The Relationship Amongst, Emotional Intelligence, GPA, GMAT and Behaviors

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ABSTRACT

Typically, academic indicators of success for MBA students include GPA and GMAT scores. While the GMAT has been a good predictor of academic success, it has been less successful at predicting success following graduation (Talento-Miller and Rudner, 2008). Emotional Intelligence (EQ) has been shown to effectively predict both test results and grade-point averages, as well as leadership and career success (e.g., Goleman 1994; Goleman, Boyatzis, and McGee 2001). We sought to examine the relationship among these variables, traditional academic measures and EQ, and MBA students' leadership behaviors as measured by the Leadership Practices Inventory (LPI). The results indicated that GPA and GMAT scores had little relationship to effective leaderships behaviors. On the other hand, higher levels of emotional intelligence were associated with the display of more effective leadership behaviors. These results add to the growing body of research that supports the development of EQ for professional success and continues to challenge the traditional way of thinking in regard to GPA and standardized test scores.

Keywords: Academic achievement; Leadership; Social intelligence; Standardized tests

INTRODUCTION

The longstanding school of thought regards the primary indicator of success in academic settings, particularly MBA programs, as standardized test scores such as the GMAT. Over 6,000 programs worldwide require GMAT scores for admission to MBA Programs (GMAT Accepting 2016), and it has been shown to be a good predictor of academic achievement in the MBA (Talento-Miller and Rudner 2008). However. according to Yeaple (2012), the GMAT has been less successful at predicting success following graduation. Yeaple (2012) asserted the cause for this is that the GMAT does not measure other characteristics of successful graduates such as leadership, drive, focus, motivation, and creativity, all characteristics related to aspects of emotional intelligence (Salavey and Mayer 1990). This would suggest that while the GMAT predicts success in MBA programs, it is less successful at predicting managerial effectiveness that follows. The purpose of this paper is to explore the value of the GMAT, GPA, and emotional intelligence for predicting both

academic performance and leadership competence.

Emotional intelligence (EQ) was first proposed by Salovey and Mayer in 1990 and has five dimensions: self-awareness, self-regulation, internal motivation, empathy, and social skills (Goleman 1994). It can be defined by one's ability to recognize their own emotions, as well emotions of others around them (Goleman Boyatzis and McKee 2002). Emotional Intelligence is a particular set of soft skills relating to emotions that can play a dramatic role in success and failure in both academic and business settings.

Students with higher emotional intelligence tend perform better in academic arenas, specifically with regards to their GPA (Wang Wilhite Wyatt Young Bloemker and Wilhite 2012). According to Parker (2002), students who rated higher in certain emotional intelligence areas, such as intrapersonal abilities, interpersonal skills, adaptability, and stress management, were more academically successful during the stressful transition to the university level of education.

EQ also greatly affects how an individual performs in a business

The ability to detect and maturely respond to emotions of oneself and others allows individuals to navigate the complicated social landscape of a workplace with more ease and tact (Abraham 1999). According to Salovey, Bedell, Detweiler, and Mayer (1999), those higher in the ability to perceive, understand, and appraise others' emotions were better able to respond flexibly to changes in their social environments and build supportive networks. Emotionally intelligent managers can effectively discern emotions their employees are experiencing which allows the managers to appropriately interact and guide employees (Goleman et al. 2002). Emotional Intelligence has also been shown to predict career success. According to George (2000), leaders with high emotional intelligence can promote effectiveness at all levels in organizations. This stems from a leader's ability to influence the emotional climate of an organization, which in turn impacts performance (Goleman et al. 2002; Humphrey 2002). Bradberry and Tasler (2011) claim EQ is also important to attaining a higher salary. Their research found, "that people with high EQs make an average of \$29,000 per year more than people with low EQs. On average, every point increase in emotional intelligence adds \$1,300 to an annual salary" (Bradberry and Tasler 2011). This shows that a higher EO can help an individual attain better positions promotions. EQ has also been linked to overall firm performance. Kiel (2015) found that CEOs with high character, a measure of integrity, responsibility, forgiveness and compassion, and all qualities associated with EO, had an average return of 9.35% over a two-year period. Their low character counterparts averaged only 1.9%.

Employers expect academic ability to predict career success, and therefore choose to hire the best students from the top universities in the nation (Goleman 2014). Despite students graduating from top universities in the nation, work performance followed a bell curve with a few above average workers, several below average, and the majority in the middle. Goleman (2014) concluded that the most successful students may not have the highest IQ scores, but the highest EQ scores. It should be noted that GPA is an imperfect measure that can vary greatly from country to

country (Soh 2011). This demonstrates a potential discrepancy when comparing GPAs because students may possess comparable ability but have differing GPAs due to the program or country they are coming from. Another shortcoming of GPA comes from the fact that GPA assigns equal weight to grades and assumes that they are interchangeable across disciplines (Soh 2011). This results in an introductory level English class holding equal weight as an upper level management course.

There have been critics of EQ, particularly Wharton professor Adam Grant, who argues that EQ is "overrated," and cites evidence that cognitive ability is a far better predictor of performance (Grant 2014). There is substantial meta-analytic analysis that shows that IQ is the best predictor of job performance (Schmidt and Hunter 2004). However, EQ has been found to incrementally predict job performance over cognitive ability and personality (O'Boyle Humphrey Pollack Hawver and Story 2011). Studies have also found that EQ better predicts performance in jobs that require high levels of emotional labor (Joseph and Newman 2010). As an example, Offerman, Bailey, Vasilopoulus, Seal, and Sass (2004) found that EO was a better predictor of student team performance and leadership perceptions than cognitive ability, However, cognitive ability was more individual important on performance measures. This indicates that, "Even in contexts that are normally highly cognitive in nature, such as classrooms and colleges, EI may contribute to performance by helping with groups tasks, (O'Boyle et al. 2011 p. 793).

The purpose of this study is to examine the relationship amongst EQ, GPA, GMAT and leadership behaviors in a sample of MBA students. We expect to find EQ scores to have stronger relationships with leadership behaviors than more traditional academic measures such as GPA.

METHODS

Participants

We collected data from students enrolled in a part-time MBA program at a regional university in the Pennsylvania State System of Higher Education. The program has been accredited by AACSB since 2004 and typically graduates an average of 25 students per academic year. The MBA program is 55% male, 45% female, and 3% of students identified a language other than English as their primary language. The sample was drawn from 47 students over a 3-year span. Students were excluded if they did not have measures on any of the variables of interest. The final sample consisted of 21 participants, 12 males and 9 females with an average age of approximately 27. Participants completed the GMAT prior to being admitted into the MBA program and scores were considered in the admissions process.

Table 1. Gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	12	59.1	59.1	59.1
Female	9	40.9	40.9	100.0
Total	21	100.0	100.0	

Measures

Grade Point Average. We used MBA GPA to measure academic performance MBA students. GPA was measured on a 4.0 scale, but the MBA program requires that students maintain a GPA of 3.0 or higher to remain in good standing in the program. Therefore, GPA was restricted to 3.0-4.0 in this study. Undergraduate GPA was also measured on a 4.0 scale, and was slightly less restricted than MBA GPA, as some students reported GPAs below 3.0.

ETS® Graduate Management Admissions Test (GMAT). The GMAT measures verbal (GMAT-V), quantitative (GMAT-Q), integrated reasoning (IR), and analytical writing skills (AWA) using a computer-adaptive test with four timed sections. Verbal consists of sentence correction, reading comprehension, and critical reasoning. Quantitative consists of problem solving and data sufficiency. Analytical writing consists of an analysis of an issue and an analysis of an argument. Integrated reasoning consists of information evaluation. Test results range from 200 to 800, and the scores is calculated based on verbal and quantitative scores. The integrated reasoning and analytical writing assessment

are scored separately on scales of 1-8 and 0-6, respectively. In previous research, GMAT scores have been used as a proxy to cognitive ability as they have been linked to performance in graduate programs (Quigley 2013).

Leadership **Practices** Inventory (LPI). Kouzes and Posner's (2007) model of leadership assesses how frequently a person engages in the following leadership behaviors: 1) Model the Way (setting a personal example for others) 2) Inspire a Shared Vision (describing a compelling vision for the future), 3) Challenge the Process (risk taking and challenging the status quo, 4) Enable Others to Act (building trust and empowering others), and 5) Encourage the Heart (praising and celebrating others). There are 30 behaviorally based questions and respondents or observers are asked to consider how frequently they (or a leader) engage in each of the behaviors using five-point Likert-scales, from (1) rarely or seldom, to (5) indicating very frequently or almost always.

The assessment includes both a selfreport and an observer rating component. The MBA students in the sample completed the LPI self-assessment, and then selected a minimum of 10 observers who had observed their leadership behaviors in a professional or personal capacity. Bias represents a natural threat to the validity of this measure due to individual observers. This bias is accounted for by utilizing a minimum of 10 observers per Observer ratings were completed online and were completely anonymously. We used observer ratings as the measure of leadership performance because we believed that these better represent the actual frequency of behaviors than self-reports.

Emotional Intelligence. Emotional Intelligence was measured with the Emotional and Social Competence Inventory University edition (ESCI-U), a 70-item online self-report assessment that measures social and emotional intelligence. It includes the following dimensions: self-awareness, self-management, social awareness, relationship management, and cognition. Several dimensions included sub-dimensions, including Self Management (Achievement Orientation, Adaptability, Emotional Self Control, Positive outlook), Social Awareness (Empathy and

Organizational Awareness), Relationship Management (Conflict Management, Coaching, Influence, Inspirational Leadership, and Teamwork), and Cognition (Pattern Recognition and Systems Thinking). Each of these sub-dimensions was measured on a Likert scale from 1-5 for consistency of demonstration, (1) representing that the competency is never demonstrated, and (5) that representing competency the consistently demonstrated.

RESULTS

Data Cleaning

variables of All interest were evaluated for outliers and violations of normality. Z score analyses of all subjects on all variables showed that no significant outliers existed. Significant was quantified as any Z score greater than or equal to ± 3.48 (.001 two tailed). Tests for Skewness and Kurtosis revealed that the data in general meet the assumption of normality. Specifically, the same litmus test for significance was used; values of Skewness or Kurtosis greater than or equal to ± 3.48 (.001 two tailed) were considered a violation of the assumption of normality. None of the variables were significantly Skewed or Kurtotic, however,

and based on these findings it was deemed that the assumption of normality was met.

 Table 2. Descriptive statistics

	N	Range	Min.	Max.	Mean	Std. Dev.
Age	21	20.00	22.00	42.00	26.72	6.36
Valid N (listwise)	21					

Data Analyses

We correlated the LPI variables, EQ measures, and academic measures in order to examine the relationships among these variables. For our study, we found no significant correlations between the GMAT and any measure of EQ or the LPI. This suggests the relative lack of correlation between the GMAT and individuals who are effective, emotionally intelligent leaders.

We also found that undergraduate GPA was negatively related to two aspects of the LPI, model the way and enable others to act. This would suggest that while individuals who do well with undergraduate education may succeed at individual tasks, their ability to lead people through action and enable them to further engage in activities on their own may be lacking or have a negative effect on followers. Both traits are critical to being an efficient leader.

Table 3a. Correlations

	Undergra duate	Grad GPA	GMAT Scores	GMAT verbal	GMAT quantitative	GMAT written	IR	EMOTS LFAW	AO	ADAPT	SELFCTRL	POSOTLK	EMP
	GPA	OIA	Scores	verbai	quantitative	WIIIII		LIAW					
Undergraduate GPA													
Graduate GPA	-0.085												
GMAT Scores	-0.170	0.365											
GMAT verbal	-0.256	0.196	.831**										
GMAT quantitative	-0.007	.424*	.822**	0.373									
GMAT written	0.152	0.329	0.003	0.138	-0.081								
IR	-0.245	-0.113	0.171	0.337	-0.018	-0.069							
EMOTSLFAW	-0.197	0.042	0.108	0.308	-0.172	-0.123	0.127						
AO	-0.126	0.244	-0.059	0.061	-0.192	0.197	-0.191	0.347					
ADAPT	-0.081	-0.008	-0.268	-0.056	435°	0.034	-0.224	.524*	.686**				
SELFCTRL	-0.104	0.269	0.018	0.073	-0.068	0.056	-0.175	0.329	.846**	.696**			
POSOTLK	0.016	0.181	-0.022	0.171	-0.226	0.209	-0.156	.497*	.736**	.511*	.540°		
EMP	-0.121	0.092	0.098	0.188	-0.070	-0.032	-0.106	.536*	.449*	.556**	.657**	0.305	

Note: IR=Integrated Reasoning; EMOTSLFAW = Emotional Self Awareness; AO = Achievement Orientation; ADAPT = Adaptability; SELFCTRL = Emotional Self-Control; POSOTLK = Positive Outlook; EMP = Empathy

p < .05; **p < .01

	Underg raduate GPA	Grad GPA	GMAT Scores	GMAT verbal	GMAT quantitative	GMAT written	IR	EMOTS LFAW	AO	ADAPT	SELFCT RL	POSOT LK	EMP
ORGAWARE	0.185	-0.055	-0.331	-0.188	-0.386	0.107	-0.140	0.188	.625**	.436*	0.332	.701**	0.132
CONFLTMAN	0.012	0.247	0.182	0.206	0.107	0.009	-0.260	0.385	.616**	.589**	.645**	.640**	0.421
COACH	0.119	.465*	0.204	0.151	0.193	0.083	0.026	0.065	.436*	0.039	.480*	.590**	0.292
INFLU	-0.079	0.305	0.038	0.145	-0.078	0.110	-0.249	0.387	.680**	.674**	.631**	.709**	0.406
INSPIR	-0.131	0.355	0.078	0.190	-0.042	-0.024	-0.075	0.023	.521*	0.202	.458*	.635**	0.078
TEAMWK	-0.284	.604**	0.050	0.027	0.072	0.291	-0.170	0.168	.566**	0.301	.577**	0.431	0.377
SYSTHK	-0.315	0.313	0.184	0.222	0.093	0.269	-0.114	.463*	.564**	.554**	.646**	.477*	.546°
PATTREC	0.001	-0.036	-0.148	0.081	-0.321	0.159	0.052	.612**	.550**	.789**	.573**	.573**	.546°
MODELOTHER	443*	0.075	-0.048	0.135	-0.241	-0.002	-0.054	0.057	0.178	0.016	0.021	0.273	-0.001
INSPIREOTHER	-0.292	0.035	-0.099	0.213	-0.368	0.060	-0.135	0.109	0.227	0.130	0.036	.524*	-0.187
CHALLENGEOTHER	-0.298	-0.027	-0.153	0.118	-0.365	-0.100	-0.060	0.015	0.234	0.142	0.054	0.414	-0.154
ENABLEOTHER	441*	0.093	-0.027	0.224	-0.280	0.069	0.078	0.058	0.136	-0.034	0.001	0.286	0.149
ENCOURAGEOTHER	-0.235	0.088	-0.118	0.144	-0.327	-0.019	0.156	0.054	0.096	-0.140	-0.016	0.418	-0.048

Table 3b. Correlations

Note: ORGAWARE = Organizational Awareness; CONFLTMAN = Conflict Management; COACH = Coach and Mentor; INFLU = Influence; INSPIR = Inspirational Leadership; TEAMWK = Teamwork; SYSTHK = Systems Thinking; PATTREC = Pattern Recognition; MODELOTHER = Model the Way; INSPIREOTHER = Inspire a Shared Vision; CHALLENGEOTHER = Challenge the Process; ENABLEOTHER = Enable Others to Act; ENCOURAGEOTHER = Encourage the Heart *p < .05; **p < .01

There are a few positive relationships between GPA, GMAT, and EQ. Interestingly, these three measures are largely unrelated to each other in any meaningful way. The only positive relationships are found between Graduate GPA and two dimensions of EO: Teamwork and Coaching. This can potentially be explained through the emphasis this particular **MBA** program places on development of these skills. Another interesting finding pertains **GMAT** Quantitative, as it was negatively related to adaptability.

There were several positive relationships between the dimensions of EQ and the LPI assessment. Specifically, Positive Outlook and Inspirational Leadership were related to inspire a shared vision. Additionally, Inspirational Leadership was related to Challenge the Process, and lastly, Coaching and Mentoring and inspirational leadership were associated with Encourage the Heart.

DISCUSSION

The purpose behind conducting this study was to examine the relationship between traditional academic measures of success, emotional intelligence, and leadership behaviors. While standardized test scores and the GMAT have been able to predict performance in MBA programs, their

predictive powers seem to end there (Talento-Miller and Rudner 2008; Yeaple 2012). Both GGPA and GMAT scores were unrelated to leadership behaviors as rated by others. UGPA was actually negatively related to 2 of the 5 behaviors. On the other hand, higher levels of emotional intelligence were associated with the display of more effective leadership behaviors.

The finding regarding the negative correlation between GMAT Quantitative and adaptability suggests that students who score higher on the quantitative section of the GMAT may possess lower levels of emotional intelligence in adaptability. Lacking in this dimension of emotional intelligence is disadvantageous in a constantly and quickly changing business landscape.

Another interesting finding was the relationship between graduate GPA and the LPI, as students with high GPAs were rated as engaging in teamwork and coaching and inspiring more often than those with lower GPAs. This would suggest that higher GPAs are associated with higher LPI scores in these areas. Surprisingly, we found undergraduate GPA was negatively related to 2 aspects of the LPI, model the way and enable others to act, which does offer the potential for further investigation into the value of using UGPA as a measure of leadership potential.

Table 3c. Correlations

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	ORGAW ARE	CONFL TMAN	COAC H	INFLU	INSPIR	TEAM WK	SYSTHK	PATT REC	MODEL OTHER	INSPIRE OTHER	CHALLE NGEOTH ER	ENABLE OTHER	ENCOURAGE OTHER
ORGAWARE								•					
CONFLTMA N	.474*												
COACH	.459*	.482*											
INFLU	.573**	.840**	0.403										
INSPIR	.532*	.628**	.742**	.645**									
TEAMWK	0.279	.566**	.606**	.479*	.524*								
SYSTHK	0.198	.672**	0.332	.586**	0.309	.693**							
PATTREC	0.403	.744**	0.150	.711**	0.224	0.361	.617**						
MODELOTH ER	0.297	-0.015	0.158	0.088	0.388	0.134	-0.098	-0.147					
INSPIREOTH ER	0.400	0.230	0.223	0.371	.636**	0.156	0.017	0.073	.778**				
CHALLENG EOTHER	0.415	0.280	0.220	0.295	.648**	0.149	-0.049	0.091	.798**	.878**			
ENABLEOT HER	0.209	-0.055	0.237	0.135	0.418	0.146	-0.126	-0.084	.883**	.712**	.719**		
ENCOURAG EOTHER	0.291	0.015	.449*	0.114	.608**	0.120	-0.113	-0.086	.732**	.782**	.743**	.808**	

Note: ORGAWARE = Organizational Awareness; CONFLTMAN = Conflict Management; COACH = Coach and Mentor; INFLU = Influence; INSPIR = Inspirational Leadership; TEAMWK = Teamwork; SYSTHK = Systems Thinking; PATTREC = Pattern Recognition; MODELOTHER = Model the Way; INSPIREOTHER = Inspire a Shared Vision; CHALLENGEOTHER = Challenge the Process; ENABLEOTHER = Enable Others to Act; ENCOURAGEOTHER = Encourage the Heart *p < .05; **p < .01

We found the most number of significant positive correlations between EQ and the LPI. This data does indicate that a relationship exists between aspects of emotional intelligence and the behaviors that underlie leadership competence. That is, those with higher levels of emotional intelligence were reported to engage in more behaviors associated with leadership competence. Coaching and Inspiring, two aspects of relationship management, were strongly correlated with dimensions of leadership behaviors in a majority of the categories of the LPI. This would suggest, not surprisingly, that Inspiration and Coaching play a large role in successfully leading employees.

Leadership can be considered emotionally demanding work. Logically, those individuals with higher levels of EQ tend to be rated higher by others in terms of their display of effective leadership behaviors. This is important because, "leadership matters; it is hugely consequential for the success of organizations and the well-being of employees and citizens" (Hogan and Kaiser 2005, p. 170). This finding emphasizes the importance

of managers being emotionally equipped to deal with the trials and hardships that may face their company or organization during their time as its leader. The results we have found support the importance of EQ for leadership effectiveness. We looked at the correlation between GPA and leadership and found it had little impact on the results. Additionally, we looked at GMAT, essentially a proxy measure of cognitive ability, and its correlation with leadership and found no evidence any significant relationships exist. Conversely, we found several relationships between EQ and the aspects of leadership behaviors. This finding suggests the importance of EQ for the leadership competency of an individual, and as avenue for the development of more effective leadership behaviors.

Grant (2014) asserts that high levels of cognitive ability make it easier for an individual to develop emotional intelligence, since cognitive ability represents the capacity to learn. We did not find this to be the case. With GMAT scores serving as a proxy for cognitive ability, we found EQ to be totally

unrelated to cognitive ability in our sample. One can conclude the significance of emotional intelligence in examining the leadership competence of individuals. Based on the correlational data presented in this study, a much stronger relationship exists between emotional intelligence and leadership measurements than GPA or GMAT scores and leadership measurements.

Limitations and future directions

The current article had several limitations. First, the sample was relatively small, which limits our confidence in the significance of the correlations of interest. In addition, the study used the LPI as an indicator of leadership effectiveness, but we did not have actual work-related outcomes. Lastly, nearly all the participants were from the United States, and there may be cross-cultural differences with regards to the variables measured in the study.

LITERATURE CITED

- Abraham, R. 1999. Emotional intelligence in organizations: a conceptualization. *Genetic, Social, and General Psychology Monographs* 125(2): 209-224.
- Bradberry, T., and Tasler, N. *Increasing Your Salary with Emotional Intelligence*. Retrieved June 24, 2016, from http://www.talentsmart.com/articles/Increasing-Your-Salary-With-Emotional-Intelligence-983916766-p-1.html
- George, J.M. 2000. Emotions and leadership: the role of emotional intelligence. *Human Relations* 53: 1027-1055.
- GMAT Accepting Programs Around the World. Retrieved September 29, 2016, from http://www.mba.com/us/the-gmatexam/about-the-gmat-exam/schools-value-the-gmat/gmat-accepting-programs.aspx
- Goleman, D. 1994. *Emotional Intelligence*. Bantam Dell, New York, N.Y.
- Goleman, D., Boyatzis, R., and McKee, A. 2001. Primal leadership the hidden driver of great performance. *Harvard Business Press*.
- Goleman, D., Boyatzis, R., and McKee, A. 2002. Primal leadership learning to lead

- with emotional intelligence. *Harvard Business Press*.
- Goleman, D. 2014. What Predicts Success?

 It's Not Your IQ. Retrieved September 22,
 2016 from
 https://www.linkedin.com/pulse/20140717
 120528-117825785-what-predictssuccess-it-s-not-your-iq
- Grant, A. 2014. *Emotional Intelligence Is Overrated*. Retrieved June 30, 2017 from https://www.linkedin.com/pulse/20140930 125543-69244073-emotional-intelligence-is-overrated
- Hogan, R., Kaiser, R. B. 2005. What we know about leadership. *Review of General Psychology*. 9(2): 169-180.
- Humphrey, R.H. 2002. The many faces of emotional leadership. *The Leadership Quarterly* 13(5): 493-504.
- Joseph, D. L., Newman, D. A. 2010. Emotional intelligence: An integrative meta-analysis and cascading model. Journal of Applied Psychology 95(1):54-78
- Kiel, F. 2015. Return on Character: The Real Reason Leaders and Their Companies Win. Harvard Business Review Press, Brighton
- Kouzes, J. M., and Posner, B. Z. 2007a. *The five practices*. Retrieved October 30, 2016, from
- http://www.leadershipchallenge.com/WileyC DA/Section/id-131362.html.
- Kouzes, J. M., and Posner, B. Z. 2007b. *The leadership challenge*. Jossey-Bass, San Francisco, C.A.
- O'Boyle, E. H., Humphrey, R. H., Pollack, J. M., Hawver, T. H., Story, P. A. 2011. The relation between emotional intelligence and job performance: A meta-analysis. *Journal of Organizational Behavior* 32(5): 788-818.
- Offerman, L. R., Bailey, J. R., Vasilopoulos, N. L., Seal, C., Sass, M. 2004. The Relative Contribution of Emotional Competence and Cognitive Ability to Individual and Team Performance. *Human Performance* 17(2): 219-243.

- Parker, J. D. A. 2002. Emotional intelligence and academic success: Examining the transition from high school to university. *Personality and Individual Differences* 36(1): 163–172.
- Quigley, N.R. 2013. A longitudinal, multilevel study of leadership efficacy development in MBA Teams. *Academy of Management Learning & Education* 12:579–602.
- Salovey, P., Bedell, B., Detweiler, J.B., and Mayer, J.D. 1999. Coping intelligently: emotional intelligence and the coping process. *In C. R. Snyder (Ed.), Coping: The Psychology of What Works* (pp. 141-164). Oxford University press, New York, N.Y.
- Salovey, P. and Mayer, J. 1990. Emotional intelligence. *Imagination, Cognition, and Personality* 9(3): 185-211.
- Schmidt, F. L., Hunter, J. 2004. General mental ability in the world of work: Occupational attainment and job performance. *Journal of Personality and Social Psychology* 86(1): 162-173.
- Soh, K. C. 2011. Grade point average: what's wrong with it and what's the alternative? *Journal of Higher Education Policy and Management* 33(1): 27-36.
- Talento-Miller, E., and Rudner, L. M. 2008. The validity of Graduate Management Admission Test scores: A summary of studies conducted from 1997 to 2004. Educational and Psychological Measurement 68: 129-138.
- Wang, N., Wilhite, S. C., Wyatt, J., Young, T., Bloemker, G., and Wilhite, E. 2012. Impact of a college freshman social and emotional learning curriculum on student learning outcomes: an exploratory study. *Journal of University Teaching & Learning Practice* 9(2)
- Yeaple, R. 2012. What the GMAT Doesn't Predict. Retrieved October 4, 2016, from http://www.forbes.com/sites/ronaldyeaple/2012/08/06/what-the-gmat-doesnt-predict/2/#5d26727516b9