

The Impact of Information Technology to Make Rational Strategic Decision Making in Educational Institutions in Nepal

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Abstract

The primary objective of this study was to examine the impact of information factors for the rational strategic decision making (RSDM) when information is accessed using technology. In educational institutions. The previous studies reveal that time content, form of information and technology were found influential factors for the appropriate rational strategic decision making. The quantitative method was applied along with the survey study was used as a research method to collect data where the administered survey structured questionnaire was used as a research instrument to collect data. In the first stage, fourteen private and 10 public colleges were selected purposively and then twenty four respondents were selected randomly from the twenty-four colleges. The results show that the proportion of male and female respondent was 79.20 % and 20.8 % respectively and the proportion of private and public college was 58.33 % and 41.66 % respectively. The results indicate that the values of the subscales were found lower than the average mean value signifying the less importance of information factors to make the RSDM. Additionally, the results also highlighted that there was an insignificant association between the value of information, the purity of information, the efficiency of information, the details of information, the quality of information, the advanced technology adopted human resources, the performance of information, the formats of information, the perfectness of the information and the role of information in RSDM ($p > 0.05$). The results further show that the mean score of the private college of the subscale 'purity of the information' was statistically significantly higher from that of the public college. Similarly, the mean score of the private college for the subscale quality of information was statistically significantly lower from that of the public college signifying that private college did not give more importance to quality of information for the impact of RSDM. The implication of this study will be beneficial for the college executives and principals to understand the role of information to make RSDM in educational institutions. The limitation of this research is very limited number of survey respondents which has affected the results of the Binary Logistic Regression Analysis.

Keywords: *Information, rational strategic decision making, subscales, principal components, technology.*

Introduction

An organization behaves as an open system that takes in information, material and energy from the external environment, transforms these resources into knowledge, processes and structures that produce services which are then consumed somewhere in the world. An educational organization uses information strategically to make sense of changes in its setting to create new knowledge for innovation

and to make decision about its course of action (Citroen, 2011). The primary objective of this study is to examine the impact of information factors to make rational decision making in educational institutions. This study will also address the need for more data about the effects of information technology on the strategic decision-making process in educational institutions. The research study of Aharoni, Tihanyi & Connelly (2011) found that strategic rational decision-making processes were positively correlated with the factual and relevant information delivered by the college IT Department. Similarly, the research study of Nutt and Wilson (2010) found that strategic decision making was negatively correlated with the poor technological performance. Moreover, some recent approaches to strategic decision making have concentrated upon the more micro aspects of how college executives think, act, and interpret strategic decisions. The micro approach has been termed the strategy as practice perspective (Szymaniec-Mlicka, 2017). Many studies in strategic management take the position that executives reach strategic decisions based on a structured process of careful consideration of circumstances, alternatives and consequences of the available information which approach is known as a 'rational process. Information on matters such as competition, markets, technologies and trends in the societal environment affecting the organization is used as a basis for the judgement on the implications of feasible alternatives for the decision to be made in such a rational process. It is universally obvious that the use of information contributes to the reduction of uncertainty. However, aspects of the role of information in the decision-making process have got less priority in management research to make a rational strategic decision. For that reason, this study investigates whether this research can add a new viewpoint to this field, specifically to that of the role and value of modern information resources and access as a prerequisite for the structuring of the strategic decision-making process. This study will also observe in detail the use of information during the process of a number of actual recent strategic decisions taken by executives in the educational institutions. The emphasis is on the factors of information for the rational decision-making process, not on the substance or quality of the resulting decisions (Nutt & Wilson, 2010).

2. Literature Review

2.1 Meaning of the information and decision making

Information is an intrinsic component of nearly every activity in the organization so much that its function has become transparent (Choo, 1996, p.329). Without a firm grasp of how it creates, transforms and uses information, an organization would lack the coherent vision to manage and integrate its information processes, information resources and information technologies (Petersen & Laustsen, 2019). Current thinking in management and organization theory recognizes three distinct areas in which the creation and use of information play a strategic role in determining an organization's capacity to make rational strategic decision.

Nutt & Wilson (2010, p.3) state the following statements for the meaning of strategic decision making.

“The term strategic decision making is often used to indicate important or key decisions made in organizations of all types. The term organization includes any collective social, economic or political activity involving a plurality of human effort. Strategic decisions emphasize the social practice of decision making as it is carried out among and between individuals in the organization. When studying decision making, both the organizing of decision activity as a collective phenomenon and the cognitive processes

of individual decision makers take centre stage. Strategic decision making is more than computation carried out to make judgements and choices. Various branches of mathematics can inform us about risk, options, game theory and choice”.

The meaning of strategic decision making is embedded to judge and choose the tricks to make key rational decisions to sustain the educational organizations. The strategic decision making is a plan, play, pattern, position and perspective to sustain the organizations in this competitive business era. In the past, sometime, it was defined as a plan, sometimes play, position, and perspective focusing on organizational sustainability for the future sustainability (Nutt & Wilson, 2010).

2.2 A rational approach to decision making

An important theme in research into strategic decision-making concerns the approach that is followed in making a rational decision and the structure of decision making process. In a rational decision-making process, executives have to reach strategic decisions without a prejudiced opinion about the eventual decision and only after a structured process of careful consideration of circumstances, alternative lines of thought and consequences of the decision made. Information on matters are embedded in time, contents, form and technological factors affecting the organization are needed to judge the implications of the feasible alternatives for the decision to be made (Szymaniec-Mlicka, 2017). “First, organizations search for and evaluate information in order to make important decisions. In theory, this choice is to be made rationally, based upon complete information about the organization’s goals, feasible alternatives, probable outcomes of these alternatives, and the values of these outcomes to the organization. In practice, rational choice-making is muddled by the pushing of interests among organizational stakeholders, bargaining and negotiation between powerful groups and individuals, the limitations and idiosyncracies of personal choice making, the lack of information, and so on. Despite the complications addressed in earlier paragraph , an organization must keep up at least an impression of rational, reasoned behaviour, both to sustain internal trust, and to preserve external legitimacy” (Lunenburg, 2010, p.8). “The second area of strategic information use is when the organization makes sense of changes and developments in its external environment. Organizations thrive in a dynamic, uncertain world. A dependable supply of materials, resources, and energy must be secured to make rational strategic decision making. Market forces and dynamics modulate the organization’s success or failure. The third area of strategic information use is embedded in organizations’ creating, organizing and processing information in order to generate new knowledge through organizational learning. New knowledge is then applied to design new products and services, enhance existing offerings, and improve organizational processes” (Citroen, 2010, p.493).

2.3. Information as a factor in strategic decision-making

In management research publications, the role of information in the process of decision-making is seldom recognized, discussed or analyzed as such, probably because management information is considered a production factor that is readily available, and its accessibility is “taken for granted” in many studies on company performance. Although input of information is often mentioned in order to be able to consider parameters such as the business environment, internal and external issues and changing conditions during the decision-making process, information is seldom seen as a determining factor of rational decision

making in educational organizations (Citroen, 2010). As consequences, the characterises of information in strategic management such as the quality, the sources and actual use of available information during the process of strategic decision making are not recognized as important issues (Mishra, Allen & Pearman, 2014).

2.4 Information and communication technology (ICT)

Today computers have surprisingly supported to find applications for practically every business process in the educational institutions, this development has had a great influence on the way college executives need to operate nowadays. If we restrict ourselves to the more strategic issues, the decision-making process has completely changed over the last decade by the way information has become available and travels over communication services that are common now (Citroen, 2010). The potential influence of ICT on strategic decision-making can be summarised as better forecasting accuracy and decision-making time horizon, more unanimous decision-making processes through better internal and external communication and thus being able to conclude an accurate decision-making process . The decision can be postponed if organizations have not sufficient information to make rational strategic making (Marques, Moniz & de Sousa, 2018). There is little research into the use of the Internet as an information source for strategic decision-making. On the use of the Internet as ‘decision support information technology for college leaders and executives in both the private and public sector’, concludes that “The Internet is used in all levels of management involving a number of functional areas which is perceived by college executives as a decision-support information technology that contributes positively in improving their rational decision making practices in (Elbanna, 2006).

2.5 The role of information in the decision process

The information is so important in this competitive world to make a rational strategic decision making because organizational operations have to cope with high costs, small margins and fixed markets, so management has to be very alert and perform proper analyses on, e.g. educational market developments before decisions can be taken. The educational institutions is more opportunity driven now and can react faster with sufficient information (Citroen, 2010). For each strategic issue decision, the best decision structure can only be obtained when it is clear that all information is available in the proper format and is reliable and can be understood by all stakeholders. College executives comment that after collecting additional information an effort is required for studying and analyzing this additional information. Firsthand information mostly come from consultations with internal staff from the departments involved. Lacking this expertise or in cases where an external opinion is indicated, studies are also often commissioned to external organizations or consultancies. Therefore, it is concluded that both internal and external first hand information is a backbone of the rational strategic decision making (Aharoni, Tihanyi & Connelly, 2011).

2.6 Quality of information for strategic decision-making

The college executives are always in the stress of the characteristics of the quality of the information required by the board. Correct strategic decisions can only be taken on correct and complete information.

One phrase given by one executive “Quality of information means integrity, robustness, able to stand up for scrutiny, but very important is also a guarantee of completeness, wholeness”. Or another phrased explored by the next executive: “We rely on well checked, reliable, robust and relevance rated information”. Generally, information that arrived ‘bottom up’ was trusted more than information provided by external sources. If information become available from uncertain in sources or is not reliable at first sight, it is thoroughly scrutinized for its credibility and robustness before being accepted by the departments responsible for supplying information to the board. But even so, executives sometimes double-check information themselves, one reason being that these departments are not always aware of the strategic plans of the board (Citroen, 2010).

3. Research Methodology

Researcher asked a selected group of executives in colleges whether they would be willing to complete the survey questionnaire with recently administered entitled the content, form, technological and time factors of the information to make rational strategic decisions in their colleges. Twenty-four executive level respondents were asked to complete the survey questionnaires to observe in which way they use information during the decision making process. Thirty executive level college administrators were sending the survey questionnaires but twenty-four of them returned which is 80% response rate. Data analysis was based on descriptive statistics along with the Principal Component Analysis. Student’s t-Test is used to find out the average differences in decision process in public & private colleges. The Logistic Regression Enter Model was used to find the association between the impact of the information factors and rational decision making in both private and public colleges.

3.1. Fieldwork

The sixteen executives that current researcher sent questionnaires were selected from members of the college board or directors (n=16) who also belonged to the Management, Engineering, Education and Information Technology Departments of the selected colleges, three from Nawalparasi District and thirteen from Chitwan District. The type of college executives that agreed to take part in the research and the functions of the survey questionnaires were either chairman or member of the board/management team or were directly involved in strategic school management.

3.2 Sample Population

The target population was one hundred and ten college executives (N=110) and sample population was twenty-four (n=24) so that the proportion of sample population is $(24/110*100)$, i.e. 21.81%. The gender proportions of the sample were (19/24) 79.20% male executives and five (5/19) female school executives (20.8 %). The proportion of private college was (n/N) 58.33% and public college was 41.66 %.

4. Results

The analysis has focused on the roles of different factors of information to make rational decision in an academic institution. The analysis highlights that the ages of respondent were categorized as (35-35) years (25 %), (35-40) years (12.5 %), (40-45) years (37.5 %) and more than 45 years (25 %). The

results show that respondents from province 3 have 81.25% and rest was from province Gandaki. All the nine Principal Components (PCs) were computed via Factor Reduction Model. The analysis has secondly focused on Binary Logistic Regression Model to find the association between the independent and dependent variables.

4.1 The management of information

During the decision-making process, there are two phases in which information is mostly collected and analyzed by the board, the preparation phase and the analysis and review phase. The titles of departments that supply this information to the board can be Corporate Development, Strategy Development, Business Development, & Innovation or the Market Intelligence Group. Furthermore, most business units collect information about their own branches and send summaries of analysed information up to the executive management. “The technical possibilities to define queries have become much easier so that no information specialists and fewer external experts are needed any more to formulate database searches” and also that “The interpretation of data and ensuring the relevancy of information for the executives is now the bottleneck, not the process of searching”.

4.1.1 Factor Dimension Method

Principal Component (PC) Method has extracted three different principal components from the first survey instrument. According to the result obtained 76.26 % total variance explained on RSDM, the first PC accounts for 37.32 % total variance explained, the second PC accounts for 23.72 % total variance explained, the third PC accounts for 15.16 % total variance explained. The PCs were named as values of information, purity of information and efficiency of information. Again, the same method extracted two different principal components from the second survey instrument. According to 66.34 % total variance explained, the fourth PC accounts for 42.62 % total variance explained, the fifth PC accounts 23.72 % total variance explained. The PCs were named as importance of details of information and quality of information. Similarly, PCM has extracted two different principal components from the fourth survey instrument. According to 77.73 % total variance explained, the sixth PC accounts for 50.68 % total variance explained, the seventh PC accounts for 27.05 % total variance explained. The PCs were named as formats of information and perfectness of information. Again, PCM has extracted two different principal components from the fifth survey instrument. According to 71.61 % total variance explained, the eighth PC accounts for 51.12 % total variance explained, the ninth PC accounts for 20.49 % total variance explained. The PCs were named as advanced technology adapted human resource and availability of advanced technology.

Table 1. Varimax rotated principal components matrix on time, content, form and technological factors of the information for the rational strategic decision making (n = 24).

Independent variables	Loadings		
	1	2	3
VALUE OF INFORMATION			
Currency of the information is crucial for RSDM.	.953		
Relevant of the information is crucial for RSDM.	.855		

Timeliness of the information is crucial RSDM.	.754		
PURITY OF THE INFORMATION			
Sufficient of the information is crucial for RSDM.	.896		
Quality of the information is crucial for RSDM.	.843		
EFFICIENCY OF INFORMATION			
Frequency of the information is crucial for RSDM.			.963
Time period of the information is crucial for RSDM.			.945
DETAILS OF INFORMATION			
Completeness of the information is crucial for RSDM.	.892		
Relevance of the information is crucial for RSDM.	.884		
QUALITY OF INFORMATION			
Performance of the information is crucial for RSDM.		.965	
Scope of the information is crucial for RSDM.		.961	
FORMATS OF INFORMATION			
Presentation of the information is crucial for RSDM.	.928		
Detail of the information is crucial for RSDM	.924		
Media of the information is crucial for RSDM	.923		
Order of the information is crucial for RSDM	.824		
PERFECTNESS OF INFORMATION			
Comparable of the information is crucial for RSDM		.929	
Unambiguous of the information is crucial for RSDM		.887	
Clarity of the information is crucial for RSDM		.835	
ADVANCED TECHNOLOGY ADAPTED HR			
Skill of human resource is crucial for RSDM.	.928		
Use of the technology is crucial for rational strategic decision making RSDM.	.789		
Capacity of the technology is crucial for RSDM	.750		
Knowledge about technology is crucial for RSDM	.689		
Latest version of the technology is crucial for RSDM.	.686		
PERFORMANCE OF TECHNOLOGY			
Speed of the technology is crucial for RSDM		.948	
Durability of the technology is crucial for RSDM		.941	
Availability of the technology is crucial for RSDM		.792	

The results show that the highest loadings were computed as 0.965 and the lowest loadings was 0.728. The total loadings were 28 and total Principle Components were nine.

4.1.2 Subscales of the variables

All the variables were used to obtain a rating that contributes to measurement on a larger scale. Table 2 has presented the mean values, standard deviation, values of Cronbach's Alpha and number of variables in each subscale. Nine subscales were computed from the four main factors, i.e. time factor, content factor, form factor and technology factor of information.

Table 2. Mean, standard deviation and Cronbach's Alpha for the scales of time factors for the rational strategic decision making (n = 24).

Subscales		Mean	SD	Cronbach's Alpha	Number of variables
Time Factor	1. Value of the information	1.34	0.577	0.82	3
	2. Purity of information	1.75	0.807	0.62	2
	3. Efficiency of information	1.70	0.440	0.70	2
Content Factor	4. Details of information	2.70	0.494	0.78	2
	5. Quality of information	1.77	1.20	0.97	2
Form Factor	6. Formats of information	2.08	1.06	.91	4
	7. Perfectness of information	1.58	.549	.72	3
Technology Factor	8. Advanced technology adapted HR	1.85	.641	.92	5
	9. Performance of technology	2.06	.613	.70	3
Total variables					26

The mean values of the three subscales of the time factor are lower than the average mean values signifying that respondents strongly disagreed with the statements of currency of the information is crucial for RSDM, relevants of the information is crucial for RSDM and timeliness of the information is crucial for the RSDM. Similarly, the respondents showed their disagreement with the statements of enough and quality of the information is crucial for the RSDM. Again, the respondents also showed their opinions with the statements of frequency of the information is crucial for RSDM and time period of the information is crucial for RSDM. Comparatively, respondents prioritized purity of information in the first importance and the value of information in the least importance to make rational strategic decision making. The mean values of the two subscales of the content factor are lower than the average mean values (3). The results show that respondents did not give much importance to time factors of information for the rational strategic decision making in educational institutions. The mean values of the details of the information is close to the average mean value signifying that respondents neither agreed nor disagreed with the statements of completeness of the information is crucial for RSDM and relevance of the information is crucial for RSDM. But, the mean value of the quality of information is lower than the average mean value signifying that respondents were dissatisfied with the statements of the performance of the information is crucial for RSDM and scope of the information is crucial for RSDM. The results show that respondents did not give much priority to content factors to make strategic rational decision making in educational institutions. Comparatively, the mean values show that respondents have prioritized details of information in the first rank and the quality of information in the second rank. The mean values of the formats of information is lower than the average value signifying that the respondents disagreed with the statements of detail of the information is crucial for RSDM, order of the information (arrange

in predetermined sequence) is crucial for RSDM, Presentation of the information (narrative, numeric, graphic, sound, animated form etc.) is crucial for RSDM and media of the information (in the form of printed paper documents, video display and other media) is crucial for RSDM. Similarly, the mean value of the perfectness of the information is lower than the formats of information signifying that respondents perceived their opinions between the strongly disagree and disagree with the statements of comparable of the information is crucial for RSDM, unambiguous of the information is crucial for RSDM and clarity of the information is crucial for RSDM. Finally, the mean value of the advanced technology adapted human resource is also lower than the average value signifying that respondents showed their disagreement with the statements of skill of human resource is crucial for RSDM., use of the technology is crucial for rational strategic decision making RSDM, capacity of the technology is crucial for RSDM, knowledge about technology is crucial for RSDM and the latest version of the technology is crucial for RSDM. But the mean value of the performance of the technology is higher than the advanced technology adapted HR and lower than the average mean value signifying that respondents showed their disagreement with the statements of speed of the technology is crucial for RSDM, durability of the technology is crucial for RSDM and availability of the technology is crucial for RSDM.

4.1.3 Results of the independent sample t-Test

Two basic experimental designs were employed to examine differences in two groups (Private College & public college).

H₀: There is no significant difference in average percentage of impact of information to make RSDM in educational institutions.

H₁: There is significant difference in average percentage of impact of information to make RSDM in educational institutions.

The results show that the mean score for the private college (n = 14) on the first subscale value of information (M = 1.46, SD = 0 .67) did not differ statistically significantly [t (22) = 1.331, p = 0.197] from that of public college (n = 10) for the same variable (M =1.48, SD = 0.29), hence the null hypothesis is accepted. Similarly, the mean score of the private college of the second subscale purity of the information (M = 1.43, SD = 0.53) is statistically significantly higher [t (11.11) = -.2.472, p = 0.01] than that of the public college (M = 2.27, SD = 0.93), hence H₁ is rejected. Again, the mean score of third subscale for the private college on efficiency of the information (M = 1.63, SD = 0.48) was not statistically significantly different [t (22) = -1.081, p = 0.291] from that of the public college (M = 1.83, SD = 0.35). Similarly, Again, the mean score of the fourth subscale details of information for the private college on the fourth subscale details of the information and growth (M = 1.53, SD = 0.71) did not differ statistically significantly [t (22) = 1.405, p = 0.174] from that of public college for the same variable (M =1.20, SD = .258). Similarly, the mean score of the private college of the fifth subscale quality of information (M = 2.00, SD = 1.01) was statistically significantly lower [t (119.70) = -3.673 p = 0.001] than that of the public college (M =3.70, SD = 1.18) signifying that private college does not give importance to quality of information for the RSDM than the public college. The results show that the mean score for the private college on the sixth subscale formats of information (M = 2.25, SD = 1.13) did not differ statistically significantly [t (22) = .901, p = 0.377] from that of public college for the same variable (M =1.85, SD

= 0.241), hence the null hypothesis is accepted. Similarly, the mean score for the private college on the seventh subscale perfectness of information (M = 1.59, SD = .681) did not differ statistically significantly [t (22) = .123, p = 0.903] from that of public college for the same variable (M = 1.56, SD = 0.316), hence the null hypothesis is accepted. Additionally, the results show that the mean score for the private college on the eighth subscale advanced technology adapted human resource (M = 1.81, SD = .778) did not differ statistically significantly differ [t (22) = 0.390, p = 0.700] from that of public college for the same variable (M = 1.85, SD = 0.241), hence the null hypothesis is accepted. Similarly, the mean score for the private college on the ninth subscale performance of information (M = 2.16, SD = .448) did not differ statistically significantly [t (22) = .915, p = 0.370] from that of public college for the same variable (M = 1.93, SD = 0.798).

4.1.4. Results of Logistic Regression Model

Binary Logistic Regression Model (BLRM) was used to find the effects of the independent variable (the value of information, the purity of information, the efficiency of information, the details of information, the quality of information, the advanced technology adapted human resource) on the dependent variables (the rational strategic decision making).

Table 3. Summary of the independent's predictors of the Wholesome Model of Quantitative findings (n = 24).

Independent variables	B	S. E.	Wald	df	Sig.	Exp (B)
The value of information	5.194	3.27	2.510	1	.113	180.142
The purity of information	2.334	1.672	1.949	1	.163	10.318
The efficiency of information	5.330	2.907	3.363	1	.067	206.435
The details of information	6.535	5.014	1.699	1	.192	689.025
The quality of information	1.855	1.701	1.190	1	.275	6.394
The advanced technology adapted HR	-12.619	7.593	2.762	1	.097	.000
The performance of technology	-3.457	1.927	3.218	1	.073	.032
The format of information	3.251	2.412	1.817	1	.178	25.820
The perfectness of information	-1.369	1.071	1.634	1	.201	.254
Constant	-6.575	3.473	3.584	1	.058	.001

There were nine basic measurement scales in quantitative result section, but all nine indicators were found insignificant for the rational strategic decision making (see in the table 3). With the Omnibus Tests [Chi-Square = 18.08, df = 9, p = .034 and associated significance level less than 0.05, the present model shows a decrease in deviance from the base model because Chi-Square is positive, showing this model is better fit compared to the base model. The model summary shows the values of -2Log Likelihood (0.000^a), Cox and Snell R² and Nagelkerke R² [52.90 % % (Cox and Snell) and 100 % (Nagelkerke)] variance of the model was explained by the independent variables. Hosmer and Lemeshow Test shows that p = 1.00 > 0.05 is insignificant which is good to support for the regression model fit. The classification table shows that out of 24 school leaders 21 showed their opinion on the role of information is important to make rational strategic decision making in educational institutions, this model predicts 3 school leaders showed

their opinions on the role of information is not important to make rational strategic decision making. Thus, it predicts school leaders who showed their opinion for the importance of information to make rational strategic decision in the educational institutions with 100% percent accuracy and predicts 100 percent accuracy of school leaders who said the role of information to make rational strategic decision is not important in educational institutions. The results further show that the overall percentage of correctness of observed data was 100 %. The results show that there was a insignificant association between the value of information, the purity of information, the efficiency of information, the details of information, the quality of information, the advanced technology adapted human resource, the performance of information, the formats of information and the perfectness of the information ($p > 0.05$) and the rational strategic decision making in the wholesome analysis. Due to the insignificant association between the independent variables and independent variable, further analysis of the independent variables was ignored.

5. Discussion and conclusions

The primary objective of this study was to examine the association between the impact of information factors for rational strategic decision making in educational institutions. To fulfil this objective results show that mean score of the private colleges of the second subscale purity of the information is statistically significantly higher than that of the public colleges. Similarly, the mean score of the private colleges of the fifth subscale quality of information was statistically significantly lower than that of the public college signifying that private college does not give importance to quality of information for the impact of RSDM. The results of the nine subscales highlight that details of information have covered the greatest value of mean and the efficiency of information has the lowest mean value signifying that educational executives do not give more attention for the positive role of information factors to make rational strategic decision in educational institutions. Additionally, the results also show that the low mean value of each subscale is lower than the average mean value (3) signifying that there is no impact of information to make rational strategic decision in educational institutions. The results confirmed that there was an insignificant association between the factors value of information, the purity of information, the efficiency of information, the details of information, the quality of information, the advanced technology adapted human resource, the performance of information, the formats of information and the perfectness of the information ($p > 0.05$) and the rational strategic decision making in the wholesome analysis. This study did not support the studies of Frishammar (2003); Citroen (2011) and Szymaniec-Mlicka (2017) because all three previous studies had concluded that there was significant association between the time, content, form and technology factors of information and the rational strategic decision making. The results are somehow surprising because not a single independent variable had significant association with the impact of information in rational decision making. The results of the study provide new information on the specific knowledge of information on how to improve decision-making efficiency and effectiveness at each stage of the strategic decision process in educational institutions.

The limitations of this study are very small sample size and limited number of the survey instruments used in this study. The findings of this study cannot be generalized in the similar situations because the number of sample size was very small which would be the possible reason for insignificant association between the independent variables and dependent variable. The implication of this study will be beneficial for the

college executives and college principals to understand the importance of information to make rational strategic decision making. It was learnt that a big sample population and a mixed methods approach would be better for the future research studies. More importantly, there are very limited empirical research on the impact of the information factors to make rational strategic decision making. It is recommended that future research needs to focus on the impact of the information factors to make rational strategic decision in educational institutions in Nepal. The study of the impact of information technology to make rational strategic decision making in educational institutions in Nepal is imperative on large population in Nepal to foreground the limitation of this research work.

References

- Aharoni, Y., Tihanyi, L., & Connelly, B. (2011). Managerial decision-making in international business: A forty-five-year retrospective. *Journal of World Business, 46*(2), 135-142.
- Chapple, J. (2015). Mission accomplished? School mission statements in NZ and Japan: what they reveal and conceal. *Asia Pacific Education Review, 16*(1), 137-147.
- Choo, C. (1996). The knowing organization: How organizations use information to construct meaning, create knowledge and make decisions. *International Journal of Information Management, 16*(5), 329-340.
- Citroen, C. (2011). The role of information in strategic decision-making. *International Journal of Information Management, 31*(6), 493-501. doi: 10.1016/j.ijinfomgt.2011.02.005
- Elbanna, S. (2006). Strategic decision-making: Process perspectives. *International Journal of Management Reviews, 8*(1), 1-20.
- Frishammar, J. (2003). Information use in strategic decision making. *Management Decision, 41*(4), 318-326.
- Lunenburg, F. (2010). Decision Making Process. *National Forum of Educational Administration and Supervision Journal, 27*(4), 1-12. Retrieved from <http://file:///C:/Users/USER/Downloads/Documents/Lunenburg,%20Fred%20C.%20The%20Decision%20Making%20Process%20NFEASJ%20V27%20N4%202010.pdf>.
- Marques, C., Moniz, S., & de Sousa, J. (2018). Strategic decision-making in the pharmaceutical industry: A unified decision-making framework. *Computers & Chemical Engineering, 119*, 171-189.
- Matarazzo, J. (1998). The knowing organization: How organizations use information to construct meaning, create knowledge, and make decisions. *The Journal of Academic Librarianship, 24*(6), 492-493.
- Nutt, P., & Wilson, D. (2010). *Handbook of decision making*. Chichester: John Wiley.
- Petersen, M., & Laustsen, L. (2019). Dominant leaders and the political psychology of followership. *Current Opinion in Psychology, 33*, 136-141. doi: 10.1016/j.copsyc.2019.07.005
- Szymaniec-Mlicka, K. (2017). The decision-making process in public healthcare entities – identification of the decision-making process type. *Management, 21*(1), 191-204.