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## **Examining the Impact of Information Overload on Academic Achievement: A Study Among Female College Students**

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### **ABSTRACT:**

The main goal of this work has been to investigate the connection between female college students' subjective well-being and information overload. This topic of study is part of the larger discipline of behavioural economics, which is founded on the fundamental idea that the rationality assumptions of normal neo-classical economics are unrealistic and do not accurately reflect the behaviour of actual humans. Development is reliant on a person's subjective well-being, which is expressed in their quality of life and mental tranquillity. Subjective well-being depends not only on logical decision-making but also on clear understanding of pertinent information. We have used the same concept to connect information overload with subjective well-being.

Keywords- Information, overload, performance, students, female, college

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### **Introduction:**

The development of information technology and Internet has led to easy access to information and constant reliability where information is the strongest commodity to be traded, communicated, and educated. With the development of social media platforms like Facebook, Instagram, WhatsApp, Twitter etc, information sharing has become instantaneous which has led to overload and abundance of information that can result in stressful conditions for the information users. According to the theory of information overload, however, while the information load increases beyond a threshold, it blocks, limits, or hampers the information-seeking process and causes frustration to the information user who might need to take more effort to process the information and may make poorer decisions. The heavy load of information results in confusing the user, affecting their ability to set priorities, or difficulty recalling information.

In layman's terms, subjective well-being is defined as people's affective and cognitive evaluation of their life as defined by Professor Ed Diener. It describes how people experience the quality of their lives end including both emotional reactions and cognitive judgements. In context to the topic, information overload keeps the user stressed, anxious, overwhelmed, and uncertain about the given information which causes attention deficit traits, stress, easy distraction, and impatience due to huge mental stimulus. A negative neurological effect of information overload can cause Attention deficit trait (ADT), which he defines as a stress state in which the information user is impaired, has difficulty staying organised and managing time, and experiences high stress and anxiety. Deviating from the psychological concept of information overload and subjective well-being there is another economic way of understanding the correlation between information overload and how it affects the subjective well-being of an individual in an economic environment. Access information causes market failure due to asymmetric information which gradually leads to deviation from Pareto optimality because of which consumer surplus reduces and hence subjective well-being is affected.

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### **Prior literature:**

Mathers et al. (2020) The primary goal of the research is to determine how mobile social networking sites (SNS) affect people's wellbeing. The limited capacity model of motivated mediated message processing serves as the foundation for this study. In a two-wave panel study, the researcher uses a quota sample of 461 adults to examine the relationship between information overload, depressive symptoms, and mobile social networking use and well-being. Finally, they draw the conclusion that while using YouTube made everyone feel more overwhelmed by information, using WhatsApp and Snapchat only made older individuals feel more overwhelmed by information, and Facebook and Instagram had no influence on perceived overload. Additionally, it has a detrimental effect on people's welfare. Fan & smith (2021) The study aims to examine associations between information overload and well-being in China during the COVID-19 Phase. The researcher collects the cross-section data through an online survey by taking 1349 samples. This study is based on PIOS and WPQ. And they conclude that getting information about COVID-19 has a positive impact on well-being. Perceptions of COVID-19 information overload and feeling panic because of COVID-19 has a negative relation with well-being. Alheneid & Smith (2021) In this study, the

researcher takes noise exposure as a component of information overload. The researcher takes 179 university students as a sample and applied IOS and the well-being process questionnaire. And conclude that noise scores and non-noise IOS scores have greater negative well-being and lower positive well-being and there are no effects of noise or IOS scores or academic attainment. Pang (2021) The main aim of the study is how psychological well-being assessment (we chat) use and information overload trigger social media fatigue and how it ultimately results in emotional stress and social anxiety. Here the researcher utilised cross-sectional data and collect the data from 566 young populations and calculate the data by using Stressor-Strain-Outcome (SSO). The researcher concludes that perceived information overload through WeChat triggers social media fatigue among youth and it is indirectly predicting emotional stress and social anxiety. Li & Chan (2022) This study examines how different uses of the smartphone are Related to emotional and psychological well-being while examining the mediating role of perceived information overload. The researcher concludes that social informational and entertainment use of the smartphone is positively related to various indicators of well-being, while social use of the smartphone is related to perceived information overload and the important role of perceived information overload has positive effects of social uses of the smartphone on wellbeing. Wang et al. (2017) This study shows the relationship between social networking site (SNS) Usage and user's Subjective well-being. The researcher examines the study by two-wave study among a sample of Chinese college students by taking N= 350 at time 1 and 265 at time 2. And analysed the data with structural modelling. At last, they conclude that cross-lagged analysis indicated that Passive SNS usage at time 1 predicted a decrease in subjective well-being at time 2 and lowers subjective well-being at time 1 also predicted an increase in passive SNS usage at time 2.

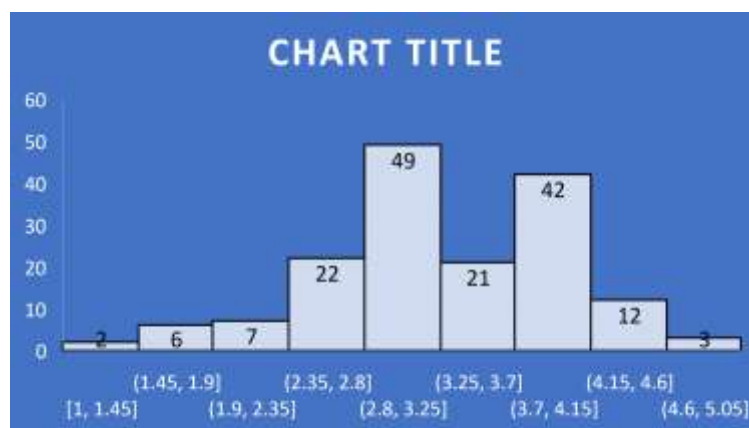
### Research methodology:

In this project, we aimed to investigate the impact of information overload on the performance of female college students. We employed simple statistical methods such as descriptive statistics, bivariate analysis, multiple correlation, and regression analysis to analyse our data. Our sample consisted of 164 female college students from various institutions. We collected primary data using a Google form questionnaire divided into three sections, the first section is regarding Personal Details. This section gathered information about the demographic characteristics of the participants. The second section is consisting of information overload which comprising four questions on a five-point Likert scale, this section aimed to measure the extent of information overload experienced by the students. A score of 3 or higher indicated the presence of information overload. The third part is regarding the subjective well-being (SCQs) which is utilizing 10 questions with a 5-point Likert scale, this section assessed the subjective well-being of the participants. The variables used in my study are performance of Students which is measured by the percentage of marks obtained in various academic levels (class 10th, class 12th, undergraduate, and postgraduate). Each student's performance was represented on a scale of 1 to 10, with the unit digit of their percentage score indicating their performance level. The second aspect is information overload determined by the average score of the four questions in the Information Overload section. A score of 3 or higher indicated the presence of information overload. The third part is SCQs for Subjective Well-being, a set of 10 questions designed to measure subjective well-being using a 5-point Likert scale. Through our analysis, we sought to understand the relationship between students' performance, subjective well-being, and their experience of information overload.

### Results and discussion:

To search the basic research questions, we use descriptive statistics. The following table has been prepared to understand the interrelation between information overload and self-control and how they affect students' performance.

**Table No.1: Histogram of average scores of Female students**



Source: Author's own compliance

As for the table, more than 70% of students have an average score of more than 3 hence there exists high information overload among the students. Where according to their average score most of the students have agreed that they have experienced information overload.

**Table No.2: Correlation between information overload (IO) and lack of meaning (LM)****Correlations**

		IO Total	LM Total
IO Total	Pearson Correlation	1	.327**
	Sig. (2-tailed)		.000
	N	164	164
LM Total	Pearson Correlation	.327**	1
	Sig. (2-tailed)	.000	
	N	164	164

Source: Author's own compliance

From the above table, we can conclude that the data is significant as the significance level is 0.01 which is 1% which is less than the standard significance level of 5%. The Value of the correlation coefficient is 0.327 which implies a positive correlation between information overload and lack of meaning. The theoretical analysis says that as information overload increases There is an absence of meaning while decision making.

**Table No.3: Correlation between information overload (IO) and the need to act fast (AF)****Correlations**

		IO Total	AF Total
IO Total	Pearson Correlation	1	.370**
	Sig. (2-tailed)		.000
	N	164	164
AF Total	Pearson Correlation	.370**	1
	Sig. (2-tailed)	.000	
	N	164	164

Source: Author's own compliance

\*\*. Correlation is significant at the 0.01 level (2-tailed).

Partial positive correlation between IO and AF Similar to the interpretation of table no.2.

**Table No.3: Correlation between information overload (IO) and need to remember for later (RL)****Correlations**

		IO Total	RL Total
IO Total	Pearson Correlation	1	.437**
	Sig. (2-tailed)		.000
	N	164	164
RL Total	Pearson Correlation	.437**	1
	Sig. (2-tailed)	.000	
	N	164	164

Source: Author's own compliance

\*\*. Correlation is significant at the 0.01 level (2-tailed).

Positive interconnection between. IO & RL.

**Table No.4: Interconnection between Information overload And SCQs****Correlations**

		IO Total	SW Total
IO Total	Pearson Correlation	1	.477**
	Sig. (2-tailed)		.000
	N	164	164
SW Total	Pearson Correlation	.477**	1
	Sig. (2-tailed)	.000	
	N	164	164

Source: Author's own compliance

\*\*. Correlation is significant at the 0.01 level (2-tailed).

The table shows that there exists a positive correlation between information overload and subjective well-being which has been measured by SCQs. The positive correlation between information overload and self-control of the respondent indicates that information overload can influence the self-control capability of the people but the thing is that better self-control can also make people capable of dealing with information overload while making a decision.

**Table No.5: Correlation between information overload (IO) and students' performance (V33)****Correlations**

		IO Total	V33
IO Total	Pearson Correlation	1	-.016
	Sig. (2-tailed)		.840
	N	164	164
V33	Pearson Correlation	-.016	1
	Sig. (2-tailed)	.840	
	N	164	164

Source: Author's own compliance

The negative value of the correlation coefficient shows that information overload has a negative influence on the students' performance which has been depicted by -0.016 which is why students are supplied with excess information their academic performance tends to decline.

**Table No.6 & 7: Regression analysis between information overload and SCQs****Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.477 <sup>a</sup>	.227	.223	4.777

Source: Author's own compliance

a. Predictors: (Constant), IO Total

b. Dependent Variable: SW Total

ANOVA <sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1087.782	1	1087.782	47.661	.000 <sup>b</sup>
	Residual	3697.414	162	22.824		
	Total	4785.195	163			

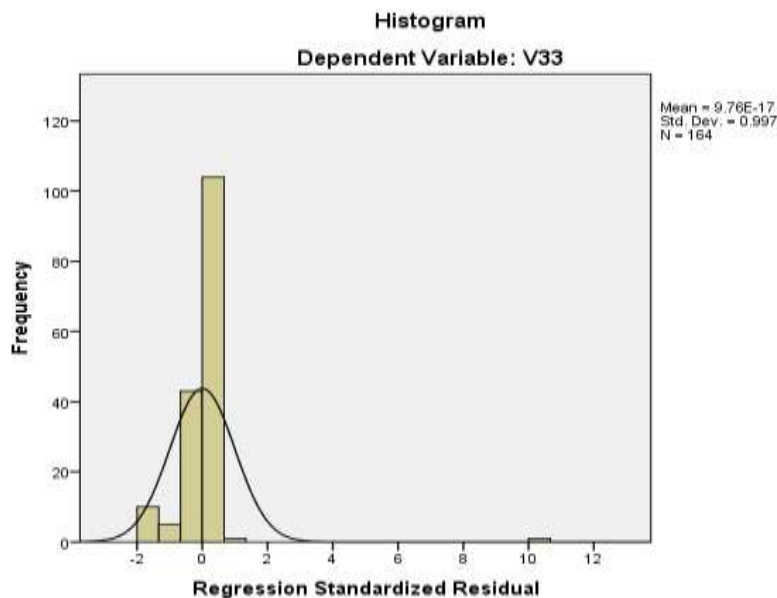
Source: Author's own compliance

a. Dependent Variable: SW Total

b. Predictors: (Constant), IO Total

The R square value regression analysis shows the goodness of fit, R square equals 0.227 shows that information overload has a 22% influence on the self-controlling behaviour of the people. Thousands of psychological factors influence the subjective well-being of people and information overload is among one of them, being one of the 1000 factors and still influencing the dependent variable significantly shows that information overload has a significant cause-and-effect relationship with the self-controlling behaviour of people.

Figure 1: Histogram of dependent variable: V33



Source: Author's own compliance

## Conclusion:

The study remains static and consistent with the fundamental theoretical generalised principle that information overload somehow affects the subjective well-being of the students followed by its impact on their academic performance. Sense of self-controlling behaviour has been taken as a measure of subjective well-being the positive correlation between IO and SCQs suggest that students self-controlling behaviour is being affected because of the cognitive biases created by information overload. Information overload also results in asymmetric information that affects the self-controlling behaviour of the students and poor decision-making followed by a decline in their academic performance. Information overload has become a menace to students' academic careers as it results in poor decision-making due to misbeliefs and fallacies that could be the result of the decrease in the quality of information due to increased sources with unverified information. The problem of information overload highlights the importance of filtering data from the source of extraction and also the traditional sources of information like books.

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