

Business Risk related to the Human Factor

- Emphasis on the human factor in ERM standards (ISO and COSO)
- Types of human risks (burn-out, work engagement, internal fraud ...)
- Mitigating human risks

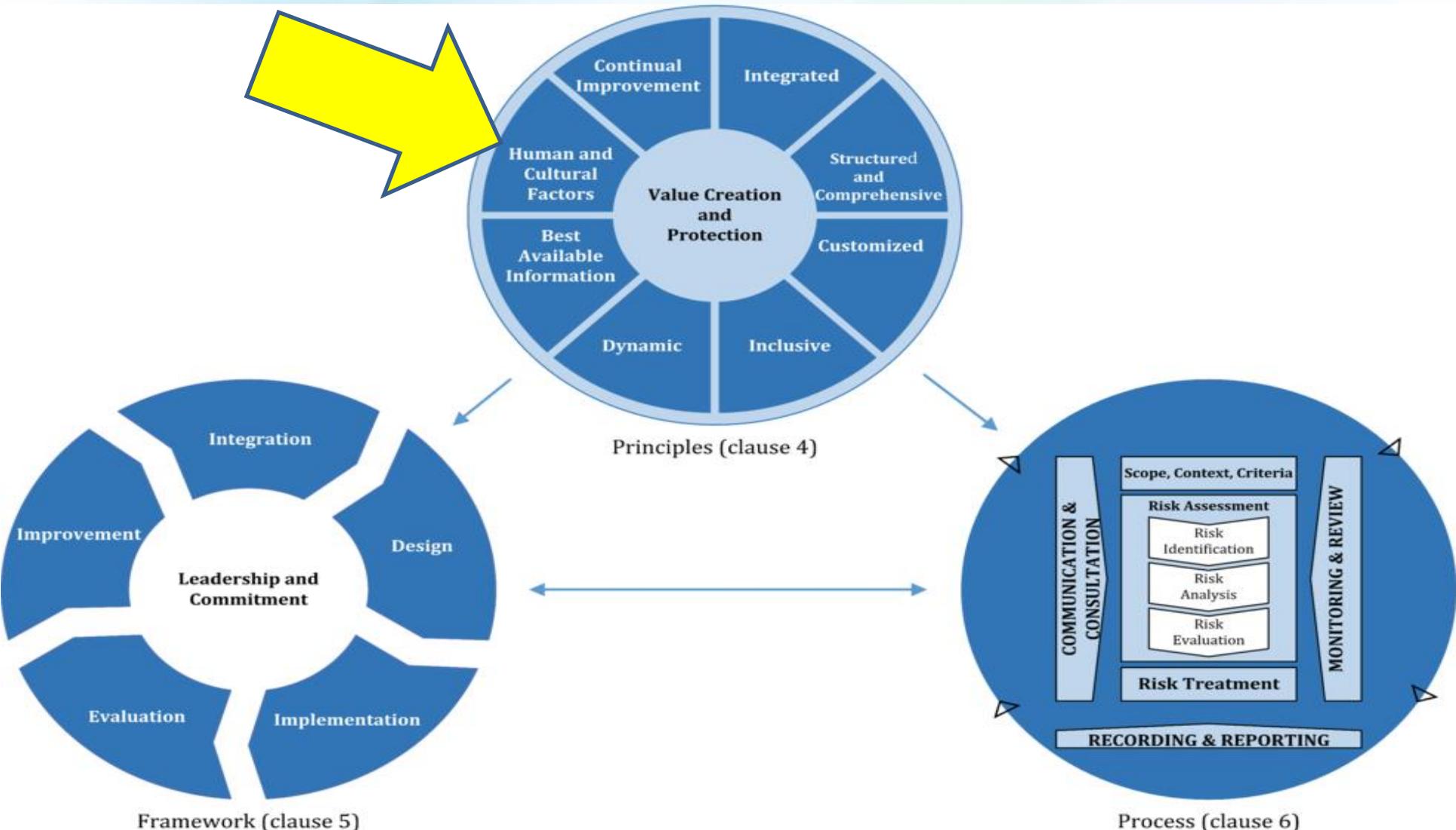
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Human business risk

- Human workplace risk can be addressed as a business management risk and not only as a medical problem.
- According to Enterprise Risk Management (ERM), risk is what prevents the achievement of a business objective.
- The most famous ERM standards are COSO ERM and ISO 31000 and include all kinds of risk categories.
- However, no category specifically focuses on human risk as a business risk.

ISO 31000 (2018)

“Managing risk considers the external and internal context of the organization, including **human behaviour and cultural factors.**”



• THE NEW CHALLENGES OF THE EMPLOYEE



THE PRESSURE OF INDIVIDUAL AND COLLECTIVE PERFORMANCE



PHYSICAL CONSTRAINTS OF THE WORK ENVIRONMENT, PENIBILITY



LACK OF RECOGNITION, LACK OF LISTENING, LOSS OF REFERENCE POINTS, DIFFICULTY IN UNDERSTANDING THE STRATEGY



PSYCHOLOGICAL PRESSURE, HARASSMENT, MOBBING



MERGERS AND ACQUISITIONS, ORGANIZATIONAL CHANGES (I.E. DIGITAL TRANSFORMATION)

A ROAD TO DIGITALIZATION THAT IS NOT WITHOUT DANGER

"In 2014, an employee received an average of 85 emails per day and sent 36. In 2010, a study on well-being and effectiveness at work highlighted the risks associated with the virtualization of relationships and the confusion generated between what is urgent and what is important." (Mettling, 2015)

"The big winners will be Western employees who prefer flexibility to security [...]. [...] But these (including lawyers, doctors and cab drivers) rightly feel threatened." (The Economist, 2015)

**"Employees fear the negative impacts of digitalization on their daily lives, impacts such as unemployment, increased working hours, health problems (such as stress and burnout)."
(ERSEM, 2019)**

Dubosson, M., Fragniere E, Rochat, D., Sitten, M., & Berdeaux E. (2020) Confusion between Artificial Intelligence and digitisation at work: Ignorance or blind trust? European Review of Service Economics and Management; (9):97-118.

What is human business risk?

Through PCA we identified four relevant dimensions



Dubosson, M., Fragniere, E., Junod, N., Meier, S., Varone, S., & Fournier, A. (2019). Integration of a human risk module into a risk management software. *Informatica economica*, 23(3), 5-15.

How to collect data about human business risk?

More than 100 qualitative interviews exploring the following topics:

- Personal experiences with human risks
- Concrete measures taken by the company to manage human risks
- Your attitude toward a human risk management approach (conditions, time, frequency, incentives, support, issues)
- Identified key barriers to improving human risk management

Risk of hidden presenteeism by focusing on absenteeism (example)

“We need to keep people busy.”

“There are always fewer employees.
We are at the limit.”

“There are people who never work.”

“Leaders don't always see bad behavior. They are in their offices.”

“People have put their feet up against the wall. So did I.”

“We criticize a lot, behind the back. Sometimes we're a little insincere.”

Inventory of varied human risks

Risk of a mismatch between the corporate culture and the company

Risk of motivational conflicts - loss of meaning due to digitalization

Risk of disempowerment due to the collectivization of the reward

Risk of hidden presenteeism by focusing on absenteeism

Risk of loss of competitiveness due to silo organization

Risk of demotivation due to poor communication with the hierarchy

Risk of talent and skills drain

Sector-related human risk? I

Human risks experienced or observed:

- The influence of the sector of activity

“if you're tired and you have extra stress in the workplace... I think it's even more difficult (to deal with death of patients)”

- Lack of recognition and autonomy

“(...)patients or families, I think they don't really realize the workload we have...they don't know that this might be our seventh day of work in a row”

“Nurses are always a little dependent on the doctor(...) the role of medical delegates who have to smile”

Dubosson M, Fragnière E., Héritier A.S., Meier S. & Wainwright C. (2020) Fostering “co-socialization” between patient and nurse to mitigate the risks of digitalizing health care services; European Review of Service Economics and Management 2020(10), 109-131.

Sector-related human risk? II

The results obtained from the study confirm the main stressors observed in the literature (Heim, 1991 ; Lambert & Lambert, 2001 ; Jennings, 2008 ; Mc Vicar, 2016).

Lack of autonomy

Working hours

Lack of recognition

Bad work environment

Administrative tasks

Dealing with death

Emotional stress

Human risk – value destruction loop



Dubosson M., Fragnière E., Pasquier M. and Reynard C. (2017) Exploring occupational stress in the Swiss wealthmanagement sector: how could human risk lead to value destruction", European Review of Service Economics and Management, Vol. 1, No. 3, pp. 1-11, 2017.

Cyberrisk: algorithms vs human factor!

This brings us to the notion of **social engineering**. Any cybersecurity specialist will tell you that the weakest link is always human. So, a cybersecurity specialist will of course have to know how to program in **python**, **Java** or **C/C++** to perform an **intrusion test**.

But this technical skill is a necessary but not sufficient skill. In order to make the difference, the cyber security specialist must have competence in psychology and sociology. Indeed, social engineering is also called **psychological fraud**.

Fragniere, E., & Yagci, K. (2021). Network & Cyber Security in Hospitality and Tourism. *University of South Florida M3 Center Publishing*, 17(9781732127593), 7.

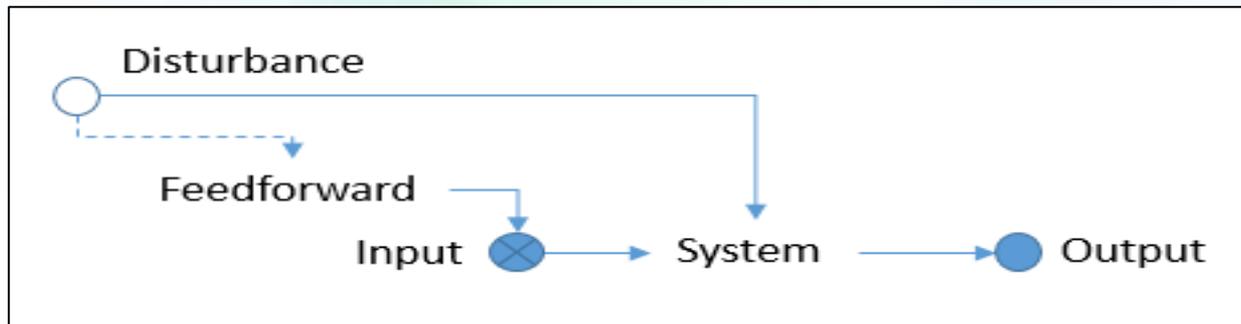
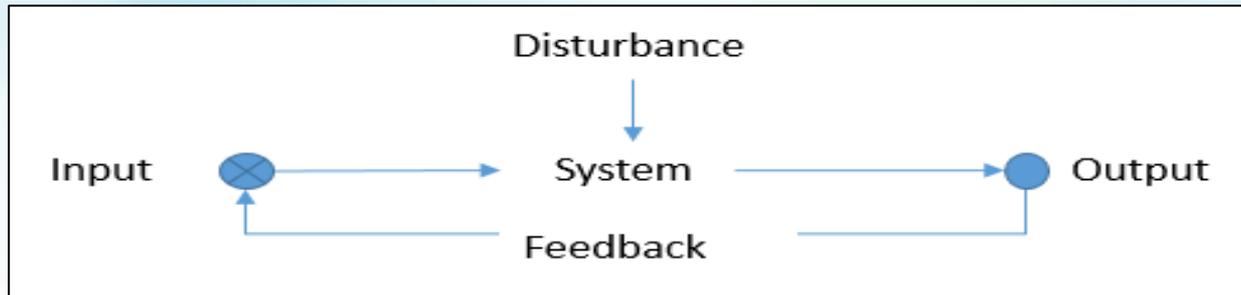
The Control Process

1. Definition of business objectives
2. Measurement (*anticipation*) of the achievement of business objectives
3. Corrective (*preventive*) actions (do nothing, reconsider the objective, improve through recovery/*mitigation*).

Two kinds of control

- Feedback control (based on hard data)
- *Feedforward control (based on soft data)*

Feedback and Feedforward controls

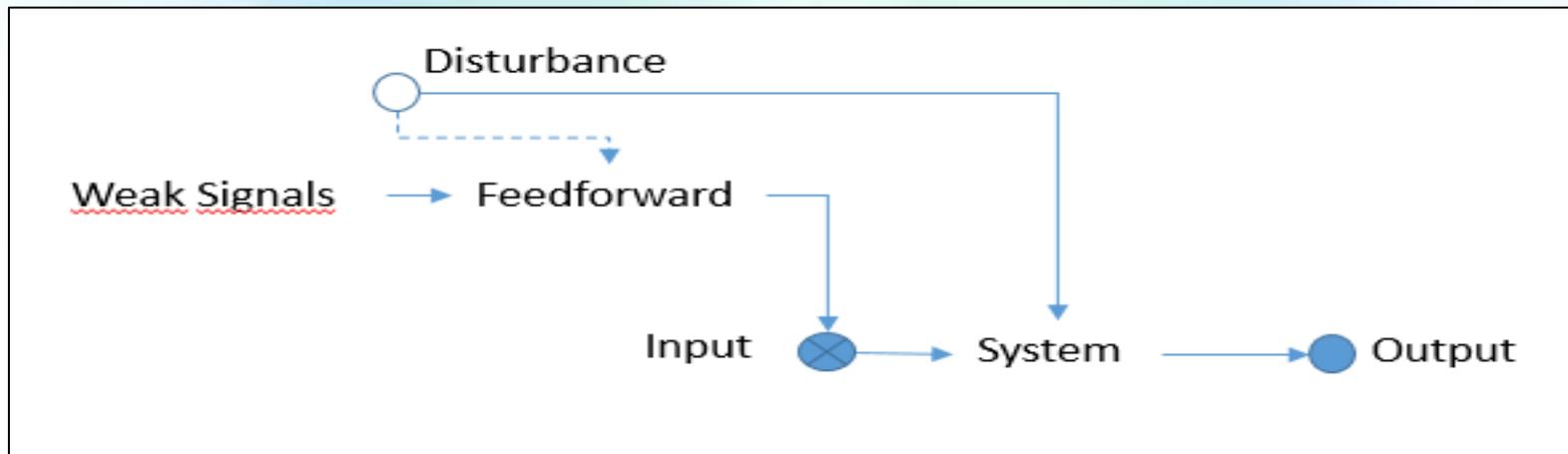


A. A. Hopgood, "Intelligent Systems for Engineers and Scientists", 2nd ed: CRC Press, 2001.

State-of-the-art - Weak Signals

- No clear definitions
- Goal: Have accurate data at the appropriate moment (Ansoff, 1975)
 1. **Gather** the data internal or external to the company
 2. **Evaluate** the impact on the company (Ansoff, 1975)
 3. **React** and change the relationship with the environment or «the internal dynamic and structure of firm» (Ansoff, 1980)

Use of weak signals in preventive(feedforward) controls



D. Glassey-Previdoli, J. C. Metz and E. Fragnière, "An "à la Ansoff weak signal" feedforward control for pharmaceutical distribution: A pilot study on standard operating procedure for managing customer complaints," *2018 7th International Conference on Industrial Technology and Management (ICITM)*, Oxford, 2018, pp. 130-135.

