Human System Integration (HSI), a Wise Solution of Human Computer Co-ordination for Mutual Business Decision Making

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ABSTRACT

Human system Integration (HSI) creates an effective communication medium between a human (Business organization) and a computer (IT & Advanced electronic communication). HSI basically any MIS, AI, BIS or DSS with data pool like super servers , Data marts / warehouses , but why it's need , and answer is that if software is difficult to understand and use , if it forces you into mistakes in decision- making process to run business with the support of IT &   Business – HCI (Human computer Interface) often called GUI (Graphic User Interface) , but the concept is slightly different for HSI , though HSI is HCI (or GUI) but 100% under stable to end users to help in decision making and work mutually & sure simultaneously with computer not probably which almost found in poor HCI to run whole business with completely Human- computer co-ordination, and this Human- computer co-ordination only possible in those case where HSI is 100% accurate.

Thus to change / modify or generate effective & useful HSI, Interface design must have to focuses on three major concern. For effective Integration in between human (i.e. organization) and system (i.e. computer) and are

1)   The design of interfaces between software components
2)   The design of interfaces between software and other non-human producers & consumers of information (i.e. other external entities), and
3)   The design of interface between a human (i.e. users / business organization) and computer.

In HCI /GUI consideration equal emphasis to all these three aspects, but HCI/GUI with the intention to develop effective HSI for business organizations for decision –making process, major concern is third one. This paper covered this emerging need of effective decision making with some models & discussion.

Key words: HSI (Human system Integration), HCI (Human computer Interface),
Business Intelligence.

INTRODUCTION

To define needs of HSI in business management first need to know about why HSI must be accurate and always need in business, consider some hypothetical situation , computer system warn you after input several related data in it for products, don't launch product after data change to information and information again change into business intelligence, but you unable to understand

what actually system warn you , consider another example person driving fully automated computer-based car and due to break failure unable to control it , though available HSI suggesting him/her how to overcome with situation but you unable get out from it , your MIS/BIS/DSS/ES Alter you to don't increase production due less demand , but users unable to understand it properly, and increased production. In all above mentioned example though there are involvement of computer with human , but due loosely bound or poor integration between Human and System conflict exist in organization hence no any co-ordination between man and machines , thus contextual , understanding , linguistic overall should say communication problem between Human & System and in result wrong/probable / partially correct decision , which directly affect to planning & execution of business .Thus for proper co-ordination between Human and System efficient integration(Interfacing design) needed to establish proper communication through Interfacing and this is the importance of HSI in next generation business world.

HSI – Model
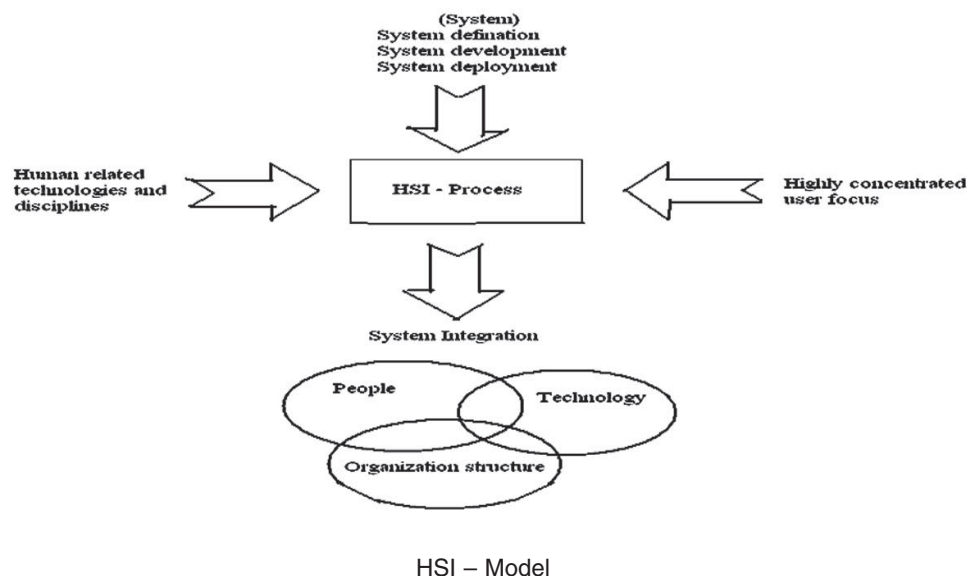
The above proposed model shows how one can able to construct useful & meaningful , HSI which strongly based on three major pillars with their substance pillars to give strongest support to HSI- building, the very first consideration is system , which distributed into three major concern and they are

1.   System definition
2.   System development
3.   System deployment

These three SDs play important role in HIS development , in system definition all major consideration about requirement & technical expertise of system & the business area with it's concern, in system development feasibility of HSI instruction tools like programming languages, packages, quantity, maintenance & testing tools where system deployment focused attention strongly how generate HSI used effectively. In second phase system designers & software analyst designers/engineers & developers must have to identify all possible human related technologies & disciplines to make HSI/HCI/GUI more & more business organization users centric, interactive, conflict-free & flexible to support to man, execute, & control their routine business , to forecast , to generate computerized information & intelligence on the basis of those organization able to make effective & efficient decisions and the last one highly concentrated users focus where intension is that to generate users friend HSI operating system/ business software and to do so every HSI developers must more will operation research ; Business-HSI optimization , simulation and requirement analysis of users to make it more
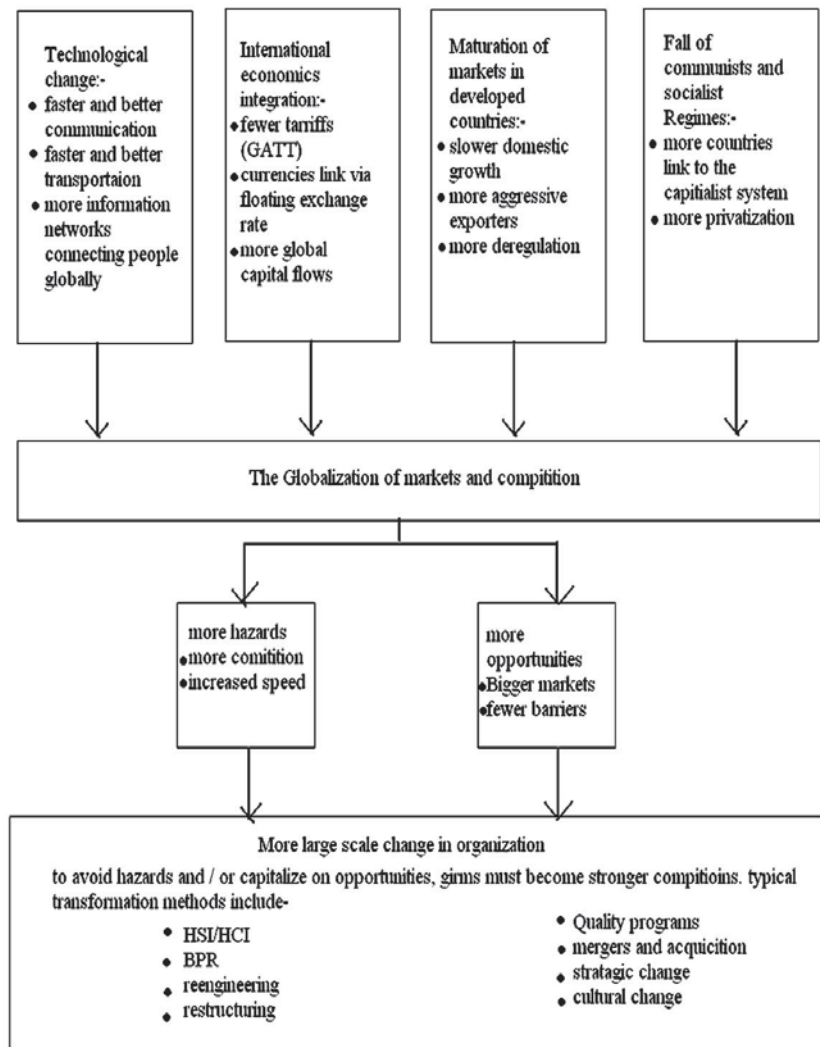
interactive/flexible. After these three precise inputs at output of model system integration developed which is constructed on the basis of several facts of people, Technology and organization and it is combination of these three.

R - required

Elements for successful HSI Implementation

Sources : from the new rules : How to succeed in today's post - carporate world. By John. P. Kotter.
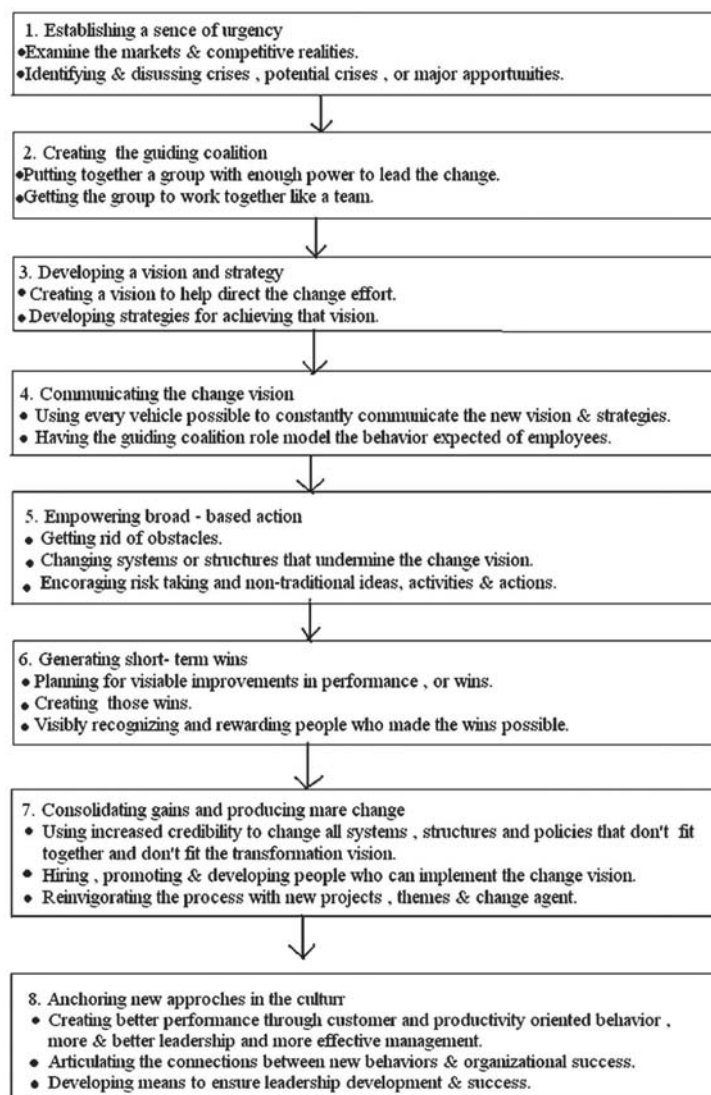
The above exhibit is due simple idea how one can able to implement successful HSI with vital elements. At very first for new paradigm it's equivalent changes in vision/strategies requires which create changes in work culture and this changes in work culture requires for changes in all organization components related to man , material , machineries , money and of course technology and after these requisites business organizations have ability to manage integrated HSI – process.
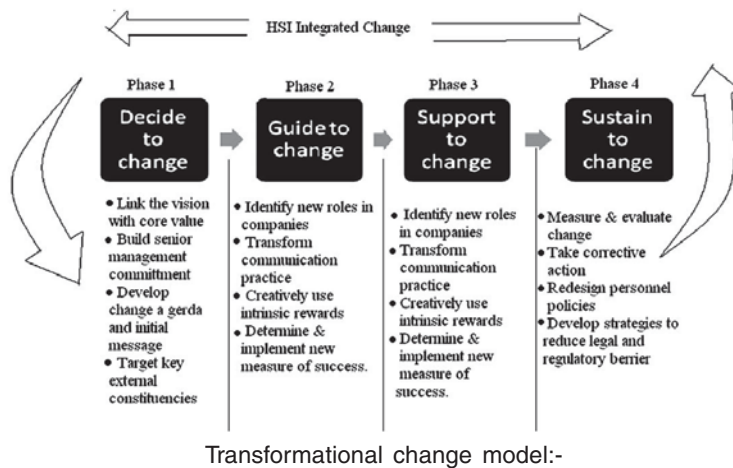
Why "change" is vital for HSI
Exhibit 1

Economic and social forces are driving the need for major "change" in organizations. The Exhibit 1 shows the correlation in between HSI development and change , because today's business environment has both Hazards as well opportunities for business due to the globalization , thus strong competition and all competitor keep update themselves with new pans, procedures ,

Exhibit 2 : The eight stage process of creating Major change.

1. Establishing a sence of urgency
 •Examine the markets & competitive realities.
 •Identifying & disussing crises , potential crises , or major apportunities.

2. Creating the guiding coalition
 •Putting together a group with enough power to lead the change.
 •Getting the group to work together like a team.

3. Developing a vision and strategy
 • Creating a vision to help direct the change effort.
 •Developing strategies for achieving that vision.

4. Communicating the change vision
 • Using every vehicle possible to constantly communicate the new vision & strategies.
 • Having the guiding coalition role model the behavior expected of employees.

5. Empowering broad - based action
 • Getting rid of obstacles.
 • Changing systems or structures that undermine the change vision.
 • Encoraging risk taking and non-traditional ideas, activities & actions.

6. Generating short- term wins
 • Planning for visiable improvements in performance , or wins.
 • Creating those wins.
 • Visibly recognizing and rewarding people who made the wins possible.

7. Consolidating gains and producing mare change
 • Using increased credibility to change all systems , structures and policies that don't fit together and don't fit the transformation vision.
 • Hiring , promoting & developing people who can implement the change vision.
 • Reinvigorating the process with new projects , themes & change agent.

8. Anchoring new approches in the culturr
 • Creating better performance through customer and productivity oriented behavior , more & better leadership and more effective management.
 • Articulating the connections between new behaviors & organizational success.
 • Developing means to ensure leadership development & success.

Source: John. p. Kotter, "Why transformation efforts fail"
Harvard Business Review

Transformational change model:-

strategy , decision to run their business better than one another having close or same substitute where substitute may be any product or services , thus for effective & efficient decision making export business intelligence system (BIS$_S$), decision support system (DSS$_S$) & export system (ES$_S$) required which only possible to engineered by effective & accurate HIS-modeling with respective changes. And to create accurate "change" for effective HIS-modeling/engineering eight steps as given in the exhibit: 2

With two reference of exhibit 1 & exhibit 2 for change management needs to effective HSI-generation HSI- Integration change model display in above illustration. The model passes through four phases for change i.e. Decide to change , Guide to change , support to change and sustain to change with several co-actions to follow in each phase to create HSI integrated change and Transform change with effective HSI for effective decision making process in business organizations.

CONCLUSION

Human System Integration(HSI) is the best solution to run business with dynamic changes with making decision for Anti-plans , control & Anti-strategies against the plans & strategies of competitors , and only possible when computer & IT play vital role in decision making process with human being within business organization thus excellent co-ordination & understanding required in between electronic technologies computers and human being i.e. both should able to understand each other and only happen possible when strongest interactive GUI/HCI offered to business environment in the form of HSI and these HSI$_S$ provide interfacing between computer/system and people for communication & understanding to make effective decisions and synchronize with each other to run business.

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