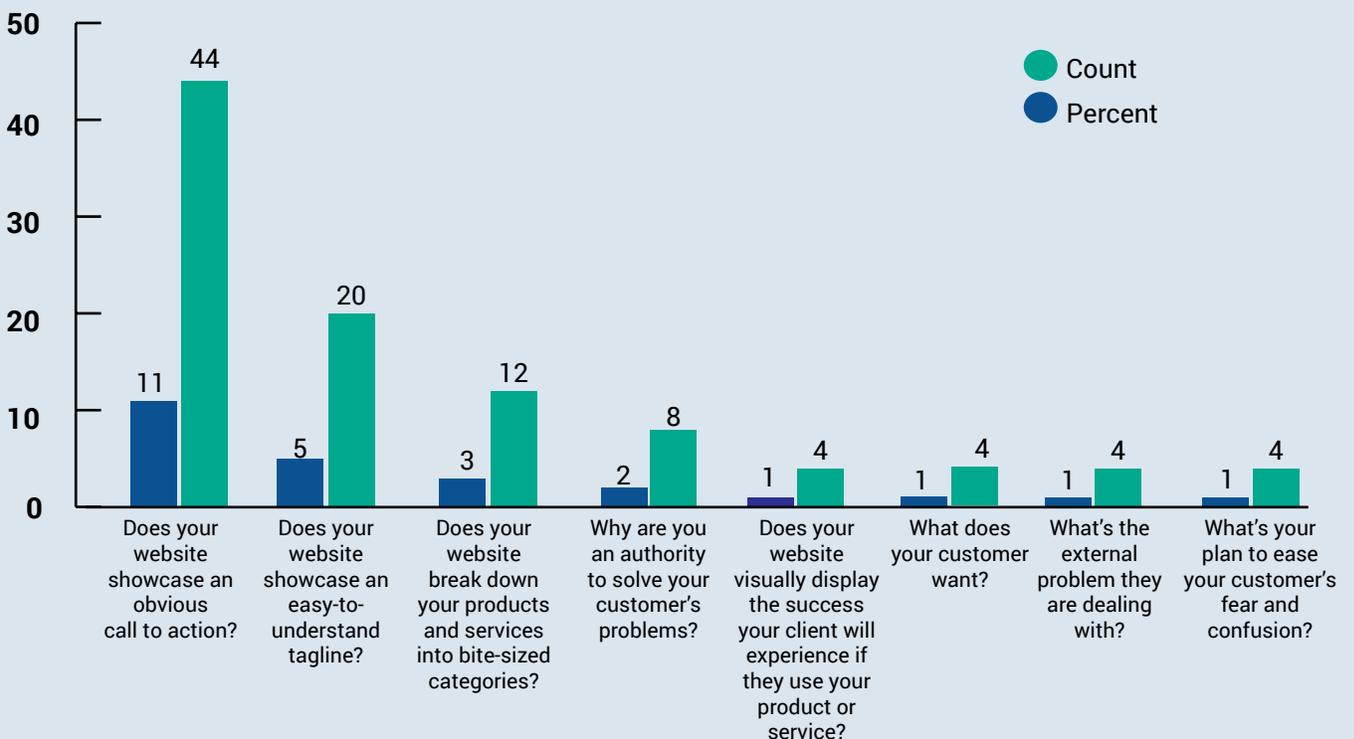
Figure 9 shows the results from the evaluation of 25 Extension websites. We used StoryBrand's marketing framework (Miller, 2018) for evaluating the effectiveness of a website to clearly communicate an organization's products and services to customers.

The key findings from this approach include:

- ✓ Websites did not provide marketing messages that identified client problems and how those problems make clients feel (e.g. frustrated, overwhelmed);
- ✓ Websites did not convey an empathetic statement toward clients to connect their problems with Extension programs and services;
- ✓ Websites did not provide a picture or copywriting that showed clients' lives would be better if their problem were to be solved by the use of an Extension program. Websites lacked a clear sense of showing clients their lives can be transformed into better lives;
- ✓ We also did not observe any pop-up feature on websites to prompt a decision by a web visitor to download some kind of free PDF file (educational content) for providing an email address. We surmise that Extension Services do not use lead-generating PDF documents or other educational content to create an email list of clients. From this, we surmise that email marketing strategies to obtain leads from websites were absent;
- ✓ Only 44 percent of websites showcased an obvious call to action on their sites. Typically, this was a "learn more" button or connecting clients to some publication or video;
- ✓ Only 20 percent of websites showcased an easy-to-understand tagline. This is typically in the left-hand corner of most websites. Some sites had no representation of their Extension taglines;

- ✓ Only 12 percent of websites presented Extension products and services in small, easy-to-understand, bite-sized categories to allow clients to clearly and quickly choose among Extension programs;
- ✓ Only 8 percent of websites presented Extension faculty, agents, or others as having the experience to be considered an authority over some type of problem a client may have; and
- ✓ Only 4 percent of websites visually presented the success of a client who used an Extension product or service (e.g. Mississippi State University Extension Service).

Figure 9. Website Evaluation Results Based on StoryBrand's Framework for Online Marketing



Limitations

To be sure, this study has limitations. First, we randomly sampled 30 posts from each Facebook and Twitter account per Extension Service, instead of having access to all posts and Tweets. But that kind of access was impossible at the time of this study. However, if Extension Services collaborate, post and Tweet data can be shared across the Southern Region. A simple export data function within Facebook and Twitter could be used.

The second limitation is the use of only one rubric to evaluate online marketing of websites. Using StoryBrand's framework (Miller, 2018), we evaluated all 25 websites across the same set of questions. StoryBrand is one approach to online marketing so other questions could have been used to provide additional details and insights. However, StoryBrand's rapidly growing base of successful marketing examples in business was the key reason why we chose this framework.

6.0 RECOMMENDATIONS

From our review of these results, we provide a list of recommendations for the growth of brand assets, and improvement to brand awareness and engagement by adding marketing message clarity on Facebook, Twitter, and websites. Our recommendations include:

- ✓ **Extension would be served well to invest more resources in growing Facebook and Twitter assets to reach more people living in each state.** Results showed that almost all states were connected to less than 1 percent of online state populations.

Action: The use of Facebook and Twitter ads seem warranted. Develop ads based on different clientele groups (e.g. ANR, 4-H) and grow all brand assets to connect with more of the online population in each state.

- ✓ **Local foods Extension programs have not received much of any online marketing to date.** We found that hashtags for local foods across Facebook and Twitter were largely absent. In addition, based on the random samples across our sample of university Extension social media accounts, we found no Facebook posts or Tweets that marketed a local foods Extension website. This is not to say that none of these Extension accounts have tweeted or posted content that would match our criteria. However, in our random sample, none appeared.

Action: The use of hashtags is a necessary must for anything marketed online using social media. Develop them. Use them.

- ✓ **Local foods Extension programs across the Southern Region would be well positioned to identify the set of Extension clientele served by these various local foods Extension programs.** Splitting clientele into customer groups would give way to more effective marketing, because identification of client problems and matching those problems with local foods Extension programs could be efficiently organized.

If clientele groups were to be separated, faculty could work within those groups to organize one centralized website to showcase all relevant Extension programs. This is an important piece that could be used to gather emails from clients when they visit websites.

Action: Develop an example case study of one diverse group of stakeholders related to local foods and attempt to organize a website and social media strategy across the Southern Region as a collective effort.

- ✓ **We recommend that a full online marketing plan be developed across Extension clientele groups and those plans be executed with new websites, social media, email marketing campaigns, and lead generating magnets be used to connect with Extension clientele at the state, regional, and national levels.**

Action: For the example case study, build an online sales funnel to engage people on websites, social media, and email marketing campaigns. Train faculty in the same online marketing framework to increase efficiency in implementation.

One criticism of this research could be that institutional branding and online marketing differ significantly from branding and online marketing of a company's products and services. But we have argued that the same type of brand value system can be applied to both situations. Further, eliminating unclear marketing should be the goal in both situations. Companies and institutions can benefit from conducting branding and online marketing to position themselves as understanding their customer's problems, how to solve those problems with products and services, and play the role of a guide that can help them succeed. Anything else would confuse customers and Extension clientele alike.

7.0 CONCLUSIONS

This study examined online marketing of Extension as an organization and Extension programs specifically aimed at local food system development across the Southern Region. Some evidence suggests that low online engagement on Twitter and Facebook could be enhanced with increased marketing clarity and frequency. From a review of Facebook, Twitter, and website data, we found several areas that, if strengthened, would significantly improve access to Extension clientele in every state. What are the key steps to strengthen Extension's branding and online marketing? Four steps could be taken:

- ✓ **Step One: Make Extension clientele the hero of the story in all marketing collateral; focus on their problems instead of showcasing only programs and those who deliver them;**
- ✓ **Step Two: Connect with Extension clientele with marketing messages that are clearly focused on showing empathy and authority; empathy and authority build trust;**
- ✓ **Step Three: Market Extension programs as solutions to Extension clientele problems; solving client problems improves participation in Extension programs;**

- ✓ **Step Four: Market Extension programs as solutions that transform Extension clientele's lives into better lives, and show what both of those look like, clearly;** use more social proof on websites, social media, and email marketing campaigns.

Marketing an Extension organization, an Extension educational program, or a company's products and services is the same. The more we connect with customers or clientele by demonstrating that we understand their problems and have solutions to solve those problems, the more customers will listen. Extension clientele will listen more, too.

But what we have observed in this study positions Extension and its educational programs more as the hero in the story instead of being the guide to help clientele solve their problems. Extension should be the guide, not the hero, in the story. All marketing collateral from websites to social media posts should feature this type of online marketing to increase marketing message clarity.

How do we make Extension the guide and clientele the hero in our marketing stories so more people will engage with Extension products and services? It can be done with a small investment, but that is the subject of a future report.



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