

Advancing Scholarship: Fostering the Motivation to Research in Future Marketing Scholars

Obinna Obilo and Bruce Alford

Purpose of the Study: As doctoral students represent the future of scholarship in academic marketing, we deemed it imperative to explore what factors are related to doctoral students' motivation to conduct research.

Method/Design and Sample: Assessing a sample of doctoral students in Marketing from the AMA's doctoral students' special interest group (AMA DOCSIG), the authors used regression analysis to test relationships between the factors self-efficacy, age, emotional labor, faculty quality, role ambiguity, and role conflict and the intrinsic motivation, failure avoidance, and extrinsic motivation components of research motivation.

Results: The authors found that in order to identify doctoral students with the highest motivation to produce research, doctoral programs must focus on recruiting candidates who have a high level of self-efficacy, are older with life experience, and who engage in little or no emotional labor (surface acting), all of which contribute to increased intrinsic motivation to conduct academic research.

Value to Marketing Educators: Research is an extremely important aspect of the tripartite (research, teaching, and service) model of the modern scholar. In order for marketing to continually advance, the motivation to carry out research must be fostered in scholars of the future.

Keywords: Research Motivation, Doctorate, Education, Marketing, Scholar

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In the pursuit of a successful career, the modern academic must successfully balance the three facets of research, teaching, and service to the academy. The focus and importance of each of these facets is relativistic, and highly dependent on one's academic institution. Examining the academic discipline of marketing specifically, some researchers have noted that there has been an overemphasis on research, and not enough effort been granted to teaching (Griffith, 1997; Bearden et al. 2000). Bearden et al. (2000) examined various factors that contribute to the success of a doctoral program in marketing; they identified that the relegation of teaching as a secondary endeavor (to research) is a concern within current marketing academia. Further, Griffith (1997) discovered that there has not been enough focus on training marketing doctoral candidates as educators and thus offers suggestions to better transmit said educational training, in order to close the disparity between the focus on the facets of research and teaching.

We share the belief that each of the three facets of research, teaching, and service are highly important, and that the complete academic must dedicate some of their efforts to each facet. This research is however not a normative debate about the relative importance

of each facet, but rather it is an examination of what factors motivate academics to strive for success in one of the facets; research.

Sharing in this quest to understand research success, Ponder & Leug (2004) clearly suggest optimizing the research education of marketing academics by synthesizing the philosophy of science (theory) with the conceptual and methodological domains of marketing. This specific prescription provides a guide to foster success within the research facet; however, what motivates academics to want to be successful within this facet in the first place? If these motivations can be identified early enough, can they be fostered to ensure continued success within the research realm of marketing academia? Dasgupta & David (1994) show that knowledge advancement motivates academic researchers to pursue research projects. However, there may be other motivations for academic research such as becoming tenured faculty, earning increased pay, obtaining increased prestige, and the like (Close et al., 2011).

One can argue that regardless of the motivation, engaging in research is quite essential to the success of an academic. We must ask however; what are the factors that influence a doctoral student's motivation to carry out research? And is it possible to cultivate these

factors at the inception of academics' careers; during their doctoral training? Exploring the latter is ideal because if the right factors are developed early on in doctoral students, they have a higher chance of adopting the adequate amount of motivation required to ensure a successful research career.

These questions have been somewhat explored in other academic realms: Kahn (2001) and Cooper & Turpin (2007) explored what factors influence psychology doctoral students' motivation to research; Long et al. (1998) explored the effects of management PhD graduates' schools of origin and schools of affiliation on their willingness to engage in and produce research; Brewer et al. (1999) found that three factors (structured experiences, financial support, and productive faculty) explained most of the variation in public administration PhD graduates' research productivity.

We extend the literature on motivation to conduct research (Dasgupta & David 1994; Brewer et al. 1999; Kahn, 2001) into the realm of marketing academia, by examining what factors influence marketing doctoral students' motivation to carry out research. Among the questions addressed are:

1. Do any of the hypothesized factors influence marketing doctoral students' motivation to research? If so, what is the nature of their influence on the doctoral students' motivation to carry out research?
2. In the quest to produce more rounded academics, are there any positive factors that marketing doctoral programs can focus on, in order to foster the motivation to conduct research? Contrarily, are there any negative factors said programs can mitigate?

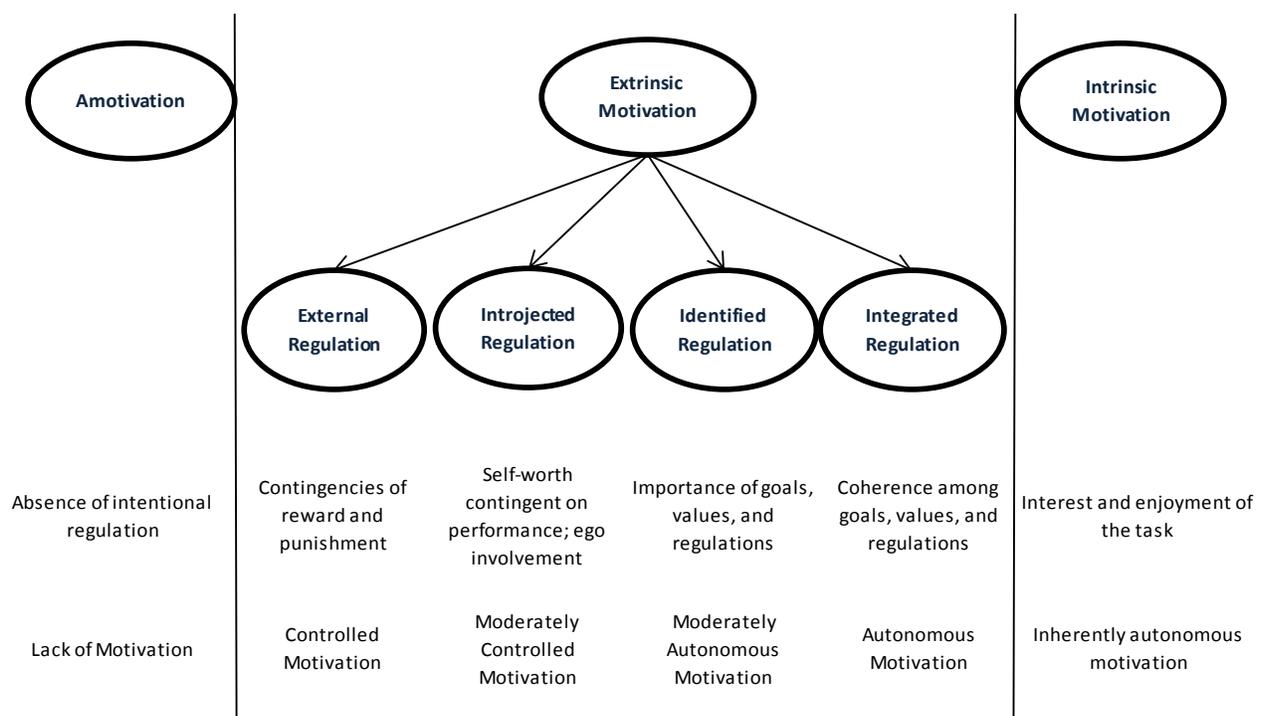
These general questions (along with other factor specific questions) will be addressed using a survey of U.S. marketing doctoral students (n=87).

Self-Determination Theory (SDT) and the Factors Influencing Research Motivation

The self-determination theory of motivation is centered on delineating the difference between autonomous motivation and controlled motivation (Gagné and Deci, 2005). Autonomy refers to acting with a sense of volition and a high personal endorsement of the action; while control refers to acting with a sense of necessity due to external pressures. According to SDT, intrinsic motivation is an example of fully autonomous motivation, as it refers to the psychological process through which activities are pursued for the purpose of deriving enjoyment (Deci & Ryan, 1985).

Further, SDT purports that extrinsic motivation exists on a continuum that ranges from fully controlled to autonomous (see Figure 1). Fully controlled extrinsic motivation is referred to as *external regulation*, and it is the generally known conceptualization of extrinsic motivation as motivation governed by the expectation of external rewards. At the other end of the extrinsic continuum is *integrated regulation*, within which individuals have a comprehensive sense of a behavior as being a fundamental part of who they are. This integration causes a behavior to come from within an individual; it is thus relatively autonomous however, it is still not considered intrinsic motivation because it is characterized by the behavior being fundamentally important for the individual's personal goals, and not because the individual is inherently interested in the behavior (Gagné and Deci, 2005).

FIGURE 1: The Self-Determination Continuum (Gagné and Deci, 2005)



RESEARCH MOTIVATION

Research motivation can be defined as the stimulation of an individual towards a desired goal of completing a research project, and the control and sustenance of all behaviors directed towards that goal. Deemer et al. (2010) develop a tripartite model of research motivation that includes:

1. Intrinsic Motivation
2. Extrinsic Motivation
3. Failure Avoidance

These are purported to work in concert, to represent the overall concept of research motivation. Deemer et al. (2010) incorporated these SDT conceptualizations of intrinsic and extrinsic motivations, along with their conception of failure avoidance motivation (which is the motivation to avoid doing research for fear of negative research outcomes) in their development of a scale to adequately measure research motivation. We used this scale to evaluate the research motivation of marketing doctoral students.

Furthermore, adapting concepts from previous literature on motivation within the context of academia, we generated a set of factors that may influence each of the facets of research motivation described above. The factors we hypothesize to influence research motivation include: (1) the student's age, (2) the student's self-efficacy, (3) how clear the student's role is, (4) the quality of the doctoral faculty, (5) role conflict, and (6) the emotional labor required of the student. In the next section, we will explain the relationships between the aforementioned factors and the research motivation facets, under the auspices of self-determination theory put forth by Deci & Ryan (1985, 2000).

Factors Influencing Research Motivation

Age: Kahn (2001) examined the year in the doctoral program as being a factor that would influence a doctoral student's motivation to research. As such, we considered that factor for this research, but we decided that age would be a more complete factor, as it carries with it a lot more information (explained below) than simply what year in the program one has attained. Age simply refers to the age of the student. The age range for students across all doctoral programs is usually high due to the diverse nature of accepted candidates. Some students apply for admission to a doctoral program right after completing their undergraduate degrees; these students are usually about 22 years old on average. Other students apply after their master's degrees and yet, some apply after a few or many years of work experience. Due to this diversity, students accepted into doctoral programs range from approximately 22 to over 50 years old.

We would expect that individuals who have lived longer generally have more complex life situations (mortgages, spouses, children etc.); thus, it would take more motivation to add another layer of extreme complexity (doctoral education) to an already complex

life. A 22 year old recent college graduate would in most cases have less to worry about than a 45 year old individual. Hence, we expect that in general as one gets older, they would need a much higher level of motivation to enroll in a doctoral program. Further, an older individual will normally have a longer prior career history. This means more career activities and accomplishments that build confidence in their ability to succeed. This suggests that older individuals would be less prone to avoid failure than their younger counterparts. We thus predict the following:

H_{1a}: The age of a doctoral student is positively associated with the doctoral student's intrinsic motivation.

H_{1b}: The age of a doctoral student is negatively associated with the doctoral student's failure avoidance.

Self-Efficacy: Self-Efficacy can be defined as an individual's belief in his/her ability to succeed in specific situations (Bandura, 1989). This was examined by Kahn (2001) as a factor that influences psychology doctoral students' motivation to research. Further, Bandura (1993) shows that self-efficacy plays a major role in the self-regulation of motivation. He posits that individuals motivate themselves and guide their actions by exercising forethought. This forethought is said to guide individuals in planning their actions on the path to realizing valuable goals.

Based on the assertions of self-determination theory, intrinsic motivation is driven by an individual's interest in the activity at hand; however, the fuel required to maintain this motivation is the satisfaction of two basic psychological human needs: competence and autonomy. *Competence* is the condition of being capable, and a quest for mastery of the task at hand. *Autonomy* is the state of being independent and free in determining one's own actions; it clearly reflects an internal locus of control. As stated, for intrinsic motivation to be kindled, these two psychological needs must be satisfied.

Bandura (1993) states that efficacious individuals: set more goals for themselves, expend more effort in realizing those goals, persevere in the face of difficulties, and are irrepressible by failure.

Further, efficacious people attribute whatever failures they face to a lack of effort on their part, and not a lack of competence. Each of the aforementioned self-efficacy traits supports the view that efficacious individuals have a high degree of perceived competence in their abilities; the traits also show that efficacious people have an internal locus of control and strive for autonomy. Since the satisfaction of the basic psychological needs of competence and autonomy is subsumed within the concept of being efficacious, we can posit that self-efficacy drives intrinsic motivation. Thus, we predict the following:

H_{2a}: The 'self-efficacy' of a doctoral student is positively related to the doctoral student's intrinsic motivation.

Similarly, as mentioned above, efficacious people attribute whatever failures they experience to a lack of effort and not a lack of competence. Also, as Bandura posited, efficacious people are irrepensible in the face of failure; such people are thus unlikely to quit or avoid a research project for fear of potential negative outcomes. Thus, we predict the following:

H_{2b}: The 'self-efficacy' of a doctoral student is negatively related to the doctoral student's failure avoidance motivation.

Role-Conflict & Role Ambiguity: Previous research has examined the influence of role conflict and role ambiguity on the motivation of practitioners to transition to academe (Specht 2013). These transitioning individuals understand that with academia comes the expectation to research as well as teach, and when ambiguity and conflict in their roles were minimized, their transitions were a lot smoother. In this same vein, we explore role conflict and role ambiguity, and their potential to influence marketing doctoral students' motivation to research.

Role conflict is defined as the incongruence or incompatibility in the requirements of a role, as judged relative to a set of standards or conditions which impinge upon role performance (Rizzo et al., 1970). The typical role of a doctoral student constitutes several requirements: assignments from faculty advisor, assignments from other professors, research expectations, coursework expectations, teaching expectations. It is not difficult to fathom how these requirements/expectations can impinge on each other's domain and cause a doctoral student to experience conflict in fulfilling their role.

Role ambiguity is defined as the lack of availability of the information necessary to fulfill the requirements of a position. With the multitude of expectations required of a doctoral student, the boundaries of the scope of his role may be quite ambiguous. With no clear definition of the scope of his role, in addition to the experience of conflict within said role, a doctoral student is bound to feel a diminishing sense of autonomy over his actions. Of course as aforementioned, autonomy is one of the basic psychological needs that must be satisfied, in order for intrinsic motivation to be nourished. We thus put forth the following:

H_{3a}: The 'role-conflict' a doctoral student experiences will be negatively related to the doctoral student's intrinsic motivation.

H_{3b}: The 'role-ambiguity' a doctoral student experiences will be negatively related to the doctoral student's intrinsic motivation.

Faculty quality: Faculty quality can be used as an extrinsic cue indicating the quality of doctoral students

at an institution (Long et al., 1998; Close et al., 2011). This is usually determined by an objective measure of the number of quality publications by a faculty in a given time period. A high quality faculty would most certainly have a lot of expectations of their doctoral students; such expectations would in turn cause the doctoral students to behave in the manner desired by the faculty, in order to feel worthy. Hence, if a faculty member requires highly research productive doctoral students, the students will be motivated to work harder in order to fulfill this expectation of high research productivity. Within the framework of SDT, this is referred to as introjected regulation; wherein the regulation is motivating the individual to act. Contrarily, a doctoral student may experience identified regulation; wherein because she is associated with high quality faculty, her goals and identity are centered on high quality behaviors. In essence, the doctoral student identifies with the behaviors expected of her, and also with the high quality behaviors perpetuated by the faculty; she is then motivated by this identification to act in the manner expected by the faculty. Thus, she is motivated to carry out research, either because the faculty expects her to or because she has identified with the high research motivation shown by the faculty. These two regulatory processes described are types of extrinsic motivation, within the framework of SDT. We thus put forth the following:

H₄: The quality of the faculty at a doctoral student's institution will be positively related to the doctoral student's extrinsic motivation.

Emotional labor: Emotional labor can be defined as the management of emotion with a profit motive slipped under it (Bolton, 2009). It is now accepted as the general term for the larger concept of emotional work. Hochschild (1983) states that social actors use a set of shared latent rules to match emotions to situations thus, *working* on said emotions to produce socially desirable responses. In essence, emotional labor is the reason why regardless of their actual feelings, flight attendants always appear cheerful and funeral directors always appear somber.

In their attempt to develop a scale for emotional labor, Brotheridge and Lee (1998) delineated five factors that make up the concept of emotional labor

- Duration: which refers to the length of time of the interaction between the social actor and a 'customer,' during which emotional labor is exercised
- Intensity: which refers to the strength of emotions expressed by the social actor
- Variety: which refers to the assortment of emotions displayed by the social actor
- Surface acting: refers to a situation where the social actor puts up a socially desirable emotional front, regardless of her true feelings
- Deep acting: refers to a situation where the social actor works to match her internal feelings to the expected/socially desirable displayed emotions.

For the purpose of this research, we will focus on the emotional labor factor of 'surface acting.' Doctoral students regularly interact with their research professors, other faculty, and undergraduate students. Regardless of their internal emotions, doctoral students are expected to put up a professional facade (with the matching emotional expressions) during all the aforementioned interactions. Due to this 'surface-acting' expectation, doctoral students are bound to feel diminishing autonomy, as the emotions they are expected to express are governed by external sources. Once again, as we know, autonomy is a

basic psychological need that must be satisfied, in order for intrinsic motivation to be nourished. We thus put forth the following:

H₅: The emotional labor (surface acting) exercised by a doctoral student will be negatively related to the doctoral student's intrinsic motivation.

These factors influencing research motivation and their supporting literature are summarized in Table 1.

TABLE 1: Research Variables & Source Literature

FACTOR	LITERATURE
Age	Kahn (2001)
Self-Efficacy	Bandura (1989), Bandura (1993), Kahn (2001)
Role Conflict & Ambiguity	Rizzo et al. (1970), Specht (2013)
Faculty Quality	Long et al. (1998), Close et al. (2011)
Emotional Labor	Hochschild (1983), Brotheridge & Lee (1998), Bolton (2009)

METHODS

Survey of marketing doctoral students

A survey on marketing students currently enrolled in a doctoral program was conducted. To reach the study sample, a link to an online survey was sent via an electronic listserv. Informants were only currently enrolled marketing doctoral students, who were also members of the American Marketing Association's doctoral student special interest group (AMA DocSIG). Secondary data on faculty quality rankings were also gathered via published sources.

Assessing the sample representativeness

The DocSIG was chosen as the sampling frame because it is clearly representative of the larger population to which this research will be generalized: marketing doctoral students. To evaluate this representativeness however, we assessed information on the population of interest. We determined that on average, each of the 108 doctorate-granting marketing institutions in the United States (AMA, 2012) has 10 doctoral students enrolled. Based on these figures, we can assume that any point in time, there are approximately 1,100 doctoral students enrolled in marketing doctoral programs. Our data collection resulted in a sample of 137 respondents, which represents a 31.1% response rate from the 441 DocSIG membership in 2012, as garnered from DocSIG's administration.

Furthermore, the DocSIG comprises doctoral student members from who are members of the American Marketing Association. As the AMA is the major organization in the academic discipline of marketing, it stands to reason that its membership constitutes a good proportion of doctoral students in marketing academia. Based on these points, we

believe that the sample is representative of the population.

Dependent Variables

The dependent variable of interest in this study is the tripartite conceptualization of research motivation, consisting of: Intrinsic motivation, failure avoidance, and extrinsic motivation. Each of these factors that constitute research motivation is assessed individually, and their hypothesized relationships are examined thus. The research motivation scale developed by Deemer et al. (2010) was used to collect information on the dependent variable. The scale (with the three subscales subsumed) consists of twenty items: with nine indicating intrinsic motivation, six indicating failure avoidance, and five indicating extrinsic motivation.

Independent Variables

The independent variables in this study are: self-efficacy of the doctoral student, age, ambiguity of the doctoral student's role within the academic department, conflict the doctoral student faces in completing his role, emotional labor the doctoral student expresses, and quality of the business faculty at the institution.

Self-Efficacy: To determine the self-efficacy of the respondents, we used the self-report new general self-efficacy scale developed by Chen et al. (2001). The scale consists of 8 items, and each was assessed on a 5-point likert scale ranging from strongly disagree to strongly agree.

Age: Age was also a self-report measure. The respondents were asked to fill in (rounding to the nearest year) how old they are.

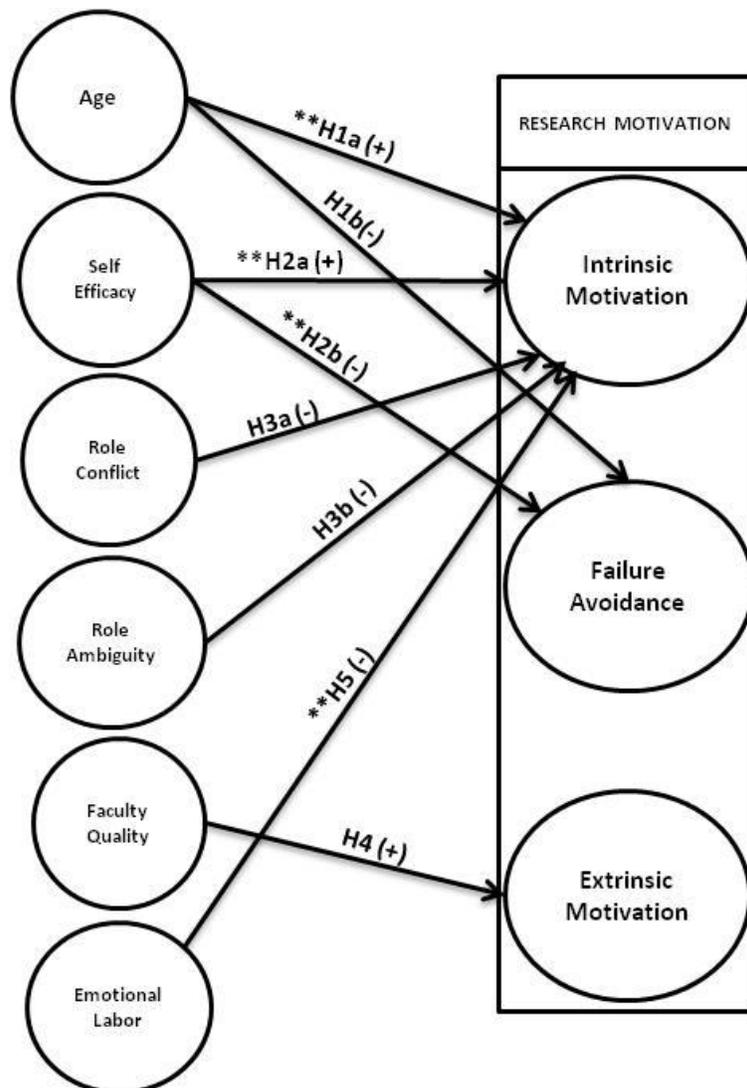
Role factors (ambiguity and conflict): Role conflict and role ambiguity were measured on self-report scales developed by Rizzo et al. (1970). The scales are made up of 8 and 6 items respectively. Further, these factors were also assessed on a 5-point likert scale ranging from strongly disagree to strongly agree.

Emotional labor: The surface acting facet of emotional labor was measured on a self-report scale developed by Brotheridge & Lee (1998). The scale consists of 3 items, assessed on a 5-point likert scale ranging from how strongly the respondents agree with statements about the dissonance between their internal and

external emotions, to how strongly they disagree with said statements.

Faculty quality: The quality of each respondent's faculty was determined based on the research productivity of the respective faculty. The respondents only gave information on what doctoral institution they were currently enrolled in; we thus used the University of Texas at Dallas School of Management's Top 100 Business School Research Rankings™ (UT Dallas, 2012) to determine faculty quality.

FIGURE 2: Theoretical Model for Research Motivation



**Represents significant hypotheses at the .05 level.

The rankings are based on a score developed using the number of articles published by business faculty within a given time period (we focused on 2007-2011), and the quality of the journals in which the particular faculty publish. A few of the institutions in our data set did not make the top 100 list; however, we manipulated the available data to generate rank scores for the missing schools, based on the number of articles each published within that time period.

We calculated the scores for the unranked institutions by first generating a regression equation using the information given for the ranked institutions. The independent variable in the regression equation was the number of quality publications outputted by the institutions within the 2007-2011 time period. Thus, once the equation was generated, we used the number of publications by each of the unranked institutions to generate faculty quality scores for them.

We then compiled our calculated scores and the already available scores to represent the faculty quality data. The hypothesized variable relationships are shown in figure 2.

RESULTS

Sample Statistics

Prior to commencing with the research hypotheses analyses, we evaluated the data to determine if any differences existed across demographic groups, on the dependent variables of concern. The demographic information collected included data on: (1) the gender of the respondent, (2) The type of university i.e. whether the respondent's institution of study is a public or private university and, (3) the orientation of the

university i.e. whether the university is research oriented or balanced in terms of teaching and research. Table 2 contains all the aforementioned demographic information and the means of the dependent variables for each of the groups.

Using a one-way MANOVA for each of the categorical independent variables across all three dependent variables, we inferred the following. For the gender data, we found that no differences existed between males and females, across all three dependent variables: MANOVA $F=2.67$, $p=.053$; IM: (3.88 vs. 4.00), EM: (3.86 vs. 3.85) FA: (2.67 vs. 3.09). We thus concluded that there were no differences between males and females that would hinder drawing inference from the sample as a single unit.

TABLE 2: Means of Dependent Variables across Demographic Factors

Demographic Information		N	Dependent Variable Means		
			Intrinsic Motivation (IM)	Extrinsic Motivation (EM)	Failure Avoidance (FA)
Gender	Males	48	3.89	3.86	2.67
	Females	39	4.00	3.85	3.09
University	Public	71	3.90	3.86	2.94
	Private	16	4.09	3.84	2.52
University Orientation	Research				
	Intensive	51	3.85	3.80	2.82
	Research	36	4.06	3.94	2.92
TOTALS	MEANS	87	3.94	3.86	2.86

Similarly, for the university type data, we found that no differences existed between public and private universities, across all three dependent variables: MANOVA $F=1.23$, $p=.305$; IM: (3.90 vs. 4.09), EM: (3.86 vs. 3.84), FA: (2.94 vs. 2.52). We thus concluded that no differences of concern existed between public and private university students. Finally, for the university orientation data, we found that no differences existed between research intensive-oriented and research oriented schools, across all three dependent variables: MANOVA $F=1.07$, $p=.367$; IM: (3.85 vs. 4.06), EM: (3.80 vs. 3.94), FA: (2.82 vs. 2.92). We thus concluded that there were no significant differences to be concerned with. Following these analyses, we proceeded to test the research hypotheses.

Regression Analyses

We utilized multiple linear regression analyses to test the hypothesized relationships between the independent and dependent variables. Each sub-factor of the tripartite research motivation model was considered as a separate dependent variable; thus, a separate regression analysis was used for each, and it's hypothesized relationships with the independent variables.

Collinearity was assessed using tolerance and variance inflation factor. These measures indicated no Collinearity concerns for the measurement items. Table 3 shows the standardized regression coefficients and t-values for each of the hypothesized relationships in the model.

TABLE 3: Regression Coefficients for Models

Independent Variables	Dependent Variables		
	Intrinsic Motivation	Failure Avoidance	Extrinsic Motivation
Self-Efficacy	.38* (3.55)	-0.52* (-5.63)	-
Emotional Labor	-0.21* (-2.04)	-	-
Role Conflict	-0.007 (-.058)	-	-
Role Ambiguity	0.067 (.539)	-	-
Age	0.24* (2.45)	-0.16 (-1.74)	-
Faculty Quality	-	-	0.14 (1.18)
R ²	0.343	0.306	

Standardized betas are on top, t-statistics are in parentheses, * $p < .05$

Analyzing the results of each of the dependent variables, we note that the overall model for intrinsic motivation is significant ($F=8.22$, $p < .000$) and has an R^2 of 0.343. The findings indicate that only three of the five hypothesized independent variables were significant: self-efficacy, emotional labor, and age. Self-efficacy was found to have a significant and positive relationship with intrinsic motivation ($\beta=.38$, $p < .05$, Tolerance=.71, VIF=1.42); this finding supports hypothesis H_{2a}. The surface acting component of emotional labor employed in the model was found to have a significant and negative relationship with intrinsic motivation ($\beta=-.21$, $p < .05$, Tolerance=.85,

VIF=1.17); this finding supports hypothesis H₅. Also, as expected, age was found to have a significant and positive relationship with intrinsic motivation ($\beta=.24$, $p < .05$, Tolerance=.94, VIF=1.07); this finding supports hypothesis H₁. Contrary to our expectations however neither role conflict nor role ambiguity had an effect on intrinsic motivation ($\beta=-.007$, $p=.86$) and ($\beta=.067$, $p=.53$) respectively; thus, hypotheses H_{3a} and H_{3b} were not supported. In accordance with self-determination theory, these role factors were expected to diminish intrinsic motivation, as they reduced the autonomy an individual feels over a situation. These results will be discussed further in the next section.

Table 4: Hypotheses Results

HYPOTHESIS	OUTCOME
H1a: Age -> Intrinsic Motivation	Supported
H1b: Age -> Failure Avoidance (Neg)	Not Supported
H2a: Self-Efficacy -> Intrinsic Motivation	Supported
H2b: Self-Efficacy -> Failure Avoidance (Neg)	Supported
H3a: Role Conflict -> Intrinsic Motivation (Neg)	Not Supported
H3b: Role Ambiguity -> Intrinsic Motivation (Neg)	Not Supported
H4: Faculty Quality -> Extrinsic Motivation	Not Supported
H5: Emotional Labor -> Intrinsic Motivation (Neg)	Supported

Similarly, the overall model for the failure avoidance dependent variable was significant ($F=17.84$, $p < .000$) with an R^2 of 0.306. As expected, self-efficacy was found to have a significant and negative relationship with failure avoidance ($\beta=-.52$, $p < .05$, Tolerance=.998, VIF=1.002); this finding supports hypothesis H_{2b}. Age however was found to be an insignificant predictor of failure avoidance ($\beta=-.16$, $p=0.086$); Thus, H_{1b} is not

supported. The effect was however observed in the hypothesized direction.

Finally, the overall model for extrinsic motivation was found to be insignificant ($F= 1.34$, $p=.242$) with an R^2 of .02. Obviously, the hypothesized relationship between faculty quality and extrinsic motivation was not significant ($\beta=.143$, $p=.242$); H₄ was thus not supported. The results of the hypotheses tests are summarized in Table 4.

DISCUSSION

This research contributes to the literature stream on the motivation to pursue academic research (Dasgupta & David, 1994; Cooper & Turpin, 2007; Long et al., 1998). A key finding from this research is the role of self-efficacy in the motivation to conduct research, as it very strongly influences both the intrinsic motivation and failure avoidance sub-facets. This suggests that efficacious doctoral students are internally motivated to carry out research, and they thus would very likely become assets to their institutions. Just like with Dasgupta & David (1994), we found that due to their very nature, efficacious individuals are more prone to be intrinsically motivated to carry out research, even with a purely knowledge advancement goal. Further, our findings suggest that efficacious doctoral students do not shy away from difficult projects because of the fear of failure. These students are willing to pursue difficult research projects due to their efficacy, and in an attempt to maintain consonance with their self-concept of being efficacious, they are more likely to blame any failures they encounter on a lack of adequate effort on their part, instead of a lack of competence.

Age was also found to influence research motivation. As expected, older students were found to be more intrinsically motivated to pursue research than their younger counterparts. We believe that this stems from a desire to succeed due to their preexisting complex life situation. In other words the motivation required to enroll in a doctoral program is a lot higher for one who has a dependent family, a mortgage, car notes etc. than for one who does not have all of the aforementioned complexities embedded in their life. Further, although our prediction that older students would be less prone to avoid failure was not supported, we found the effect to be in the hypothesized direction. We predicted the age/failure avoidance negative relationship as such because we expected older students to have more successful experiences from which to draw confidence thus, making them less afraid of the unknown.

Additionally, we found that emotional labor reduces intrinsic motivation due to the loss of autonomy the student encounters in expressing himself/herself. In order to placate the expectations of those around them, a false facade may need to be presented, thus creating conflict within the student and a feeling of loss of control. We were quite surprised to find that the role factors (conflict and ambiguity) had no effect on intrinsic motivation as we hypothesized. We expect that the presence of conflicting demands from several sources, along with uncertainty as to what is expected from an individual, would cause the individual to feel a diminishing sense of autonomy in controlling their outcomes, and thereby reducing the intrinsic motivation that would otherwise drive the individual to achieve those outcomes. Perhaps in these instances, the self-efficacy of individuals are more determinant factors of motivation; as we've stated previously,

efficacious individuals tend to be more motivated to achieve their outcomes even in the presence of unclearness or failure, as they attribute those issues to their lack of effort.

Contrary to the findings of Brewer et al. (1999), we found that the productivity/quality of the faculty did not really influence the motivation of doctoral students to carry out research. We may observe in the real world that doctoral students at institutions with higher quality faculty are more research productive thus, indicating that they are externally 'motivated' to carry out research. The faculty quality measure used in this research was simply based on the research productivity of the faculty at each of their respective institutions.

Perhaps a more accurate reflection of faculty quality would have been to adopt the method developed and delineated by Elbeck & Vander Schee (2014) in assessing the top marketing faculty, while taking into account the effects of the several marketing sub-areas of focus. We could have also assessed how much time the faculty spent in mentoring their doctoral students, and how much research guidance said faculty provided. Unfortunately these data were not collected for this endeavor and as such, we consider it a limitation of this research. Another limitation is the sample size used to conduct this research. Even for a small finite population such as 'marketing doctoral students,' a larger sample size would yield more representative results that can be generalized to the population. These issues can definitely be addressed in detail, in future research endeavors.

Implications for Marketing Educators

Our research as a whole highlights a few points which marketing educators can implement in order to ensure we are recruiting the right crop of future scholars to grow and sustain the academy.

Firstly, we know that the placement of its candidates is one of the major indicators of the prestige of a doctoral program. The easiest way to achieve top placements is for a doctoral candidate to have the most indicative currency of his worth: a good publication record. Thus, as doctoral institutions continually try to increase their prestige, it is paramount that they admit students with a desire for publications. As we have shown in this research, older students were more intrinsically motivated to conduct research. Knowing that with age comes more life experiences, it may benefit departments to require a certain number of years of work experience before entering the doctoral program.

Secondly, efficacious individuals are also likely to have a desire to publish. While there are scales to measure self-efficacy, simple administration of self-efficacy items to doctoral applicants may produce demand effects. It may be better to assess self-efficacy during an interview with probing questions concerning career accomplishments and failures. For example, "Tell me about a particularly difficult task you accomplished? How did you feel going into that task?"

Future research endeavors can strive to develop a method for doctoral programs to assess the self-efficacy of potential candidates.

In conclusion, as we know, most institutions use the GMAT, GPA, and a few other factors in making their admittance decisions. We however believe that an

adequate assessment of self-efficacy, along with the age of applicants, and the environment created by the department to minimize emotional labor, would be the most adequate way to ensure admittance of the best possible candidates to continually grow the discipline.

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APPENDIX 1

RESEARCH SCALES

Research Motivation (Deemer et. al 2010)

Intrinsic

I conduct research for the joy of it
Conducting research provides me with feelings of satisfaction
I love to learn new things through research
I have a general feeling of well being when I'm involved in research
I have a need to understand scientific phenomena
Research in and of itself is enjoyable to me
I feel great pleasure when I've learned something new in my area of research
Times seems to fly when I'm conducting research
I enjoy doing research for its own sake

Extrinsic

I conduct research to earn the respect of my colleagues
I want to be recognized by my colleagues as a competent researcher
I want to leave my mark on my field
I want to receive awards for my scientific accomplishments
I want to be recognized by my colleagues for conducting sound research

Failure Avoidance

I want to pursue less difficult research projects that I know will guarantee a successful outcome
When the preliminary results of my research have not met my expectations, I want to cut my losses and move on to the next project
I want to avoid pursuing difficult research projects that may result in a negative outcome (e.g. lack of significant findings, not accepted for publication etc.)
I sometimes want to give up when my research is not proceeding as I would like
I want to focus more of my energy on other research projects when the project I am working on is not progressing as expected
I sometimes want to avoid difficult research projects because I'm concerned that I may fail

Emotional Labor – Surface Acting (Brotheridge & Lee, 1998)

I pretend to have emotions that I don't really have
I resist expressing my true feelings
I hide my true feelings about a situation

Role Conflict (Rizzo et al, 1970)

I receive an assignment without the manpower to complete it
I receive incompatible requests from two or more professors
I sometimes have to bend a rule or policy in order to carry out my job
Professors and supervisors give me conflicting demands
I do things that are apt to be accepted by one professor, and not accepted by another
I receive assignments with inadequate resources and materials to execute them
I am often overloaded with assignments
I work on unnecessary things

Role Ambiguity (Rizzo et al, 1970)

I feel certain about how much autonomy I have
There are clear, planned goals and objectives for my job
I know what my responsibilities are
I know that I have divided my time properly
I know exactly what is expected of me
The explanations are clear as to what I have to do

Self-Efficacy (Chen et al. 2001)

I will be able to achieve most of the goals I have set for myself
When facing difficult tasks, I am certain that I will accomplish them
In general, I think that I can obtain outcomes that are important to me
I believe I can succeed at almost any endeavor to which I set my mind
I will be able to successfully overcome many challenges
I am confident that I can perform effectively on many different tasks
Compared to other people, I perform most tasks very well
Even when things are tough, I can perform quite well