Achievement Goals and Intrinsic Motivation: A Case of IIUM

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Abstract

In the present research the relation between achievement goals as predictor variables and intrinsic motivation for academic learning as an outcome variable was investigated using a sample of International Islamic University Malaysia (IIUM) students. In addition to the trichotomous model achievement goals of mastery, performance-approach and performance-avoidance, a new achievement goal namely Islamization goal was incorporated. The participants were one hundred and forty one third and fourth year students. The Elliot's Achievement Goal Questionnaire (AGQ), the Intrinsic Motivation Inventory (IMI) and a self-tailored Islamization goal subscale were used for data collection. As hypothesized, mastery goal was found to be a positive predictor of intrinsic motivation for academic learning. The most important finding, however, was the predictive validity of the new Islamization goal variable.

Key Words: Achievement Goals, Intrinsic Motivation, Islamization and Academic Learning

1. Introduction

Intrinsic motivation is the motivation to engage in an activity for its own sake (Lepper, 1981; Pintrich & Schunk, 2000; Ryan, 1992; as cited in Lai, Chan & Wong, 2006). A student is described as intrinsically motivated when he or she actively engages in learning because of curiosity, interest, enjoyment, or in order to achieve his or her own intellectual and personal goals (Brewster & Fager, 2000).

Studies have shown that, on average, intrinsically motivated students earn higher grades and are personally better adjusted in their learning environment than their extrinsically motivated counterparts. Since they do not need external motivators to engage in academic activities, they are likely to be lifelong learners, continuing to educate themselves long after leaving the formal educational setting (Dev, 1997; Kohn, 1993; Skinner & Belmont, 1991; as cited in Brewster & Fager, 2000). The association of such adaptive learning behaviours and positive achievement outcome with intrinsically motivated students has prompted many researchers to empirically examine various variables as predictors of intrinsic motivation (Elliot & Harackiewicz, 1996; Grant & Dweck, 2001; Rawsthorn & Elliot, 1999; Standage, Duda, Joan & Ntoumanis, 2003).

In recent years the achievement goal approach to intrinsic motivation has become the predominant conceptual framework, especially for studies on the behaviour of students, sportspeople and employees. Achievement goals are commonly defined as the purpose of an individual's pursuits (Dweck & Leggett, 1988; Maehr, 1989; as cited in Roebken, 2007). Initially, achievement goal theorists posited two goals namely mastery goal and performance goal. In later years Elliot and Harackiewicz (1996) conducted a study in which they modified this dichotomous conception of achievement goals by splitting performance goal into performance-approach and performance-avoidance goals. Hence, suggesting a trichotomous achievement goal model of mastery, performance-approach and performance-avoidance goals (Elliot and Harackiewicz, 1996).

Performance-approach goal was defined as the aim to demonstrate normative competence, while performance-avoidance goal was defined as the aim to avoid the demonstration of normative incompetence (Cury, Elliot, Sarrazin, Da Fonseca, & Rufo, 2002; Elliot & Harackiewicz, 1996). The definition of mastery goal, on the other hand, was the aim to improve ones ability, understanding and level of competence in the subject learnt or to achieve a sense of mastery in it based on self-referenced standards (Ames, 1992; Lai et al., 2006; Song & Grabowski, 2006). In their study, Elliot and Harackiewicz (1996) were interested in the direct relations between the proposed three achievement goals and intrinsic motivation and the mediational process of these relations. They conducted two experiments in which they manipulated performance-approach, performance-avoidance and mastery goals to examine their direct effect on intrinsic motivation. Results from both experiments attested the predictive utility of the proposed trichotomous achievement goal framework.

Performance-avoidance goal undermined intrinsic motivation relative to both mastery and performance-approach goals (Elliot & Harackiewicz, 1996). Although a number of studies have been conducted to examine the direct relations between achievement goals and intrinsic motivation (for example Elliot & Harackiewicz, 1996; Barron and Harackiewicz, 2001; Cury et al., 2002), none of them have included a religious goal as a predictor variable in their model. Due to the absence of such a religious goal an inherently bias goal theory approach emerged. The use of this theory approach would be inadequate and rather inappropriate conceptually and technically when conducting an achievement goal-intrinsic motivation study on a sample that includes students with religious orientations.

Therefore the present study proposes a novel framework, which includes the newly conceptualized Islamization goal as a predictor variable with mastery, performance-approach and performance-avoidance goals. The researcher has named this new model as the MPP-Islamization goal model where the initials MPP denote mastery goal, performance-approach goal and performance-avoidance goal respectively. As such the current study examines the direct relations of the trichotomous model achievement goals with intrinsic motivation for academic learning and documents the predictive utility of the Islamization goal using a sample from the International Islamic University Malaysia (IIUM). Islamization goal is defined as the student's aim to know the Islamic sources (Qur'anic verses, prophetic traditions and views of Muslim scholars) that relate to the topics he or she is studying, to develop the ability to critically assess from an Islamic perspective, the modern concepts/theories and methodologies he or she is learning, as well as to learn and apply Islamic injunctions, morals and ethical values in his or her student and future professional life (The Quality Enhancement Series, 2007).

The major pioneering contribution of this study is that it has introduced a religious goal (Islamization goal) to the existing goal theory. To measure the new goal, an Islamization goal subscale has been tailored which is another important contribution. The availability of this new subscale may encourage more similar studies in other Islamic institutions or institutions with a considerable number of Muslim students. The paper is divided into six sections. The first section introduces the subject. Section two reviews the literature on intrinsic motivation and achievement goals. The third section presents the conceptual framework of the MPP-Islamization goal model that illustrates the relations between the four predictor variables and intrinsic motivation. Section four discusses the methodology used in the study. The fifth section presents the results and findings. The final section discusses the findings and suggests areas for future research.

2.0 Research on Intrinsic Motivation

Over the past three decades, a substantial bulk of research on intrinsic motivation has emerged. Most of it documents various variables that enhance or undermine intrinsic motivation (Elliot, Faler, McGregor, Campbell, Sedikides & Harackiewicz, 2000). For example in one study Reeve and Deci (1996) explored the effects of different elements of the competitive situation on intrinsic motivation (Reeve & Deci, 1996). Similarly, in a mediational study Elliot, Faler, McGregor, Campbell, Sedikides and Harackiewicz (2000) investigated the direct relationship between positive/negative feedback given after a task and intrinsic motivation before examining competence valuation and perceived competence as mediators (Elliot et al., 2000).

In more recent years the achievement goal approach to intrinsic motivation has become the predominant conceptual framework. Initially, achievement goal theorists used a performance-mastery goal dichotomy in accounting for intrinsic motivation (Cury et al., 2002)**.** Proponents of the dichotomous achievement goal model have contended that performance goals, relative to mastery goal, should undermine intrinsic motivation. They therefore recommended external interventions that encourage students' adoption of mastery goal and minimize their adoption of performance goals (Ames, 1992). The assumption that mastery goal is adaptive and performance goal is maladaptive is referred to as the mastery goal perspective (Cury et al., 2002).

There were others, however, who disagreed with a strict mastery goal perspective and endorsed a multiple goal perspective. They suggested that performance goals can also promote important achievement outcomes (Barron & Harackiewicz, 2001). Their view was supported by the fact that several studies found positive performance goal effects for certain individuals (Harackiewicz & Elliot, 1993). Barron and Harackiewicz (2001) critically tested the mastery versus multiple goals perspective in two studies. In the first study a correlational approach was used to identify the optimal goals to adopt for learning a math activity. Results showed that self-set mastery and performance goals were each linked to distinct, positive outcomes for learning sessions.

Mastery goal was the only predictor of interest (intrinsic motivation) in the math activity, whereas performance goals were the only predictors of performance in the same activity. There was no interaction of mastery and performance goals on any outcome. In the second study an experimental approach was used in which achievement goals were manipulated to identify the optimal goals to assign for the same activity (Barron & Harackiewicz, 2001). Results showed that no condition of a single goal was optimal on interest (intrinsic motivation) outcomes for all participants. The effects of assigned goals were instead moderated by individual differences in achievement motivation. Similarly, no condition of a single goal was found optimal on performance outcome for all participants (Barron & Harackiewicz, 2001). In an earlier study, Elliot and Harackiewicz (1996) who noted a discrepancy in the performance goal and intrinsic motivation relationship results offered an alternative approach-avoidance framework. In this novel framework, performance goal was partitioned into performance-approach and performance-avoidance goals, thus yielding a trichotomous achievement goal model. They predicted that both performance-approach and mastery goals focused on attaining competence and fostered intrinsic motivation, whereas performance-avoidance goal focused on avoiding incompetence and undermined intrinsic motivation (Elliot & Harackiewicz, 1996).

To test their prediction, they conducted two experiments in which they manipulated performance-approach, performance-avoidance and mastery goals to examine their direct effect on intrinsic motivation. Results from both experiments attested the predictive utility of the proposed trichotomous achievement goal framework. Performance-avoidance goal undermined intrinsic motivation relative to both mastery and performance-approach goals (Elliot & Harackiewicz, 1996). To extend the generalizability of Elliot and Harackiewicz (1996) study of the trichotomous achievement goal model, Cury and his colleagues (2002) in a mediational study re-examined the direct effects of mastery, performance-approach and performance-avoidance goals on intrinsic motivation before investigating competence valuation, task absorption, state anxiety, and perceived competence as mediators. (Cury et al., 2002).

In the above studies only mastery, performance-approach and performance-avoidance goals were included to represent the predictor variables. Results of these studies showed that performance-avoidance goal undermined intrinsic motivation whereas mastery goal enhanced intrinsic motivation. Performance-approach goal, on the other hand, did not undermine intrinsic motivation. (Cury et al., 2002; Elliot & Harackiewicz, 1996). Noticeably, none of the studies included a religious goal as a predictor variable in their model. Therefore, to date the relationship between such a goal and intrinsic motivation remains unexamined. As such, in the present study the newly conceptualized Islamization goal is included as a predictor variable with mastery, performance-approach and performance-avoidance goals. Hence the MPP-Islamization goal model is suggested.

3.0 *CONCEPTUAL FRAMEWORK OF THE MPP-ISLAMIZATION GOAL MODEL*

In the conceptual framework of the current study, mastery, performance-approach, performance-avoidance and Islamization goals represent the predictor variables, while intrinsic motivation for academic learning represent the outcome variable. The conceptual framework of the current study is illustrated in Figure 1.

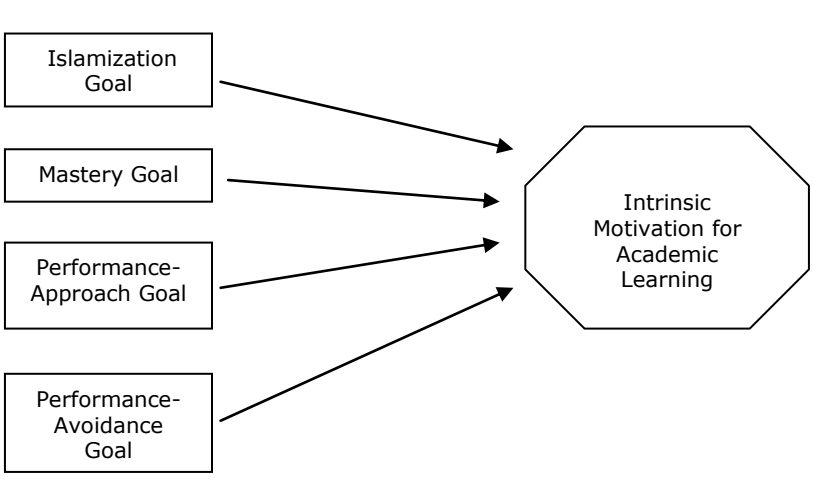

Figure 1: A Conceptual Framework of the MPP-Islamization Goal Model

3.1 CONCEPTUAL AND OPERATIONAL DEFINITIONS

In the present study intrinsic motivation is the outcome variable and the achievement goals are the predictor variables. Before proceeding with the analyses, we present below the conceptual and operational definitions of these variables.

3.1.1 Intrinsic Motivation

Intrinsic motivation is defined as the motivation to actively engage in learning activities out of curiosity, interest, enjoyment, or in order to achieve their own intellectual and personal goals (Brewster & Fager, 2000). In this study the level of intrinsic motivation for academic learning is measured using the interest/enjoyment subscale of the Intrinsic Motivation Inventory (IMI).

3.1.2 Achievement Goals

Achievement goals as commonly defined are the purposes of individuals' pursuits (Dweck & Leggett, 1988; Maehr, 1989; as cited in Roebken, 2007). The four achievement goals which are addressed in this study are Islamization goal, mastery goal, performance-approach goal and performance-avoidance goal. Islamization goal is defined as the student's aim to know the Islamic sources (Qur'anic verses, prophetic traditions and views of Muslim scholars) that relate to the topics he or she is studying, to develop the ability to critically assess from an Islamic perspective, the modern concepts/theories and methodologies he or she is learning, as well as to learn and apply Islamic injunctions, morals and ethical values in his or her student and future professional life (Quality Enhancement Series, 2007). Mastery goal is defined as the aim to improve ones ability, understanding and level of competence in the subject learnt or to achieve a sense of mastery in it based on self-referenced standards (Ames, 1992; Song & Grabowski, 2006; Lai et al., 2006). The definition of performance-approach goal, on the other hand, is the aim to demonstrate normative competence, whereas the definition of performance-avoidance goal is the aim to avoid the demonstration of normative incompetence (Cury et al., 2002; Elliot & Harackiewicz, 1996). The Elliot's Achievement Goal Questionnaire (AGQ) is used to measure the degree to which students adopt mastery, performance-approach and performance-avoidance goals. To measure the degree to which they adopt the Islamization goal, a self-tailored Islamization goal subscale is used.

3.2. RESEARCH HYPOTHESES

The hypotheses for this research are as follows:
H1: Mastery goal increases intrinsic motivation for academic learning.
H2: Performance-approach goal increases intrinsic motivation for academic learning.
H3: Performance-avoidance goal decreases intrinsic motivation for academic learning.
H4: There is a relation between Islamization goal and intrinsic motivation for academic learning.

4.0 RESEARCH METHODOLOGY

4.1 SAMPLING AND PARTICIPANTS

In the present study, 141 students from the Human Sciences faculty of the International Islamic University Malaysia were taken as a sample. 88 (62.4%) of the students were final year students, 46 (32.6%) were third year students and 7 (5 %) were second year students. Their mean age was 22.6 years. The participants comprised both male and female students. 124 (87.9 %) of the participants were female students and 17 (12.1%) of the participants were male students. 126 (89.4%) of the participants were Malaysians while 15 (10.6%) were from the countries of Bosnia, China, Indonesia, Jordan, Maldives, Nigeria, Singapore, Tanzania and Thailand. The demographic composition of the participants is illustrated in Table 1.

Table 1: Participants' Demographic Composition (N = 141)

Demographic Data	Frequency	Percentage
Gender		
Female	124	87.9%
Male	17	12.1%
Year of Study		
Final Year	88	62.4%
Third Year	46	32.6%
Second Year	7	5 %
Nationality		
Malaysian	126	89.4%
International	15	10.6%

4.2. SCALES USED IN THE RESEARCH INSTRUMENT

The measuring instrument for the present research was prepared using the Elliot's Achievement Goal questionnaire (AGQ), the Intrinsic Motivation Inventory (IMI) and the Islamization Subscale.

4.2.1. Elliot's Achievement Goal Questionnaire (AGQ)

The AGQ is a multidimensional measurement device which has been used in several previous researches related to achievement goal orientations. For example Chan and Lai (2006) used the Elliot's AGQ to examine a structural model outlining the relationship of the three achievement goals, learning strategies and achievement of Hong Kong secondary students. The cross-cultural applicability of this instrument is attested by the fact that it was successfully used in Hong Kong (Chan & Lai, 2006).

The AGQ consists of three subscales; mastery goal (6 items), performance-approach goal (6 items) and performance-avoidance goal (6 items), thus yielding three subscale scores. Items in the mastery goal are designed to gauge the students' wish to thoroughly understand what they learn, to gain a broader and deeper knowledge of it or to completely master it. Items of the performance-approach goal subscale, on the other hand, are designed to gauge the students' wish to outperform their classmates and/or to demonstrate their ability to lecturers, family, friends etc. Items of the performance-avoidance goal subscale are designed to gauge the students' wish to avoid the possibility of performing poorly and being considered as not smart.

In all, the AGQ consists of 18 items rated on a 4-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree). Illustrative example of items include "It is important for me to understand the content of this course as thoroughly as possible" (*mastery goal*), "It is important to me to do better than the other students" (*performance-approach goal*) and "I just want to avoid doing poorly in this class" (*performance-avoidance goal*).

Based on a study of a sample of 204 undergraduates enrolled in a psychology course at the University of Rochester, the reliability alphas for the measures of mastery, performance-approach and performance-avoidance goals were .89, .91 and .77 respectively (Chan & Lai, 2006).

4.2.2. Intrinsic Motivation Inventory (IMI)

The Intrinsic Motivation Inventory (IMI) is a multidimensional measurement device which has been used in several lab studies on intrinsic motivation (Ryan, 1982; Ryan, Mims & Koestner, 1983; Plant & Ryan, 1985; Ryan, Connell & Plant, 1990; Ryan, Koester & Deci, 1991; Deci, Eghrari, Patrick & Leone, 1994; as cited in Self-Determination Theory: Questionnaires, 2007).

The 22-item version of this measure has four subscales: interest/enjoyment (7 items), perceived competence (5 items), perceived choice (5 items), and pressure/tension (5 items). The items are rated on a 7-point Likert scale ranging from 1 (not at all true) to 7(very true). All Items were found to be factor analytically coherent and stable across a variety of tasks, conditions, and settings. Typically, loadings substantially exceed the inclusion criteria of at least 0.6 factor loading on the appropriate subscale and no cross loadings above 0.4. Although the overall questionnaire is called the Intrinsic Motivation Inventory (IMI), it is only the interest/enjoyment subscale that actually assesses intrinsic motivation (Self-Determination Theory: Questionnaires, 2007). An illustrative example of its items is, "While I was working on the task I was thinking about how much I enjoyed it".

Only the interest/enjoyment of the 22-item IMI version is used in the present study's measuring instrument. The items of the interest/enjoyment subscale are designed to gauge the level of interest and enjoyment in an activity. Based on a sample of 49 undergraduates of IIUM, the reliability alpha of interest/enjoyment was found to be .85. A factor analysis showed that all items of the interest/enjoyment subscale, loaded highly on two components. Their loadings ranged from 0.5 to 0.8.

4.2.3. Islamization Subscale

The Islamization goal subscale (6 items) is designed to gauge the participants' wish to know the Islamic sources (Qur'anic verses, prophetic traditions and Islamic views) that relate to the topics he or she is studying, to develop the ability to critically assess from an Islamic perspective, the modern concepts/theories and methodologies he or she is learning, as well as to learn and apply Islamic ethics in his or her student and professional life. An illustrative example of the items is, "I often inquire from my lecturers if there are any Islamic sources (Qur'an, Hadith or Islamic views) that relate to the topics discussed in class". The items are rated on a 4-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree). This subscale was tailored by the researcher and reviewed by four experts.

Initially, the subscale consisted of twelve items. They were designed to measure three components namely, Acquisition of Islamic Knowledge, Assessment of Modern Knowledge and Application of Islamic Ethics. A pilot study was then conducted using a sample of 34 IIUM undergraduates to test its validity and reliability. The components, items and factor loadings of the Islamization goal subscale are illustrated in Table 2.

Table 2: Components, Items and Factor Loadings of the Islamization Goal Subscale

Components	Items	Factor Loadings
Acquisition Islamic Knowledge	2. Often inquire if there are Islamic sources that relate to topics discussed.	.87
	3. Usually search for Islamic sources that relate to topics discussed.	.76
Assessment Modern Knowledge	6. Often ask self if modern concepts and methodologies are in line with Islamic teachings.	0.7
	7. Usually try to critically assess from Islamic perspective concepts and methodologies.	.78
Application Islamic Ethics	11. Goal is to learn and apply Islamic ethics in student and professional life.	0.9
	12. Important to apply Islamic ethics in day to day and professional life.	0.9

The factor analysis showed that items 2 and 3 loaded on the Acquisition of Islamic Knowledge component. Their loadings were .87 and .76 respectively. Items 1, 4, 6, 7 and 8 loaded on the Assessment of Modern Knowledge component with loadings that ranged from 0.6 to .78. Items 11 and 12 loaded on the Application of Islamic Ethics component. Both items had a 0.9 loading. Items 5, 9 and 10 did not load on any of the three components. For the purpose of the present research only items 2, 3, 6, 7, 11 and 12 were selected. Out of the five items loading on the Assessment of Modern Knowledge component, items 6 and 7 were particularly chosen as they had the highest loadings of 0.7 and .78 respectively. After dropping items 1, 4, 5, 8, 9 and 10 from the subscale, its reliability alpha increased from .46 to an acceptable .68.

4.3 THE RESEARCH INSTRUMENT

In the present study's measuring instrument, the Elliot's AGQ questionnaire was used to measure the participants' mastery, performance-approach and performance-avoidance goals (predictor variables), the self-tailored Islamization subscale was used to measure their Islamization goal (predictor variable) and the interest/enjoyment subscale was used to measure their intrinsic motivation for academic learning (outcome variable). Items in the interest/enjoyment subscale were adapted to suit the study. For example the interest/enjoyment item "While I was working on the task I was thinking about how much I enjoyed it" was adapted as "While I am attending lectures and reading materials related to my courses, I think about how much I am enjoying it". Items on the subscale were rated on a 4-point Likert scale ranging from 1 (Strongly Disagree) to 4 (Strongly Agree), instead of a 7-point Likert scale. After collecting data from the research sample, reliability tests of the 31 item research instrument was run again. The reliability alpha of the intrinsic motivation (IM) subscale was .71. The Cronbach's alphas of the mastery goal (MG), performance-approach goal (PAPP), performance-avoidance goal (PAV) and Islamization goal (IG) subscales were .74, .83,.74 and .81 respectively. Hence the reliability alphas of the subscales measuring the outcome and predictor variables were all acceptable (Sekaran, 2003). The alphas of the five subscales are presented in Table 3.

Table 3: The Cronbach Alphas of the Instrument's Subscales

Subscales	Number of Items	Cronbach Alphas
MG	6	.74
PAPP	6	.83
PAV	6	.74
IG	6	.81
IM	7	.71

MG = Mastery Goal
PAPP = Performance Approach Goal
PAV = Performance Avoidance Goal
IG = Islamization Goal
IM = Intrinsic Motivation for Academic Learning

4.4 PROCEDURE

The self-report questionnaire was group administered to the sample on voluntary basis. Consent was sought from the course lecturers before the students participated in the study. The questionnaire was distributed to the students for completion in class. 141 questionnaires were completed and returned to the researcher. In completing the questionnaire, students were required to mention their gender, age, nationality and year of study for demographic information. The frequency results of the demographic data were generated using SPSS.

4.5 RESEARCH DESIGN AND DATA ANALYSIS

In the present research a cross-sectional study was conducted and a ex post facto correlational design was employed. A multiple regression analysis was run, using the SPSS computer software package to examine the relations between the predictor variables (mastery, performance-approach, performance-avoidance and Islamization goals) and the outcome variable (intrinsic motivation for academic learning). Hence, the outcome variable was regressed on the predictor variables to establish there effect.

5.0. RESULTS

5.1 INTERCORRELATIONS AMONG THE VARIABLES IN THE STUDY

Before conducting the linear regression analysis, a bivariate correlation matrix for all variables was constructed. The Pearson's product moment correlation (r) was considered the appropriate tool to investigate the strength and the direction of the relationships among the main variables. The correlation coefficient ranges from -1 to 1 and a correlation of 1 means that the two variables are perfectly correlated. Table 4 below presents the Pearson correlations among the variables under study.

Table 4: Intercorrelation among Mastery Goal (MG), Performance-Approach Goal (PAPP), Performance-Avoidance Goal (PAV), Islamization Goal (IG) and Intrinsic Motivation (IM)

Variables	MG	PAPP	PAV	IG	IM
MG	1				
PAPP	.389**	1			
PAV	.327**	.566**	1		
IG	.496**	.216*	.185*	1	
IM	.470**	.261**	.184*	.484**	1

** Correlation is significant at the 0.01 level (2-tailed)
*Correlation is significant at the 0.05 level (2-tailed)

As mentioned, the Pearson correlation was used to examine the intercorrelations among mastery goal (MG), performance-approach goal (PAPP), performance-avoidance goal (PAV), Islamization goal (IG) and intrinsic motivation for academic learning (IM). Results showed that seven correlations are significant at the 0.01 level and three correlations are significant at the 0.05 level. All the correlations were significant. The correlations significance at 0.01 level ranged from .261 to .566, the lowest correlation being of performance-approach goal (PAPP) and intrinsic motivation (IM) and the highest of performance-avoidance goal (PAV) and performance-approach goal (PAPP). The other correlations in this category were between performance-avoidance goal (PAV) and mastery goal (MG) (r =.327), performance-approach goal (PAPP) and mastery goal (MG) (r = .389), mastery goal (MG) and intrinsic motivation (IM) (r =.470), Islamization goal (IG) and intrinsic motivation (IM) (r =.484) and Islamization goal (IG) and mastery goal (MG) (r =.496). Correlations significant at 0.05 level were between performance-avoidance goal (PAV) and intrinsic motivation (IM) (r = .184), Islamization goal (IG) and performance-avoidance goal (PAV) (r =.185), and Islamization goal (IG) and performance-approach goal (PAPP) (r =.216).

The high correlation between intrinsic motivation for academic learning and Islamization goal (r =.484) shows that students with Islamization goal are intrinsically highly motivated. Whereas the low intrinsic motivation and performance-avoidance goal (r = .184) correlation shows that students with performance-avoidance goal are intrinsically not highly motivated.

5.2 DESCRIPTIVE STATISTICS OF VARIABLES

Table 5 presents the means and standard deviations of the predictor variables and outcome variable. The predictor variables are mastery goal (MG), performance-approach goal (PAPP), performance-avoidance goal (PAV) and Islamization goal (IG). Results indicate that the mean of mastery goal is 3.299 (Sd =.406), performance-approach goal 3.177 (Sd =.543), performance-avoidance goal 3.294 (Sd =.488) and Islamization goal 2.939 (Sd = .466). The outcome variable is intrinsic motivation (IM) and it has a mean of 2.892 (Sd =.379).

In summary, the result of the descriptive statistics indicates that the mean measurements for most of the predictor variables are in the average category with Likert scale between 2.9 to 3.3. The standard deviations for the measurements are between 0.4 and 0.5.

Table 5: Descriptive Statistics of Variables (N = 141)

Variables	Mean	Std. Deviation
Predictor Variables		
MG	3.299	.406
PAPP	3.177	.543
PAV	3.294	.488
IG	2.939	.466
Outcome Variable		
IM	2.892	.379

5.2 REGRESSION ANALYSIS FOR HYPOTHESES TESTING

A multiple regression analysis was run to examine the relationships between the predictor variables (mastery, performance-approach, performance-avoidance and Islamization goals) and the outcome variable (intrinsic motivation for academic learning). To test hypotheses 1, 2, 3 and 4, the outcome variable was regressed on the predictor variables to examine direct relationships using the equation below.

$$IM = \beta_0 + \beta_1 MG + \beta_2 PAPP + \beta_3 PAV + \beta_4 IG + \varepsilon \quad (1)$$

Where,
IM = Intrinsic Motivation
MG = Mastery Goal
PAPP = Performance-Approach Goal
PAV = Performance-Avoidance Goal
IG = Islamization Goal
$\beta_{0...}\ \beta_4$ = Regression coefficients
ε = Error term

5.2.1 Hypotheses Testing: H1, H2, H3 and H4

The regression analysis examined the direct relation of achievement goals with intrinsic motivation for academic learning to test the following hypotheses:

H1: Mastery goal increases intrinsic motivation for academic learning.
H2: Performance-approach goal increases intrinsic motivation for academic learning.
H3: Performance-avoidance goal decreases intrinsic motivation for academic learning.
H4: There is a relation between Islamization goal and intrinsic motivation for academic learning.

The results of regressing the outcome variable (intrinsic motivation for academic learning) on the four predictor variables (Mastery goal, Performance-approach goal, Performance-avoidance goal and Islamization goal) are presented in Tables 6, 7 and 8.

Table 6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.557	.310	.290	.31972

In table 6, the R (.557) is the correlation of the four predictor variables with the outcome variable, after all the intercorrelations among them are taken into account. The Adjusted R Square (.29), which is the square of the multiple *R* (.557), confirms that 29% of the variance in intrinsic motivation for academic learning has been explained by the four predictor variables.

Table 7: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.257	4	1.564	15.303	.000
	Residual	13.902	136	.102		
	Total	20.159	140			

Predictors: (Constant), MG, PAPP PAV, IG
Outcome Variable: IM

Table 7 shows that the *F* statistic produced (*F* = 15.303) which is significant at the .000 level. The significance of the *F* value (15.303) shows that the model is specified, meaning that the predictor variables chosen in the model can explain the outcome variable.

Table 8: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.093	.260		4.201	.000
	MG	.259	.082	.277	3.164	.002
	PAPP	.065	.063	.093	1.037	.301
	PAV	-.016	.068	-.020	-.231	.817
	IG	.269	.067	.330	4.024	.000

Outcome Variable: IM

Table 8 shows the beta coefficients of the four predictor variables and their significance levels. Among the beta coefficients of the four predictor variables, only those of mastery goal (MG) and Islamization goal (IG) are significant. The .277 beta of mastery goal (MG) is significant at the .002 level whereas the .330 beta of Islamization goal (IG) is significant at the .000 level.

Results show that Islamization goal has the highest significant beta coefficient of .33. This means that for every one percent increase in Islamization goal intrinsic motivation for academic learning increases by 33%. Hence, in this study, Islamization goal is the predictor variable that has the greatest influence on the variance in intrinsic motivation for academic learning. This is an interesting and important finding that supports the researcher's choice of including Islamization goal as a predictor variable in the present study. In addition, the results show that for every one percent increase in mastery goal intrinsic motivation for academic learning significantly increases by 28%. The significant influence of mastery goal on the variance of the outcome variable is consistent with previous studies (Cury et al., 2002; Elliot & Harackiewicz, 1996).

The beta signs of mastery, performance- approach and performance-avoidance goals are consistent with the findings of previous researches (Cury et al., 2002; Elliot & Harackiewicz, 1996). That is, the beta signs of mastery goal and performance-approach goal are positive whereas the beta sign of performance-avoidance goal is negative. The positive beta signs of the former predictor variables indicate that an increase in their value will enhance intrinsic motivation for academic learning and the negative beta sign of the latter predictor variable indicates that an increase in its value will undermine intrinsic motivation for academic learning. Results also show a positive beta sign for the Islamization goal variable meaning that an increase in its value will enhance intrinsic motivation for academic learning. Thus, the hypotheses 1and 4 are substantiated.

6.0. DISCUSSION

The aim of the present research was to examine the direct relations of four achievement goals (mastery, performance-approach, performance-avoidance, and Islamization goal) and intrinsic motivation for academic learning using a sample of IIUM students. As such, intrinsic motivation for academic learning was regressed on achievement goals. Results showed that only 29% of the variance in intrinsic motivation for academic learning has been explained by the four achievement goals under study. The remaining 71% of unexplained variance of intrinsic motivation for academic learning could be due to the non inclusion of variables such as individual autonomy, competence and relatedness, which were included as variables in similar previous studies (Guthrie, John, Wigfield, Allan, VonSecker & Clare, 2000).

An examination of the direct relations indicated that Islamization goal and mastery goal enhanced intrinsic motivation for academic learning relative to performance-approach goal and performance-avoidance goal. Statistical analysis did not provide sufficient evidence to show performance-approach goal as a positive predictor and performance-avoidance goal as a negative predictor of intrinsic motivation for academic learning. This result is not consistent with earlier studies (Cury et al., 2002; Elliot & Harackiewicz, 1996). An important finding of this study was that the newly introduced Islamization goal has obtained the highest positive beta coefficient (.33) which means that among the four goals under study it has the greatest positive influence on the variance in intrinsic motivation for academic learning. Every one percent increase in Islamization goal has increased intrinsic motivation for academic learning by 33% in comparison with mastery goal which has increased it by 28%. This is an important finding that attests the predictive utility of the proposed Islamization goal.

The finding insinuates the maximization of Muslim students' intrinsic motivation for academic learning by fostering Islamization goal. Once their intrinsic motivation for academic learning is enhanced, they will no longer need to be pushed along by their lecturers to engage in scholastic activities. With interest and enjoyment as their motivator, they will take the initiative to engage in learning activities (Dev, 1997; as cited in Brewster & Fager, 2000; also see Lai et al., 2006) and will enthusiastically make their utmost efforts in acquiring, retaining and communicating information. This will ensure an optimal academic performance. In addition, such intrinsically motivated students will continue to educate themselves long after leaving the university (Dev, 1997; Kohn, 1993; Skinner & Belmont, 1991; as cited in Brewster & Fager, 2000).

Although there may be numerous influencing factors in goal setting such as family, relatives, friends and society, studies (Ames, 1992; Guthrie et al., 2000; Roebken, 2007) have indicated that educators play a pivotal role particularly in fostering learning goals. Therefore, the adoption of Islamization goal by Muslim students greatly depends on the extent to which it is being fostered by administrators and educators. Pragmatically, results indicate that there is a need for curricular and instructional practices that would encourage Muslim students to adopt Islamization goal in their achievement pursuits. Hence, in the present research, the results on Islamization goal have significant theoretical and practical implication for administrative, curricular and instructional decision-making and practices in local universities. An emphasis on the adoption of Islamization goal, however, should not underrate the importance of mastery goal, which also was found to have a significant positive influence on intrinsic motivation for academic learning. This is because in the present research the adoption of more than one goal is endorsed, hence supporting the multiple goals perspective. According to the researcher, ideally students should be also encouraged to adopt mastery goal to further boost their motivational level.

6.1 CONCLUSION

In the present study the researcher has conceptualized a new goal namely Islamization goal. This goal has been introduced in the study as a predictor with mastery, performance-approach and performance-avoidance goals. Thus, proposing the MMP-Islamization Goal model. Results showed that these achievement goals explained only 29% of the variance in intrinsic motivation for academic learning, whereas 71% of the variance remained unexplained. An examination of the direct relations between achievement goals and intrinsic motivation for academic learning substantiated the predictive utility of Islamization goal as it was found to enhance intrinsic motivation for academic learning. The other achievement goal which also enhanced intrinsic motivation for academic learning was mastery goal. Islamization goal however, was found to have a greater influence on the variance in intrinsic motivation for academic learning than mastery goal. This finding according to the researcher is the most important contribution of the current study. Intrinsic motivation for academic learning was neither enhanced by performance-approach goal, nor was it undermined by performance-avoidance goal.

6.2 RECOMMENDATIONS

Since only 29% of variance in intrinsic motivation was explained by the four achievement goals, it is suggested that future researchers should include other predictors such as individual autonomy, competence, relatedness (Guthrie et al., 2000) or/and others when studying students' intrinsic motivation. This might help in explaining the 71% of variance which remained unexplained in the present study. To measure Islamization goal, the researcher has developed the Islamization goal subscale. Although the instrument was carefully designed, conceptual and technical shortcomings which normally arise in pioneering works cannot be ruled out. As such, it is suggested that the Islamization goal subscale be reviewed before being used in future studies. There is a need to investigate other internal and external factors that contribute in students' goal-setting. Such factors may include instructional approach in class, academic curriculum, extra curricular activities, peer group, social environment, and family background. Longitudinal studies are recommended to gauge the effectiveness of administrative and academic interventions in goal-setting.

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