



SUSTAINABLE ELECTRONIC BUSINESS MODEL

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Abstract. Most of the companies are not considered sustainability as a factor in business modelling, main reasons for this effect are rapid improvisation in technology and interrelation between sustainability and other factors. The goal of this article is identifying interrelations among factors which are importantly seeking business sustainability. For this analysis literature review on sustainability and resilience within a business of the companies has been carried out. To find out the basic business model in this article expert evaluation by simple additive method is used. Considering final factors and basic business model, conceptual sustainable e-business model is carried out.

Keywords: Business modelling, sustainability, simple additive method, factors of business modelling, E-business, market, expert review on business modelling

Introduction

During the last decade sustainability development of business has been remarkable growth in the world. Recent research studies in sustainable growth development discovers are examined and improvised the relation between factors of business modelling (Albort-Morant 2016). Enhancing the adoption of sustainability in business should be top priority for growth and survive in competitive market. Establishing a new role for operations requires a border understanding of the drivers of technological, service, and business model innovations (Yang 2017). In present business world, developing countries like India, Thailand are trying to develop their business and economic growth using e-business. This business can generate the new job and opportunity for the younger generation. Because of development of information technology and internet people can buy most of the products from their home. This e-business will have a great impact on the country economy. In most of the e-business company's which are in developing and developed countries are medium size companies.

Transferring the fund and getting the fund digitally, and facilitating the transaction of business activities between businesses, individuals, and government. E-commerce will give them more benefits than normal traditional business. So the e-commerce is an important strategy that government has given the support to create and develop. This strategy would emphasis to help many areas in any country. However, on another hand, developing countries like India have to maintain from more than 460 million of internet users in 2017. So operating a business using the internet would be able to earn more costumes, and income for entrepreneurs because of e-commerce help improves efficiency. However, the establishment and implementation of business is a really challenging area. Every business investor has to take into serious consideration issues like strategy, marketing advertisement, and partners that are involving in the business. Moreover, data which is between the various companies and e-business site has to secure. In edition knowledge management, strategy development for customer satisfaction is very important to the establishment of better e-business.

The present study investigates the role of specific organizational capabilities in the implementation of e-business in a better way with the consideration of sustainability. According to (Lee 2007), organization capabilities are considered by knowledge management, learning capabilities. Learning capabilities can improve buy study market, but this learning process may lead to right or wrong strategy. Instead of learning from the market if we consider the practical experience for the experts. This article will help to find the way to choose the right expert, this helps to prepare the basic business model. This basic e-business model includes trading ability, expertise, knowledge level, and customer satisfaction. The

aim of this paper is to study the various characteristics which are affecting the e-business model for sustainable growth in the market and finding a better path to sustainable business model.

Basic factors of e-business model:

Self-discipline, management plan, action plan, making and marketing, customer satisfaction & requirement, initial investment, social and political understanding, and research and development on employment are the main factors of basic sustainable e-business modeling. Customer satisfaction & requirements, and initial investment are nothing to do with sustainability at the initial stage, in other hand management plan, action plan, making and marketing, social and political understanding, and research and development on employment are the factors which has to change according to sustainability (Langvinienė 2015).

Action plan effect on social, political understanding and initial plan: A business action plan could help in the business modeling. It gives the right track to estimate the day-to-day basis business support, estimation of growth, costumer economical level, competition in market and ECT the action plan will affect the sustainability in an indirect manner, suppose in action plan if we consider the market moment and government support this will give a basic knowledge of sustainability. This action will help to change or improve the social and political understanding. So action plan will affect the social and political understanding.

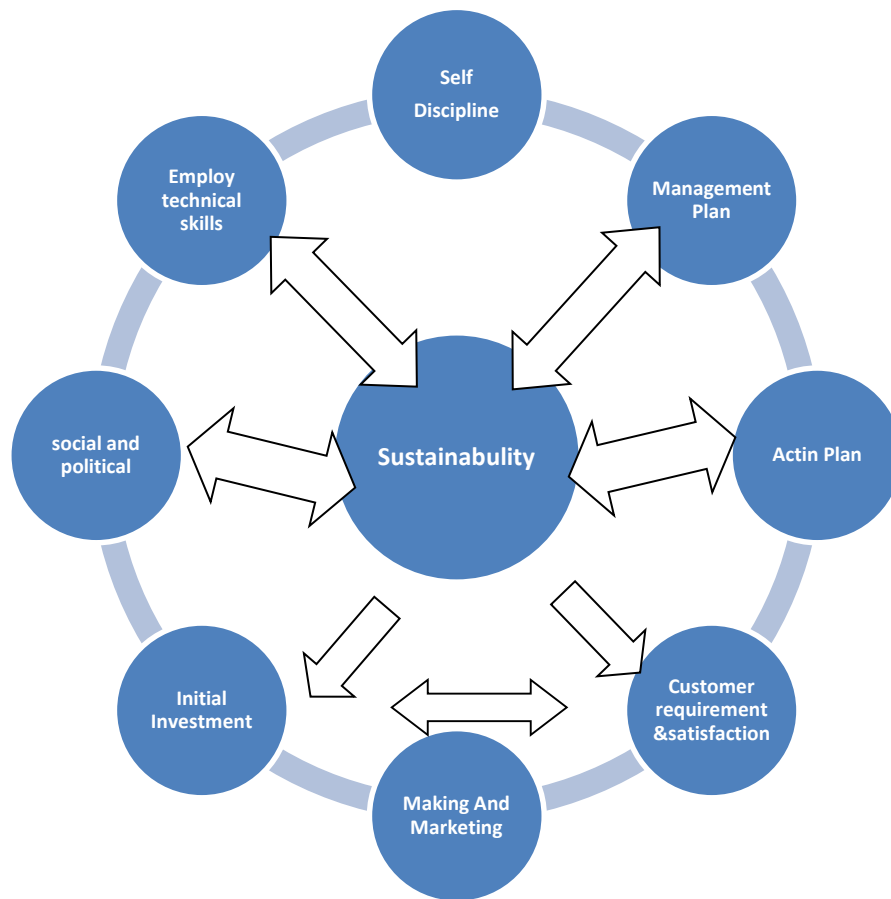


Figure 1. Important factors which are affecting the e-business model (Albort-Morant *et al.* 2016)

At the same time, action plan and initial plan is parallel. The initial action plan is very important but if we maintain the action plan and initial plan as same, it may give negative impact on the growth. The action plan needs to be reviewed, updated and changed regarding environmental requirements, to have to change and improve according to the sustainability of the business in market and company reputation.

Research and Development on Employ technical skills: this factor is one of the major and crucial in any company (initial middle & future stage of the company). When there is a development in employ technical skills company growth and sustainability will maintain constant in the market. So by maintaining the technical skills of an employee, we can improve sustainability (in long run).

Customer requirement & satisfaction: customer requirement and satisfaction is the backbone of developing or Developed Company. Until unless any company satisfies customer requirements development is maintained constant. To maintain this, maintaining the sustainability is very important.

Impact of employment skills on consumer requirement and satisfaction: In present market technology, advertisement, business development strategy are playing an impotent roll in business development. To reach the top in the market, the organization must be in a good level to give new technology to their employs, at the same time employs must have a capability to understand the market and importance of new strategies. When this happens company sustainability market can be maintained constantly. This thing can be achieved or improved when company supplies, based on customer requirements. For example

Recently in villainous BODY WONDERS Company is started, this organization is using proper strategy, skilled employs, and good products, but cost of the products is higher than a product which is available in the market, because of this company lags in sails. So when the company maintains the technology according to time, it is also very important to study the customer requirement and satisfaction.

As like the above factors initial investment, manufacturing (making) and marketing, and etc. are directly or indirectly depended on each other. So while preparing the initial business plan we must consider and study the relation between the various factors. This can reduce the initial difficulty in business development along with an idea to sustain in the market for a long Period.

Related study

As indicated by (Bryson, Anderson 2015) fruitful authoritative change requires advanced arranging, outline, interchanges and usage administration with consistent partner association. Extensions characterize change administration as the way of dealing with the successful execution of hierarchical procedures, guaranteeing that lasting changes in objectives practices, connections, procedures, and frameworks are accomplished for business advantage. Cope, Waddell (2000) watch that however scientists affirm the way that e-business achieves changes. So we will examine the change administration methodologies of organizations that are connected in their e-plans of action.

Business manageability is regularly characterized as dealing with the primary concern by which organizations deal with their money related, social and ecological dangers, commitments and openings. These three effects are some of the time alluded to as benefits, individuals, and planet. Nonetheless, this approach depends on a bookkeeping based view point and does not completely catch the time component that is intrinsic inside business maintainability. A more powerful definition is that business maintainability speaks to flexibility after some time – organizations that can survive stuns on the grounds that they are personally associated with solid monetary, social and natural frameworks. These organizations make financial esteem and add to solid biological systems and solid groups.

Business supportability expects firms to stick to the standards of economic advancement. As indicated by the World Council for Economic Development (2017), practical advancement is an improvement that addresses the issues of the present without trading off the capacity of future ages to address their own issues. In this way, for modern improvement to be manageable, it must address critical issues at the full-scale level, for example, financial effectiveness (development, success, efficiency), social value (neediness, group, wellbeing and health, human rights) and ecological responsibility (environmental change, arrive utilize, biodiversity). There are various prescribed procedures that cultivate business supportability, and enable associations to move along the way from slow pokes to pioneers. These practices include:

Stakeholder engagement: Organizations can gain from clients, workers, and their encompassing group. Engagement isn't just about pushing out messages, however understanding restriction, discovering shared view and including partners in joint basic leadership.

Environmental administration frameworks: These frameworks give the structures and procedures that assistance implant ecological proficiency into an association's way of life and alleviate dangers. Reporting and revelation: Measurement and control are at the core of organizing reasonable practices. Not exclusively would organizations be able to gather and examine the data, they can likewise be altogether straightforward with outcasts. The Global Reporting Initiative is one of the numerous cases of all around perceived revealing norms. Life cycle examination: Those associations needing to

take a vast jump forward ought to methodically dissect the natural and social effect of the items they utilize and create through life cycle investigation, which measure all the more precisely impacts. Firms that are manageable have been appeared to pull in and hold representatives all the more effectively and experience less budgetary and notoriety chance. These organizations are additionally more creative and versatile in their surroundings. By various case studies and practical things the learning capabilities will improve, this gives the proper knowledge to establish a business. Understanding practical advertising and administration business modeling can get the sustainability. The practical advertisement will give the strength to the business along with required sails in the market. This effect will increase the healthy competition in the market.

Goals of this research:

The goal of this paper to find out the proper directions to design the sustainable business model by following expert review, with required knowledge of factors and interrelation between them.(which are affecting the business model in modern e-business world). To achieve the goal following steps are carried out:

1. Study of various factors which are the effect the e-business model.
2. How the factors are interrelated to sustainability.
3. Importance of expertise review while preparing the basic or initial business plan using SAW method.
4. Study of crucial factors which affect the business model which are not considered in the basic business plan.

Methodology:

Simple additive weighting (SAW) also defined as weighted linear combination or scoring method, this method is probably the one of the best known and widely used method. In this method expert opinion to drive the Wight for criterion, as selecting the importance and weight of each criterion relative too other criteria. This consideration of experts and criteria will differ based on the area of study, considering expert and criteria will lead to the basic model of study (Chabuk, Nadhir 2016). The basic of SAW method is to obtain the weighted sum of performance rating of each alternative overall attributes. In this paper “F” and “C” are consider as the set of criteria’s and experts respectively, which are effecting the sustainable business model. r_{ij} Is consider as combination of criteria’s and experts in normalization values.

Table 1. Expert opinion on criteria’s

	Factors	expert 1	expert 2	expert 3	expert 4	expert 5
1	self-discipline	250	400	180	580	300
2	management plan	500	450	300	510	650
3	action plan	550	500	580	600	700
4	customer requirement & satisfaction	700	680	400	560	565
5	making & marketing	350	470	620	520	625
6	initial investment	200	380	500	400	400
7	social & political understanding	180	230	430	280	340
8	employ technical skills	650	690	390	650	682

Data presented in table-1 is belong the various factors which are effect the initial sustainable e-business model which are collected from various business experts. For each criteria maximum weightage is 1000. Based on the expert view and their understanding data is collected. Highest value having the first rank. Using the expert’s data, weights are carried out in table-2.

$$\text{weight of criteria based on expert review} = \frac{\text{sum of ranks of a criteria by each expert}}{\text{total sum of ranks}}$$

Table 2: calculation of weights using table-1

	Factors	expert 1	expert 2	expert 3	expert 4	expert 5	Sum of ranks	Weights
1	self-discipline	3	3	1	6	1	14	0.077778
2	management plan	5	4	2	3	6	20	0.111111
3	action plan	6	6	7	7	8	34	0.188889
4	customer requirement & satisfaction	8	7	4	5	4	28	0.155556

5	making & marketing	4	5	8	4	5	26	0.144444
6	initial investment	2	2	6	2	3	15	0.083333
7	social & political understanding	1	1	5	1	2	10	0.055556
8	employ technical skills	7	8	3	8	7	33	0.183333

$$F = (f_1, f_2, f_3 \dots \dots \dots f_i) \quad (1)$$

Let $F_i = (f_1, f_2, f_3 \dots \dots \dots f_i)$ be a set experts.

$$C = (c_1, c_2, c_3 \dots \dots \dots c_j) \quad (2)$$

Let $C_j = (c_1, c_2, c_3 \dots \dots \dots c_j)$ be a set of criteria.

Construct of decision matrix:

$$\begin{matrix} r_{11} & r_{12} & r_{13} & \dots & \dots & \dots & r_{1i} \\ r_{21} & r_{22} & r_{23} & \dots & \dots & \dots & r_{2i} \\ \dots & \dots & \dots & \dots & \dots & \dots & \dots \\ r_{j1} & r_{j2} & r_{j3} & \dots & \dots & \dots & r_{ji} \end{matrix} \quad (3)$$

Where r_{ji} is the rating of alternative of F_i with respect to criteria c_j

In this paper to find the normalized value of given data is calculated by $\tilde{r}_{ij} = \frac{r_{ij}}{\max_j r_{ij}}$

$$\tilde{r}_{ij} = \frac{r_{ij}}{\max_j r_{ij}} \quad (4)$$

Table 3: normalized values of expert data using table-2.

	Factors	expert 1	expert 2	expert 3	expert 4	expert 5
1	self-discipline	0.431034483	0.689655172	0.310344828	1	0.517241
2	management plan	0.769230769	0.692307692	0.461538462	0.784615	1
3	action plan	0.785714286	0.714285714	0.828571429	0.857143	1
4	customer requirement & satisfaction	1	0.971428571	0.571428571	0.8	0.807143
5	making & marketing	0.56	0.752	0.992	0.832	1
6	initial investment	0.4	0.76	1	0.8	0.8
7	social & political understanding	0.418604651	0.534883721	1	0.651163	0.790698
8	employ technical skills	0.942028986	1	0.565217391	0.942029	0.988406

By using the normalized values of experts and weights, ranks are given. Formation of basic sustainable e-business model by using by best expert weights of different criteria. Based on the business, area, and etc. expert and number of experts has to change, this will give the best solution in the initialization of the business model

$$S_j = r_{ij} * w_i \quad (5)$$

$$s_1 = \sum_{i=1}^n r_{it} \quad (6)$$

Table 4: values of expert data

	Factors	Weights	expert 1	expert 2	expert 3	expert 4	expert 5
1	self-discipline	0.077778	0.033525	0.05364	0.024138	0.077778	0.04023
2	management plan	0.111111	0.08547	0.076923	0.051282	0.087179	0.111111
3	action plan	0.188889	0.148413	0.134921	0.156508	0.161905	0.188889

4	customer requirement & satisfaction	0.155556	0.155556	0.151111	0.088889	0.124444	0.125556
5	making & marketing	0.144444	0.080889	0.108622	0.143289	0.120178	0.144444
6	initial investment	0.083333	0.033333	0.063333	0.083333	0.066667	0.066667
7	social & political understanding	0.055556	0.023256	0.029716	0.055556	0.036176	0.043928
8	employ technical skills	0.183333	0.172705	0.183333	0.103623	0.172705	0.181208
	Sum of the criteria's	0.733147	0.733147	0.801599	0.706618	0.847032	0.902032
	% of experts among experts	81.27723	81.27723	88.86596	78.33623	93.90266	100

This factors carried out the best expert among our selected experts. From table 4 expert-5 is having a good idea about business among the experts. Expert-5 data is very crucial to create the basic business model. This weighting criteri will give the best basic sustainable e-business model.

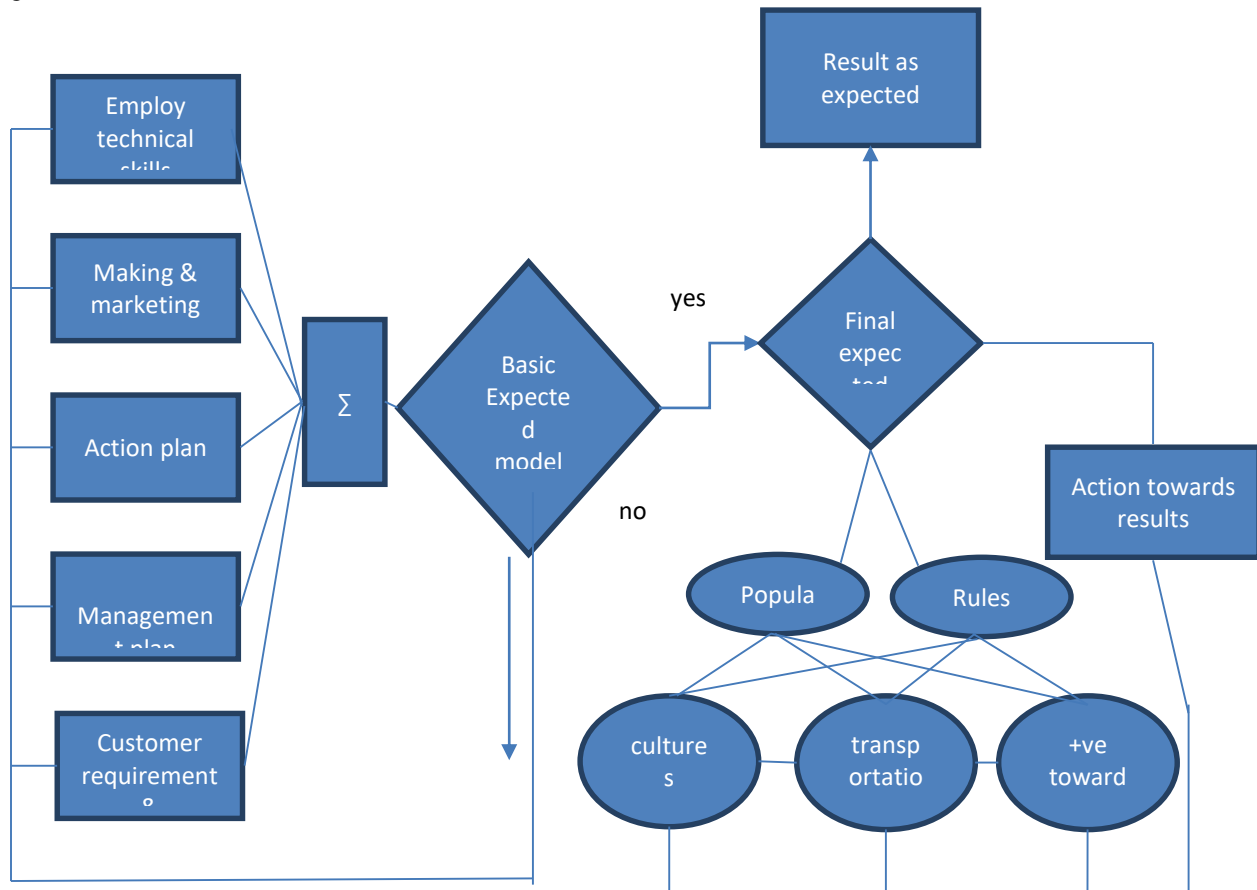


Fig 1. Ref: Table- 4, Flowchart 1

Importance of sustainability in business modeling

Before establishing a business it better to study the sustainability of that business. Day-by-day technology, strategy, and modeling of business is rapidly changing, when any one or more changed shape and growth of business is also changes. So it is better to take expert suggestions before modeling the business.

Every expert in business are have some idea about how to survive in competitive market, but if we consider every expert opinion in one business model it may be complicated and time consuming model. So to overcome this problem it is better to consider and follow the best expert criteria view. Which is carried out in the table 4. Information which is the table depends on the significance, which is affecting the basic business plan. By utilizing this information weights are figured. Compared to all experts, expert 5 having higher understanding in the market of a particular region. Whatever factors which are mansion above are very important to maintain in any kind of business, but apart from those factors, some of

the factors affecting the profit, sustainability of the business, and production. Because these factors are directly or indirectly depends on some other variables which are not linked with business model. Like population, rules, shipping & delivery, and etc.

When we got the best expert recommendation on the essential model, we need to check proposed factors are sufficient or not. On the off chance that the variables are sufficient to think about then we need to watch the recommended model is fit for our business or not. This check and investigation of the essential model will give the proper knowledge regarding challenges and weak parts of our business ideas. At the point when an essential model is prepared to execute, we need to examine other components which are demonstrating the real effect on a plan of action like populace.

For instance, if we consider sails quantity as an imperative factor the populace of that territory or nation has a noteworthy beneficial outcome. When the populace is higher, the necessity of merchandise is likewise high. Alongside populace, the rivalry is additionally high. This will demonstrate the negative effect on benefit and sails. Like this, each thought will prompt investigation particular comprehension of major or minor components which are adequately the plan of action in a direct or indirect way (Chabuk, Nadhir 2016).

Once the sustainable business model is ready, it is better to check some of the thing which are essential for sustainable e-business model. In this final check stack holders, risk assessment and management, different category requirements (financial, operational, technical and transitional) and sign off are very important. For example

If stack holders are having the good reputation in market, it is very easy to gain the costumer trust. Costumer trust is having the higher priority in business growth and sustainability. In the same way if the functional, operational, technical and transitional requirement are maintained, it is easy to maintain large no of costumers and sellers at the same time. When bridge between costumers and sellers is unbalanced, that will show negative impact on e business directly growth and even on indirect stack holders.

Stack holder analysis: Partner examination is the survey and thought of the effect partners have in your business. This has turned out to be progressively critical in this century, as non-investor elements, including clients, representatives, groups and business accomplices, have turned out to be more key to business achievement. Organizations need to comprehend the interests of every partner and strategize on the most proficient method to address them in business hones.

Risk assessment and management: A hazard administration design and a business affect investigation are critical parts of your business congruity design. By understanding potential dangers to your business and discovering approaches to limit their effects, you will enable your business to recuperate rapidly if an occurrence happens

.Sign off: Finally, make sure signed agreement of key stakeholders, or representatives of key stakeholder groups, saying that the requirements as presented precisely reflect their needs. This formal commitment will play an important part in ensuring that the project does not suffer from scope creep later on.

Conclusions:

The important part of the e-business is the study of various factors which are influencing sustainability. It will give the capability to understanding of day-to-day market and new sustainable strategy to develop. To gain sustainable growth or to sustain in market it is also very important to study and gather information from business holders. Along with this maintain the customer satisfaction is also play a major role.

In this paper developing the sustainable business model by understanding and study the various factors is carried out in two stages. In initial stage major factors like employ technical skills, management plan, action plan and etc. are considered. Basic sustainable e-business model is carried out by gathering the expert data. But this this initial model can't sustain in market without considering remaining factors. To sustain in market every factor is very important. To check whether business model reaches the exportation or not flow chart is submitted. By considering the basic business model and remaining factors it is very easy to model the sustainable business model.

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