Enhancing Strategic and Tactical Planning with the Support of Management Information Systems

Avani Trivedi, Dhanraj Verma

Abstract: Management information system (MIS) is an important part of an organization, it simplifies and helps to achieve efficient decision making skills in an organization. This research system explores the areas to which MIS is implemented to make effective decisions BPO companies. The research tried to test the effect of MIS on selected BPO’s companies of M.P. it also tried to find out its effect on decision making for strategic and tactical planning purpose. Two research hypotheses were examined with the help of the quantitative research design some organization 160 forms were prepared and distributed to the employees working at different management levels in the selected organization. After studying all the forms we came to the result of the research which expressed that initially Management information system (MIS) affected strategic planning, it enhanced strategic planning in BPO companies. It was resulted by regression analysis that Tactical planning has no effect on decision making, while Strategic planning affects clearly to Decision Making skills in BPO companies.

Keywords: The research tried to test the effect of MIS on selected BPO’s companies of M.P.

I. INTRODUCTION

The work of the MIS in an association can be contrasted with the job of heart in the body. The data is the blood and MIS is the heart. In the body the heart assumes the job of providing unadulterated blood to every one of the components of the body including the mind. The heart work quicker and supplies more blood when required. It manages and controls the approaching debased blood, prepared it and sends it to the goal in the amount required. It satisfies the requirements of blood supply to human body in typical course and furthermore in emergency.

The MIS assumes the very same work in the association. The framework guarantees that a suitable information is gathered from the different sources, prepared and send further to all the poor goals. The framework is relied upon to satisfy the data needs of an individual, a gathering of people, the administration functionaries: the administrators and top administration.

Effect of the Management Information System on Organization

MIS assumes a significant job in the association; it makes an effect on the association's capacities, execution and profitability.

The effect of MIS on the capacities is in its administration with a decent MIS bolsters the administration of promoting, account, creation and work force turns out to be increasingly proficient. The following and checking of the practical targets turns out to be simple.

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The utilitarian directors are educated about the advancement, accomplishments and deficits in the movement and the objectives. The administrator is kept alarm by giving certain data demonstrating and likely patterns in the different parts of business. This aids in anticipating and long haul point of view arranging. The administrator's consideration is purchased to a circumstance which is normal in nature, initiating him to make a move or a choice in the issue. Restrained data announcing framework makes structure database and a learning base for every one of the individuals in the association. The data is accessible in such a structure, that it very well may be utilized straight away by mixing and investigation, sparing the chief's important time.

The MIS makes another effect in the association which identifies with the comprehension of the business itself. The MIS starts with the meaning of information, element and its qualities. It utilizes a word reference of information, element and qualities, separately, intended for data age in the association. Since all the data frameworks utilize the word reference, there is normal comprehension of terms and phrasing in the association acquiring lucidity the correspondence and a comparative comprehension of an occasion in the association.

Level of Decision making at various degree of Organization

A choice will be decision out of a few options (alternatives) settled on by the chief to accomplish some target s in a given circumstance. Business choices are those, which are made during the time spent leading business to accomplish its goal in a given domain. Administrative basic leadership is a control point for each administrative action might design, sorting out, staffing, coordinating, controlling and conveying. Basic leadership is the craft of contemplated and sensible decision out of numerous options. When choice is taken, it infers duty of assets.

The business chiefs need to take assortment of choice. Some are normal and others are long haul execution choice. Consequently administrative choices are assembled as:

(a) Strategic choice
(b) Tactical choice
(c) Operation choice

II. LITERATURE REVIEW

There is a ton of research on the methodologies, systems and innovations for the structure and advancement of MIS. Be that as it may, there are a couple of articles that spread the effect of Management Information Systems on arranging procedures and basic leadership. While there are no all around acknowledged meanings of MIS and those that exist in literary works are simply partialities of the scientists (Adeoti-Adekeye, 1997).

Lee, (2001) characterized Management information system as “framework procedure to gives data expected toward oversee associations successfully”.

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Baskerville and Myers (2002) extensively characterize Management information system as “Improvement, use and utilization of data frameworks in people, associations with culture”. In his investigation, Becta (2005) portrays a data framework as “a framework comprising of the system of all correspondence channels utilized inside an association”. In their investigation, Laudon and Laudon (2003) have characterized MIS as “the investigation of data frameworks concentrating on their utilization in business and the executives”. The previously mentioned definitions demonstrated that MIS has underlined the improvement, application and approval of pertinent speculations and models in endeavors to energize quality work in the territory. Alluding to the literary works, the field of Management Information Systems (MIS) has had a variegated improvement in its moderately short life expectancy. MIS has built up its own topic of research and studies (Baskerville and Myers, 2002).

Following past literary works, we can report that during its initial couple of decades, MIS focused on the data with regards to: Electronic information handling which completes exchange preparing capacities and records point by point accurate information. The executives revealing frameworks which investigate the operational exercises of an association, giving outlines, data and input to the executives. Just during the most recent two decades, the MIS field has moved to the essential, thought about the second kind of correspondence, to be specific, guidance based. This has turned out to be known as the area of master frameworks (Sasan Rahmatian, 1999). In endeavors to survey distributed examinations on MIS and articles, Alavi and Carlson (1992) have distinguished mainstream investigate points, the overwhelming exploration viewpoint, and the connection between MIS research and practice. Conversely, Baskerville and Myers (2002) have analyzed the MIS field and found a steady move of MIS investigate from a specialized concentration to an innovation authoritative and the board social core interest.

Skyrius (2001) underlines the leader's mentalities towards various variables affecting the nature of business choices; these elements incorporate data sources, logical devices, and the job of data advancements. Handzic (2001) likewise focuses on the effect of data accessibility on individuals’ capacity to process and utilize data in short and long haul arranging and in basic leadership undertakings. He uncovered that the better the accessibility of data, the better the effect on both proficiency and exactness of business choices. Liu an Young (2007) talk about key data models and their connections in business choice help in three distinct situations. The creators demonstrated that worldwide organizations are ahead of time because of the Enterprise Applications System gave by current IT apparatuses, for example, Enterprise Resource Planning (ERP), Knowledge Management Systems (KMS) and Customer Relations Management (CRM) to improve the proficiency and viability of the Decision Making process.

So as to improve the money related hierarchical ability and upgrade its degree of rivalry in the market, budgetary associations ought to comprehend the elements of the Information Management, and obviously characterize and build up the assets if there should be an occurrence of human, innovative, and inner activities, among others,, and oversee them well over the authoritative limits. Nonetheless, setting up the connection between Information System Management, arranging and basic leadership is, best case scenario, precarious.

In an article by Shu and Strassmann (2005), a study was led at 12 BPO’s in the US somewhere in the range of 1989 and 1997. They saw that despite the fact that Information Technology had been one of the most basically unique variables relating all end eavers, it couldn’t improve BPO’s income. Notwithstanding, on the other hand, there are numerous literary works favoring the positive effects of Information Technology costs on business esteem. Kozak (2005) explores the impact of the advancement in Information Technology on the benefit and cost adequacy of the financial zone during the period somewh ere in the range of 1992 and 2003. The investigation shows a helpful relationship among the executed Information Technology, profitability and cost reserve funds. Associations that don’t have formal Information sharing practices will in any case neglect to use their supervisors’ scholarlyicapitalif oribusinesssiadvancementiandidevelopmenti (O'Neill and Adya, 2007).

MIS empowers the trading of encounters, which moves the essential data to the administration levels to support upper hand since it influences the basic leadership to improve the nature of a diminutions gave. In this manner, Barachini et al. (2009) upheld that it is basic that these associations constantly propel their workers to share important data with the goal that their scholarl y capital can be utilized. The executives Information System will give the financial administration another measurement in dealing with its learning and help in completing and expanding the administration’s drives in blending the proper procedures in the short and long arranging (Edmondson, 2002).

In his examination, Obi (2003) recommended that MIS is vital in the region of basic leadership as it can screen independent from anyone else the precariousness in a framework, check a strategy and make a move to keep the framework in charge. Literary works additionally recommended that non-modified choices are significant as they offer help by providing data to the hunt, the investigation, the assessment and the decision and usage procedure of basic leadership.

All the more as of late, Adebayo (2007) clarified that the presence of MIS is expected to improve and upgrade basic leadership on the issues influencing human and material assets.

From the writings displayed, we can without much of a stretch see that the significance of the job of both center and top administration to keep up a reliable way to deal with create, use, and assess MIS frameworks inside the foundation. To money related organizations, Management information systems is utilized on different level in administration, center as well as still by means of the operational employees as a help for basic leadership that intends to meet vital objectives and key goals.

The over literary works likewise investigate the significance of MIS in furnishing leaders with actualities, which therefore backing and upgrade the whole basic leadership process. Moreover, on the majority senior level, Management information systems and DSS provide information and expected data toward help governing body plus the executives level toward create exact and on time key choices.
III. RESEARCH METHODS

The present examination endeavors to clarify the connection between different components. Because of the idea of the ebb and flow study and its theory, the essential research reason for the momentum study is, in this manner, informative. Informative clarifies intricacy of the consistent factors distinguished to be placed in the speculation plus study with building up a few speculations, the investigation hence adjust the quantitative research configuration to all the more likely test those theories. Quantitative research uses study as the principle instrument to gather information.

Questions and hypotheses
In the direction of accomplish motivation behind flow learn, the accompanying examination question contain in depth:
1. What exactly degree is Management information systems being used to help Strategic making arrangements for choices in BPO's organization?
2. Whatever degree is Management information systems being used to help Tactical making arrangements for choices in BPO's organization?

in the direction of respond to the inquiries, the present examination completes different theories that created from past writings and studies (Ajayi et. al, 2007). Figure 1 exhibits the proposed model and factors influencing the procedure of basic leadership. Along these lines, we consider the speculation beneath:

H1: The Tactical Planning (present moment) produced by MIS is decisively influencing the basic leadership process.
H2: The Strategic Planning (time-consuming Term) produced by Management information systems is emphatically influencing basic leadership process.

IV SURVEY INSTRUMENT

The members be approached toward show their recognition on a likert scales by reaction running as of "firmly dissent" toward "emphatically concur". The gathered information were dissected dependent on connection and relapse examinations utilizing the measurable bundle for sociologies (SPSS).

The poll of this investigation is adjusted from past writings and studies (Ajayi et. al, 2007). Figure 1 exhibits the proposed model and factors influencing the procedure of basic leadership. The poll we arranged designed in favor of this document is isolated interested in two segment. The main area focuses on the general profile of the respondent including his/her age gathering, instruction level and calling and salary gathering. In the second segment we were keen on social occasion data about the significance of Management information systems and its utilization in BPO's organizations in Madhya Pradesh. The respondents were given a rundown of questions identified with the accompanying elements;

- The significant of Management information systems in Supporting Tactical arranging and subsequently improving the choice - making process.
- The significant of Management information systems in Supporting Strategic arranging and thus improving the choice - making process.

The adequacy of BPO's organization's basic leadership procedure utilizing an individual relationship, the poll has been examined with different degrees of BPO's organizations' administration and a pilot study has been led among low-level individuals from the BPO's organizations' employees. This enhanced the poll, which have be utilized for the examination exhibited in this investigation.

Data collection

Test determination is a significant however some of the time thought little of part of an examination study. Our example choice is from Madhya Pradesh locale as it were. We had thought about four significant urban communities of state in particular Bhopal, Jabalpur, Gwalior and Indore. As these urban areas have the BPO's organizations from where the respondents are sourced. Quantities of respondents are similarly partitioned in to four urban communities Bhopal-40, Jabalpur-40, Gwalior - 40 and Indore-40 from shifted BPO enterprises. The fundamental explanation for the example choice from four significant urban communities as the possibility to get the respondents those are by and by engaged with vital choices strategies in organization.

Out of all the four urban communities the respondents fill information was gotten as Bhopal-37, Jabalpur-38, Indore-40 and Gwalior-36, a complete 151 reactions got after definite gathering out of 160. Significantly the information was gathered from the urban areas comprehensively from the classification of beneath referenced BPO's

- Client care Services
- Specialized Support Services
- Tele Marketing Services
- Protection Processing

The survey arranged utilized had been pre-tried at first by a small number of individuals (15 clients) working in various divisions toward guarantee constancy, lucidity and significance toward BPO's. small change (identified with inquiries substance, wording, and arrangement) were mentioned by those individuals, which we actualized before completing the last duplicate.

Information Analysis

The present investigation utilized SPSS to break down information acquired as of review. The present investigation use ANOVA to check whether there are some contrasts among holder one and holder two when utilizing Management information systems used for behind basic leadership forms. Also, the straightforward Regression was executed to test the theory and the linkages among needy and autonomous factors.

V. RESULTS AND DISCUSSIONS

This area exhibits the factor investigation test. At that point, the aftereffects of connection investigation of the 3 factors (Strategic arranging, Tactical arranging, and Decision-production Effectiveness) are examined. At long last, the aftereffects of the paper are talked about as per the examination goals and speculation of the investigation.

Correlation Tests

Connection examination was joined to depict the quality and bearing of the straight connection between the two free factors and the needy variable (Pallant, 2001). Adequacy of the BPO's basic leadership forms, which are the needy factors viewed as the BPO's progression in the executives building and office, money related angles and staff issues.
Past examinations supported the significance of leading connection tests before the relapse testing, the relationship between’s factors subsequently essential (Coakes and Steed, 2007). The aftereffect of the relationships is introduced in the accompanying Table 1.

Table 1: The results of Correlations test

|                          | Strategic Planning | Tactical Planning | D.M. Effectiveness |
|--------------------------|--------------------|-------------------|--------------------|
| **Strategic Planning**   | R  
                          | P  | 1 |
| **Tactical Planning**    | R 0.241(A)        | P 0.001           | 1 |
| **D.M. Effectiveness**   | R 0.310(A)        | P 0.001           | 1 |

*R* = the value of Personal Correlation  
*P* = the significant level (2-tailed)  
(A) = Correlation 1% level.  
(B) = Correlation 5% level

The consequences of relationship uncovers that Strategic arranging (r=0.310) saw as emphatically and decidedly connected with the BPO’s Decision creation (D.M) Effectiveness, while Tactical Planning (r=0.259) saw as decidedly corresponded with the BPO’s D.M Effectiveness. Regression

In favor of additional investigation, a Linear Regression examination be lead toward look at the degree to which the autonomous factors (Strategic arranging and Tactical arranging) impact the progression efficiency of BPO’s basic leadership (Subordinate variable). The free factors were relapsed crosswise over hierarchical results. Tables 2, 3 and 4 outlined the after effects of the Linear Regression investigation.

The aftereffects of relapse uncovers that the model is critical (p < 0.01) and the coefficient of assurance (r2) for the relapse is (0.490), showing that (49%) of the variety in the reliant variable (basic leadership viability) was clarified by the free factors incorporated into the relapse. The aftereffects of relapse demonstrated that the difference in the Effectiveness of the BPO’s basic leadership is clarified by just a single variable; Strategic arranging, while Tactical Planning found not to influence the Effectiveness of the BPO’s basic leadership process.

Table 2: Results of ANOVA test

| Model       | R     | df | Mean Square | F      | Sig. |
|-------------|-------|----|-------------|--------|------|
| Regression  | .490  | 3  | 4.240       | 9.594  | .000 |
| Residual    |       | 131| .442        |        |      |
| Total       |       | 134|             |        |      |

a. Predictors: (Constant), Tactical planning, Strategic planning  
b. Dependent Variable: D.M Effectiveness

Table 3: Results of Model Summary

| Model       | R     | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|-------------|-------|----------|-------------------|---------------------------|---------------|
| 1           | .490  | .180     | .161              | .665                      | 1             |

a. Predictors: (Constant), Tactical planning, Strategic planning  
b. Dependent Variable: D.M Effectiveness

Table 4 Coefficients

| Model       | Unstandardized Coefficients | Standardized Coefficients | t | Sig |
|-------------|-----------------------------|---------------------------|---|-----|
|             | B                          | Std. Error                | Beta (β) |     |
| 1 (Constant)| 1.395                      | .415                      | 3.364       | .001|
| Strategic planning | .212                      | .087                      | .218        | 2.441| .016|
| Tactical planning | .124                      | .081                      | .136        | 1.532| .128|

a. Dependent Variable: D.M Effectiveness
The relapse examination was actualized to help the connection test. Nonetheless, the investigation uncovered that the Tactical arranging is found to have no impact on D.M Effectiveness (Sig.=0.128 > 0.05). The relapse examination demonstrated that Strategic arranging, then again (Sig.=0.0162< 0.05), influences the D.M Effectiveness in the BPO's.

The present investigation planned to gauge the execution and the utilization of MIS in BPO's in. Two diverse arranging exercises have been distinguished to quantify the BPO's usage and utilization of Management information systems, these exercises are: Strategic arranging and Tactical Planning. Connection investigation was fused toward portray the quality and heading of the direct connection linking 2 free factors and the needy variable. The aftereffects of distinct measurements uncover that Management information systems was principally use

VI. CONCLUSIONS
Management the executives Information Systems is of vital significance to arrive at compelling choices in an association. The literary works introduced in this investigation clarified the critical job of MIS. In the basic leadership procedure upgrading in an association, MIS is esteemed to be an incorporated client machine framework that gives data to help activities, the executives and basic leadership capacities at different degrees of an association. Associations know that MIS is a particular reason framework valuable for the board targets. The examination has featured that MIS ought to be available in providing fitting and high caliber of data from its age to its clients. To MIS, to be essential and viable, a deliberately imagined, planned and executed database should exist to impart the versatile choices.

The examination has created 2 free factors (Strategic arranging and Tactical arranging) and one dependant variable (the Effectiveness of BPO’s Decision-production). To address the examination questions and to test the theories, the investigation adjusted the quantitative research plan and executed development measurement techniques (Correlation, ANOVA and relapse). The investigation considered applied research as the consequences of this examination expected to explicitly help BPO’s top administration and associations all in all to create Management information systems structuring, keeping up and usage so as to upgrade the procedure of basic leadership.

To put it plainly, the consequences of the spellbinding measurements uncovered that Management information systems fundamentally used to improve Strategic arranging in the BPO’s. The investigation likewise uncovered that MIS is the least actualized in the Tactical arranging.

Connection examination was consolidated to depict the quality and heading of the straight connection between the two investigation factors. The aftereffects of relationship uncovered that Strategic arranging and Tactical Planning are decidedly connected with the BPO’s D.M Effectiveness.

On behalf of more examination, Linear Regression investigation be led toward look at the degree to which the autonomous factors (Strategic arranging and Tactical arranging) impact the progression Effectiveness of the BPO’s basic leadership (subordinate variable). The aftereffects of relapse uncovered that the model is critical toward improve Strategic arranging in the BPO’s. The investigation additionally uncovered that MIS is the least actualized in the Tactical arranging (present moment).

Connection test hence executed research the connection between the two factors. The outcome uncovers that the two factors in this investigation are corresponded with the viability of the basic leadership process in the BPO's. Concerning Cohen (1992), the result uncovered that the Strategic arranging is medium connected with the adequacy of the basic leadership process in the BPO's, while Tactical arranging shows little relationship with the viability of the basic leadership process in the BPO's.

In addition, the aftereffects of relapse that the change in the Effectiveness of the BPO's basic leadership procedure is clarified by just a single variable, Strategic arranging, while Tactical arranging establish not toward influence the Effectiveness of the BPO's basic leadership procedure.

and the coefficient of assurance (R) for the relapse. The consequence of relapse showed that the fluctuation in the Effectiveness of the BPO’s basic leadership is clarified by just a single variable: Strategic arranging. Nonetheless, the examination uncovered that Tactical Planning is establish toward include rejection impact on top of D.M Effectiveness.

VII. SUGGESTIONS
In light of the discoveries of this examination, Management information system was not enough actualized for basic leadership on Strategic arranging and Tactical Planning in BPO's. It is along these lines prescribed that the MIS units ought to be satisfactorily kept up to guarantee the free progression of data and sufficient utilization of Management information system in basic leadership inside Strategic and Tactical. Examination additionally suggests that a legitimate direction ought to be led so as to help directors on every one level since toward guarantee appropriate and satisfactory utilization of Management information systems offices in producing and spreading data for better choices in the BPO's.

Association the executives doesn't generally perceive the data required, while the data experts regularly don't understand and know about administration so as to deliver pertinent data for the supervisors they serve. To be fruitful, a Management information system ought to be structured and worked identified with associations, the board and specialized components. The investigation empowers the associations’ top administration to take an interest in upgrading MIS and make a powerful commitment to framework plan. The data experts (counting frameworks investigators, creator, ITC faculty, bookkeepers and tasks specialists) ought to participate and turn out to be progressively cognizant and product of administrative capacities needs with the goal that increasingly powerful MIS is created.

At long last, we accept that to upgrade Management information systems, BPO's or any association that utilization Management information systems to improve its basic leadership procedures should create compelling correspondence channels among the executives and data experts.
Great correspondences at that point encourage the assignment of creating pertinent and fitting data frameworks. It is no basic agenda to naturally create the ideal Management information systems. Association consequently would know that what is required is a mindfulness and comprehension of key standards and capacities wherein the plan, usage and activity of Management information systems are the aftereffects of discerning choices as opposed to heedless improvement without thinking about the genuine authoritative requests.

REFERENCES
1. Coakes, S. J., & Steed, L. (2007). SPSS Version 14.0 for windows: Analysis without anguish. Milton, Australia: John Wiley & Sons.
2. Edmondson, A. (2002). The Local and Variegated Nature of Learning in Organizations: A Group-Level Perspective, Organization Science, 13(2), 128-147.
3. Fabunmi M. (2003). Management Information Systems in Education in Babalola JB (ed.). Basic Text in Educational Planning. Ibadan: Department of Educational Management, BPO’s of Badan, Ibadan.
4. Kozak S. (2005). The role of information technology in the profit and cost efficiency improvements of the BPO’sing sector. Journal of Academy of Business and Economics, February 2005.
5. Laudon, K.C. and Laudon, J.P. (2003). Management Information Systems: Managing the Digital Firm (Upper Saddle River, NJ: Prentice Hall).
6. Liu, S and Young, R.L.M (2007). An exploration of key information models and their relationships in global manufacturing decision support, Proc. IMechE, Journal of Engineering Manufacture, 21(1), 711-724.

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