

Individual Assignment #1

Topic

Part I. It is claimed that: “In today’s economic and industrial environment, a systems approach to the design and operation of manufacturing and supply is more important than ever.” Do you agree with this statement, and why?

Relate your discussion to the characteristics of the “three industrial revolutions”, and the key concepts of systems approach.

Part II. Based on your understanding of the “prototype system model” and the necessary conditions for a system to functions effectively, discuss the following:

- a) The business success of Walmart operation
- b) Compare disaster management of Irma and Katrina

Part III. Apply your understanding of systems concepts and systems approach to a situation of your choice: describe the situation in systems terms (structure, communication/control, etc.), and then utilize your understanding of the generic conditions regarding systems structure and operation, and discuss whether this system has a good choice of being effective in reality (i.e.: relate the situation to the prototype system model and the list of required conditions for effective system operation; discuss: is the system properly structured and managed? If not, how can it be improved?)

Length and Structure

Maximum number of pages: 6 (including figures and pictures, 1.5 lines spaced).

Please properly “section” your report, so that it follows the format of a typical technical report. For example:

Summary
Introduction
Section 1(presentation/discussion)
Section 2(presentation/discussion)
...
Conclusions
References

It is important to refer to references that you can find from relevant sources. You are encouraged to use illustrations, examples and references to enhance your presentation and discussion in the report.

Submission

Submission deadline: TBA in class.

Individual Assignment Evaluation Sheet

Assignment No.: _____ 1 _____

Name of Student: _____

| <i>Evaluation Criteria</i> | <i>Score</i> | <i>Comments</i> |
|---|---------------------|--------------------------------|
| <i>Understanding of systems concepts</i> <u>Holistic approach</u> : systems-thinking concepts and techniques applied to issues related to the design, operation, and improvement of industrial, service, and public sectors. | <i>(20)</i> | |
| <i>Understanding of relevance</i> <u>Discuss</u> : characteristics and social significance of industrial sectors during its different stages of development through history. <u>Identify</u> : specific challenges and opportunities, faced by today's industrial and service sectors. <u>Cases</u> : systems-thinking in real-life examples. | <i>(20)</i> | |
| <i>Contents</i> <ul style="list-style-type: none"> • Good introduction • Meaningful background information • Clear argument • Sufficient support material/examples/references • In-depth analysis/discussion • Logical conclusion | <i>(20)</i> | |
| <i>Quality of Presentation</i> <ul style="list-style-type: none"> • Logically structured • Clear and easy to follow • Illustrations | <i>(10)</i> | |
| <i>Class Submission</i> | <i>(30)</i> | |
| TOTAL | <i>(100)</i> | <i>General feedback</i> |