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## ALIGNING THE SUPPLY CHAINS OF EDUCATIONAL INSTITUTES WITH BUSINESS STRATEGY

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## ABSTRACT

Schools that offer business subjects or arts in any part of the world either offer quality education leading to high expense or would opt for medium quality education and focusing more on getting economies of scales. Supply chain optimization of educational institutions is highly dependant on number of parameters which I refer to as drivers (e.g. no. of faculty, students, empowerment of faculty etc.), the intensity level of which needs to be gauged always. A common challenge is to not only highlighting those drivers and their inter-dependencies across the business framework of the institution but to seek the line of demarcation in the entire range (intensity) offered by that specific driver. That ONLY would be possible if business strategy is clearly defined.

*This Paper represents a model based on integration of various causal loop diagrams on selecting the intensity levels of each driver so as to chalk out an appropriate system model aligned and optimized. This model will direct or guide you to fine tune a specific driver to create synchronization and help align your supply chain network with business strategy. We find that by varying the intensity levels of one of the drivers may misalign your educational institution's supply chain from business strategy and vice versa.*

An SD model is made formulating a spectrum of education quality, one extreme of which would be a cost effective education system and the other extreme is a high quality education system. The model encompasses all parametric and structural changes in the educational institution.

This system model is a true picture of how the institution's supply chain is aligned with the business strategy and is a useful guide for all managers and administrators of those educational institutions, the supply chain of which is portraying turmoil in contrary to the business strategy.

**Keywords:** Causal loop diagrams, System models, Drivers / Parameters, Spectrum of education quality, Supply chain optimization, Alignment, System dynamics,



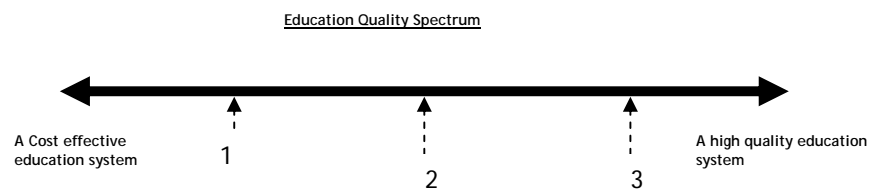
## QUALITY ASSURANCE IN OPEN AND DISTANCE LEARNING

### Intensity level

This paper probes into shaping a system dynamics model that would ideally depict all drivers or parameter that play strategic role in enlivening or annihilating the progress of an educational establishment. These drivers as referred below:

- Total number of students
- Learned faculty or faculty wisdom
- Empowered faculty
- Number of physical equipments like multimedia, computers etc.
- Total number of students per class
- Depth of evaluation criteria for students
- Qualified management and administration

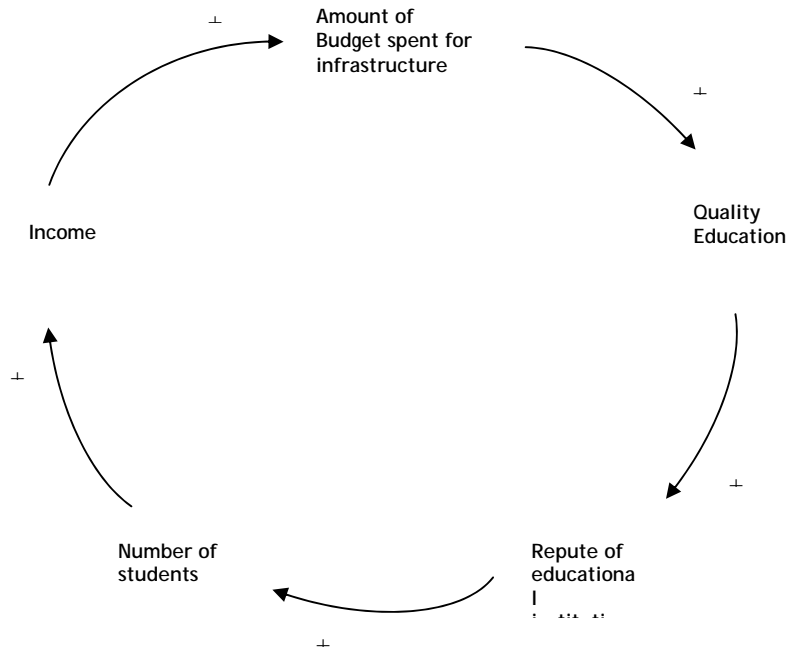
Different combinations of same drivers will result in attaining a different position on an education quality scale that I refer to as SPECTRUM. Concept of spectrum can be understood with the help of a simple diagram given below.



All of the above mentioned drivers with specific ranges of their own would sum up and formulate a level of education quality that could either be on position 2 or towards position 1 or position 3. The standard of education quality would be medium if the sum of effects of the entire drivers end up achieving position 2. This sort of educational establishment would be rated as an average one.

A high standard education establishment will be a result if cumulative effect of entire range of drivers finishes up with position 3. Standard of education will certainly rise for such an institution. Learning, repute, income and revenues would be on a high note. Similarly looking at the opposite side of this spectrum, we will reach position 1, which is not a better choice for a top management and administration. The gains are temporary i.e. short term. Learning here is not a prime objective rather cost savings are. Sticking to this side of the spectrum for a long time badly affects the repute or good will of the educational institution. So the top management should be very clear on this perspective.

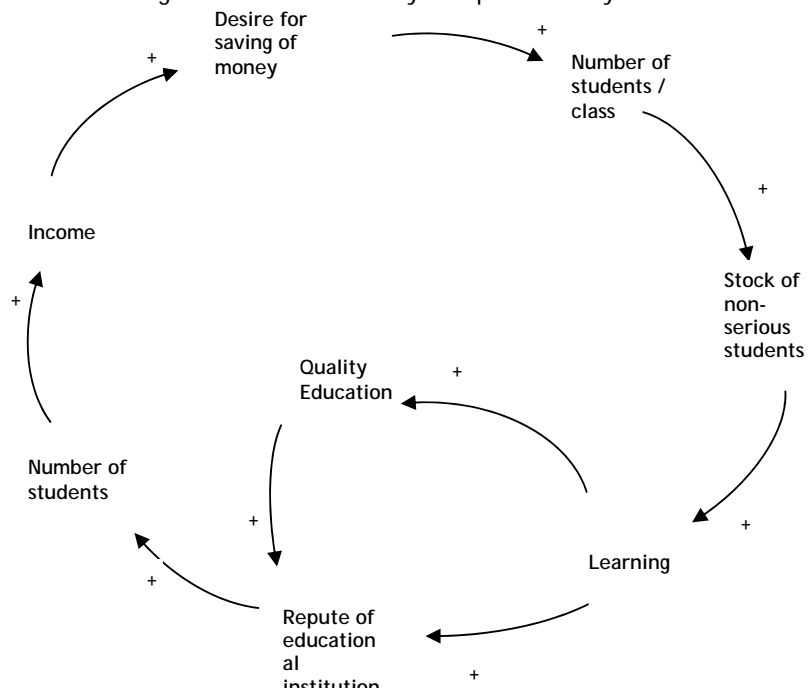
Figure 1 shows an aspect of the total number of students in any educational establishment. Loop clearly describes that the effect is positive in nature relating directly with the increased income and revenues of the establishment. If we see the effect of number of students here on quality of education then we can say that quality of education would be increased by increasing the number of students.



**Figure No. 1**

On the other hand if we observe the loop in the following figure 2 which shows a different aspect of the same driver i.e. total number of students in any educational establishment. It clearly does not have a healthy effect on the quality of education. For example increased income or revenues would seriously accelerate the desire for saving of money, consequently adding high number of students per class and finally resulting in decelerated quality education.

Here the intensity of the desire for saving the money needs to be fine tuned. This strongly can be set by fixing a maximum number of students in class i.e. 20-25 students. Automatically the stock of non-serious students will drastically decrease affecting the education quality in a positive way.



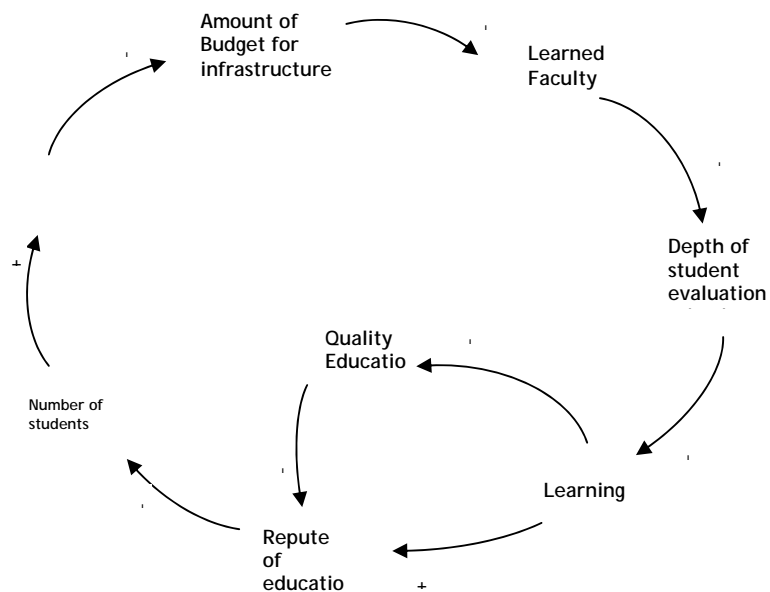
**Figure No. 2**

One of the crucial and important drivers of the education quality spectrum is the knowledge and wisdom of faculty in the educational establishment. Faculty has always played an important role in the growth and reputation of any educational establishment. Faculty members whether belonging to the permanent staff or to the visiting staff have tendencies to motivate or de-motivate a student. Chances of motivating a student towards learning are more if the capability of faculty is high or in other words if the faculty is learned and qualified.

There are obviously so many advantages of having a learned faculty. A learned faculty knows a lot about teaching methodologies. They have hands on experience of dealing with different behaviors of students. Having said that it also means that they may exploit the overall situation but we have talked here about tendencies. The fact is tendency of a learned faculty towards student's improvement, growth and the overall progress is more as compared with a faculty that is not learned.

Latest teaching methodologies and huge research work behind learned faculty would push the faculty to evaluate the subject knowledge more in detail. The more the depth of evaluation criteria in marking student's progress, the more would be the learning of the students, the more would be the motivation of students, learning would be highest and finally education quality will tremendously improve.

The above mentioned discussion has been summarized in the form of a causal loop i.e. Figure no. 3.

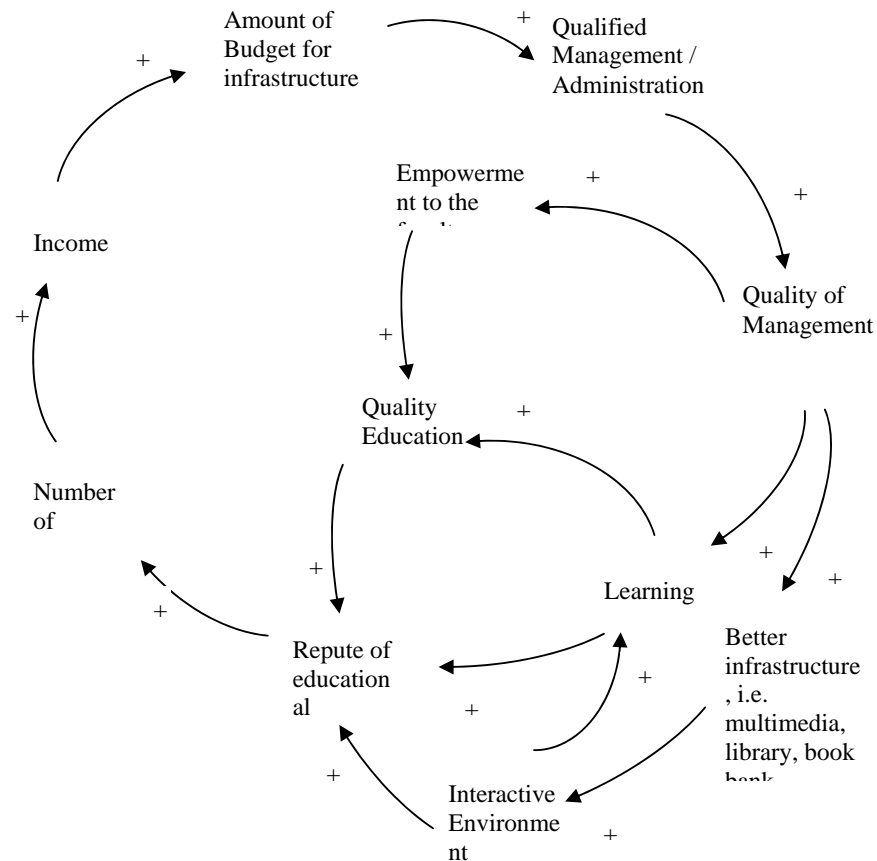


Here the decision is the amount of money to be spent on hiring learned faculty. A *very high* amount of money or *high* amount of money, both have different effects on the education quality spectrum, but both end with a high note of quality of education.

By carefully analyzing figure 3, another observation can be made. How profound

or how acute evaluation criteria is being used by the learned faculty with respect to specific subject. Some faculty members have the tendency to use assignments, quizzes and mid term and final term tests while on the other hand few faculty member thoroughly use case analysis in the entire span of a semester. A case analysis technique is a far better way of evaluating a student and value addition. Yet some use projects to analyze the competency and enhance the knowledge, learning and confidence of a student. A project if successfully handled can give best results in terms of value addition.

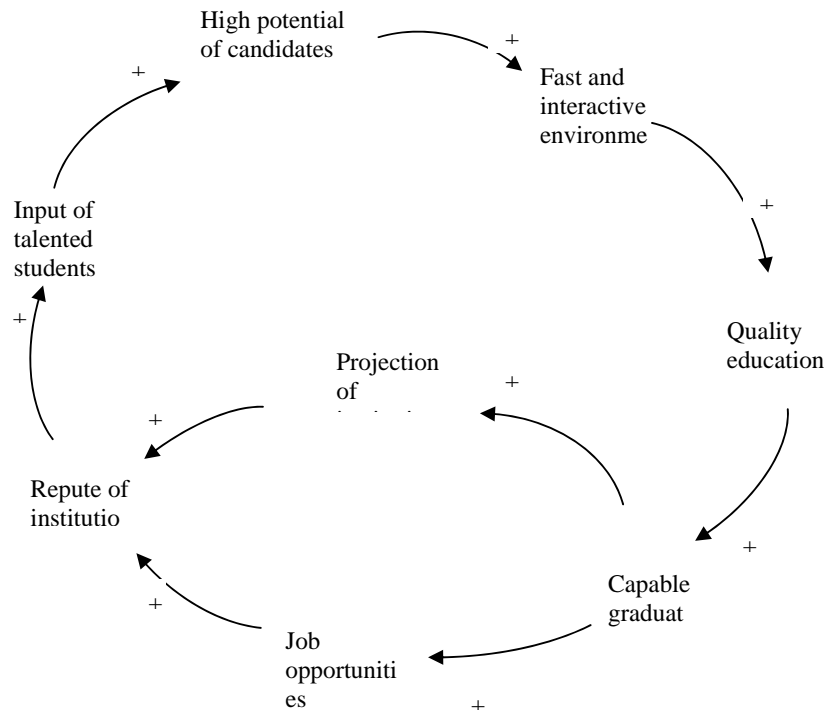
If we link the above mentioned point with the first driver i.e. number of students. We will notice that projects and case analysis cannot be handled successfully and qualitatively, if the number of students in a class exceeds 40-45. So there is a limit of students to whom an immense and deep evaluation criterion can be applied.



**Figure No. 4**

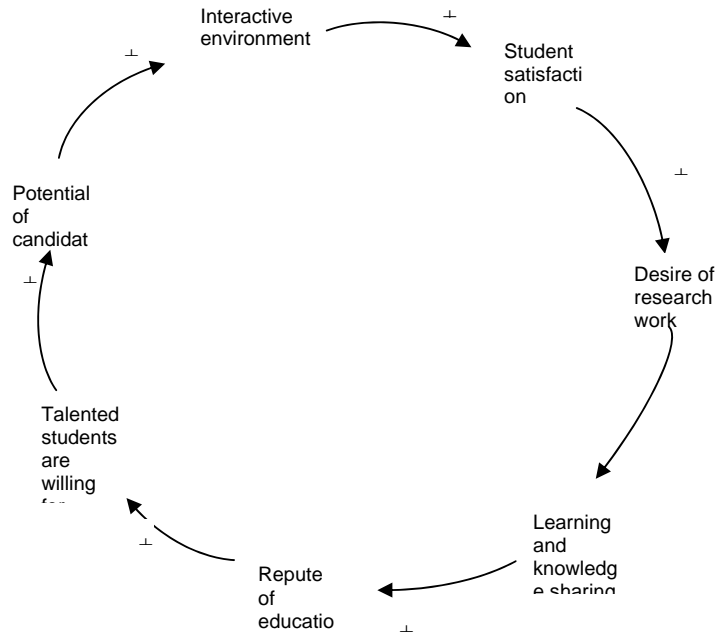
Let's see what consequences a qualified management has, on the destiny of an educational institution. Referring to the figure 4, when we have increased budget for the institution, unsurprisingly, we are going to have a better staff thus qualified management. The Dean can now settle down and sit contentedly for the reason that the future of the institution is now in the safe hands. The likelihood of good decision making will increase at an exponential rate. Tendency to empower the faculty will also boost. Each one is a good indicator of an interactive environment making ultimately the quality of education exceptional. Good, qualified and dedicated faculty always has been an admirer of being empowered in an education establishment. Research has shown that if the faculty is more empowered the trend to add value in the supply chains of an educational institution are more.

Empowerment not only has a unidirectional impact rather it catalyzes the student evaluation procedures and quality of class room environment. Experimenting various times may result in revealing a best teaching model for certain type of class.



**Figure No. 5**

Illustration above mentioned i.e. figure 5 and the one mentioned below i.e. figure 6 has something very important to impart. It conveys good news to the personnel involved in marketing of the educational institution. For example more talented students would be willing to join an institute which is well-reputed. A better intake would consequently chip in interactively and their aspiration for doing research work will also escalate. After getting passed from the institution, this bunch of students will be good ambassadors for the respective institution. They will add a lot to the reputation of the institution by self marketing of the University. They would not only add value to the companies in which they are being hired but they would also add value to overall society and culture of third world countries like Pakistan.



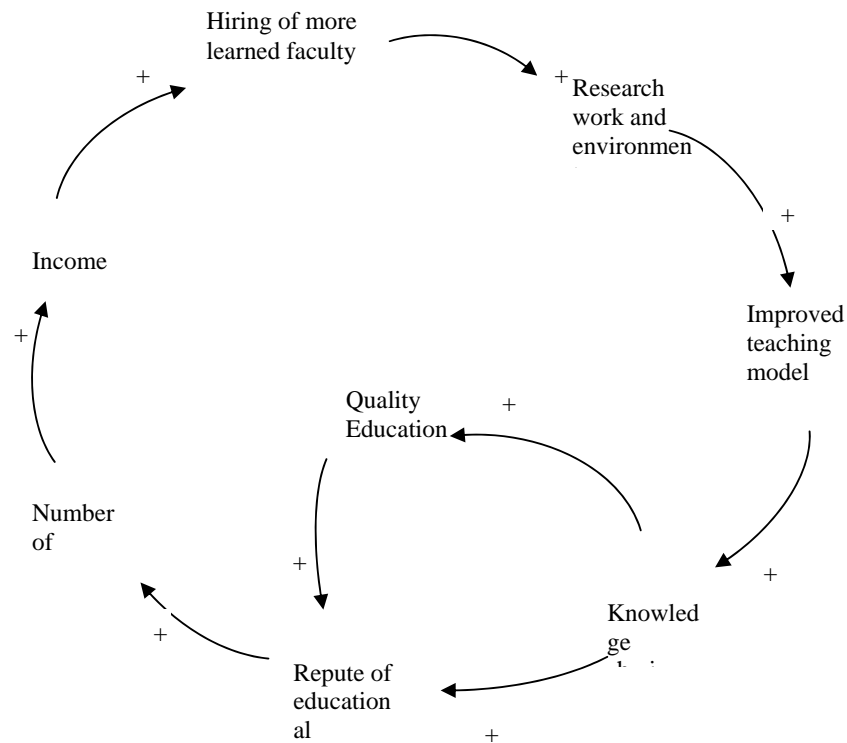
**Figure No. 6**

It is already mentioned that one of the outcomes of learning is in the form of a best teaching model or a best teaching method. There is no rule of thumb for this teaching method. It will vary from case to case and class to class basis. If the business strategy of the educational establishment is in favor of research work then of course quality of education will rise. Satisfaction of students and their parents would increase. This behavior is pictorially explained in the figure no. 7. Certainly in case of absence of best teaching model, student satisfaction and repute of the institution would collapse.

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There is only one way by which a best teaching model be achieved i.e. by experiential learning on the front end and qualification on the back end. In case if even one of the ingredient is missing, it won't end up gratifying the students.

In case of a country like Pakistan, this area of finding the best teaching model is still wide open and there are many theories but none of these have been successful over the last two decades due to the short term goal setting in every educational institution.

**Figure No. 7**

The system model in figure 8 depicts the overall scenario. Clearly it can be seen that if the overall revenues are increased and management have a huge amount of budget to spend. It needs to be spent on the infrastructure of the educational institution i.e. increasing the rooms available, increasing the equipment needed to teach the class e.g. multimedia, computers etc. It should be spent on hiring of more qualified and learned faculty that has hands on experience on improving the quality of education and research methodologies in respect of teaching in the class rooms. ]

Money should be spent on libraries, books and registering for e-learning

materials. Management should also focus on the empowerment to the faculty members. When the faculty members feel empowered their quest for research increases and they will get more motivated. Consequently the learning environment will prevail and quality of education would definitely be increased.

Desire for saving more money, increasing more number of students per class and hiring unqualified faculty that does not possess wisdom are the areas where management must not focus on if the overall strategy is to improve the education quality.

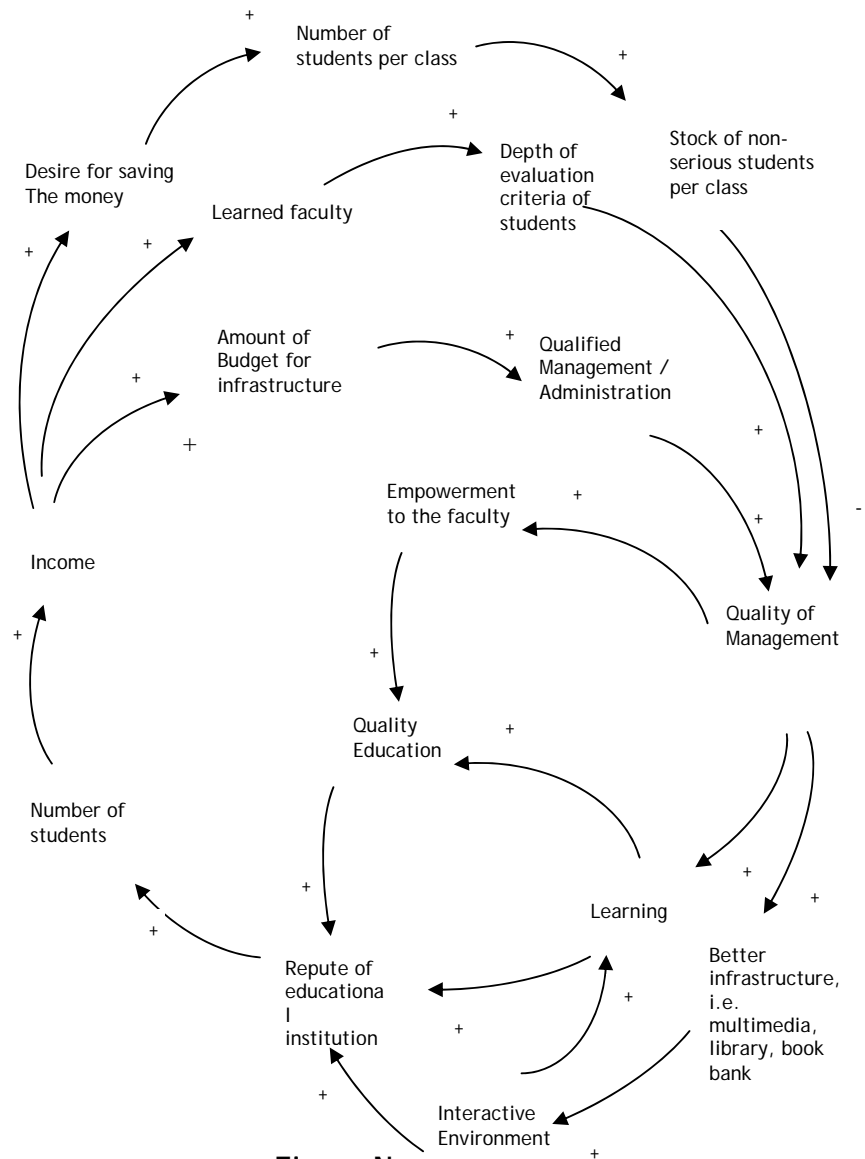


Figure No.

- Model will get more stabilized if negative loops will be added through feedback.
- The Key elements that would add stabilizing effect are as under:



**CONCLUSION**

- More percentage of budgets should be spent on
  1. The infrastructure of the educational institution.
  2. Hiring the qualified and learned faculty, and qualified management staff.
  3. Giving admissions to more talented students
- A resource person's empowerment
- Low desire of saving money
- Low desire of having more number of students per class
- Encouraging faculty to introduce a profound criteria for evaluating the students.

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- Teaching/Learning Models
  - <http://hagar.up.ac.za/catts/learner/cooplrn/b3.html> - Inquiry training
- Learning, It's All in the Family!
  - <http://home.regent.edu/loulz/teachingstrategies/sld001.htm>