

## USERS' SATISFACTION TOWARDS ONLINE LEARNING RESOURCES FOR SYSTEMATIC INVESTMENT PLAN (SIP) AWARENESS AND EDUCATION

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### ABSTRACT

The e-learning system plays critical role in creating awareness and education towards emerging technology and subject domains. The Systematic Investment Plan (SIP) is an emerging concept in India among the people who are looking for avenues for their investment with good returns. The SIP e-learning systems creates awareness and provides education among the potential users to better understand the concept of SIP and act as a user guide to the investors. The main aim of the research is to examine the users' satisfaction towards online learning resources for systematic investment plan (SIP) awareness and education. The conceptual model examines the users' satisfaction towards SIP e-learning system using four major components such as Learner interface quality, content quality, personalization quality, and learner support quality. The present research followed descriptive research design. The systematic random sampling method was used to choose one hundred twenty one samples out the population. The primary data of the research was analysed through exploratory factor analysis, item-total correlation, confirmatory factor analysis and structural model. The results of the analysis proved the construct validity of the construct, and it indicates that the hypothetical relationships mentioned in the conceptual model are positive and significant at 1% level. Further, the results of the structural model explores that the main component which has major effect in user satisfaction towards the system is content quality (0.829), which is followed by learner interface quality (0.668), Personalization Quality (0.513), and Learner Support Quality (0.504).

**Keywords:** learner interface quality, Personalization Quality, Learner Support Quality, content quality, Systematic Investment Plan, User Satisfaction, e-learning.

### INTRODUCTION

The online resources play a significant role in creating the awareness and education towards emerging technology and subject areas. The Systematic Investment Plan (SIP) is one of the useful topics, which may economically empower the citizens of India in long run. Over the last three years since there was a turnaround in Mutual Fund (MF) inflows, the number of SIPs have doubled from 52 lakhs to 1.28 Crore. The average monthly SIP collection which was around Rs. 1200 crore in 2014 has shot up to Rs. 4200 Crore in 2017. The average of the SIP has increased from Rs. 2300 in 2014 to Rs. 3200 in 2017 and the overall number of folios has grown by nearly 40% during these 3 years. Awareness and education towards the SIP through online sources may enhance the quantity of investment in near future rapidly particularly in rural areas. The main aim of this study is to describe the users' satisfaction towards online learning resources for systematic investment plan (SIP) awareness and education.

### REVIEW OF LITERATURE

Flavell et al. (2019), in their research investigated the capacity of a multidisciplinary approach to academic development, to empower adaptive responses to ongoing technological change impacting on teaching practice. A quasi-experimental design with an intervention group (n = 22) and a comparative control group (n = 7) was adopted. Pre and post online questionnaires were administered to participants in both groups to evaluate attitudes and experiences relating to technology use in teaching and learning. The questionnaires were adapted from the Technology Acceptance Model. Qualitative measurement of the intervention group's experiences following the professional development was captured using semi-structured interviews, followed by two focus groups to confirm the interview findings. Results indicate that the professional development impacted positively on participants through significantly increased levels of confidence and perceived ease of use. Qualitative data

indicated participants experienced cognitive, emotional, and/or practical changes during and/or following the professional development.

Mei Lick and Su Luan (2015), developed a theoretical frame work to determine factors of e-learning satisfaction in teaching and learning for the teacher of secondary school level. The researcher has framed the researcher model based on the past reviews from various studies related to the present study user's satisfaction while using information technology systems for learning. The researcher has recognized three prospective determinants for measuring the level of satisfaction between the teachers of secondary school level; the factors are such as user-related, organisational-related and e-learning-system characteristics. For determining the users satisfaction level with regards to e-learning usage is recognized as a mediating variable among the three potential characteristics. Future study can deliver an additional conclusive theoretical statement of e-learning satisfaction and advance an additional proposal which could be resulting from a extra developed theory. The current study has identified a theoretical framework that sketches the analytical potential of the three groups of vital factors in explaining e-learning satisfaction between the school teachers of secondary level. Henceforth this factor can be used in future for designing continuous professional development courses and intervention programmes when recommending needs innovation in the syllabus.

Sanja (2015), analysed the examination of the sample of thirty students of master and doctoral studies from five different universities regarding their level of satisfaction with the available e-learning resources in blended environment at their high educational institutions. They were also asked about the kind of system they would like to have in the future. For the purpose of quantitative assessment of their perception, two well-known and structured approaches were used: one based on the Saaty's AHP method, and the other set up on the four-dimension Kano's model graphical scheme on the students' expectations of the system as it should be. Upon the obtained numerical and graphical results, the corresponding qualitative conclusions have been derived.

Josua (2011), in their study evaluated user satisfaction and scrutinize the relationship among user satisfaction and the qualities used in the e-learning systems by the MNCs. The researcher has incorporated the global satisfaction theory and e-learning satisfaction (ELS) theory for developing a theoretical model. The sample was collected from 190 respondents who were the end users of the e-learning systems. The research outcome authorizes that there is some degree of a positive relationship among qualities used in e-learning system and the satisfaction of the user.

Qamar et al. (2011), in their research revealed that whatsoever be the view and theory of a user about the ICTs and e-Learning, the similar is replicated through his/her attitude with regards to using educational technologies for learning and teaching needs. This research is about evaluating the associations among the predictors and the criteria variables for the e-Learning users in (HEIs) of Pakistan. The outcome of the study indicates that 51% of the users are satisfied, 81% of problems and 23% of prospects is described by the predictors. While the four predictors described about the problem, prospects are predicted only by two constructs and the Satisfaction level is denoted by three variables. The outcome of the research perceptions is that ICTs and e-Learning tools intensely estimate the prospects.

Nicole (2008), in their paper presented the findings of a comprehensive study that examined the e-learning perceptions and preferences of students enrolled at a historically black university. During this study a series of courses were specially designed to be intensive hybrid learning experiences. The Blackboard CE 6 Course Management System was adopted and paper-less learning experiences created. The results of the analysis indicate that students find course Websites to be helpful resources that enhance the understanding of course content, and that these Websites will continue to have an impact on higher education in the future. The examination of individual e-learning components indicated that students responded favourably to most available features. The strongest preference noted in this study was towards the online submission of assignments, with students overwhelmingly noting that they like having the ability to check their assignment grades online.

Choy (2007) in their article discussed about merits of e-Learning standards by Australian Case Studies. In 2004 the Australian Flexible Learning Framework developed a suite of quantitative and qualitative indicators on the uptake, use and impact of e-learning in the Vocational Education and Training (VET) sector. These indicators were used to design items for a survey to gather quantitative data for benchmarking. A series of four surveys gathered data from VET providers, teachers, students and their employers. The data formed baseline indicators that were used to establish organisational goals and benchmarks for e-learning. These indicators were the first known set for benchmarking e-learning in Australia. The case studies in this paper illustrate ways in which VET providers have approached e-learning benchmarking, the benefits achieved and the lessons that they learned. The cases exemplify how VET providers have adapted the baseline indicators, how the indicators informed

organisational plans and e-learning outcomes. The benefits of benchmarking are categorised under three purposes: reporting, performance management, and service improvement. A set of practical strategies is derived from the cases for consideration by other organisations interested in benchmarking e-learning services.

Judith Strother (2002), this research is carried out for evaluating the efficiency corporate training programs which are learnt through of e-learning in. Corporate managers are constantly looking for more cost-effective ways to deliver training to their employees. E-learning is less expensive than traditional classroom instruction. In addition, many expenses - booking training facilities, travel costs for employees or trainers, plus employee time away from the job - are greatly reduced. However, some firms that have spent large amounts of money on new e-learning efforts have not received the desired economic advantages.

## THEORITICAL FRAMEWORK

### SIP e-learning system

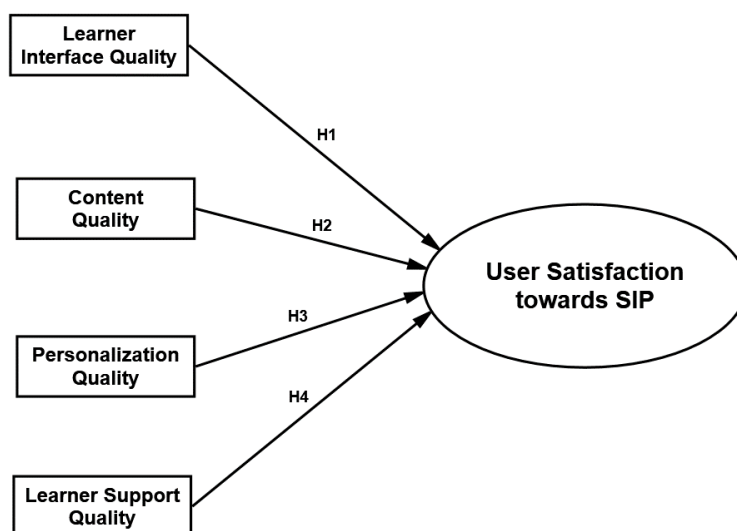
Systematic Investment Plan is an investment strategy wherein an investor needs to invest the same amount of money in a particular mutual fund at every stipulated time period. The SIP e-learning system would create and awareness towards the features, advantages and risk associated with the SIPs, so that the targeted investors can take well-planned decision-making with proper understanding. It also act as a user guide or manual and explain the steps to be followed in Systematic Investment Plan. The SIP e-learning system can act as a communication vehicle which acts as a media between share broking companies and targeted investors.

### Success of e-learning system

The success of e-learning system depends on so many factors, the different authors have described various set of factors to examine the success of e-learning system and it is tabulated in table 1.

**Table 1. Models for success of e-learning system**

S. No	Authors	No. of Factors	Components
1	Selim (2007)	4	Instructor, Learner, Course, ICT.
2	Delone and McLean (2003)	5	System Quality, Information Quality, Service Quality, Use, User Satisfaction, Net Benefits
3	Ismail (2017)	8	Individual, Institutional, Environmental, Instructor, Tasks, Learner, ICT, and Learner Performance
4	Sun et al. (2008)	6	learner, instructor, course, technology, design, and environmental
5	MacDonald et al. (2001)	5	structure, content, delivery, service, and outcome.
6	Ahmed younis et al. (2012)	5	Quality, IT infrastructure service, service delivery quality service, usefulness and satisfaction, and net benefits.
7	Wang (2003)	4	learner interface quality, learning community quality, content quality, and personalization quality.
8	Josua (2011)	4	Learner quality, content quality, personalization quality, and learner support quality



**Figure 1. Conceptual Model of the Research**

The present research followed above-mentioned conceptual model developed by Josua (2011) in order to examine the users' satisfaction towards SIP e-learning system.

The conceptual model examines the users' satisfaction towards SIP e-learning system using four major components such as learner interface, learner support, personalization and content quality.

### **Learner Interface quality**

Learner interface quality is the major quality required by any kind of e-learning or information system, because the learner should be able to easily communicate with the system to learn the content. It deals with user friendliness of the system. According to Lohr (2000), instructional interface is efficient when the user is able to pay his attention on learning content rather than concentrating on how to practice the learning content. Learner interface quality is allied with ease to use, system firmness, comfort to discover the content and attractiveness, comprising the usage of colors, text layout and fonts.

***H1: Learner Interface quality is having positive influence on user satisfaction towards SIP e-learning system.***

### **Content Quality**

The prime goal of any e-learning system is to deliver appropriate content or information to the intended users to develop their knowledge on the specific domain, so the quality of content is another major component of e-learning system. It includes courses, modules, and learning objects. Schramm mentioned that e-learning fulfilment is considerably influenced by the content quality of the learning resources than by the kind of equipment used to provide the guidelines. The content quality of e-learning system includes the words used, explanation and examples given for better understanding, latest information, sequence of information, presentation of the content, and meeting users' expectation towards the content (Radha et al., 2019).

***H2: Content quality is having positive influence on user satisfaction towards SIP e-learning system.***

### **Personalization Quality**

Personalization quality signifies how to deliver the most suitable content for users according to their benefits and wants. It is used as one of the policies in perfect e-learning execution.

Hence there are various methods to personalize e-learning, which starts from the simplest to the utmost difficult, which is from naming acknowledgment till the entire content personalization. Each degree of difficulty has a definite influence on user satisfaction (Martinez, 2002). The personalization quality provides user-centric learning in the e-learning system. Personalization quality deals with having the facility to select the content what they need, the degree of system that encourages users' capacity to study the sub-content that they need to study; and delivers adequate information about learner performance (Saikumari et al., 2018).

***H3: Personalization Quality is having positive influence on user satisfaction towards SIP e-learning system.***

### **Learner support quality**

Learner support quality denotes the additional features provided by the e-learning system which enables enhanced learning for the learner. It contains automatic email for registration course procedure and finished course authorization. Here the employee can directly register through e-learning portal by means of their own user names and passwords.

***H4: Learner support Quality is having positive influence on user satisfaction towards SIP e-learning system.***

### **Research Methodology**

The present research followed descriptive research design, which describes the users' satisfaction towards SIP e-learning system. The structured questionnaire (16 items) is formulated as a feedback form in the SIP learning system with four major components such as Learner quality (4 items), content quality (4 items), personalization quality (4 items), and learner support quality (4 items). The questionnaire is formulated based on Josua (2011) E-learning system success model. The SIP e-learning system was used by totally 484 users in the Chennai city, the primary data was collected from the 121 samples using systematic random sampling technique. Every fourth sample from the sampling frame of 484 samples was chosen which leads to the sample size of the survey as 121 users.

**Table 2. Profile of the sampled SIP learning system users**

S. No	Particulars	Frequency	Percent
<b>1</b>	<b>Gender</b>		
	Male	73	60.33
	Female	48	39.67
<b>2</b>	<b>Educational Qualification</b>		
	School Level	12	9.92
	ITI/ Diploma	16	13.22
	Undergraduate	54	44.63
	Post-graduate	32	26.45
	Others	7	5.79
<b>3</b>	<b>Monthly Income</b>		
	Up to Rs. 25000	27	22.31
	Rs. 25001 – Rs. 50000	56	46.28
	Above Rs. 50000	38	31.40
<b>4</b>	<b>Preferred amount for SIP</b>		
	Up to Rs. 1000	42	34.71
	Rs. 1001 – Rs. 3000	54	44.63
	Above Rs. 3000	25	20.66
	<b>Total</b>	<b>121</b>	<b>100.00</b>

- Out of 121 sampled users, 60.33% are found to be males while 39.67% are females.
- Nearly (44.63%) of the users are qualified with the under-graduation, 26.45% of them are post-graduates, 13.22% of them are ITI/Diploma holders, and only 5.79% of them are others category.
- The monthly income of the 22.31% of the users earns up to Rs. 25000, 46.28% of them earns Rs. 25001 to Rs. 50000, and earns Rs. 50000 per month.
- 34.71% of them preferred to invest up to Rs. 1000 through SIP, 44.63% of them invest Rs. 1001 to Rs. 3000, and 20.66% of them prefer to invest more than Rs. 3000 per month.

### Research Results and Discussion

The researcher collected 121 samples and analysed through IBM SPSS 22.0 software. The researcher adopted factor analysis and item-total correlation to verify the construct validity of the items.

### Exploratory Factor Analysis

Factor analysis for the 16 items in the questionnaire confirms the factor loading to its main construct. The Principle Component Analysis (PCA) with VARIMAX rotation was used in the research.

**Table 3. KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.836
Bartlett's Test of Sphericity	Approx. Chi-Square	2194.177
	Df	120
	Sig.	<0.001**

The results of KMO test shown in the above table 3 confirms the sampling adequacy of the research in structure detection and Bartlett's test confirms that item correlation matrix is an identity matrix, which would indicate that research variables are unrelated and therefore unsuitable for structure detection.

**Table 4. Rotated Component Matrix**

Variables	Component			
	1	2	3	4
LIQ1	0.640			
LIQ2	0.696			
LIQ3	0.912			
LIQ4	0.702			
CQ1		0.506		
CQ2		0.507		
CQ3		0.556		
CQ4		0.783		
PQ1			0.607	
PQ2			0.535	
PQ3			0.901	
PQ4			0.830	
LSQ1				0.783
LSQ2				0.645
LSQ3				0.549
LSQ4				0.596
Extraction Method: Principal Component Analysis.				
Rotation Method: Varimax with Kaiser Normalization.				
a. Rotation converged in 10 iterations.				

Table 4 depicts the rotated component matrix which summarizes the research variables in to four components based on its factor loading more than 0.5, it confirms that all the 16 items are useful in determining User satisfaction towards SIP e-learning system construct.

**Table 5. Item-Total Correlation**

Items	Item-Total Correlation	Alpha
LIQ1	0.605	<0.001**
LIQ2	0.607	<0.001**
LIQ3	0.600	<0.001**
LIQ4	0.750	<0.001**
CQ1	0.786	<0.001**
CQ2	0.717	<0.001**
CQ3	0.875	<0.001**
CQ4	0.463	<0.001**
PQ1	0.865	<0.001**
PQ2	0.904	<0.001**
PQ3	0.630	<0.001**
PQ4	0.522	<0.001**
LSQ1	0.522	<0.001**
LSQ2	0.799	<0.001**
LSQ3	0.596	<0.001**
LSQ4	0.792	<0.001**

Table 5 encapsulates the results of item-total correlation which identify the relationship (i.e. correlation) between each and every item score with the total score. The results proved that all the items are having strong relationship (i.e. more than 0.5) with total score of all the items.

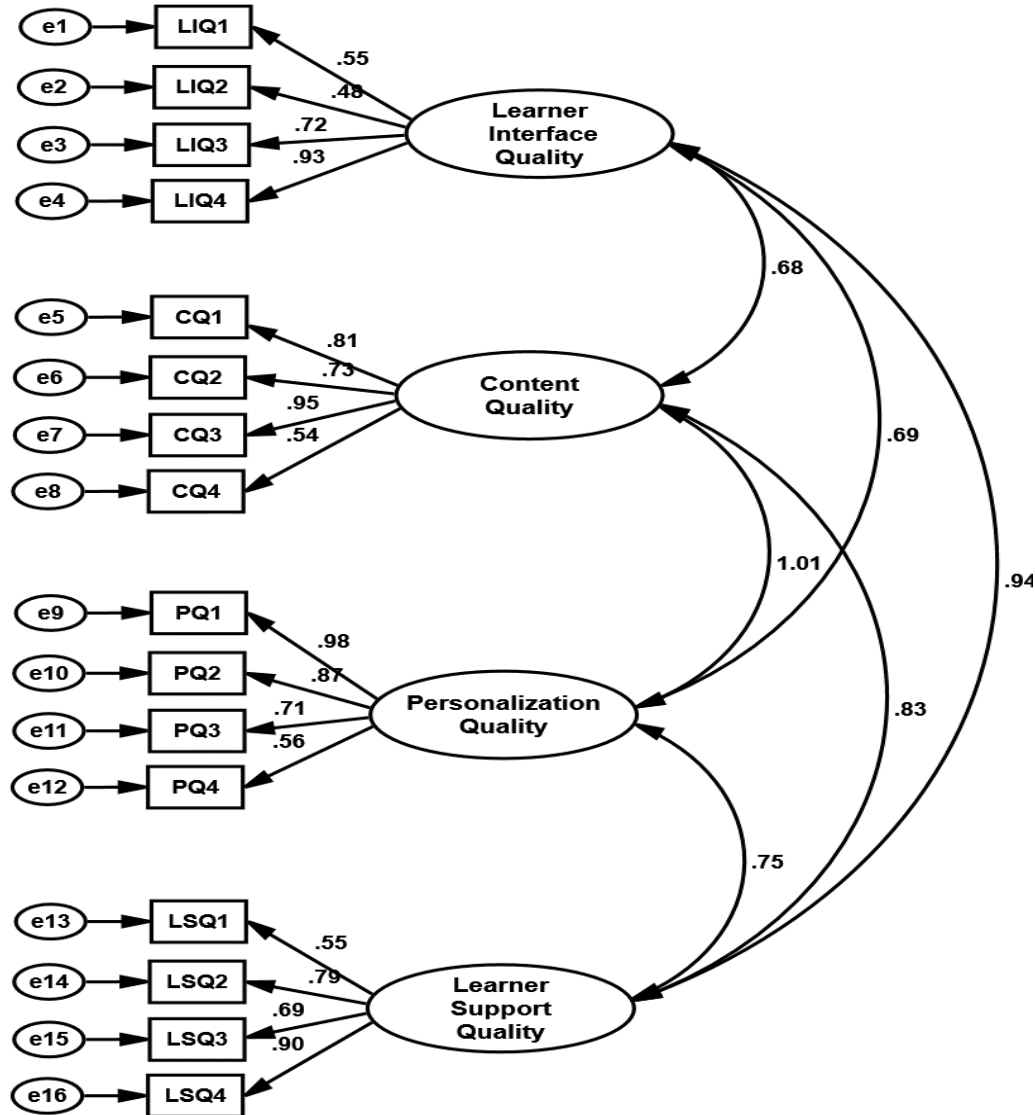
The results of Exploratory Factor Analysis (EFA) and Item-Total correlation confirm the construct validity of the questionnaire used in the present research.

### Confirmatory Factor Analysis (CFA)

The figure 2 depicts the confirmatory factor analysis of the current research. The researcher used Confirmatory factor analysis (CFA) in the present research in order to verify how well the measured variables represent the



User Satisfaction construct. Confirmatory factor analysis (CFA) and exploratory factor analysis (EFA) are similar techniques, but in exploratory factor analysis (EFA), data is simply explored and provides information about the numbers of factors required to represent the data. In exploratory factor analysis, all measured variables are related to every latent variable. But in confirmatory factor analysis (CFA), researchers can specify the number of factors required in the data and which measured variable is related to which latent variable. Confirmatory factor analysis (CFA) is a tool that is used to confirm or reject the measurement theory.

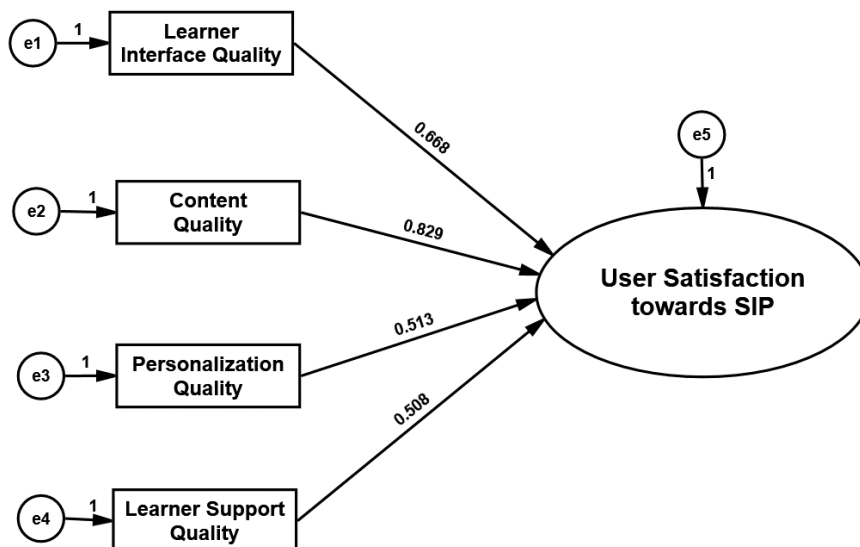


**Figure 2. Confirmatory Factor Analysis**

The results of confirmatory factor analysis also confirm that all the items are having significant factor loading (more than 0.5) with its factors. The model fitness indices values such as Chi-square, p value, GFI, AGFI, RMSEA, RMR, CFI, NFI values are in the threshold range, therefore the model is found to be fit.

### Measurement Model

The measurement model is the part of the model that examines relationship between the latent variables and their measures. The structural model of the research is shown in figure 3.



**Figure 3. Measurement Model**

From the above given model, it is found that all the four main factors such as Learner Interface Quality- 0.668, Content Quality- 0.829, Personalization Quality- 0.513, and Learner Support Quality- 0.504 is having significant positive loading on User Satisfaction towards SIP e-learning system with the standardized coefficient value more than 0.5 and all these relationships are significant at 1% level. Therefore, it is proved that all the four hypothetical relationships mentioned in the conceptual model are significant and positive at 1% level. Further, the model fitness indices values are within threshold limits, so model perfectly fit with the primary data collected for study.

### Conclusion

The outcome of current research study specifies that the users of SIP e-learning system are more satisfied with the all the four major factors of the system. The main component which has major effect in user satisfaction towards the system is content quality (0.829), which is followed by learner interface quality (0.668), Personalization Quality (0.513), and Learner Support Quality (0.504). Therefore, the developers of e-learning system should give more focus on content quality and learner interface quality in order to maximize the user satisfaction towards the e-learning system.

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