Path Relationship of Time Management and Academic Achievement of Students in Distance Learning Institutions

Saghir Ahmad [*]
Ayesha Batool [**]
Abid Hussain Ch [***]

Abstract

The primary achievement of distance and regular students is managing time effectively. Mismanagement disturbs the academic achievements of learners. Time administration plays a significant role in improving learners' performance and accomplishments. It is a skill to manage time and every learner must familiar and command on this skill for the sake of better results. A student can only survive if he/she has ability of time utilization properly. The motive of this study was to establish path relationship of time management and academic achievement of students in distance learning institutions through structural equation modeling. The population of the study was consisted of distance learning students of Virtual and Allama Iqbal Open Universities. Four hundred participants belong to different departments were participated conveniently in this study. Self-developed questionnaires regarding time management and academic achievement on five point likert scale were used to collect data from respondents. Validity was ensured by field experts before using scales. Internal consistency was checked among items by applying Cronbach alpha, rho-a, and composite reliability for reliability confirmation of scales. All three techniques verified that instruments are valid and reliable. Data were analyzed by smartly for path analysis. There was strong positive relationship between time management and academic achievement r = .778 of distance learning students. It is concluded that both variables are associated with each other and time utilization skill affects students learning seriously. Students of web-based learning may more focus on proper time managing ability for better academic success.

Keywords: Time management, academic achievement, distance learning, and path analysis.

[*] PhD scholar, Institute of Education and Research, University of the Punjab, Lahore, Pakistan. Email: saghir.edu786@gmail.com
[**] Lecturer (V) Institute of Education and Research, University of the Punjab, Lahore Pakistan. Email: Ayeshabatoolrana@gmail.com
[***] Dean Faculty of Education, Institute of Education and Research, University of the Punjab, Lahore Pakistan. Email: chabidhussainier@yahoo.com

Introduction

In the advanced world, time is viewed as an inconclusively distinct and usable product. It helps the idea of time through the organization. Human resources and its functions controlled by associations can be improved over the span of time or be changed with the passage of time; however, the main resource that cannot be changed, controlled, obtained or put away is time itself. The key to making progress in life is efficiently dealing with this asset that everybody has equally and paying adequate accentuation to planning by properly time management. Despite the fact that successful and proficient utilization of time shifts concerning the assignments played out, the further addition in the knowledge, information and skills anticipated from present day representatives has additionally expanded the need of time design. The way to achievement in public activity goes through powerful and productive working which is just conceivable by managing time appropriately. The modest era energizes individuals from as right on time as their basic education to plan and oversee time successfully. To achieve the set goals and perform better, time management and its utilization according to needs is required (Alay & Kocak, 2003; Macan, Shahani, Dipboye, & Phillips, 2000).

Under developing nations where learners face many academic and administrative problems during scholarly struggle have dramatic stories for the analyst to uncover significantly more intriguing outcomes. Different researchers conducted studies in which they sought out effect of time management on academic achievements of students. In universities either related to regular or distance learning programs, properly schedule should be appropriately arranged, executed and controlled for better outcomes. Focusing time also facilitates to maintain financially efficient instructive arrangements and policies. Considering this reality, specific accentuation has been paid in the competitive academic world to time tackling problems by assessing learners' mentalities and practices identified with time and its administration (Sevari & Kandy, 2011).

The primary achievement of distance and regular students is managing time effectively. Mismanagement disturbs the academic achievements of learners. Therefore, the findings of this study may help out to manage time properly for the better achievements in academics of distance and web based learning. A time executive is significant and it might really influence person's academic and domestic performance and accomplishments. Though, these are connected by how students deal

with or manage their time to suit their daily life or to make it stream consistently with their schedules. Effective time administration is essential for students to gain high scores. Therefore, majority of students do not have good command on time management. They have insufficient time management skills and this thing has adversely influence their social and academic life. The use of time by students in advanced education organizations is identified with their everyday schedules and exercises. Time management does not influence only students' performance or their achievements, it also really affects their mental capabilities and create possibilities to increase stress level among them. They have to manage it for their healthy life and complete assignments and their own accomplishments. In web-based learning environment, students need to be more efficient in time management skills because there is no formal structure and atmosphere for their guidance.

Research Objectives

Following objectives were achieved in this study:
i.   To explore path relationship of time management and academic achievement of students in distance learning institutions.
ii. To explore the latent variable correlations between time management and academic achievement of distance learners.
iii. To check the construct reliability and discriminant validity of time management and academic achievement scales.
iv. To explore the bootstrapping path coefficients and histogram of time management and academic achievement.

Literature Review

Time managing is a massive distinction between formal and web-based education academically and administratively. In formal education, there was the sort of learning opportunities that incorporates a clarification of everything. Because in this system, teacher is front of students and they can ask anything without delay or any hesitation. But distance learning students have no this kind of academic environment as compare to formal learners. Physical distance exists between student and teacher in online learning. Therefore, it is more difficult to manage time and gain high scores in distance education. Web-based students learn and discover online that just incorporates shallow data and the rest is their business to think about and investigate further (Britton & Tesser, 2001). It is a skill to manage time and every learner must familiar and command

on this skill for the sake of better results. A student can only survive if he/she has ability of time utilization properly. There are a lot of students, who have no this skill, they do not know how to manage their time or handle time. Due to this inability or weakness they suffer not just in academic world as well as in domestic life. Thus, mostly learners face issues like errand repugnance and vulnerability, so they begin to stall because they need time administrative abilities. Time controlling is very fundamental to any students and it is one of the keys to compete in the field and get achievements (Kelly, 2004).

The studies uncovered that a group of students has time management ability at moderate level and very few individuals have command on managing time. They are expert in time management due to this they are high academic achievers (Yilmaz, Yoncalik, & Bektas, 2006). The related studies recommended that students need to become expert in time management from early age by developing reading habits independently. Childhood habits play a major role in scholastic performances. Parents should train their kids in time discipline from early years (Lisa & Robert, 2008).

Web based learning is considered as one method for gathering this developing requirement because it makes education manageable to all. Research into web based learning is a developing field, and a few studies have found the variables fundamental the achievement or disappointment of web based learning. These incorporate issues of time management and involvement at a distance. Certainly, the primary causes given by learners when inquired as to why students fail or drop out of an online course were absence of time and delaying. Time management is the main problem in academic achievement successfully. Numerous students need to defeat an inclination to put off finishing projects and assignments. Thus, it is critical to distinguish which students are most in danger of procrastination, just as the procedures whereby this inclination may influence performance (Doherty, 2006; Elvers, Polzella, & Graetz, 2003; Romano, Wallace, Helmick, Carey, & Adkins, 2005; Tuckman, 2003, 2005, 2007; Wilkinson & Sherman, 1990).

Time management is perceived as one of the central point of achievement in customary academic structure where marks are unequivocally affected by time organizing abilities. Definitely, the capacity to manage time effectively is emphatically identified with scholarly achievement, and alternately, a poor timing lead towards failure and achievement level is decreased. Time management abilities are most crucial in internet learning than formal structure which requires self-control so as to commit satisfactory time to course work. Though

web learning gives flexibility to students to participate in and complete academic activities in such a time which suit them. But it demands a bank of inspiration, motivation, regularity, positive mind, and skills through which you can manage your time easily. So, each individual has different personality and nature, due to every single individual has different level of abilities to manage time properly. And this difference affects their web-oriented learning progress and achievement (Balduf, 2009; Britton &Tesser, 1991; Kerr, Rynearson, & Kerr, 2006; Macan, Shahani, Dipboye, & Phillips, 1990; Trueman & Hartley, 1996).

Igdem (2010) explored the correlation of time management and educational achievement at post graduate level. The study was quantitative and survey method used for data collection. The outcomes of the study demonstrated that there was a noteworthy positive connection between time organizing and student's achievements. He inferred that the aggressive and competitive environment in academic life has constrained individuals and they do as such numerous things at the same time by having management skills regarding time.

Another study conducted by Davis (2000) and he analyzed the impact of time management on work and scholastic settings or environment. Adopting survey research approach, outcomes of study recommend a positive correlation between time managing skills, institutional work environment, and enhanced achievement and performance. Various specialists evaluated the need to fuse time in hypothetical models and research structures in associations. With the help of survey, their results showed that time management encourages improvement in exertion and motivation level is also enhanced (Gorge & Jonas, 2000; Wright, 2002).

Theoretical and Conceptual Framework

This study based on existentialism philosophy. This philosophy is learner centered which gives direction to students regarding their study. Learners are self-responsible of their academics because they just seek guidance from teachers but take decisions and manage all activates themselves. This study depends upon pickle jar theory which is the most relevant and modern theory of time management educated in administration course. Wright (2002) gave the idea of jar theory that focuses on time management (Olubor & Osunde, 2007). This theory expresses that human beings need to be create balance among things and activities while adopting time management techniques effectively. Time is around distributed for different activities and tasks fit well where they

are relied upon to fit. People have numerous needs in lives, for example, academics, work burden, and family obligations. The important thing is that how a person manages all responsibilities and tackle problems on time. It is most vital for students to manage time and do all tasks related to studies. Effective utilization of time determines the success of students at each level not just in regular system as well as distance learning institutions. In distance education, students manage all things timely. The following is the figure of conceptual framework of the study.
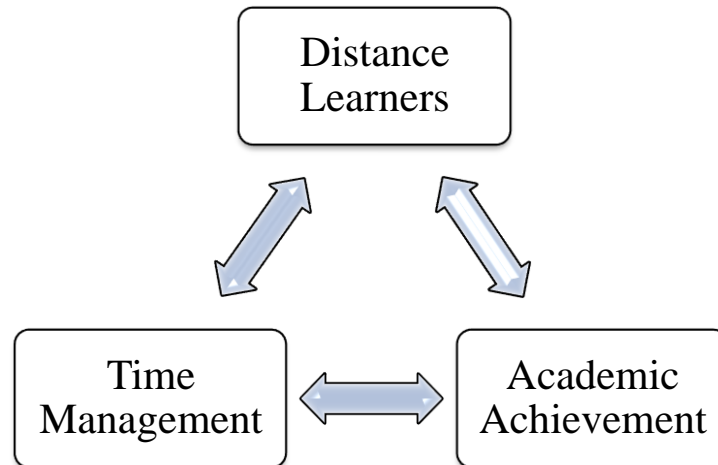

Figure 1. Conceptual framework

Methodology

There are different methods to conduct study and different types of studies. Empirical studies demand clear methodology and this thing enhances its worth and validness. The effectiveness of any study depends upon its methodology, in which researcher describes detail method and procedure.

Research Design

The research approach of this study was quantitative. The research design of the study was correlation. The study was descriptive and survey type in nature.

Population

The population of the study was consisted of students of distance learning universities (Virtual and Allama Iqbal Open University).

Sampling Technique

From population four hundred students selected as a sample of study conveniently. It was difficult to approach randomly students because nature of sample was distance learners. And those learners are not easily accessible and nearby.

Instrumentation

Instrumentation is considered a backbone of any study. Researchers are unable to conduct research without valid instrument. However, researchers realized their energy and time on instrument development. Questionnaires were developed regarding time management and academic achievement of distance learners on five point likert scale to collect relevant information from participants.

Validation and Reliability of Instruments

Tools are vague and unreliable without taking experts opinions on its. Thus, Scales were validated by field experts. And after that reliability was ensured by follow the process of pilot testing. Reliability was ensured to ensure the internal consistency among items by applying Cronbach's Alpha initially.

Data Collection

It was the hard task to collect data from distance learning participants. A big amount of physical and mental energy, time, as well as finance quantity spent on data collection from distance learners. Therefore, researchers drove a great effort to conduct this study especially in data collection procedure and made it successful. Data collection is not last step; to manage it is healthier and tough task.

Data Analysis

Data were analyzed by using Smartpls software for structural equation modeling. Path relationship established of time management and academic achievement of distance learners. Path relationship, latent variable correlation, constructs validity and reliability, *r* square, and bootstrapping were calculated in this study. A detail of data analysis is under follow.
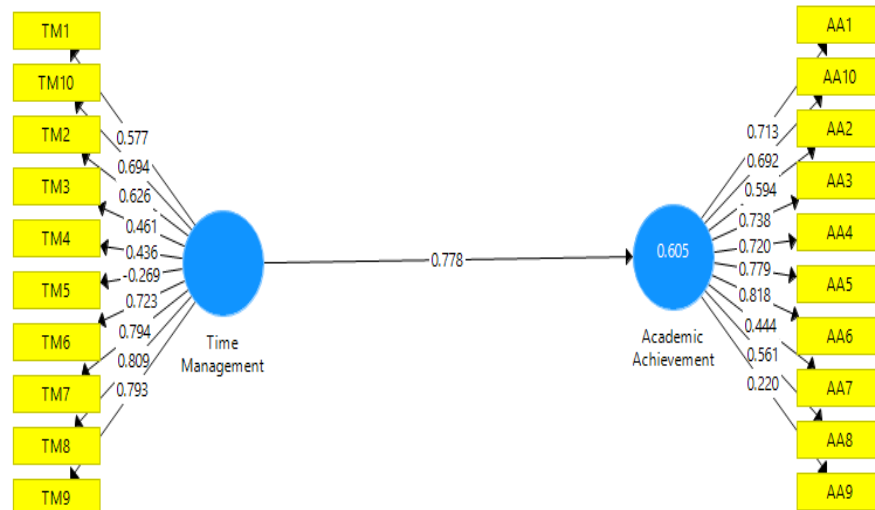
Results and Findings

Figure 1: Path relationship between time management and academic achievement

Above figure shows path relationship between time management and academic achievement of distance learning students. Both variables contained twenty statements. Each construct in blue circles had ten items. Items loading in yellow color displayed in left and right sides of both variables. There were strong significant positive association between time management and education achievement *r* = .0778 of online learning students. This strong correlation confirms that students learning is affected by their time management abilities. They can achieve or gain maximum learning by managing their time skills properly and effectively.
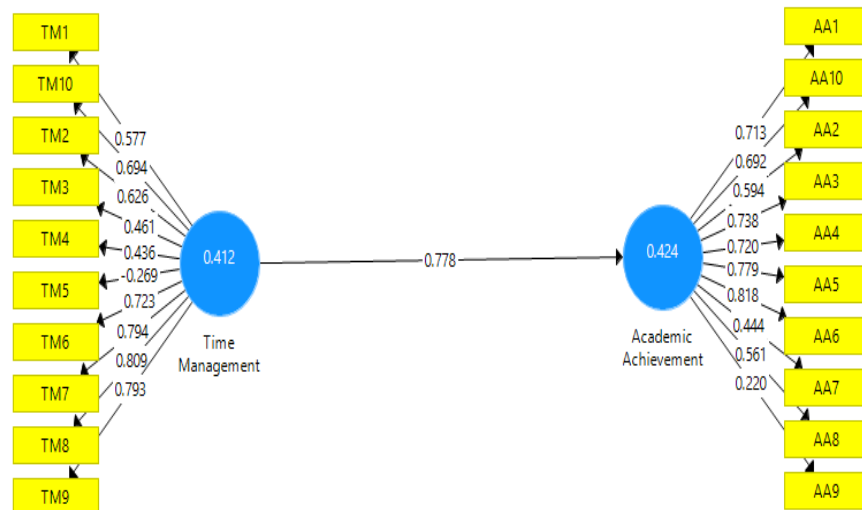
Figure 2: Path average relationship between variables

This figure contains average variance path association between time management and distance learners achievements. Students academics are influenced by time managing skills. Both variables are strongly interrelated positively. If a student manage time effectively then his/her educational achievements are improved successfully. But on the other side of coin, if one thing is not managed then level of accomplishments also decreased.

Latent Variable

	Academic Achievement	Time Management
Academic Achievement	1.000	0.778
Time Management	0.778	1.000

Figure 3: Latent variables

Latent variable indicates correlations in this figure. It is the part and output of structural equation modeling in path analysis. There was positive significant liaison between time managing and academic achievement.

R Square

	R Square	R Square Adjusted
Academic Achievement	0.605	0.601

Figure 4: R square

This diagram shows r square and r square adjusted. The r square value is acceptable at 0.3. Therefore, in this figure r square value of academic achievement $r = .605$, which is bigger than cut point.

Construct Reliability and Validity

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Academic Achievement	0.835	0.872	0.873	0.424
Time Management	0.802	0.877	0.844	0.412

Figure 5: Construct reliability and validity

Questionnaire or scale in only considered accurate and valid when its validity and reliability are confirmed. In path analysis, structural equation modeling measured construct reliability and validity in above figure form. Reliability and validity were calculated by four different tests Cronbach's Alpha, rho_A, Composite reliability, and average variance extracted. Reliability values in green color are showing the strong validness and highly significant consistent and reliable scales of distance students achievements and their time management. But values in red color are problematic. Average variance extracted values are not competing the threshold in this figure. The cut point or acceptable value is on .5. Thus, these AVE vales are below than margin due to which these numbers are in red color.
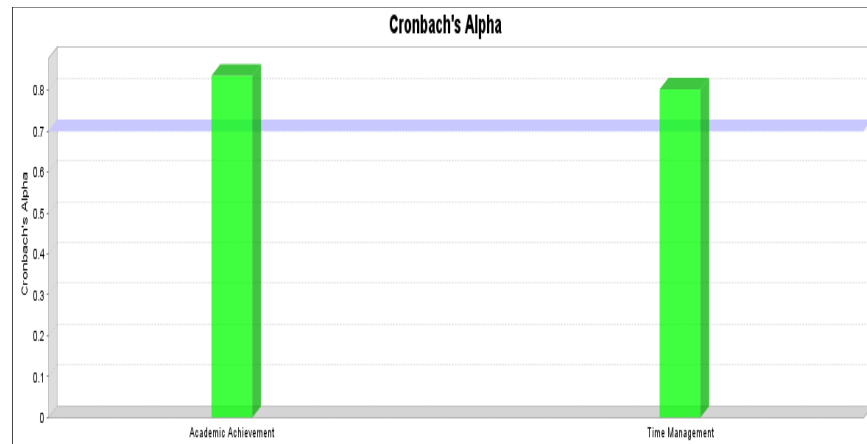
Figure 6: Cronbach's alpha

Above figure is related to Cronbach's alpha that is used to check internal consistency among items of constructs. The acceptable values of items are at 0.7 in this reliability. There are two variables in form of green pillars and both are crossing the blue standard marginal line and touching .8 value. It means instruments are reliable.
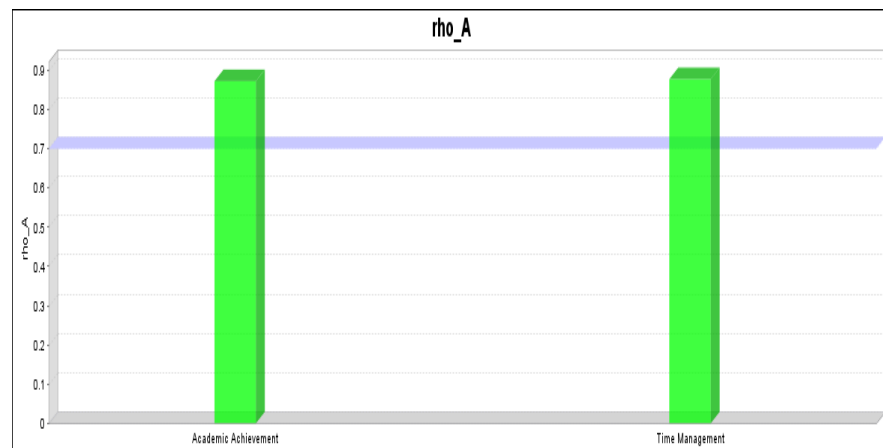

Figure 7: rho_A

Above figure is related to rho_A that is used to check internal consistency among items of constructs. The acceptable values of items are at 0.7 in this reliability. There are two variables in form of green pillars and both are crossing the blue standard marginal line and nearby .9 value. Therefore, both constructs are highly reliable and acceptable.
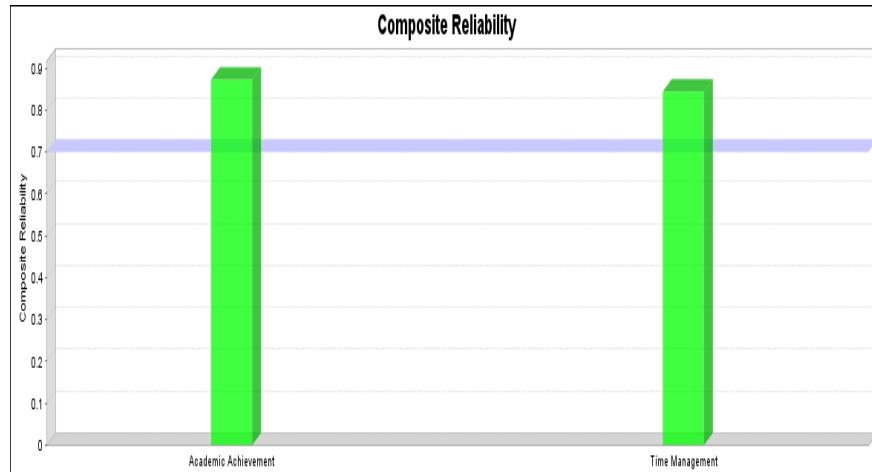
Figure 8: Composite reliability

Above figure is related to Composite reliability which is used to check internal consistency among items of constructs. The acceptable values of items are at 0.7 in this reliability. There are two variables in form of green pillars and both are crossing the blue standard marginal line. It confirms that instruments are reliable.

Discriminant Validity

Fornell-Larcker Criterion	Cross Loadings	Heterotrait-Monotrait Ratio (HTMT)
	Academic Achievement	Time Management
Academic Achievement	0.651	
Time Management	0.778	0.642

Figure 9: Discriminant validity

Discriminant validity ensures the discrimination between variables. Above figure is related to discriminant validity that is used to check validness of constructs. In this each construct has maximum value and less value with other variable. Similarly, learners' achievements value is maximum and it showing minimum with time management. It means instruments are reliable because discrimination is there.

Path Coefficients

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Time Management -> Academic Achievement	0.778	0.788	0.050	15.575	0.000

Figure 10: Path coefficient

Above figure is related to booth strapping path coefficient of time management and academic achievement of distance learners. The p value is .00, it means time affects achievement and this construct is reliable.
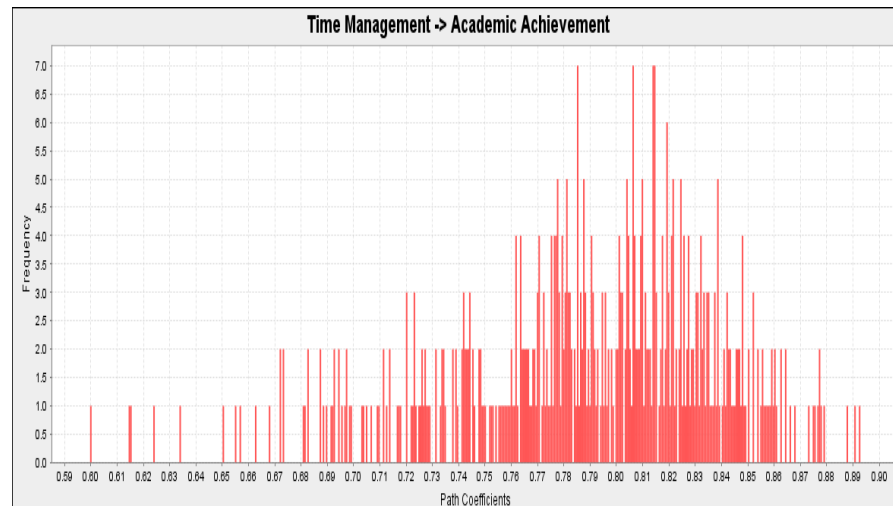

Figure 11: Path coefficient histogram

Above figure is related to path coefficient histogram of time management and academic achievement of distance learners., which shows the range of data where it exists.

Discussion

The study was administered to check path correlation of time management and academic achievement of distance learning students. Time administration is critical, particularly with regards to online learners but it support their achievements and increase their efficiency. It is proved by the research that time management is skill and it affects the

students' achievements. Those learners who are inefficient in time managing they face problems in their study as well as in daily life. These results are also in line with the study of Davis (2000). He analyzed the impact of time management on work and scholastic settings or environment. Adopting survey research approach, outcomes of study recommend a positive correlation between time managing skills, institutional work environment, and enhanced achievement and performance. The findings of the study showed there was strong positive association between time management and academic achievement of distance learners. These results are supporting the past research which was conducted by Igdem (2010). He explored the correlation of time management and educational achievement at post graduate level. The study was also quantitative and survey method used for data collection. The outcomes of the study demonstrated that there was a strong positive connection between time organizing and student's achievements. Therefore, two past studies which were examined in different countries of the world are supporting the findings of present study. It means the results of study are valid and generalizable in local context.

Conclusions

Time managing is a massive distinction between formal and web-based education academically and administratively. In formal education, there was the sort of learning opportunities that incorporates a clarification of everything. Because in this system, teacher is front of students and they can ask anything without delay or any hesitation. But distance learning students have no this kind of academic environment as compare to formal learners. Physical distance exists between student and teacher in online learning. Time management is perceived as one of the central point of achievement in customary academic structure where marks are unequivocally affected by time organizing abilities. Definitely, the capacity to manage time effectively is emphatically identified with scholarly achievement, and alternately, a poor timing lead towards failure and achievement level is decreased. This study was mainly designed to establish path relationship between time management and academic achievement of students in distance learning institutions. The study was correlation and survey type in nature. Self-developed questionnaires regarding time management and academic achievement on five point likert scale were used to collect data from respondents. Validity was ensured by field experts before using scales. Internal consistency was checked among items by applying Cronbach alpha, rho-

a, and composite reliability for reliability confirmation of scales. All three techniques verified that instruments are valid and reliable. Reliability values in green color are showing the strong validness and highly significant consistent and reliable scales of distance students achievements and their time management. There was strong positive relationship between time management and academic achievement of distance learning students. It is concluded that both variables are associated with each other and time utilization skill affects students learning seriously. This strong correlation confirms that students learning are affected by their time management abilities. They can achieve or gain maximum learning by managing their time skills properly and effectively. If a student manage time effectively then his/her educational achievements are improved successfully. But on the other side of coin, if one thing is not managed then level of accomplishments also decreased. Thus, time management is very important for each student especially for distance learners. If they mange time then they can achieve achievements successfully and perform better in academic world. Time is a strong weapon of students. By managing it effectively every student can compete in academic filed easily and efficiently.

Recommendations

This piece of study is related to recommendations based on results of current study. As above detail discussion highlighted that time management is basic need of distance learners for good performance.

i. Time management is vital for academics success of students. Findings show that both constructs are interrelated and achievement of students is affected by time managing skills. Distance learners may manage and utlize their time effectively.

ii. Students should learn time management skills that how to use their time properly.

iii. Students of web-based learning may more focus on proper time managing ability for better academic success.

iv. Administration and leadership of distance learning institutions may provide different techniques of managing time properly.

v. There should be training workshops for students to best utilization of study time.

vi. Parents also need to pay attention on children at homes at guide them how to manage time in academics as well as in domestic issues. This thing may help students to become habitual to manage time appropriately and excellently.

References

Alay, S., & Kocak, S. (2003). Relationship between time management and academic achievement of university students. *Journal of Educational Management in Theory and Practice, 35*, 326-335.

Balduf, M. (2009). Underachievement among college students. *Journal of Advanced Academics, 20*(2), 274–294.

Britton, B. K., & Tesser, A. (2001). Effects of time management practices on college grades. *Journal of Educational Psychology, 83*(3), 405-410.

Davis, M. A. (2000). Time and the nursing home assistant: Relations among time management, perceived control over time, and work-related outcomes. *Academy of Management, Toronto, Canada*, 365-380.

Doherty, W. (2006). An analysis of multiple factors affecting retention in web-based community college courses. *The Internet and Higher Education, 9*(4), 245-255.

Elvers, G. C., Polzella, D. J., & Graetz, K. (2003). Procrastination in online courses: Performance and attitudinal differences. *Teaching of Psychology*, *30*(2), 159-162.

George, J. M., & Jones, G. R. (2000). The role of time in theory and theory building. *Journal of Management*, *26*(4), 657-684.

Igdem, M. (2010). The relationship of time management to academic performance of masters level students. *International Journal of Business and Management* Studies*, 2*(1), 657-684.

Kelly, M. (2004). Get time on your side. *Careers & Universities, 24*(4), 28-32.

Kerr, M. S., Rynearson, K., & Kerr, M. C. (2006). Student characteristics for online learning success. *The Internet and Higher Education, 9*(2), 91-105.

Lisa, M., & Robert, M. S. (2008). I will do it tomorrow. *College Teaching, 57*(5), 21-2154.

Macan, T. H., Shahani, C., Dipboye, R. L., & Phillips, A. P. (2000). College student's time management: Correlations with academic performance and stress. *Journal of Educational Psychology*, *82*(4), 760-768.

Macan, T. M., Shahani, C., Dipboye, R. L., & Phillips, A. P. (1990). College students time management: Correlations with academic performance and stress. *Journal of Educational Psychology, 82*(4), 760–768

Nzewi, H., Chiekezie, O., & Ikon, M. A. (2016). Time management and academic performance of postgraduate students in Nigerian Universities. *Review of Public Administration & Management*, *1*(2), 180-192.

Olubor, R. O., & Osunde, U. A. (2007). Analysis of personal study time and leisure among university undergraduates in Southern Nigeria. *College Student Journal*, *41*(2), 352-365.

Romano, J., Wallace, T. L., Helmick, I. J., Carey, L. M., & Adkins, L. (2005). Study procrastination, achievement, and academic motivation in web-based and blended distance learning. *The Internet and Higher Education*, *8*(4), 299-305.

Sevari, K., & Kandy, M. (2011). Time management skills impact on self-efficacy and academic performance. *Journal of American Science, 7*(12), 720-726.

Trueman, M., & Hartley, J. (1996). A comparison between the time management skills and academic performance of mature and traditional-entry university students. *Higher Education, 32*(2), 199-215.

Tuckman, B. W. (2003). The effect of learning and motivation strategies training on college students' achievement. *Journal of College Student Development, 44*(3), 430-437.

Tuckman, B. W. (2005). Academic procrastinators: Their rationalizations and web-course performance. *Psychological Reports, 96*(3), 1015-1021.

Tuckman, B. W. (2007). The effect of motivational scaffolding on procrastinators distance learning outcomes. *Computers & Education, 49*(2), 414-422.

Wilkinson, T. W., & Sherman, T. M. (1990). Perceptions and actions of distance educators on academic procrastination. *American Journal of Distance Education, 4*(3), 47-56.

Wright, T. A. (2002). Dialogue: The importance of time in organizational research. *Academy of Management Journal, 45*(2), 725-741.

Yilmaz, I., Yoncalik, O., & Bektaş, F. (2006). Relationship between the time management behavior and academic success. *E-Journal of New World Sciences Academy, 5*(3), 187-194.