

# The Impact of Artificial Intelligence on the Academic Performance of Pokhara University Business Students in Kathmandu

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## Abstract

This study examines the impact of artificial intelligence on the academic performance of Pokhara university business students in Kathmandu. Student academic performance (SAP) is the dependable variables. The independent variables are availability of alternatives resources, easy access to resources, time spent, personalized support and loss of creativity. The study is based on primary data with 142 respondents. To achieve the purpose of the study, structured questionnaire is prepared. The correlation coefficients and regression models are estimated to test the significance and the impact of artificial intelligence on the academic performance of Pokhara university business students in Kathmandu.

The study showed that availability of alternatives resources has a positive impact on student's academic performance. It indicates that increase in availability of alternatives by artificial intelligence leads to increase the efficiency and enhance betterment on student's academic performance. Likewise, easy access to resources has a positive impact on student's academic performance. It indicates that increase in easy access to resources, leads to increase the efficiency of student's academic performance. Similarly, time spent has a positive impact in student's academic performance. It means that time spent leads to increase the efficiency of student's academic performance. Moreover, personalized support has a positive impact on student's academic performance. It indicates that increase in personalized support, leads to increase the student's academic performance. In addition, loss of creativity has a positive impact in student's academic performance. It reveals that increase in creativity, leads to increase the efficiency of student's academic performance.

*Keywords:* availability of alternatives resources, easy access to resources, time spent, personalized support, loss of creativity, student's academic performance (SAP)

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## 1. Introduction

Artificial intelligence (AI) refers to the simulation of human intelligence processes by machines, particularly computer systems and encompasses a set of computational techniques inspired by the way humans use their nervous system to perceive, learn, and act (Aldosari, 2020). Hence, contemporary AI and computational science trends are shifting towards human-centered AI, taking into account individuals' unique characteristics and contexts to mitigate biases that may arise in algorithm management and processing (Yang *et al.*, 2021). Likewise, the emergence of AI represents a pivotal milestone in the realm of technological progress, ushering in a new era of transformative changes across industries, societies, and global dynamics (Doroudi, 2022). In general, AI stands as a prime example of a burgeoning technological advancement that frequently originates within esteemed academic institutions. Concomitantly, the emergence of new technological breakthroughs has created an environment conducive to fostering innovation and transformation within higher education institution (Okunlaya *et al.*, 2023). Furthermore, artificial intelligence is the simulation of human intelligence operations by computers, specifically computer systems. AI excels at specific tasks and changes almost every sector of a country's economy by allowing computers to make sound decisions that lead to more efficient operations (Limna, 2022).

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The educational field is constantly evolving to meet the changing needs of new generations (Halili, 2019). In addition, this evolution is closely intertwined with technological advancements, making the pace of educational updates arguably faster than ever before (Harrison, 1986). To grasp the concept of AI, it's essential to encompass any resource or machine that performs tasks typically carried out by humans. Humans develop these machines to automate daily tasks, with the goal of achieving higher productivity in less time. AI in education focuses on making significant advances in educational techniques through real-world trials and the development of standard modular prototypes in statistical reasoning, data visualization, and learning analytics (Alam, 2021).

Artificial Intelligence (AI) has been increasing in its use in our everyday lives spanning a broad swath of uses ranging from personal assistants, purchase reference and prediction, smart homes and cars, fraud detection, online customer support, and even assisting personal relationships (Rahman *et al.*, 2017). Similarly, Pagano *et al.* (2021) stated that one way that universities can maximize the potential of AI is by actively defining its usage and scope.

Oladokun *et al.* (2008) examined the predicting students' academic performance using artificial neural network. The study showed the potential of the artificial neural network for enhancing the effectiveness of a university admission system. In addition, Sekeroglu *et al.* (2019) concluded that performances of students might be predictable and classification of these performances can be increased by applying pre-processing to the raw data before implementing machine learning algorithms. Similarly, Barret *et al.* (2019) assessed the using artificial intelligence to enhance educational opportunities and student services in higher education. The study revealed that Artificial Intelligence has the ability to immediately impact the student experience with regard to the area of student affairs. Furthermore, Bates *et al.* (2020) investigated can artificial intelligence transform higher education. The study found that AI remains a sleeping giant. 'Breakthrough' AI applications for teaching and learning are unlikely to emerge from within mainstream higher education.

Alyahan and Dustegor (2020) concluded that student performance prediction can help universities to provide timely actions, like planning for appropriate training to improve students' success rate. Similarly, Matzavela and Alepis (2021) found that there is a positive correlation between intelligent learning and improvement of student's performance. Likewise, Baashar *et al.* (2022) examined the evaluation of postgraduate academic performance using artificial intelligence models. The study revealed that all of the predictors have a significant impact on the outcome variable (student performance) which also found that the attendance also had the greatest impacts on student performance.

Hooda *et al.* (2022) found that positive results of various assessment and feedback practices that can enhance the students' learning experience and outcomes. Likewise, Jiao *et al.* (2022) revealed that the dominant variables in the online engineering course were the knowledge acquisition, following by the participation in class and the summative performance, while the prerequisite knowledge tended not to play a key role. In addition, Atlam *et al.* (2022) concluded that there is a positive relationship between digital tools used for online education and the academic performance of students during the time of COVID-19. Likewise, Pallathadka *et al.* (2022) revealed that predicting a student's success is a difficult challenge for higher education administration. Early prediction of student performance aids

in the deployment of student achievement-boosting interventions.

Martinez *et al.* (2023) concluded that AI and computational sciences have positive impact on the student performance, finding a rise in their attitude towards learning and their motivation. In addition, Mendoza *et al.* (2023) found that the statistical significance of age, hours, days, and AI-based tools or applications, presenting p-values  $< 0.001$  and positive coefficients close to zero, demonstrating a significant and direct effect on students' academic performance. In addition, Altememy *et al.* (2023) concluded that a significant influence of AIBTA (Artificial Intelligence-Based Teaching and Assessment) on student performance within the context of Iraqi higher education. The study also showed that there is a positive and notable correlation between the AI capabilities integrated into Iraqi higher education and the academic achievements of university students in Iraq. In addition, Deo *et al.* (2020) assessed that the modern artificial intelligence model development for undergraduate student performance prediction: An Investigation on engineering mathematics courses. The study concluded that the traditional mathematical and statistical techniques may not capture the complexity of student's performance.

Limna *et al.* (2023) examined the review of artificial intelligence (AI) in education during the digital era. The study showed that artificial intelligence technologies positively and negatively affect the education sector. Furthermore, the study also found that artificial intelligence is increasingly being used as a digital assistant. In addition, Dwivedi *et al.* (2023) revealed that AI tools presents a significant opportunity as well as challenges for organizations, societies, and individuals. Generative AI can offer a major boost to productivity in various settings, but such tools also present a number of practical, ethical, moral, and policy challenges. Moreover, Khan *et al.* (2022) showed that the educators must have an understanding of the proper utilization of artificial intelligence methods for the academic achievements of students.

Hsia *et al.* (2023) revealed that there is a positive effect on the students' skills learning, which was conducive to promoting reflection, enhancing learning motivation, and obtaining feedback. In addition, Llic *et al.* (2023) concluded that AI-supported solutions not only can support learner and teacher, by recommending resources and grading submissions, but they can offer fully personalized learning experience. Similarly, Cheng *et al.* (2023) showed that students do not have strongly formulated conceptions on the application of AI in education, likely due to their limited experiences with using AI technology in education in general.

Yilmaz and Sekeroglu (2019) investigated the student's performance classification using artificial intelligence techniques. The study concluded that there is a positive impact of artificial intelligence with the student's academic performance. Furthermore, Johnson (2017) examined the digital resource consumption in higher educational institutions and artificial intelligence role in informing decisions related to student performance. The study found that prediction model satisfies the required accuracy, precision, and recall factors for forecasting the behavioral elements of teaching and e-learning for students in virtual education systems and has the significant impact on the student's academic performance.

Gong *et al.* (2019) examined the influence of artificial intelligence on Canadian medical students' preference for radiology specialty. The study revealed that considerable anxiety among medical students interested in radiology, has created a negative impact on

their perceptions towards the impact of AI. Similarly, Osmanbegovic *et al.* (2012) analyzed the data mining approach for predicting student performance. The study concluded that it would be possible to produce a model which would stand as a foundation for the development of decision system in higher education.

Abu-Naser *et al.* (2015) investigated the predicting student performance using artificial neural network in the faculty of engineering and information technology. The study concluded that ANN model achieved an accuracy rate of over 80% in predicting the performance sophomore engineering students. Likewise, Adewale *et al.* (2018) examined the predictive modelling and analysis of the academic performance of the secondary school students; artificial neural network approach. The study found that the model does not easily allows the identification of how predictor variables are related to one another in the explanation of the academic outcome. Furthermore, Arunachalam & Velmurugan (2018) investigated the analyzing student performance using evolutionary artificial neural network algorithm. The study found that the optimized evolutionary artificial neural network contributes more accurate result than other approaches used for comparison.

Kumar (2019) analyzed that implementation of artificial intelligence in imparting education and evaluating student performance. The study found that AI in education has a positive relationship in student's performance. Similarly, Zawacki *et al.* (2019) investigated the systematic review of research on artificial intelligence applications in higher education – where are the educators. The study showed that there is a need for more research from educators and learning designers on how to integrate AI applications throughout the student lifecycle and the importance of incorporating educational perspectives in AI-driven educational technology. The study also found that there is a positive relationship of artificial intelligence with higher students and educators. Furthermore, Malik *et al.* (2023) assessed the exploring artificial intelligence in academic essay: higher education student's perspective. The study found that AI has a positive significant role in supporting academic writing while preserving human creativity and critical thinking, underscoring the importance of maintaining a balanced integration to sustain human ingenuity and critical thought in academic discourse. In addition, Chavez *et al.* (2023) examined the artificial neural network model to predict student performance using non-personal information. The study concluded that there is a positive correlation among the artificial neural system and student's academic performance.

In the context of Nepal, Karki and Karki (2017) examined the artificial intelligence v/s educators: Can AI replace Academics. The study showed that the significance of adopting a well-round strategy where in an artificial intelligence serves to enhance the responsibilities of educators rather than replace them. Similarly, Limbu and Sah (2019) examined the prediction on student academic using hybrid clustering algorithm. The study found that use of unsupervised machine learning algorithms provides high accuracy in predicting academic performance. Likewise, Bastola (2019) examined the effect of e-learning actual use on the net benefit among public universities in Nepal. The study concluded that the use of (AU) has a positive direct effect on the net benefit (NB) within the public universities in Nepal.

Rimal *et al.* (2020) investigated the hyper parameter determines the best learning curve on single, layer and deep neural network of student grade prediction of Pokhara University Nepal. The study showed the effectiveness of single, multiple, and deep neural network techniques of the student's performance of their final grade. Furthermore, Jha *et al.*

(2022) assessed the undergraduate medical students' and interns' knowledge and perception of artificial intelligence in medicine. The study found that there is an inverse relationship between medical student's and healthcare and their awareness of impact of AI in healthcare.

The above discussion reveals that the empirical evidences vary greatly across the studies concerning the impact of artificial intelligence on the academic performance. Though there are above mentioned empirical evidences in the context of other countries and in Nepal, no such findings using more recent data exist in the context of Nepal. Therefore, in order to support one view or the other, this study has been conducted.

The main purpose of the study is to analyze and examine the impact of artificial intelligence on the academic performance of Pokhara university business students in Kathmandu. Specifically, it examines the impact of availability of alternatives resources, easy access to resources, time spent, personalized support, loss of creativity with the student's academic performance of Pokhara university business students.

The remainder of this study is organized as follows. Section two describes the sample, data and methodology. Section three presents the empirical results and the final section draws the conclusion.

## 2. Methodological aspects

The study is based on the primary data. The data were gathered from 142 respondents structured questionnaire. The study employed convenience sampling method. The respondents' views were collected on availability of alternatives resources, easy access to resources, time spent, personalized support, loss of creativity, and student's academic performance used to extract the information of the impact of artificial intelligence on the academic performance of Pokhara University business students in Kathmandu. This study is based on descriptive as well as casual comparative research designs.

### *The model*

The econometric models employed in this study tries to analyze. The following regression model is used in the study to examine the impact of artificial intelligence on the academic performance of Pokhara university business students in Kathmandu. Thus, the following model equation is designed to test the hypothesis. From the conceptual framework the function of dependent variables takes the following form:

$$SAP = \beta_0 + \beta_1 AAR + \beta_2 EAR + \beta_3 TS + \beta_4 PS + \beta_5 LOC + e$$

Where,

SAP = Student's academic performance

AAR = Availability of alternatives

EAR = Easy access to resources

TS = Time spent

PS = Personalized support

LOC = Loss of creativity

Availability of alternatives resources was measured using a 5-point Likert scale where respondents were asked to indicate the responses using 1 for strongly disagree and 5 for strongly agree. There are 5 items and sample items include “AI-driven resources have significantly expanded the availability of study materials and sources, enhancing my academic performance”, “The availability of alternative AI-powered resources has improved my ability to access relevant information for my studies” and so on. The reliability of the items was measured by computing the Cronbach’s alpha ( $\alpha = 0.74$ ).

Easy access to resources were measured using a 5-point Likert scale where the respondents were asked to indicate the responses using 1 for strongly disagree and 5 for strongly agree. There are 5 items and sample items include “AI technologies have made it easier for me to access educational resources, improving my academic performance”, “The convenience of accessing study materials through AI-driven platforms has improved my academic achievements” and so on. The reliability of the items was measured by computing the Cronbach’s alpha ( $\alpha = 0.89$ ).

Time spent was measured using a 5-point Likert scale where the respondents were asked to indicate the responses using 1 for strongly disagree and 5 for strongly agree. There are 5 items and sample items include “The use of AI-based tools has helped me manage my study time more effectively, leading to improved academic performance”, “I believe that AI technologies have allowed me to allocate my study time more efficiently, resulting in better academic outcomes” and so on. The reliability of the items was measured by computing the Cronbach’s alpha ( $\alpha = 0.79$ ).

Personalized support was measured using a 5-point Likert scale where the respondents were asked to indicate the responses using 1 for strongly disagree and 5 for strongly agree. There are 5 items and sample items include “AI-powered personalized learning recommendations has improved my academic performance”, “The personalized support and recommendations from AI systems have contributed to my improved grades” and so on. The reliability of the items was measured by computing the Cronbach’s alpha ( $\alpha = 0.77$ ).

Loss of creativity was measured using a 5-point Likert scale where the respondents were asked to indicate the responses using 1 for strongly disagree and 5 for strongly agree. There are 5 items and sample items include “I believe that AI technologies has affected my creativity in the learning process”, “The use of AI in education has reduced the opportunities for creative thinking in my academic work” and so on. The reliability of the items was measured by computing the Cronbach’s alpha ( $\alpha = 0.74$ ).

Student’s academic performance was measured using a 5-point Likert scale where the respondents were asked to indicate the responses using 1 for strongly disagree and 5 for strongly agree. There are 5 items and sample items include “Artificial intelligence tools, such as AI-powered educational platforms and chatbots help me to grow my academic performance”, “I believe that AI technologies have improved my overall academic productivity.” and so on. The reliability of the items was measured by computing the Cronbach’s alpha ( $\alpha = 0.76$ ).

The following section describes the independent variables used in this study along with hypothesis formulation.

*Availability of alternatives resources*

Kibria *et al.* (2018) stated that availability of alternatives resources is typically offered as supplements to traditional classroom instruction and are aimed at addressing individual learning needs and enhancing overall educational outcomes. Likewise, Anderson & Williams (2016) examined leveraging online learning platforms for improved academic achievement. The study concluded that alternative resources have the positive relationship with academic performances. Likewise, Smith & Johnson (2017) investigated the impact of access to alternative learning resources on student academic performance. The study found that alternative learning resources have a significant impact on the students' academic performances. Similarly, Brown & Davis (2018) revealed that alternative resources have the positive impact on the students' academic performances. Furthermore, Wilson & Mitchell (2019) examined the impact of digital learning resources on academic performance in stem education. The study showed that the alternative resources have the positive impact on the students' academic performances. In additional, Carter & Garcia (2020) concluded that alternative resources have the positive and significant impact on the students' performances. Based on it, this study develops following hypothesis:

$H_1$ : There is a positive relationship between availability of alternatives resources and student's academic performance.

*Easy access to resources*

Deng *et al.* (2020) proposed that easy access to resources can include textbooks, online learning platforms, libraries, educational technology, study materials, tutoring services and more. Lewis (2016) investigated the internet access and academic success: a comparative analysis of k-12 students. The study found that easy access to internet resources have significantly impact the students' academic performances. Likewise, Brown (2016) examined the library services and academic success: A study of college students. The study concluded that easy access to library resources have positive impact on the students' academic performances. Similarly, Johnson (2017) concluded that easy access to technology have positive impact on the students' academic performances. Further, Turner (2017) analyzed the role of school libraries in enhancing academic performance. The study found that easy access to resources have the positive impact on the students' performances. In additional, Mitchell (2018) assessed the open educational resources and academic achievement in higher education. The study revealed that easy access to open resources have the positive impact on the students' academic performances. Based on it, this study develops following hypothesis:

$H_2$ : There is a positive relationship between easy access to resources and student's academic performance.

*Time spent*

Roll *et al.* (2016) found that the time students spend interacting with AI-powered educational software, virtual tutors, automated grading systems or other AI-driven resources that are designed to enhance their learning and support their academic progress. And the study also concluded that there is a positive relationship of student's academic performance and time spent. Similarly, Ng *et al.* (2014) examined the study of time use and academic achievement among secondary-school students in the state of Kelantan, Malaysia. The study revealed that more time spent on homework was associated with higher academic achievement among

secondary-school students. Likewise, Mir & Shakeel (2019) found that increased time spent on smartphones or laptops was negatively correlated with academic performance. Similarly, Liu (2022) concluded that there is a positive relationship between study time and academic performance, particularly for students with low performance. Furthermore, Abeywickrama & Sachinthanee (2022) revealed that personality traits, such as conscientiousness and time spent had a positive impact on academic motivation and performance. Based on it, this study develops following hypothesis:

H<sub>3</sub>: There is a positive relationship between time spent and student's academic performance.

#### *Personalized support*

Yusuff (2018) stated that the use of personalized support, goal setting and study planning by students may help them to focus mentally and direct their learning activities towards the academic goals they set for themselves. The study also found that there is a significant relationship among the student's academic performance and personalized support. Likewise, Tapalova *et al.* (2022) revealed that the creating personalized learning pathways or support such as access to training in 24/7 mode, training in virtual contexts, adaptation of educational content to personal needs of students, real-time and regular feedback, improvements in the educational process and mental stimulations. The study also concluded that the use of personalized support has the significant impact on the student's academic performance. Furthermore, Barnett *et al.* (2016) found that personalized support and learning requires as a team approach with focus on meeting the individual needs of each student which includes recruitment by interest, flexibility in path to degree, broad academic performance and student support, individualized advising are the elements that facilitate goal attainment. Based on it, this study develops following hypothesis:

H<sub>4</sub>: There is a positive relationship between personalized support and student's academic performance.

#### *Loss of Creativity*

Siemon *et al.* (2015) stated that loss of creativity can manifest as a reduced capacity to think outside the box, come up with innovative concepts, or engage in creative activities that were once a natural part of their thinking and behavior. Likewise, Albar *et al.* (2021) proposed that it is one of the essential literacies in Partnership for 21st Century learning, creative thinking helps students become competent in facing the challenges posed by future digital life and in satisfying the needs of the sustainability of our society. The study also stated that there is a significant impact of loss of creativity with the student's academic performance. Moreover, Goncalves *et al.* (2022) found that students need to learn creativity to learn science by implementing a well-planned process of skills that will help students discover their knowledge and motivation for the development of curiosity. Likewise, Daramola *et al.* (2019) concluded that the creativity level of hearing and hearing-impaired students which shows a relationship between gender and onset of hearing loss and students' creativity level were found out. The study showed that the creativity level of hearing-impaired students is significantly higher compared to their hearing peer. Based on it, this study develops following hypothesis:

H<sub>5</sub>: There is a positive relationship between loss of creativity and student's academic performance.

### 3. Results and discussion

#### *Correlation analysis*

On analysis of data, correlation analysis has been undertaken first and for this purpose, Kendall's Tau correlation coefficients along with means and standard deviations have been computed and the results are presented in Table 1.

Table 1

#### **Kendall's Tau correlation coefficients matrix**

This table shows the Kendall's Tau correlation coefficients of dependent and independent variables. The correlation coefficients are based on 142 observations. The dependent variable is SAP (Students' academic performance). The independent variables are AAR (Availability of alternatives resources), EAR (Easy access to resources), TS (Time spent), PS (Personalized support) and LOC (Loss of creativity).

Variables	Mean	S.D	SAP	AAR	EAR	TS	PS	LOC
SAP	3.82	0.764	1					
AAR	3.93	0.745	0.153*	1				
EAR	3.92	0.715	0.005	0.351**	1			
TS	3.86	0.827	0.036	0.269**	0.449**	1		
PS	4.01	0.735	0.074	0.185**	0.290**	0.378**	1	
LOC	3.94	0.774	0.108	0.167**	0.214**	0.212**	0.400**	1

Note: The asterisk signs (\*\*) and (\*) indicate that the results are significant at one percent and five percent levels respectively.

Table 1 shows that availability of alternatives resources is positively correlated to student's academic performance. It means that increase in availability of alternatives resources by artificial intelligence leads to increase the efficiency and enhance betterment in student's academic performance. Similarly, there is a positive relationship between easy access to resources and student's academic performance. It means that increase in easy access to resources leads to increase the efficiency of student's academic performance. Likewise, time spent has a positive relationship with student's academic performance. It shows that increase in time spent leads to increase the efficiency of student's academic performance. Furthermore, there is a positive relationship between personalized support and student's academic performance. It indicates that increase in personalized support leads to increase the student's academic performance. In contrast, loss of creativity has a positive relationship with student's academic performance. It indicates that increase in loss of creativity leads to increase the efficiency of student's academic performance.

#### *Regression analysis*

Regression analysis is a statistical process for estimating the relationships among variables. The regression results were estimated where availability of alternatives resources, easy access to resources, time spent, personalized support and loss of creativity are used as independent variables and dependent variable is student's academic performance.

Table 2 shows the estimated regression results of availability of alternatives

resources, easy access to resources, time spent, personalized support and loss of creativity with the student's academic performance of Pokhara university business students.

Table 2

**Estimated regression results of availability of alternatives resources, easy access to resources, time spent, personalized support and loss of creativity on return on student's academic performance of Pokhara university business students**

The results are based on panel data of 27 commercial banks with 189 observations for the period of 2014/15-2020/21 by using the linear regression model and the model is  $SAP = \beta_0 + \beta_1 AAR + \beta_2 EAR + \beta_3 TS + \beta_4 PS + \beta_5 LOC + e$  where, the dependent variable is SAP (Student's academic performance). The independent variables are AAR (Availability of alternatives resources), EAR (Easy access to resources), TS (Time spent), PS (Personalized Support) and LOC (Loss of creativity).

Model	Intercept	Regression coefficients of					Adj. R <sub>bar</sub> <sup>2</sup>	SEE	F-value
		AAR	EAR	TS	PS	LOC			
1	3.029 (8.889) **	0.202 (2.375) **					0.032	0.7522	5.639
2	4.018 (11.169) **		0.050 (0.552)				0.005	0.766	0.304
3	4.057 (13.166) **			0.061 (0.778)			0.003	0.765	0.606
4	3.697 (10.304) **				0.031 (0.355)		0.006	0.766	0.126
5	3.489 (10.452) **					0.085 (1.017)	0.001	0.764	1.035
6	3.489 (10.452) **	0.302 (3.015) **	0.050 (0.552)				0.053	0.743	4.981
7	3.524 (8.635) **	0.305 (3.134) **	0.162 (1.365) *	0.070 (0.740)			0.050	0.745	3.492
8	3.392 (7.329) **	0.302 (3.089) **	0.166 (1.394) *	0.088 (0.887)	0.057 (0.608)		0.046	0.746	2.701
9	3.237 (6.580) **	0.299 (3.055) **	0.173 (1.453)	0.086 (0.868)	0.022 (0.218)	0.084 (0.932)	0.450	0.747	2.331

Notes:

- i. Figures in parenthesis are t-values.
- ii. The asterisk signs (\*\*) and (\*) indicate that the results are significant at one percent and five percent level respectively.
- iii. Student's academic performance is the dependent variable.

Table 2 shows that the beta coefficient for availability of alternatives resources is positive with student's academic performance. It indicates that availability of resources has a positive impact on student's academic performance. This finding is similar to the findings of Smith & Johnson (2017). Likewise, the beta coefficient for easy access to resources are positive with student's academic performance. It indicates that easy access to resources has a positive influence on the student's academic performance. This finding is consistent with the findings of Johnson (2017). In addition, the beta coefficient for time spent are positive with student's academic performance. It implies that time spent has a positive impact on academic performance of students. This finding is consistent with the findings of Ng *et al.* (2014). Similarly, the beta coefficients for personalized support are positive with student's academic performance. It indicates that personalized support has a positive influence on the student's academic performance. This finding is consistent with the findings of Barnett *et al.* (2016). In addition, the beta coefficients for loss of creativity are positive with student's academic performance. It indicates that loss of creativity has a positive impact on the student's academic

performance. This finding is consistent with the findings of Daramola *et al.* (2019).

#### 4. Summary and conclusion

In recent years, the integration of Artificial Intelligence (AI) into various aspects of society has been transformative, revolutionizing industries and reshaping the way we live and work. One crucial domain where the influence of AI is becoming increasingly significant is education. The adaptation of AI tools in educational settings has the potential to enhance learning experiences, streamline administrative processes, and offer personalized educational pathways.

This study attempts to examine the impact of artificial intelligence on the student's academic performance of Pokhara university business students in Kathmandu. The study is based on primary data of 142 respondents.

The major conclusion of this study is that the higher the availability of alternatives resources, easy access to resources, time spent, personalized support, loss of creativity, higher would-be effect on student's academic performance. The results shows that availability of alternatives resources, easy access to resources, time spent, personalized support, loss of creativity are positively correlated to the student's academic performance of Pokhara University business students in Kathmandu. The study also concludes that the most influencing factor is availability of alternatives resources, followed by the personalized support, easy access to resources are the most influencing factors that explains the impact of artificial intelligence on the academic performance of Pokhara University business students in Kathmandu.

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