

Examining the links between teachers support, academic efficacy, academic resilience, and student engagement in Bahrain



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ABSTRACT

The core drive of the current study was to investigate that how individual psychological capital resources including academic efficacy and academic resilience influence student engagement. Secondly, the study was also intended to test the direct and moderating role of teachers' support on the prior relationships. This study was designed to assess the masters' students in the Kingdom of Bahrain due to the dearth of research in the domain. Hence, we collected students' 350 responses from a total of five private universities in the Kingdom of Bahrain. We employed structural equation modeling for the analysis purpose using SmartPLS software. Drawing upon Conservation of Resource Theory, the findings suggested significant positive impact of academic efficacy and academic resilience on student engagement. Accordingly, the results also landed support for significant positive relationship between teachers support and student engagement. Notably, the bootstrapping procedures also reported significant moderation of teachers' support on the relationship of academic efficacy and academic resilience with student engagement. The presented study attempted to fill a void by examining such relationships due to the reason that previous researchers have largely ignored the role teachers' support towards furthering the capitalization of individual psychological resources for better student engagement. Our study, lastly forwards robust recommendations and suggestions for future researchers.

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1. Introduction

Education sector is becoming increasingly dynamic in the global age. Talking about higher education, [Marginson and Wende \(2007\)](#) have highlighted that universities are striving hard to gain competitive advantage over one another through producing positional graduates for the job market. This means greater responsibility on the shoulders of top institutional authorities to outline how they could help their students to enhance their outcomes and end results to sustain competitively. Notably, studies have underlined the prominent role of individuals working as teachers, supervisors and mentors in the helping people to boost their academic behaviors and outcomes ([Ahmed et al., 2017](#); [Wilks and Spivey, 2010](#)). Accordingly,

individual psychological wellbeing factors like efficacy and resilience in academics have also been reported of considerable prominence ([Patrick et al., 1997](#); [Ryan et al., 1998](#)). However, talking about student engagement in particular, studies have reported remarkable importance and direct influence of teachers' support ([Klem and Connell, 2004](#)). Nevertheless, since studies at the higher education level are more concerned with individual-students' efforts whereby, major learning takes place through individual assignments, quizzes, case studies and project tasks ([Mohanty, 2004](#)). As a result, it seems that the extent of the need and importance of teachers' support may become little less important compared to lower school grades. Keeping this idea forward, the present study attempted to offer some thorough ideas whilst examining individuals undertaking masters' degree programmes to outline as to whether or not, teachers' support is of any significance particularly towards boosting their academic wellbeing towards strengthening their engagement.

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2. Literature review

2.1. Student engagement

In general, engagement is a psychological state of mind and mental connectivity that brings energy, absorption, and dedication (Christenson et al., 2012). Student engagement as defined by Lamborn et al. (1992) is psychological involvement and investment of a student towards learning and acquiring the necessary skills. Engaged people invest their full selves into work roles whereby they don't even realize how times passes by Bakker (2011).

Notably, empirical studies have delineated engagement as a psychological state of mind that helps an individual to work with high energy, vigor, and dedication (Schaufeli et al., 2002). Accordingly, scholarly work has also highlighted that individuals engaged in their job, tasks, roles and/or assignments tend to produce far better results compared to the ones who aren't. Regrettably, there is little known as to what potentially or how students' engagement could be enhanced (Ahmed et al., 2017). Moreover, talking about GCC countries in general and Bahrain in particular, there is a major gap in this regard.

As engagement is concerned with bringing energy, vigor, and dedication; there are evidences, suggesting lack of student engagement in different academic and learning activities. For instance, Pointius and Harper (2006) in their review have indicated towards the lack of graduate and further degree level students' engagement in studies. The authors have also highlighted it as an urgent issue to resolve. Accordingly, Adams et al. (1996) empirically highlighted lack of student engagement in education, learning, and feelings of no responsibility. Importantly, studies in the commercial sector have outlined that psychological resources like self-efficacy and resilience can significantly enhance engagement (Xanthopoulou et al., 2009). However, there exists hardly any empirical evidence, examining about the role of such factors towards explaining engagement of students' particularly in the Middle Eastern region. Accordingly, student engagement can bring multiple benefits such as teach (Carini et al., 2006), achievement and grades (Akey, 2007; Kuh et al., 2008), student motivation (Skinner and Belmont, 1993) whereby, these benefits would help businesses to establish stronger prospects for promising professional careers. Hence these empirical evidences have ascertained that students' engagement in academia can be of robust significance in numerous ways. The results also assert that, academics should ideally focus on looking at prospects through which the student engagement could be harnessed, thus making them to perform with zeal, immersion; absorption and dedication in academics.

2.2. Academic self-efficacy

Bandura (1977) has referred academic self-efficacy as individual's beliefs about their abilities to

produce designated level of academic outcomes. According to Luthans et al. (2004) that self-efficacy can help individuals to boost their potential and abilities for encountering challenges. Notable authors; Zimmerman et al. (1992) have highlighted the importance of academic self-efficacy for academic success. In the views of Schunk and Meece (2012) that students who perceive high efficacious behaviors are able to engage themselves in class lectures and activities. Concerning to education, academic efficacy relates with the individual beliefs that he/she can responsively achieve the desired level of success in an academic task(s) (Schunk and Pajares, 2002). Academic self-efficacy tends to work in multiple prospects for students since it is combination of individual motivation, self-belief, self-understanding, feeling and thinking (Ahmed et al., 2017).

Literature suggests that similar to general self-efficacy, academic efficacy outline the levels of effective coping with challenges and issues in education tasks and activities (Paciello et al., 2016). Therein, multifold of studies are also available, highlighting the significant contributions of academic self-efficacy towards academic outcomes including student engagement, motivation, achievement and academic attainment at the school and secondary grade levels (Linnenbrink and Pintrich, 2003; Schunk, 1991; Zimmerman et al., 1992). Notably, a recent study also termed academic self-efficacy to be significantly important for PhD scholars (Ahmed et al., 2017) yet still; less in known and examined pertaining to how academic efficacy and student outcomes like student engagement would interact amongst the university level enrollments.

H1: There will be a positive relationship between academic self-efficacy and Students Engagement.

2.3. Academic resilience

Resilience is a psychological condition which entails a person's ability to handle stress, complication, and adversity (Hobfoll et al., 2003). Accordingly, academic resilience refers to the ability of student to 'sustain motivation and focus despite of stressful and adverse occurrences in studies' (Alva, 1991). The idea of academic resilience dates back to early 90s when Alva discussed as to how students can handle and manage hardships and adverse situations in their studies to obtain better results. It is an attitude of not giving up on to difficulties and challenges in difficult situations based on the belief that these efforts would ultimately yield success (Dweck, 1999). Students who are found to be academically resilience tend to express higher levels of achievement despite of prevailing risks and difficulties (Alva, 1991). Though, studies have reported significance of academic resilience amongst children at lower grades (Gonzalez and Padilla, 1997; Morales and Trotman, 2005). However, critical appraisal based review report on the topic has

outlined it to be more important for individuals studying at the university levels which can also be parallel to the empirical explanations of a recent study (Ahmed et al., 2017). Accordingly, past studies have also suggested that students encountering risks in studies or facing difficulties need to be more academically resilient to effectively manage difficulties and obtain success (Borman and Overman, 2004; Martin and Marsh, 2008) This in a way also similar to the experiences of students at the higher level university courses and degree programmes whereby, they have to deal with bundles of work tasks, assignments, projects and course reports which becomes really challenging for many students (Vaez and Laflamme, 2008) Likewise, there is a greater deal of decision making, efforts, struggle and initiative taking is required at the university level which thus, requires an individual to be more resilience to attain success (Munro and Pooley, 2009). Therefore, it would be important to underline how students are experiencing academic resilient behaviors across the masters' level and to what extent they are potentially helping them to boost their behaviors and outcomes like student engagement.

H2: There will be a positive relationship between Academic Resilience and Student Engagement

2.4. Teachers' support

The extent of support and facilitation a student perceives from the class teachers (Rumberger et al., 2005). Support and guidance from subject teachers can make an important contribution towards ensure that the students are able to cope with studies, class work, home assignments and other assigned activities. In the education sector, support from teachers, supervisors and mentors has always remained very important (Ahmed et al., 2017) wherein, students generally tend to feel that their teachers are involved with them and care for their academic wellbeing (Anderman et al., 2011; Klem and Connell, 2004).

In specific, support, recognition and facilitation from teachers are reported to predict numerous outcomes like student motivation and academic achievement (Skinner and Belmont, 1993; Zhang et al., 2012). Accordingly, support from teachers has also been found significant in predicting student engagement (Klem and Connell, 2004). In addition, teachers support has also been found significant when it comes to handling emotionally charged situation in the class (Berkowitz and Benbenishty, 2012). Hence, these evidences suggest that supervisor support can play a significant role in enhancing students' behaviors and outcomes for more promising results.

Talking about university level programmes, students from Arab economies have generally been found encountering several academic challenges (Abdulkareem, 2013) as a result, one can assert the importance of teachers' support for better

capitalization of individual capabilities, to work with more immersion, and dedication and energy towards all individual assignments, reports and class tasks thus, express engagement. Notably, this expression is also in line with the general empirical results of the study suggesting that students need teachers' support and facilitation to responsively perform in assigned homework and other related tasks (Katz et al., 2009). In parallel, evidences have also landed support towards the notion of social support prospects in general which includes teachers and peers as of notable prominence towards enhancement engagement prospects (Wang and Eccles, 2012). Hence, in relation to the present study it can be said, that direct support and facilitation from teachers would not only help to enhance individual outcomes like student engagement but may also buffer the relationship of academic efficacy and academic resilience to further strengthen student engagement.

H3: There will be a positive relationship between teachers' support and student engagement

H4: Teachers' support will moderate the relationship between academic efficacy and student engagement

H5: Teachers' support will moderate the relationship between academic resilience and student engagement

3. Methodology

3.1. Population and sampling

Students undertaking Masters' degree programmes across the 5 private universities in the Kingdom of Bahrain were sampled for the present study. One of the principle reasons behind choosing private universities in Bahrain was their wide programme offerings and availability of students from Bahrain and other regional countries. Accordingly, this approach also seemed helpful in obtaining a diverse sample for the study.

Survey methodology was deployed to collect the quantitative data for the present study via self-administered survey. Based on the details received from the registration office of each university, there were 2385 students full-time enrolled in across the different master's programmes. Following the Krejcie and Morgan (1970) table, the minimum required sample for the study turned out to be 331. Therefore, 70 questionnaires in each of the selected university were distributed through using self-administered approach amongst the masters' students, making a total of 350. Therein, 318 questionnaires were collected back whereby, the initial screening resulted in discarding 47 questionnaires due to their incompleteness thus; leaving 268 for the final data analysis and interpretation. This results in the response rate of 76.5% which can be considered good as per the explanations of (Sekaran and Bougie, 2016).

4. Results and analysis

Structural equation modeling using Smart PLS 2.0 M3 was deployed to assess the hypothesized relationship (Ringle et al., 2005). In this, the present study adopted the two-stage approach as recommended by Henseler et al. (2009), which includes assessment of measurement model and assessment of structural model (Hair et al., 2014). Therein, the first stage caters to the assessment of individual item reliability, internal consistency reliability, discriminant and convergent reliability. Following to this, the present study also employed.

4.1. Assessment of measurement model

The study examined the psychometric properties of the conceptualized framework through examining individual item loadings, composite reliability and AVE scores. Pertaining to individual items loadings the some of the prominent authors have suggested that models with measures weighing outer loadings of 0.70 or above are to be considered more reliable and also help in maintaining data quality (Carmines and Zeller, 1979; Leal-Rodríguez et al., 2015; Hair et al., 2016).

Therefore, five items from the Student engagement construct were deleted due to lower loadings. Accordingly, to assess internal consistency reliability, composite reliability scores were examined which according to Bagozzi and Yi (1988) should be above 0.70 to be considered adequate. The present study responsively attained internal consistency reliability through resulting in CR scores between 0.881 and 0.938. For the purpose of convergent validity the AVE scores were assessed which as per the recommendations of Chin (1998) should be no less than 0.50. The AVE scores for each of the latent constructs of the present study ranged between 0.599 and 0.914 thus, confirming sufficient convergent validity. Table 1 provides further information in this regard.

Following to this, the present study also examined the discriminant validity which denotes to the length to which a particular variable in a study is different from the other. Following the criterion forwarded by Chin (1998), the square root of AVE values of each latent construct is compared with the reflective loadings of other constructs in a cross loadings table. Therein, the square roots should be higher than the compared reflective loadings. Table 2 provides further details in this regards where it outlines that the square root values of AVE scores of each of the latent construct resulted between 0.763 and 0.899 thus, suggesting adequate discriminant validity.

Parallel to this, Chin (1998) has also suggested assessing indicator loadings of each of the items of the latent construct in a cross-loading table. Based on this, the current study examined the cross loadings for which Table 3 shows that the indicator loadings have resulted higher than their reflective

loadings hence, confirmed no discriminant validity in the present study.

Table 1: Loadings, Ave and composite reliability

Construct	Items	Loadings	AVE	CR
Academic Efficacy	AE1	0.781	0.599	0.881
	AE2	0.730		
	AE3	0.792		
	AE4	0.806		
	AE5	0.757		
Academic Resilience	AR1	0.767	0.676	0.925
	AR2	0.818		
	AR3	0.862		
	AR4	0.840		
	AR5	0.851		
	AR6	0.788		
Student Engagement	SE1	0.902	0.792	0.938
	SE2	0.908		
	SE3	0.894		
	SE4	0.853		
Teacher Support	TS1	0.778	0.642	0.914
	TS2	0.833		
	TS3	0.850		
	TS4	0.836		
	TS5	0.794		
	TS6	0.794		
	TS7	0.707		

Table 2: Discriminant validity

	1	2	3	4
Academic Efficacy	0.774			
Academic Resilience	0.510	0.822		
Student Engagement	0.640	0.635	0.890	
Teacher Support	0.544	0.775	0.678	0.801

NOTE: Bold face scores represent square root of AVE of every latent construct

Table 3: Cross loadings

	Academic Efficacy	Academic Resilience	Student Engagement	Teachers' Support
AE1	0.7818	0.4118	0.5121	-0.4552
AE2	0.7306	0.3520	0.4701	-0.3596
AE3	0.7920	0.3527	0.4736	-0.4306
AE4	0.8062	0.4288	0.4913	-0.4546
AE5	0.7572	0.4218	0.5245	-0.4032
AR1	0.4310	0.7671	0.5231	-0.5992
AR2	0.4143	0.8187	0.5210	-0.5944
AR3	0.4052	0.8626	0.5233	-0.6337
AR4	0.4446	0.8403	0.5129	-0.6626
AR5	0.4400	0.8518	0.5050	-0.6647
AR6	0.3800	0.7885	0.5418	-0.6647
SE1	0.5707	0.5673	0.9022	-0.5842
SE2	0.5782	0.5597	0.9088	-0.5837
SE3	0.5520	0.5594	0.8944	-0.5951
SE4	0.5756	0.5721	0.8536	-0.6496
TS1	-0.4257	-0.5642	-0.4816	0.7786
TS2	-0.4513	-0.6518	-0.5245	0.8333
TS3	-0.4667	-0.6335	-0.5891	0.8507
TS4	-0.4004	-0.6316	-0.5639	0.8361
TS5	-0.4553	-0.6759	-0.6013	0.7949
TS7	-0.4167	-0.5579	-0.4853	0.7074

4.2. Assessment of the structural model

Upon the successful assessment of the measurement model, the next step caters to the examination of structural model which involves testing the hypothesized relationships. Scholars in the structural equation modeling research have recommended to test the structural in two stages; i- assessing the direct relationships at first and

assessing the moderating effect in the later stage (Hair et al., 2014; 2016).

4.2.1. Assessment of direct relationships

Standard bootstrapping procedures were applied to test the direct relationships at the first place through running 5000 bootstrap samples on 268 cases found a significant positive relationship between academic self-efficacy and students' engagement ($\beta = 0.3603$; $t=8.395$; $p<0.000$) thus, supporting hypothesis 1. Accordingly, the study also found a significant relationship between academic resilience and students' engagement hence, forwarding support for hypothesis 2 ($\beta = 0.1930$; $t=3.198$; $p<0.000$). In parallel, the study also attempted to examine the relationship between teachers' support and students' engagement. The bootstrapping results also concluded a significant impact of teachers' support towards harnessing students' engagement ($\beta = 0.333$; $t=5.387$; $p<0.000$). Conclusively, the study found support for all the

direct hypothesized relationships. Fig. 1 and Table 4 provide further details in this regard.

4.2.2. Assessing the moderating role of teachers' support

From the results of direct relationships, the bootstrapping procedure was again deployed on 268 cases to examine the moderating influence of teachers' support on the relationship of academic self-efficacy and academic resilience with student engagement. the PLS path modeling results in this regard concluded significant moderating effect of teachers' support on the relationship between academic efficacy and student engagement ($\beta = 0.2606$; $t=5.322$; $p<0.00$). Similarly, the study also found significant moderation of teachers' support on the academic resilience and student engagement ($\beta = 0.1982$; $t=2.388$; $p<0.01$). Henceforth, the study found a significant moderating potential of teachers' support towards furthering student engagement. Fig. 2 and Table 4 provide further details in this regard.

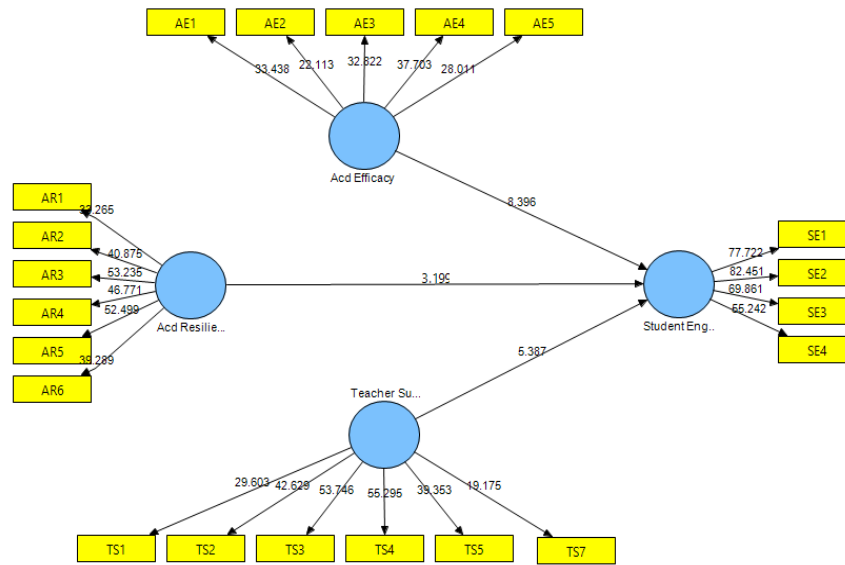


Fig. 1: Structural model- direct effects

Table 4: Summary of hypotheses:

Hypothesis	Beta	Standard Error	t-value	Decision
H1	0.36034	0.04291	8.3959	Supported
H2	0.19308	0.06036	3.1988	Supported
H3	0.33305	0.06181	5.3874	Supported
H4	0.26063	0.04896	5.3225	Supported
H5	0.19829	0.08302	2.3882	Supported

reported that small or low moderating effect does not refer that the underpinned moderating variable is not significant because even the minor interaction effect can turn out to be meaningful in highly critical moderating conditions. Table 5 presents further results in this regard.

4.2.3. Strength of the moderating effect

Furthermore, in order to assess the strength of the moderating effects, the current study deployed Cohen (1992) guidelines. This assessment helps to outline the buffering effect of the moderating variable i.e. service climate in our case, upon the relationship between exogenous and endogenous latent variable.

Moderating effect (f^2) of 0.02 is considered weak, 0.15 as medium and above 0.35 is considered as large effect size. Notably, Chin et al. (2003) has

Table 5: Strength of the moderating effect

Description	R ² Included	R ² Excluded	f- squared	Effect Size
R- Squared	0.723	0.579	0.519	Large

5. Discussion

The present study attempted to examine the relationship academic efficacy and academic support with student engagement. In parallel, the study also attempted to examine the direct and moderating role of teachers' support on the student engagement. The findings of the study have landed support to all the

hypotheses suggesting that students who reported higher levels of academic efficacy and resilience at the masters' level expressed significant levels of engagement. The findings are consistent with the

research that found significant impact of academic efficacy and academic resilience amongst the PhD students' engagement (Ahmed et al., 2017).

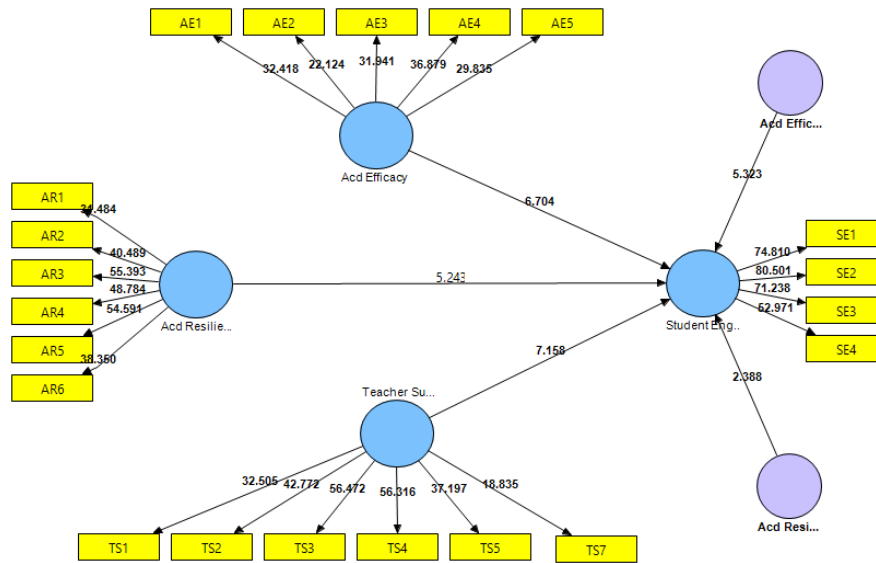


Fig. 2: Structural model- moderating effects

Sincere there is little known about this relationship yet still; the findings also support the empirical explanations of studies highlighting that people with higher self-efficacy are more better in handling academic challenges, coping with academic stress and better performers (McTigue et al., 2009; Zajacova et al., 2005; Zimmerman et al., 1992). The results suggest that personal prospects like self-efficacy can help develop positive beliefs about personal capabilities, skills and abilities which thus enabling them to express more absorption, energy and connectivity with their studies; in other words, predicting engagement. Likewise, the findings of the present study have reported that academically resilient students are better in enhancing their engagement. In a way, the findings suggest that students who express strength to handle academic difficulties, challenges and sustain academic pressures (academic resilience) would be able to predict engagement. Keeping in view the sample of the present study (masters' level students), the study signifies the importance of academic efficacy and academic resilience since at the graduate level, students have to often work on bulks of assignments, projects, reports and classwork with tough deadlines for which it is necessary for them to have belief in their capabilities and competency to handle resistance and obstacles to ensure they give their best towards the studies with passion, dedication and immersion (student engagement).

Moreover, the findings also reported significant positive influence of teachers' support on student engagement which confirms the empirical assertions of Klem and Connell (2004). Interestingly, the findings also reported moderation of teachers' support on the relationship of academic efficacy, academic resilience with student engagement.

Though limited evidence is available yet still, the findings agree to studies highlighting the buffering and enriching potential of supportive behaviors and prospects (Kirmeyer and Dougherty, 1988; Kozan et al., 2014), suggesting that when students at the masters' level experienced positive facilitation and support from their teachers, they tend to enhance their efficacious behavior in academics thus, furthering their academic engagement. The research findings have underlined that similar to other academic grades, teachers' support can also be several other prospects. In parallel, the findings have also educated that teachers' support can also amplify students' academic resilience and academic engagement relationship. Therein, the significant moderation asserts that students' perceiving positive support and appreciation from teachers can showcase more resilient behaviors hence, showcasing furthered student engagement. Though the moderation of teachers' support reduced the significant direct relationship between academic efficacy and students' engagement from 8.396 to 6.704 but boosted the direct statistical link between academic resilience and student engagement from 3.19 to 5.243. This in a way suggests that stronger positive relationship between academic resilience and student engagement was found amongst those masters' students with more positive perceptions regarding teachers' support than others. Henceforth, the findings have indicated towards the promising role of teachers' support towards harnessing students' academic psychological wellbeing.

The findings have educated that universities and higher level educational institutions need to focus on students showcasing positive efficacious and resilient behaviors in academics. Therein, the multiple factors may be taken into consideration to

help enhance these prospects, based on prior literature such as, enriching classroom environment (Dorman, 2001); parental interventions (Fan and Williams, 2010) and so on. Likewise, training interventions can be used to harness teachers' skills and approach towards facilitating students for promising academic outcomes (Gibbs and Coffey, 2004). In consonance, the findings have also highlighted that it is the level of perceived support prospects like from teachers that can merge with psychological factors like efficacy and resilience to boost individual student outcomes (Ryan and Deci, 2003; Katz et al., 2009).

6. Limitations of the study

Following to suggestions from Prior study (Ahmed et al., 2017) which focused no how PhD students' engagement can be enhanced; the present study attempted to see how academic efficacy and academic resilience work with student engagement undertaking *masters'* level courses and to what extent, teachers' support would play its part in energizing these relationships. Hence, the results of the present study encourage for further empirical attention across other diverse student samples for generalizable results. Similarly, the framework itself may also be tested upon students in lower academic grades. Also, since, the research strategy for the present study was cross sectional hence, longitudinal studies may also be considered for further reference and enrichment of understanding on the topic.

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