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CRITICAL SUCCESS FACTORS FOR THE IMPLEMENTATION OF E-GOVERNANCE - A CASE STUDY OF PROVINCE 1 NEPAL

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Abstract:
Purpose: E-Government with higher failure rate is a motivation to do the research about Success Factors of e-Government implementation. Analyzing CSFs is an important factor that helps to implement e-Government successfully and to avoid failure. The aim of this study is to examine and identify the factors that influence and affect the utilization of e-Government in the developing countries Nepal, specifically in Province 1.
Design / Methodology / Approach: The review of the literature and questionnaire with "important" and "unimportant" as options were mixed to collect primary data. The data collection focused on the e-Services provider offices and municipalities of Province 1 who are key stakeholders in the e-Government service delivery framework. The selected participants included focal group of IT professional and experts.
Findings / Result: This article highlights some of the key attributes; it critically assesses key factors that influence e-Government services adoption and diffusion. The result from the study is the success factors viz; Clear vision and strategy, Top management & Government support, ICT infrastructure, Awareness, Training Citizen Empowerment and separate funding that Government organization and all parties must pay attention to ones for successful e-Government implementation.
Originality / Value: It is an empirical research to signify the contribution Critical Success Factor for E-Governance
Paper Type: Analytical Business Research
Key Words: E-Government, Failure, Critical Success Factors & Province 1

1. Background:

E-Government is one of the most important emerging applications of Information and Communication Technology (ICT) and its need is assessed in Nepal. So, it's continuous study of the same [1] & [2]. According to Heeks (2004), most of e-Government project in developing countries have failed, 35%of e-Government project are total failures, 50% are partial failures and only 15% are success [3]. In addition, Gartner (2002) reported that more than 60% of e-Government initiatives have failed or below from expectation. Survey from UNDESA (2003) also said same fact of e-Government failure rate which is 60-80% in developing countries [4]. In the present case of federal Nepal, implementation and adoption of e-Government and e-services as well seems to be poor, so for effective e-Government, all the policies, strategies guideline and the EGMP need to be modified so that they will be suitable for all three levels of government. For the uniformity in development of e-governance at the provincial level, the government should provide guidelines and long term strategy for Province and its local bodies.

Proper implementation of Provincial e-governance interoperability framework needs to be started as soon as possible, as there are already a number of e-Based systems available for instance, Municipal Administration and Revenue System (MARS), Electronic Billing Permit System (EBPS), Financial Management Information System (FMIS). But their implementation / adoption seem to be poor, so all three levels of government should allow the responsible organizations to build a separate regulatory framework to effectively regulate and monitor these new systems for their successful implementation and adoption.

It is evident that there is lack of e-skills both for staff and citizens, so the provincial government should run the ICT training and awareness programs especially for targeted citizens and staffs in rural municipalities and other local bodies of the province. Besides that many research result shows that there is need of PPP model for promoting rural telecommunication infrastructure. Hence the effective implementation and adoption of e-Government projects will sustain in rural government organizations and local bodies for the long period of time. For this all three levels of Nepal government should think for fruitful implementation of PPP concept of telecommunication infrastructure e.g. PPP model such as Nepal Telecom Authority's (NTA's), Rural Telecommunication Development Fund (RTDF) in local bodies should be increased and with that fund new other e-Based systems should be implemented.

Security issue does not seem to be important in the early phase, but this issue is significant in the digital world since there are hundreds of cyber security incidents happening per day around the world. It is better to consider security issue from the start of development of e-service and system. Developing effective cyber security policy to tackle cybercrime as well as to use a proper mechanism to prevent that, as the

consequence might cause greater loss than investment in security. Apart from that a "change management framework" for the e-governance system needs to be developed and implemented. This is to tackle increasing globalization, the growing knowledge of employees, and pace of technological innovation. Therefore, in this paper author proposes success factor of e-Government to avoid failure during implementation.

2. Objectives of the Thesis:

The paper aims to access the critical success factor for the implementation of e Governance with especial reference to Province 1 Nepal.

3. Literature Review:

The execution of e-governance has not been largely successful in the country like Nepal. The causes of failing to effective implementation of e-governance are digital divide, rude administration process and other hurdles [5]. It is compulsory to make public service deliverance more effective, competitive and qualitative and service holder friendly to make government is image clean and impartial. With it, the performance of the government would be fair and result oriented [6]. He again added that achievement and breakdown of e-government depend not only on bureaucrats or civilians of the country but also depends on technocrats. If the government succeeds to take advantage of the knowledge and skill of the retired civil servants, it will be a great achievement for the country [4]. Standardization is another key point for the execution and services of e-Government [5]. Diverse sources point out that strong political leadership is one of the important factors for e-government success [6]. Applying only one system for institutions will decrease the costs and also enable the standardization process. As said by Heeks [3], e-government in the developing nations fails with 35% being classified as total failures with 50% partial failures. Different economic, social and political circumstance may have a determining effect on the recognition of e-government objectives [7]. The indicators of the result-oriented performance evaluation system should be applied at all ministries to make civil service more result oriented, effective and responsible, through the performance contract system [3, 8]. He further said that implementation of e-government is not a story and without making citizens satisfied through government activities and efficient and effective service delivery. It is obvious that the citizens play a key role to make government success or failure. It is necessary for trust on the e-government and technology but data security is major concern in present day [9, 10].The high failure of e-Government implementation is a driver that motivated to do the research about the factors that influence e-Government implementation success [1].

CSFs (Critical Success Factors) define the limited number of areas in which satisfactory results will ensure successful competitive performance for the individual, department or organization. CSFs are the few key areas where things must go right for the business to flourish and for the manager's Information System projects [11]. CSFs are also considered as attributes whose existence or lack determines the success and failure of ICT project [3]. Nepal being high risk prone country for natural disaster for earthquake, fire and flood. So it will be easy to use automation [12]. The fire conditions can be seen even in commercial buildings of Nepal [13]. It needs to use it as solution many problems. Thus, in this paper author tries to analyze important CSFs of e-Government implementation for the success and to avoid failure.

4. Research Methodology:

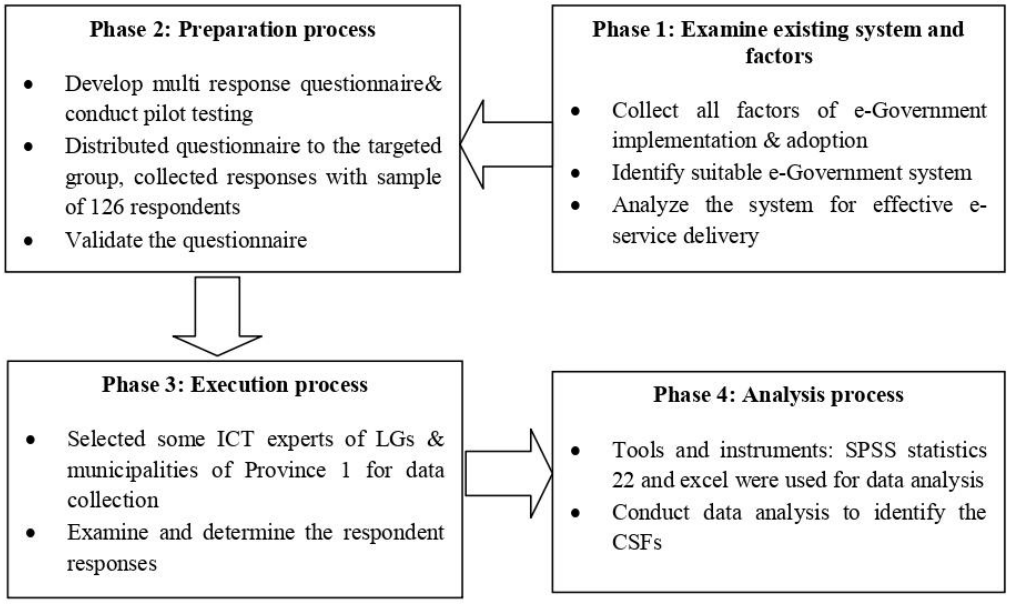


Figure 1: Research method & its phases to identify CSFs

The study has to be conducted for Province-1 using descriptive and analytical research design based on qualitative approach. Purposive sampling design has been adopted in online and offline mode using strata such as given. This research methodology has four phases that aims to access the CSFs for e-government

implementation in the context of Nepal, especially for Province 1, which includes; a) examine existing system and success factors for e-government implementation, b) preparation process, c) execution process and d) data analysis process. The detail information about our methodology is shown in Figure 1.

4.1 Sample Size:

The data collection focused on the Local Government Offices providing e-Services who are the key stakeholders in the e-Government service delivery system. The selected participants included human resources of the Local Government Offices (Municipalities), Chief Systems Engineers and other senior IT officers from different departments. The research targeted these participants due to their knowledge of the on-going e-Government initiative in Province 1 and their level of accessibility to the researchers. The sample size was 126 respondents as shown in the below table 1.

Table 1: Sample size details

S.No	Level Province No 1, Nepal	Respondents in %	Total No. of Respondents
1	Local Governments • LGs of Sunsari District's IT Officers • LGs of Morang District IT Officers • LGs of Jhapa District IT Officers	22.22%	126
2	University / College Professional	12.67%	
3	Business (ICT) Level Service Provider • Telecom Professionals & Engineers • ISP Professionals • Bank IT professionals	29.36%	
4	Citizens / Service Seeker	35.71%	

4.2 Research Instrument:

Critical success factors were added as the choice of option to the respondents who chose the options: "important" and "unimportant" while answering the questionnaire. These questionnaires have been finalized and validated using testing through service providers and experts of the field. In order to determine which of the factors identified were relevant, surveys in the form of questionnaire and observation were mixed as research instruments. The desirability of mixing methods to leverage on strengths and reduce weaknesses found in single method designs is supported by most text books (Jick, 1979).Tools like IBM SPSS Statistics 22 and MS Excel were used for instrumental validity testing and data analysis.

4.3 Instrumental Validity:

Cronbach's alpha collected as reliability statistics for data for CSFs is greater than .787 that shows internal consistency of the questionnaires and the data collection is assumed to be reliable and valid. Thus, it can be concluded that the questionnaire prepared was consistent for the study.

4.3 Data Analysis:

The questionnaire related to Critical Success Factors (CSF) which includes the idea, knowledge and implementation factors about e-Government were considered. The possible critical success factors are added as the choice of option to the respondents who chose the options: "important" and "unimportant" while answering the questionnaire. The data collected from the critical success factor questionnaire has been analyzed using various available statistical tools for relevancy check and the data extracted from the set of collected data was marked with the most crucial CSF for e-Government implementation. In relation to the CSF, there were thirteen (13) multiple response questions put into the questionnaire for collecting relevant information.

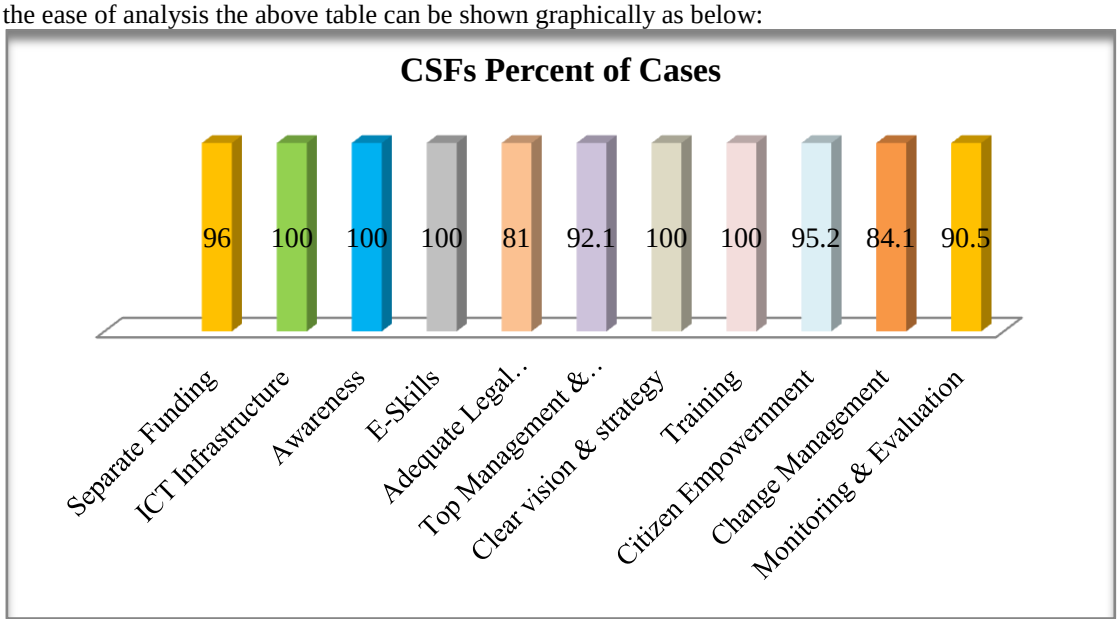
The result collected from data analysis shows that the most crucial critical success factors (CSF) for an effective implementation of e-Government activities in Province 1 are the ICT infrastructure, awareness, training, clear vision and strategy, citizen empowerment and e-skills. This is as relevant as the country's literacy rate is very low.

Table 2: Critical Success Factors: Multiple Responses Frequency Analysis

Critical Success Factors (CSF) for effective e-Government Frequencies				
		Responses		Percent of Cases
		N	Percent	
(CSF) for Effective E-Government Activities	Separate Funding	121	9.2%	96.0%
	ICT Infrastructure	126	9.6%	100.0%
	Awareness	126	9.6%	100.0%
	E-Skills	126	9.6%	100.0%
	Adequate Legal Regulatory Framework	102	7.8%	81.0%

	Top Management And Government Support	116	8.9%	92.1%
	Clear Vision and Strategy	126	9.6%	100.0%
	Training	126	9.6%	100.0%
	Citizen Empowerment	120	9.2%	95.2%
	Change Management	106	8.1%	84.1%
	Monitoring and Evaluation	114	8.7%	90.5%
Total		1309	100.0%	1038.9%

For the ease of analysis the above table can be shown graphically as below:



5. Conclusion:

The outcome obtained from data analysis shows the most crucial critical success factors (CSF) for an effective implementation of e-Government in Province 1. From the research, the following five most crucial critical success factors were derived for e-Government in Province 1.

- Clear vision and strategy
- Top management & Government support
- ICT infrastructure
- Awareness
- Training
- Citizen empowerment and
- Separate funding

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