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## The Impact of College and University Advertising Expenditures on Key Performance Indicators Using Business Analytics Modeling

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## The Impact of College and University Advertising Expenditures on Key Performance Indicators Using Business Analytics Modeling

Marketers in the 21<sup>st</sup> century now more than ever face a competitive business environment. The battle for marketers to capture value from customers across a variety of verticals in the form of brand equity and sales is as fierce as it has ever been. This is because customers have numerous choices partially driven by the access and information provided by the internet (Solomon, 2017). As such, consumers are exposed to a plethora of alternative products and services more than ever as compared to the past. As such, consumers apply a high level of effect in the market about several aspects of brand attributes. These aspects include but are not limited to quality, services, and price. Therefore, it is very important for marketers of products and services to meet customers' needs and remind customers' and potential customers of their ability to meet those needs in order to stay competitive.

Advertising and sales promotion as a part of an integrated marketing plan are influential in attracting the attention of the customer and influential in building brand equity, encouraging sales (Myers, 2003). Advertising and sales promotion are the main tools of an integrated marketing plan to communicate brand benefits. Advertising and sales promotions are highly effective influencers of consumer purchase decisions of a brand (Solomon, 2017). In increasingly competitive markets, companies recognize that they must improve and strengthen their brands' communication of brand benefits regularly in order to sustain consumer value for a long period of time. (Sedaghat, Sedaghat, Moakher, 2012).

The literature provides evidence of the relationship between advertising expenditures and positive response amongst the target audience on key performance indicators (KPI) in terms of brand equity and sales effects (Palazon-Vidal, M., Delgado-Ballester, 2005). This has been seen in many categories including but not limited to consumer products and services and business to business products and services. The impact of advertising expenditures on key performance indicators (KPIs) in higher education such as class size and class quality has not been explored extensively in the literature.

U.S. colleges and universities demonstrated an increase in paid advertising. It is now at an all-time high of \$1.65 billion in 2016 (Brock, 2017). This represents a growth of 18.5% over 2015 expenditures and a surge of 22% since 2013. This increase in paid advertising spending in higher education has occurred despite declines in advertising in the for-profit educational sector of higher education that has experienced trouble in recent years (College Board, 2018). Nevertheless, the increasing advertising investments coincide with steady declines in overall higher education enrollment over the past six years. Since 2011, U.S. fall enrollment in colleges and universities has decreased by 7.9%, according to the National Student Clearinghouse Research Center (2018). The factors that are contributing to this trend include flat and declining high school graduate populations in many regions of the country, continuing increases in the rate of employment (with many prospects choosing a job instead of college), rising costs of a college education, and signs that there has been a trending loss of public confidence in the value of traditional college credentials (The College Board, 2018).

### Problem Statement Research Questions

The main purpose of this research (that is currently in progress), is to analyze the link between advertising expenditures with college success factors to include college and university admission metrics, quality metrics and college university financial health. The paper will provide an assessment on the nature of the relationship existing between these variables. Hence, the primary research question for this paper is:

Does advertising spending at the college and university level, influence college success factors in terms of class size and quality?

The secondary research question is:

Is there evidence that colleges and universities that spend more on advertising achieve increases in college success factors in terms of class size and class quality?

The third question is:

Is there evidence that colleges and universities that spend more on advertising achieve improvements in their financial health?

### Methodology

To explore these research questions, the tools of business analytics leveraging technology innovations to include statistical analysis and information systems will be used. In terms of data sources, Kantar Media (2018) a worldwide leader in advertising and expenditure monitoring will be used. Kantar tracks the largest range of media, across more than 20 traditional and digital channels, with comprehensive product categories and accurate rate information. The information collected by Kantar has a proven track record of providing a very clear picture of which brands have what share of voice in the market place. Kantar collects this information in the higher education sector across an inclusive list of colleges and universities engaging in paid advertising. This data source will be analyzed amongst a competitive set of colleges and universities to Iona College as indicated by the Office of Institutional Effectiveness and Planning at Iona College. The data for the college success factors of quality, size and financial health will be gathered using data publicly available within the Integrated Postsecondary Education Data System (2018) (IPEDS), The National Center for Education Statistics (2018), The College Board (2018) and The National Research Clearing Center (2018).

#### Expected Outcomes

Once the data is collected and a statistical business analytical model has been developed and executed, the research is expected to reveal the relationship between paid advertising expenditures in higher education, class size, class quality and the financial health among colleges and universities within Iona College's higher education segment.

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