# Psychological Reactions among First-Year University Students: A Moderating Effect of Social Support

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## ABSTRACT

University students are influenced continuously by multiple stressors from different aspects of their lives and society. Life and academic stress often generate difficulties and impact on university students' psychological reactions. The present study aimed to examine the moderating effect of social support on the relationship between perceived competence, self-determination, and learning environment on the psychological reactions (intrinsic motivation and stress) among first-year university students. Analyzing a total of 863 responses collected from the respective respondents, the findings indicate that all predictors associate with intrinsic motivation and stress. Besides, the results also reveal that social support is not a moderating variable for the relationship between the independent variables (perceived competence, learning environment, and self-determination) and intrinsic motivation and stress. The implications of the study are further discussed in the paper.

**Keywords:** Psychological Reactions, Perceived Competence, Self-Determination, Learning Environment, Social Support.

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# Reacciones psicológicas entre estudiantes universitarios de primer año: el efecto moderador del apoyo social

**RESUMEN**

Los estudiantes universitarios son influenciados continuamente por múltiples factores de estrés de diferentes formas. La vida y el estrés académico a menudo generan dificultades e impacto en las reacciones psicológicas de los estudiantes universitarios. El presente estudio tuvo como objetivo examinar el efecto moderador del apoyo social en la relación entre la competencia percibida, la autodeterminación y el entorno de aprendizaje en las reacciones psicológicas (motivación intrínseca y estrés) entre los estudiantes universitarios de primer año. Al analizar un total de 863 respuestas recopiladas de los encuestados respectivos, los hallazgos indican que todos los factores predictivos se asocian con la motivación intrínseca y el estrés. Además, los resultados también revelan que el apoyo social no es una variable moderadora de la relación entre las variables independientes (competencia percibida, entorno de aprendizaje y autodeterminación) y la motivación y el estrés intrínsecos. Las implicaciones del estudio se discuten más a fondo en el documento.

**Palabras claves:** Reacciones psicológicas, competencia percibida, autodeterminación, ambiente de aprendizaje, apoyo social.

## 1. INTRODUCTION

Undergraduate students, especially among first-year students, are typically struggling for an autonomous personal life in their first-time separation from family and home as well as preparing for professional careers (Huang, Lv & Wu, 2016).

They are facing severe psychological and psychosocial changes (Chow & Healey, 2008; Wilcox, Winn & Fyvie-Gauld, 2005). Previous research shows that undergraduates tend to experience mental health problems, such as depression and stress (Pintrich & De Groot, 1990).

One of the crucial factors influencing university students' life is intrinsic motivation. People with high intrinsic motivation tend to participate in certain activities voluntarily and enjoy the inherent pleasure driven by participation (Amabile, Hill, Hennessey & Tighe, 1994). Intrinsic motivation is integrally connected to the needs for competence and autonomy (Deci & Ryan, 2002) while involving in arguments with others might hurt relatedness satisfaction (Reeve, 2012). Previous research has found that intrinsic motivation is linked to various positive outcomes.

A study conducted by Ferrer-Caja and Weiss (2000) found that students' self-reported intrinsic motivation predicted teacher-rated effort and persistence in class activities. Intrinsic motivation is not only associated with objective positive behaviors and better performance but also linked to positive subjective perception (Burton, Lydon, D'Alessandro & Koestner, 2006). Psychological distress among first-year university students is high because of the adjustment that they must make in their social, academic, and cultural lives in a new environment, having left all previous supportive persons such as parents, siblings, and school friends (Ekpenyong, Daniel & Aribo, 2013). They are also facing loneliness, anxiety, depression, and disorientation. Previous studies have shown that poor coping strategies and variations in personality types may contribute to additional stress in certain individuals, leading to a negative pattern of behavior, development of psychosomatic symptoms, and decreased academic performance (Busari, 2011; Busari & Eniola, 2007).

According to Carveth, Gesse, and Moss (1996), an increasing body of evidence suggests that university students experience high levels of stress. This is due to intensive academic workloads, the knowledge base required, and the perception of having inadequate time to develop it. Therefore, this study aims to investigate the factors that contribute to psychological reactions among first-year university students.

## 2. LITERATURE REVIEW

### *2.1 Intrinsic Motivation and Stress*

Academic achievement is vital, and the ability to produce students who have excellent academic performance has become a major concern for educators. To keep pace with the challenges of the 21st century, the Malaysian higher education landscape needs a transformation to nurture holistic, entrepreneurial, and balanced graduates (Malaysia Higher Education Blueprint for 2015 – 2025).

However, many first-year university students are experiencing culture shock (Elias, Ping & Abdullah, 2011) and found to be suffering from stress (García-Ros, Pérez-González, Pérez-Blasco & Natividad, 2012) in the transition process from school settings to the university's life. This could impede their academic performance and lead to failure in completing their studies. Nevertheless, one study in an educational setting has shown that generally, students are aware that the reason why they failed specific courses most often resides within them and are under their power and responsibility (Cherif, Movahedzadeh, Adams & Dunning, 2013). Over the years, researchers have worked to identify the factors that influence students' intrinsic motivation, and these include perceived competence as well as self-determination.

### *2.2 Perceived Competence*

Research has defined perceived competence in many ways. Some described it as one's beliefs about his or her ability (Ferrer-Caja & Weiss, 2000) while others such as Friedman (2003) defined self-perceived competence as how a person views his abilities. Besides, Horn (2004) stated that perceived competence is an individual's evaluation of his capability to interact effectively in a specific achievement domain. Generally, the primary focus of an individual in achievement settings is the demonstration of competence.

Perceived competence is seen as a major factor that influences students' motivation, especially in the higher educational institution. According to Ferla, Valcke, and Schuyten (2010), the students' level of self-perceived understanding seems to be a useful measure of self-perceived competence, as this measure also represents the best predictor of students' overall study strategy. Moreover, in another study done by Buch, Säfvenbom, and Boe (2015), it was concluded that if students believe that they are likely to be successful, then they should be more motivated to engage in academic activities as compared to students who believe that they are not likely to be successful. A recent study by Zamalia and Porter (2016) revealed that students' perceived ability is an important indicator in predicting their level of performance or motivation. A high self-perception of competence facilitates productive achievement and work experiences (Zamalia & Porter, 2016). In contrast, a previous study indicates that students with low perceived competence are likely to show avoidance behavior because they tend to be concerned with how adequate their ability is compared with others (Bortoli, Bertollo, Comani & Robazza, 2011).

### *2.3 Social Support*

According to the English lexicon, support means to aid or assistance and social support mean assistance that comes from the sources that can influence our life (Lee, Smith, Perry & Smylie, 1999). It can also be defined as feeling to be appreciated, an experience of cares loved and valued by the persons that are close in our life such as family members, friends, teachers, community or any social groups that related. Social support has also been found to be the aid for someone's psychological aspect in many different situations for examples when in a difficult situation, in need for advice, sharing the happy moments and any emotional situations that need to be shared with (Dzulkifli & Yasin, 2009).

Social support is usually used to measure students' relationship with their achievement in which close relationship can help students perform better. It has been proven that social support becomes a motivational factor in the students' academic performance. The students who have more social support usually will have more confidence, trust, psychological safety which make them more willing to take the risk, admit error, and

ask for help and experience failure during their learning process. The role as parents to take part in their children progress in education, such as monitoring for the homework and support from the warm, and caring teacher-student relationship will develop and enhance the student emotional growth and performance. Conversely, the situation will be different if the students don't have a close relationship with their parents where the study shows that the students will not inherit their parent's knowledge and skills in the learning and development process (Lee, Smith, Perry & Smylie, 1999).

### *2.3 Self Determination*

Self-determination theory (SDT) is a theory of human motivation, and it has been proposed that humans need to fulfill the following three basic psychological needs – autonomy, competence, and relatedness. As a leading human motivational theory, SDT assumes that different motivational regulations exist and each reflects varying levels of self-determination (Deci & Ryan, 2002). As stated by Hasan (2014), SDT can be seen as a powerful motivational theory, especially in an educational setting. SDT suggests that the psychological needs for autonomy, competence, and relatedness are universal needs and when satisfied, will promote positive learning outcomes among students (Hassan & Al-Jubari, 2016). In this theory, human behaviors could be intrinsically or extrinsically motivated. SDT framework outlines that students' competency will influence their intrinsic motivation. Findings showed that students high in intrinsic motivation would engage in learning tasks because of curiosity, a desire for challenge, and a sense of enjoyment associated with their study (Hill, 2013). However, Niemiec and Ryan (2009) argued that if one's need is satisfied, and the other is not, intrinsic motivation does not exist.

Students' perceived competence and self-determination provide useful insights and valuable foundation in improving the quality of learning experience in a Malaysian university. University should be able to provide a positive learning climate and promote a conducive learning environment. Therefore, this crucial issue needs to be managed carefully by educators in ensuring students' academic success at the university level.

### *2.3 Learning Environment*

In describing a learning environment, the practitioner has a different perspective and view. It does not only cover the condition of facilities and accommodation provided by the university, but it goes beyond that. The learning environment can be defined as the concept of the conditions, forces, and external stimuli which challenge individuals (Said, Rogayah & Hafizah, 2009). It can also be described as the situation in which teaching and learning activities will influence students' learning outcomes. A study conducted by Bedewy and Gabriel (2015) among medical students, discovered that several causes lead to stress and anxiety among them. For example, feeling nervous during the examination, high expectations from the parents, lack of facilities such as overcrowded classrooms, strikes by faculty, and lack of laboratory equipment are the factors that make students stressful. However, the levels of all these factors differ from one student to another.

## 2. RESEARCH METHODOLOGY

The study adopted a correlational research design in describing the relationship between the studied variables. The sampling frame is based on a list of first-year students in various faculties in UiTM Puncak Alam Campus, Selangor, Malaysia. A total of 900 sets of questionnaire were distributed to the respective respondents within 3 months, starting from April to June 2017. A total of 863 sets of the questionnaire were returned, recording the return rate of 95.8%. The questionnaire was adapted from the established sources, and the items were modified to align with the research questions. The predictors of intrinsic motivation were measured using a questionnaire taken from the Behavioural Regulation in Exercise Questionnaire-2 (Murcia, Gimeno & Camacho, 2007). Intrinsic motivation was measured using the Motivated Strategies for Learning Questionnaire (MSLQ) (Burdorf, Post & Bruggeling, 1996; Meerding, Ijzelenberg, Koopmanschap, Severens & Burdorf, 2005) while the 4-item short version of Perceived Stress Scale (Cohen, Kamarck & Mermelstein, 1983) was adopted to measure the level of stress.

The questionnaire utilized closed-ended questions with a fixed range of possible answers using a 5-point Likert scale with the following values; 1 = strongly disagree, 2 = disagree, 3 = uncertain, 4 = agree, and 5 = strongly agree to measure predictors of intrinsic motivation. On the other hand, a 5-point Likert scale with the following values; 1 = never, 2 = rarely, 3 = sometimes, 4 = fairly often and 5 = very often was used to measure the level of intrinsic motivation among respondents. The items were modified to align with the research questions. The collected data were analyzed using statistical software, i.e., SPSS Version 23. The study used both descriptive statistics (mean and standard deviation) and inferential statistics (a multiple regression analysis).

## 3. FINDINGS

### *4.1 Profile of Respondents*

Describing the participants involved in the study, 216 respondents or 25% are male, and 647 respondents' or 75% are female. Regarding the participants' educational background, 219 respondents or 25.4% of them were first-year students in the Faculty of Business and Management while 160 or 18.6% of them were from the Faculty of Hotel and Tourism Management. Also, a total of 124 respondents or 14.4% were first-year students in the Faculty of Health Sciences, and 120 respondents or 13.9% of them were from the Faculty of Pharmacy and Faculty of Education. The remaining respondents (119 of them or 13.8%) were first-year students in the Faculty of Accountancy. As a summary, 244 (28.3%) were science students, and 619 (71.7%) were social science students participated in this study.

A principal component factor analysis with varimax rotation was used to examine the dimensionality of the independent variables; perceived competence, learning environment, and self-determination, as shown in Table 1. The results of factor analysis indicate the existence of three factors as originally conceptualized. However, some items have to be removed due to high cross-loadings or items loaded under different components. The KMO value of .863 indicates that the correlation matrix is suitable for factor analysis to be conducted. The MSA values are in the range of .825 and .913,

indicating sampling adequacy for each item. Examining each component, the first component explains 18.23% of the total variance. The component has five items reflecting perceived competence. Thus the name is retained. The second component has six items concerning the learning environment. Therefore the name is used. The third component contains five items representing self-determination. Thus, the name is retained for subsequent analysis.

Table 1: Results of Factor Analysis for the Independent Variables

| | | Component | | |
|---|---|---|---|---|
| | | **1** | **2** | **3** |
| PC-It is important for me to do better than the other students. | | .819 | | |
| PC-I am motivated by the thought of outperforming my peers in the class. | | .752 | | |
| PC-My goal in the class is to get a better grade than most of the students. | | .735 | | |
| PC-I want to do well in the class to show my ability to my family, friends, advisors, or others. | | .718 | | |
| PC-I am striving to demonstrate my ability relative to others in the class. | | .683 | | |
| LE-The lecturer encourages equal participation of all students in this class. | | | .745 | |
| LE-The lecturer makes me feel welcome in his/her classroom. | | | .739 | |
| LE-This class provides an environment for the free and open expression of ideas, opinions, and beliefs. | | | .669 | |
| LE-The lecturer recognizes that I have important ideas to contribute. | | | .667 | |
| LE-The physical environment is comfortable and accessible to all students. | | | .663 | |
| LE-Learning about different cultures or perspectives is a very important part of university education. | | | .520 | |
| SD-I know what I need, what I like, and what I enjoy doing. | | | | .721 |
| SD-I tell others what I need, what I like, and what I enjoy doing. | | | | .720 |
| SD-I can describe my learning difficulties to others. | | | | .709 |
| SD-I believe I have control to direct my life. | | | | .643 |
| SD-I ask for help when I need it. | | | | .629 |
| % variance explained (52.204%) | | 18.234 | 17.879 | 16.092 |
| MSA | | | | .825-.913 |
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | | | .863 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | | | 3971.09 |
| | df | | | 120 |
| | Sig. | | | .000 |

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization

Table 2 presents the results of principal component factor analysis with varimax rotation, which show the existence of one component representing social support. The KMO value of .923 indicates the suitability of the correlation matrix to continue with the analysis. The MSA values range from .904 to .937 that denote the sampling adequacy for each item. This uni-dimensional factor explains 37.873% of the total variance. The component contains 13 items that represent social support.

Table 2: Results of Factor Analysis for the Moderating Variable

| | | Component 1 |
|---|---|---|
| SS-I have the opportunity to encourage others to develop their interest and skills. | | .685 |
| SS-There are people who are available if I need help over an extended period of time. | | .683 |
| SS-Among my group of friends, we do favors for each other. | | .646 |
| SS-I have enough contact with the person who makes me feel special. | | .629 |
| SS-Others let me know that they enjoy studying with me. | | .621 |
| SS-I know that others appreciate me as a person. | | .611 |
| SS-When I am upset there is someone I can be with who lets me be myself. | | .602 |
| SS-I have someone to share social events and fun activities with. | | .599 |
| SS-I spend time with others who have the same interest that I do. | | .595 |
| SS-People let me know that I do well at my study (assignment, group project). | | .589 |
| SS-I enjoy doing little “extra” things that make another person’s life more pleasant. | | .584 |
| SS-I am responsible for helping to provide for another person’s needs. | | .572 |
| SS-I belong to a group in which I feel important. | | .571 |
| % variance explained | | 37.873 |
| MSA | | .904-.937 |
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .923 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 2891.768 |
| | df | 78 |
| | Sig. | .000 |

Extraction Method: Principal Component Analysis.

For the dependent variable, a principal component factor analysis with varimax rotation was also performed as illustrated in Table 3. The results indicate the existence of two factors, explaining 43.89% of the total variance. The KMO value of .902 shows the suitability of the correlation matrix for factor analysis to be conducted. The MSA values that range from .834 to .929 denote the sampling adequacy for each item. The first component contains 10 items that represent stress. The second component has 12 items that reflect intrinsic motivation. These two variables are used in the subsequent analyses.

Table 3: Factor Analysis of the Dependent Variables

| | Component | |
|---|---|---|
| | **1** | **2** |
| S-In the last month, how often have you found that you could not cope with all the things that you had to do? | .761 | |
| S-In the last month, how often have you been not able to control irritations in your life? | .744 | |
| S-In the last month, how often have you felt that things were not going your way? | .743 | |
| S-In the last month, how often have you felt difficulties were piling up so high that you could not overcome them? | .735 | |
| S-In the last month, how often have you felt that you were unable to control the important things in your life? | .714 | |
| S-In the last month, how often have you felt not confident about your ability to handle your personal problems? | .708 | |
| S-In the last month, how often have you felt nervous and stressful? | .699 | |
| S-In the last month, how often have you felt that you were not on top of things? | .685 | |
| S-In the last month, how often have you been angered because of things that were outside of your control? | .681 | |
| S-In the last month, how often have you been upset because of something that happened unexpectedly? | .652 | |
| IM-I try to do my best on every assignment. | | .656 |
| IM-I still want to go to class even when my friends don't go. | | .652 |
| IM-No matter how much I like or dislike the class, I still try to learn from it. | | |
| IM-I want to learn everything I need to learn. | | |
| IM-I feel that challenging assignments can be great learning experiences. | | |
| IM-I do all that I can to make my assignments turn out perfectly. | | |
| IM-Sometimes I do more than I have to for an assignment to help me understand the material better. | | |
| IM-I sign up for the classes that will prepare me for the future. | | |

| | | | |
|---|---|---|---|
| IM-Being in college allows me to prove to my family that I can achieve something. | | | |
| IM-I set high goals for me. | | | |
| IM-I have high expectations for myself. | | | |
| IM-My academic interests are not influenced by anyone but myself. | | | |
| % variance explained (43.890%) | | 23.406 | 20.484 |
| MSA | | | .834-.929 |
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | | .902 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | | 6613.016 |
| | df | | 231 |
| | Sig. | | .000 |

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

Table 4 presents the results of reliability analysis that indicate that all items are reliable to measure the intended variables; perceived competence (α=.817), learning environment (α=.774), self-determination (α=.759), social support (α=.862), intrinsic motivation (α=.846) and stress (α=.894). The results of correlation analysis show that all independent variables are significantly correlated with each other, indicating convergent validity. The lowest correlation is between perceived competence and learning environment (r=.257; p<.01), and the highest correlation is between the learning environment and self-determination (r=.394; p<.01). Social support is significantly correlated with the independent variables and also with the dependent variables, showing potential moderating effect. The lowest correlation is between social support and stress (r=.191; p<.01), and the highest correlation is between social support and self-determination (r=.545; p<.01). All independent variables are significantly correlated with the dependent variables, indicating concurrent validity. The lowest correlation is between learning environment and stress (r=.075; p<.05), and the highest correlation is between perceived competence and intrinsic motivation (r=.481; p<.01).

Table 4: Results of Correlation & Reliability Analysis

| No | Variables | Mean | SD | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Perceived competence | 3.78 | .67 | (.817) | | | | | |
| 2 | Learning environment | 3.88 | .54 | .257** | (.774) | | | | |
| 3 | Self-determination | 3.82 | .60 | .377** | .394** | (.759) | | | |
| 4 | Social Support | 3.79 | .50 | .333** | .422** | .545** | (.862) | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 5 | Intrinsic motivation | 3.94 | .49 | .481** | .451** | .474** | .548** | (.846) | |
| 6 | Stress | 3.55 | .68 | .188** | .075* | .134** | .191** | .156** | (.894) |

Notes: **. Correlation is significant at the 0.01 level (1-tailed); *. Correlation is significant at the 0.05 level (1-tailed); Cronbach's alphas in the parentheses along the diagonal; N=863

The multiple regression analysis was performed between the independent variables and the dependent variables, and social support as the moderating variable. In table 5, the first model, the independent variables were entered, in the second model, the moderating variable was entered, and in the third model, the interaction terms were entered. The moderating variable is significant if the F change in the third model is significant.

For intrinsic motivation, in the first model, the $R^2$ value of .393 indicates that 39.3% of the variance in the dependent variable is explained by the three independent variables. The regression model is significant ($F$ (3, 859) = 185.175, p<0.01). Looking at the individual independent variable, all variables are significant to influence intrinsic motivation with perceived competence (β=.318, p<.01) as the most reliable predictor, followed by learning environment (β=.272, p<.01) and self-determination (β=.247, p<.01).

In the second model, the inclusion of social support increases the variance explained to 45.1%, and the F change is significant. The regression model is also significant ($F$(4, 858)=176.067, p<0.01). This finding indicates that social support can be considered as an independent variable in future studies. In the third model, the inclusion of the interaction terms increases the variance explained to 45.5%. However, the F change is not significant. The regression model is significant ($F$(7, 855)=101.596, p<0.01). This finding indicates that social support is not a moderating variable for the relationship between the independent variables (perceived competence, learning environment, and self-determination) and intrinsic motivation.

For stress, in the first model, the $R^2$ value of .040 indicates that the three independent variables explain 4% of the variance in the dependent variable. The regression model is significant ( $F$ (3, 859) = 11.903, p<0.01). Looking at the individual independent variable, only perceived competence (β=.318, p<.01) is significant as a predictor of

stress. The other two variables are not significant; learning environment (β=.006, p>.05) and self-determination (β=.072, p>.05).

In the second model, the inclusion of social support increases the variance explained to 5.4%, and the F change is significant. The regression model is also significant ($F(4, 858)=12.327$, $p<0.01$). This finding indicates that social support can be considered as an independent variable in future studies. In the third model, the inclusion of the interaction terms increases the variance explained to 6%. However, the F change is not significant. The regression model is significant ($F(7, 855)=7.768$, $p<0.01$). This finding indicates that social support is not a moderating variable for the relationship between the independent variables (perceived competence, learning environment, and self-determination) and stress.

Table 5: Results of Moderated Multiple Regression Analysis

| Independent Variables | **Intrinsic Motivation** Standardized Beta Coefficients | | | **Stress** Standardized Beta Coefficients | | |
|---|---|---|---|---|---|---|
| | Model1 | Model2 | Model3 | Model1 | Model2 | Model3 |
| Perceived competence | .318** | .282** | .694** | .159** | .141** | .261 |
| Learning environment | .272** | .203** | -.025 | .006 | -.029 | .370 |
| Self-determination | .247** | .123** | .063 | .072 | .011 | -.357 |
| Moderator Social Support | | .301** | .345 | | .150** | .319 |
| Interaction terms Perceived competence *Social support | | | -.603* | | | -.184 |
| Learning environment *Social support | | | .375 | | | -.672 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Self-determination | | | | | | |
| | | | .106 | | | .614 |
| *Social support | | | | | | |
| R | .627 | .671 | .674 | .200 | .233 | .245 |
| $R^2$ | .393 | .451 | .455 | .040 | .054 | .060 |
| Adjusted $R^2$ | .393 | .058 | .004 | .040 | .014 | .005 |
| F values | 185.175 | 90.719 | 2.094 | 11.903 | 13.095 | 1.652 |
| Sig. F values | .000 | .000 | .100 | .000 | .000 | .176 |
| Durbin Watson | | | 1.747 | | | 1.663 |

** Sig. At the 0.01 level; * Sig. At the 0.05 level.

## 4. DISCUSSION

For students to have high intrinsic motivation, they need high perceived competence, conducive learning environment, and high self-determination. Students can be trained to have high perceived competence by focusing on their self-efficacy, which comprises mastery experience, vicarious experience, social persuasion, and emotional arousal. Mastery experience refers to direct learning experience involved by the students. Therefore, lecturers need to vary their teaching methods and approaches to provide different experiences to the students. Vicarious experiences can be assured when students are exposed to others' experiences. Therefore, working in a group allows students to learn from each other. Social persuasion is where students received encouragement and persuasion from others to continue with success and bounce from failures. Emotional arousal is the emotional state where the students are in. This will affect the motivation and stress levels of the students if they are not well managed.

Providing a favorable learning environment helps students to have high intrinsic motivation. Well-equipped classrooms, resource center, and lecturers' welcoming attitudes are some examples that can ensure the existence of a favorable learning environment. Self-determination reflects the confidence level that the students have. The concept is similar to perceived competence, but they are different in terms of their context. Perceived competence reflects comparative analysis between a person and his surrounding, whereas self-determination reflects confidence based on individual

strength without comparing with others. Both concepts are crucial to boost students' motivation to learn.

The findings of the study also indicate that perceived competence can also contribute to stress. Trying to outperform others may result in a stressful situation. Therefore, lecturers have to play an active role in ensuring that healthy competition exists among the students. They have to believe in their strengths and continuously improve them without doing anything that will negatively affect others. Social support is required to increase the levels of intrinsic motivation and balance out the stress levels experienced by students. Leaning environment and self-determination do not contribute to stress as they are not related to the competitive environment as assumed in perceived competence.

## 5. CONCLUSION

This study has made several significant contributions, namely on the role of social support in maximizing the variance explained in intrinsic motivation (5.8%) and its positive effect on both intrinsic motivation and stress. It is undeniable that social support among peers has the potential to increase the confidence level among students to excel in their studies. The presence of meaningful companionship allows them to bravely face the challenges within the campus environment that might be daunting to any freshmen who have just enrolled in the first year of study. Besides, the availability of students' associations and reference groups within the campus itself may provide a comfortable avenue for students to informally share their complaints or worries. Given that the learning environment is welcoming for the students to adapt to, they may develop their self-determination and competencies as they progress through the second year.

In terms of the positive effect of perceived competency on students' stress levels; there may be a few relevant explanations. One of them is perhaps above-average standards imposed by the students themselves, especially when their goal orientation overshadows their learning orientation. Too much emphasis on internal locus of control may induce a student to be continuously inundated from the fear of failing to meet certain

expectations. The second assumption can be due to psychologically lopsided comparison with their better performing peers, causing them to feel lacking behind a certain standard (inferiority complex). Third, the students' differences and personality may also play some roles in reducing their stress levels. Having low emotional stability or high in neuroticism may reduce their self-regulatory practices, thus resulting in lesser ability in managing anxiety and worry. Prolonged stress can certainly become counterproductive and causes negative spill-over on the benefit that social support brings in terms of intrinsic motivation.

As for the implications of this study, academic professionals and administrators should take note that social support acts as a double-edged sword. At a certain point of view, social support enhances intrinsic motivation, in addition to other factors such as students' competence, learning environment, and self-determination. On the other end, social support may also lead to negative emotional outcome despite the detrimental effect may be very small as compared to the earlier positive effect. Concerning the outcome of this research, researchers should exercise caution in making absolute inferences as the statistical results are exploratory. Further research through qualitative means is recommended to discover the different pattern of circumstances in which social support can either become productive or destructive.

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