



SUPSI - CENTRO COMPETENZE TRIBUTARIE
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CHAOS THEORY AND BUSINESS MANAGEMENT. BUSINESS PLAN DURING AN IRRATIONAL PERIOD

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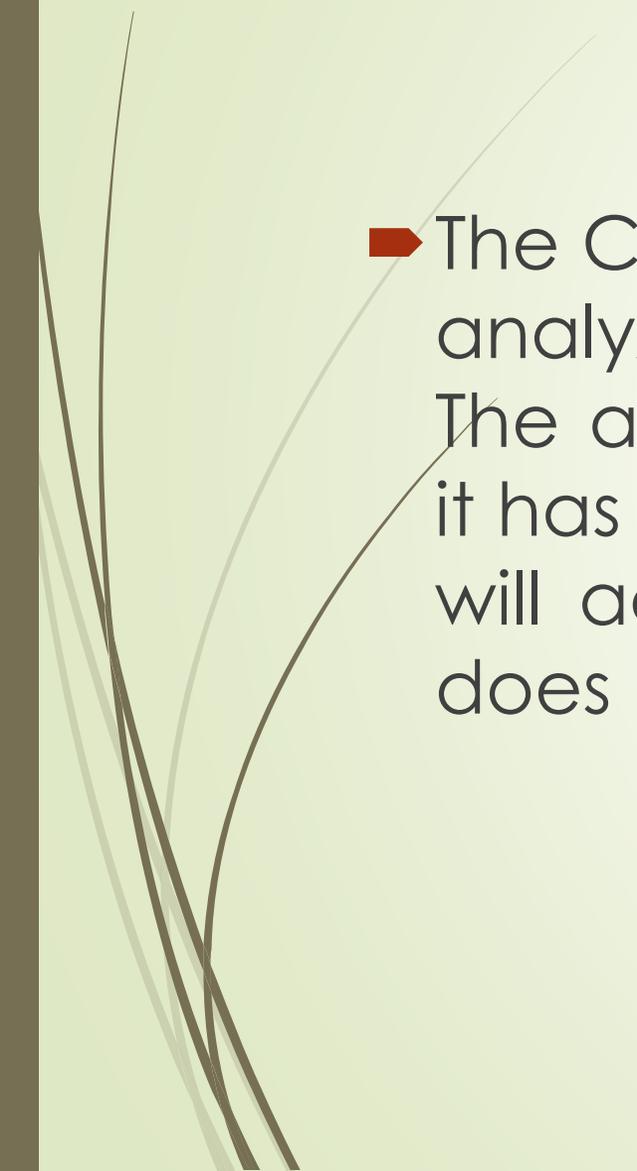
CHAOS THEORY - BUTTERFLY EFFECT

- ▶ Can a butterfly cause a hurricane in Texas by flapping its wings in Central America?
- ▶ Can a micro-virus appeared for the first time in Wuhan (China) cause a disaster in the Western world?

THE THEORY STATES THAT SMALL CHANGES IN ONE PART OF THE SYSTEM (WORLD) CAN CAUSE TERRIBLE CHANGES IN THE OTHER PARTS OF THE SYSTEM (WORLD).



CHAOS THEORY- BUTTERFLY EFFECT

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- The Chaos Theory studies dynamic systems. This theory analyzes the initial effects on their future evolution. The approach is related to complex ecosystems and it has exponential sensibility to initial issues: the present will address the future but the approximate present does not determine the future approximately.



CHAOS THEORY - BUTTERFLY EFFECT

- Complex systems – their evolution is not predictable
 - Non linear process – it is not possible to plan or predict as in linear systems (by algorithm)
 - Complex interactions. We assist to environmentally series evolution aimed to change drastically the economic relationships which are affected by difficulties in the Business Administration. For the organisations the continuous changing is the new business life scenario in which it must work. At this stage, it is very important to get business skills able to read and analyse day by day changing in order to reply to these new arising scenarios
 - Evolving dynamically over time – Business Management approach must consider organisations as open systems
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UNCERTAIN ENVIRONMENT 1

► Uncertainty comes from:

✓ Global economy changes (Markets)

✓ Technology

} Chaos



UNCERTAIN ENVIRONMENT 2

Each organisation must deal with uncertainties:

- from global economic fluctuations (Markets)
- from rapid technology changes
- from pandemic disasters arose far away



UNCERTAIN ENVIRONMENT 3

- ▶ customer responsiveness
 - ▶ fast-paced innovation and investments
 - ▶ staff deployment
 - ▶ environment steadily changes
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CHOISES 1

- Businesses must respond to these changes and not sit aside and accept them
- No elastic hierarchical structures imply lack of flexibility. The majority of the organisations must reject fixed structures and patterns
- Future organisations must be structured according to the environment. Moreover, they should aim to expand their markets and accept and embrace technological developments



CHOISES 2

- ▶ Review mission and vision and adapt them to customers responsive approach
- ▶ Being curious in doing business – creativity is important
- ▶ Small changes may create a range of positive possibilities and benefits. In calculation, thousandths deviation may affect other items on large-scale



RELEVANCE OF CHAOS THEORY TO STRATEGY 1

- Small disturbances multiplied over time in non-linear systems under complex relationships make the forecast very difficult
- Formulating long-term plans is a strategic task for any organisation
- Each organisation involved in doing business knows that forecast is just a model. Uncertainty plays its influence over long-term
- The comprehension of linear-model and the effects of some errors suggest us that working on better model and more accurate input might address us to a better forecast
- We can not understand the future simply by studying the past. Under the consideration that history is a result of non linear and complex interactions, it will not repeat itself precisely anymore.



RELEVANCE OF CHAOS THEORY TO STRATEGY 2

- ▶ Long term planning for chaotic systems is quite impossible and it has though implications for any organisation
- ▶ Rather than invest a significant amount of energy on long-term forecasting, it is better to draw-up more than just one scenario
- ▶ A no-elastic focus on organisation strategic planning could affect the short-term ability to adapt the structure flexibility versus changes
- ▶ The increasing of joint-ventures among organisations might be read as foothold to face the uncertainty and the accelerated changes



Behaviors that help Leaders manage a crisis

(from Harvard Business Review – April 2, 2020)

- « The roles and responsibilities of business leaders have dramatically changed in the past few weeks. Before COVID-19, CEOs and other executives in high-growth companies were focused on fostering innovation, driving revenues, and gaining market share. Today, many of those same leaders must take rapid decisions about controlling costs and maintaining liquidity... This is not an easy transition.

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- Behavior 1: Decide with speed over precision
- Behavior 2: Adapt boldly
- Behavior 3: Reliably deliver
- Behavior 4: Engage for impact »