

11. CONCLUSIONS

The usefulness and efficiency of implementing the solutions offered via Artificial Intelligence, through the sub-domains of systemic activity, Deep Learning and Machine Learning find their confirmation for economic organizations in generating added value and superior managerial performance.

In the case of generative approach through Machine Learning, the distribution of data sampled and used in specific economic processes, in specific cases, in the processes of estimating the parametric density, is intended, (Shalev-Shwartz, 2007), (Bishop, 2006).

The reasonings presented in this work were specific to the actors of the modern economic ecosystem, the underlying distribution of data is presented in a parametric mathematical formalism specific to each chosen business model, the aim pursued in the case of this study is to estimate the value of these parameters.

Some mathematical and economic principles have been presented and used in the processes of estimating parameters, including the maximum probabilistic principle, the Bayesian type estimation.

Relevant importance was given to the specific algorithms used in the operational-strategic systemic implementation under different working hypotheses, underlying to distribution phenomena such as Naïve Bayes, L.D.A., E.M., (Koller & Friedman, 2009)

Finally, this scientific communication, without proposing an exhaustive approach to economic phenomena that have a relevant degree of uncertainty, offered novel solutions, well grounded mathematically, opening the way for further practical and theoretical debates and development.

REFERENCES

- Barber, D.(2012). *Bayesian reasoning and machine learning*, Cambridge University Press.
- Bishop, C.M. (2006). *Pattern recognition and machine learning*, Vol.1, Springer: New York.
- Devroye, L., Györfi, L. & Lugosi, G.(1995). *A probabilistic theory of pattern recognition*, Springer.
- Koller, D. & Friedman, N. (2009). *Probabilistic graphical models: Principles and techniques*, MIT Press.
- MacKay, D.J. (2003). *Information theory, inference and learning algorithms*, Cambridge University Press.
- Murphy, K.P.(2012). *Machine learning: a probabilistic perspective*, The MIT Press.
- Shalev-Shwartz, S.(2007). *Online Learning: Theory, Algorithms, and Applications*, PhD thesis, The Hebrew University.