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SANDAL, J-U., Doctor of Philosophy, Professor, Rector and Owner, Fil. Dr. Jan-U. Sandal Institute, 31 Kløverveien, 1475 Finstadjordet, Norway

ORCID ID: 0000-0001-8072-0822

e-mail: jan-u.sandal@janusandal.no

Innovation – the Foundation of Entrepreneurship

Abstract. Introduction. *The article deals with a number of research questions. The main questions are what are the roots and definitions of innovation and entrepreneurship, who is the entrepreneur, what role does gender play, what are the consequences of interest on productive loans, what is the meaning of innovation managements and do organizations create innovations.*

Purpose. *The purpose of the article is a scientific analyzes of the roots, definitions, and use of the phenomena described by the terms innovation and entrepreneurship*

Results. *The research method is based on identifying a number of scientists dealing with the topics covering the research questions. The research period covers approximately 300 years. Even thou the modern use of the terms innovation and entrepreneurship might differ in the political and religious contexts of today, that disturbance has no influx on the deeper understanding and causes no diversions. Investing taxpayers' money in entrepreneurship will only result in loss, because politicians and governments do not have access to innovation, which means that their engagement will be limited to the static production function.*

Conclusions. *The conclusion shows that the Franco-Austrian-Norwegian (FAN) scientific tradition of innovation and entrepreneurship based on Say, Schumpeter and Sandal is defining innovation, social innovation and entrepreneurship. In the historic, scientific analyzes, the entrepreneur is a male, not a female or any other gender. Furthermore, innovation is the foundation of all entrepreneurship.*

Keywords: *innovation, entrepreneur, gender, innovation management, organizations.*

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SANDAL, J-U., доктор філософії, професор, ректор, філ. доктор Ян-У. Sandal Institute, 31 Kløverveien, 1475 Finstadjordet, Норвегія

Інновації – основа підприємництва

У статті розглядається низка дослідницьких питань. Основні питання полягають у тому, які особливості інновацій та підприємництва, хто такий підприємець, яку роль відіграє стать, яке значення управління інноваціями та чи створюють організації інновації.

Метою статті є науковий аналіз особливостей, понять та використання явищ, що описуються термінами інновації та підприємництва.

Метод дослідження заснований на виявленні ряду вчених, які займаються темами, що охоплюють питання дослідження. Період дослідження охоплює приблизно 300 років. Навіть якщо сучасне використання термінів «інновації» та «підприємство» може відрізнятися в політичному та релігійному контекстах на сьогоднішній день, це порушення не впливає на ґрунтовніше розуміння. З'ясовано, що інвестування коштів платників податків у підприємство призведе лише до збитків, оскільки політики та уряди не мають доступу до інновацій, а це означає, що їхня участь буде обмежена статичною виробничою функцією.

Обґрунтовано, що франко-австро-норвезька (FAN) наукова традиція інновацій та підприємництва, заснована на Сей, Шумпетер і Сандал, визначає інновації, соціальні інновації та підприємство. В історичному науковому аналізі підприємцем є чоловік, а не жінка чи будь-яка інша стать. Крім того, інновації є основою будь-якого підприємства.

Ключові слова: *інновації; підприємець; гендерна рівність; інноваційний менеджмент; організації.*

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Formulation of the problem. This article is the result of international independent science. The article is unpublished material and registered for presentation at Nordic Doctrine History Meeting, NORDOM XVI, Norway 2022-08-26/27, and soon after published in Modern Economics Journal.

Innovation and entrepreneurship have caught the interest of scientists, scholars, researches, students and

private individuals in the area of science. This kind of engagement is of a great value, especially compared with the political and religious approaches to the phenomenon.

Analysis of recent research and publications. Successful entrepreneurship expresses the free will of the population, and at the same time brings change and potential for better lives to everyone. The scientific

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facts and analyzes in this article will inevitably justify the conclusions. Research and publications on science of the formulation of the problem and research objectives are voluminous throughout the history of economic thought, theory, dogmatics and philosophy, although recent real science is poor and strictly limited throughout the modern world. Research and publications are mainly based on Sandal, J-U. (2004). *Sosialt Entreprenørskap (Social Entrepreneurship)*. Lund Papers in Economic History, No. 96, 2004. Lund: Lund University, Sandal, J-U. (2011). *Introduction to Joseph Alois Schumpeter: Entrepreneurial Profit – An Incentive for Democratic Development*. The Journal of the Economic Society of Finland. Issue 64, Third Series, 2011, Finland, Helsingfors: FI-ISSN 0013-3183, Sandal, J-U. (2016). *The new Social Class System. Role of higher education institutions in society: challenges, tendencies and perspectives*. No. 1 (5), 2016. Lithuania: Alytaus Kolegija, and Sandal, J-U. (2017). *How innovation maintains and develops democracy*. *Economic Annals-XXI*: Vol. 165, Issue 5-6, pages 23-26, October 11, 2017.

The scientific roots of entrepreneurship and innovation stretches back to the French Physiocrats. Richard Cantillon [1] and Jean-Baptiste Say [2] actively used the terms entrepreneur and innovation, respectively in their analyzes and writings about economic development as a social phenomenon. In fact, the term entrepreneur goes even several hundreds of years further back in the French vocabulary, according to Jan-Urban Sandal, describing the act of a person undertaking giant and risky projects [3].

Formulation of research goals. Real science gives important insight and understanding on the change mechanism and how that change mechanism can improve the society without inference by the political and religious power structures. Innovation is not a political dogma or a religious belief system; it is based only on the personal strength; the will and the action of single individuals in a free and open market economy. Entrepreneurship goes beyond the electoral democratic system, because there is no other election behind the change other than the expression of the populations' free will in the open market situation. In this sense, entrepreneurship is contrary to political elections and the will of the government or parliaments.

Outline of the main research material. The farmer is an entrepreneur. In Richard Cantillon's writings, the farmer is an entrepreneur. The reason is that the farmer is something more, and covers an activity far greater than just the mere production of agricultural commodities. He is a risk bearer. Whether he is the landowner or only the user of the land, he must pay or

cover up the rent, and the rent is a fixed cost. He also needs to employ working hands during the season because his own family members cannot undertake all the work that is required during the days of planting and harvesting. Dayworkers require day wages, and those must be payed up front whatever the selling price for the commodities might be later on. The commodities are sold on the market at market price. The uncertainty rooted in the fact that production prices are fixed and selling prices dependent on the market, makes the farmer more than just a producer, he is an entrepreneur. In the entrepreneurial process, the farmer combines the first and second input factors of the production function, land and labor. Later on, in the scientific writings following up Cantillon, we shall notice that this is one of the strongest determinants of the scientific definition of the entrepreneurship process.

Gentleman of the World. Jean-Baptiste Say states that the entrepreneur is an economic agent who unites all means of production, the labor, the capital and the land. The economic process reconstitutes the whole capital that he uses and the activity brings back a profit, which belongs only to himself. Say gives a thorough presentation of the personal quality of the entrepreneur. The entrepreneur is a man that is called upon to estimate the specific amount of the product and the demand. He is a person with a good knowledge of the world and he understands the game of business. He has the strength to hire and fire people when needed and he knows how to lead the production, to give orders and to command. Complex operations cause obstacles and anxieties, and Say tells us that the entrepreneur knows how to overcome repression and misfortunes. One can say that the entrepreneur in Jean-Baptiste Say's analyzes is a Gentleman of the World. He is not a working hand and not a farmer a la Cantillon. On the contrary, when the farmer and laborer drink alcohol to forget their sorrows and comfort themselves through the day and through their lives as part of their social class culture and struggle, the entrepreneur is awake and always alert to tackle and overcome the threats that are in front of him. The personal quality makes the man an entrepreneur, and his actions as a social agent give him a profit. The entrepreneur is not remunerated by rent or wages, his output is profit, which further is a connotation, which separates him from the farmer and the worker. The prelude of the science of the entrepreneur is definitely French.

New machinery. Among the English scientists of that time, it is David Ricardo [4] in particular who catches our interest the most. It is in the Ricardo's writings on new machinery that are of interest in the analysis of the entrepreneur. In his presentation of the

analysis of new machinery, he identifies two different actors, the man who first made the discovery of the machine and the man who first usefully applied it. Both of them make an additional; let us say extraordinary profit for a while. When the new machinery have come into ordinary use, the additional advantage will inevitably disappear due to competition on the market caused by the technological diffusion. The new equilibrium will set back the man's money profit to the previous level and enjoyment of consumption and comfort. The circle is closed. It is noteworthy that Ricardo does not use words such as innovative and entrepreneurial. Instead, he refers to the established English terms, which refer respectively to invention (made the discovery) and capitalist. Nevertheless, David Ricardo's connotations are of paramount importance in terms of our understanding of the process of innovation and technical diffusion.

The father of innovation. The father of innovation, he has been called, Joseph A. Schumpeter [5], based upon his youth writings *Theorie der wirtschaftlichen Entwicklung*, published in Leipzig 1912, later translated into English in 1934, based on the second edition published in German in 1926. Introducing the entrepreneur as an independent social agent in the economy, Schumpeter's theory explains the little man's activities on the micro level as the incentive to the elevation of the big wave on the macro level and thereby causing the development based upon creative destruction [6]. This causal model has been named The Schumpeterian System, and accordingly Schumpeter's definition of the entrepreneur is a universal one; it covers all segments of society and explains society's development by way of creative destruction [7]. According to Schumpeter, innovation implies that one is able to do something which previously could not be done, or at least not so efficiently or economically. Schumpeter defines innovation as a new combination of the first and second input factors, land and labor, which represents a breaking up of the static production function. Innovation is a spontaneous shift in the economy and causes dynamic production. Innovation can be carried out by anyone, but younger people seem to be less conservative than older players in the market, and are therefore more likely to represent the role of the entrepreneur to a much higher degree. The successful carrying out of the innovation on the market brings back an entrepreneurial profit to the entrepreneur, who is the sole owner of the profit. In the Schumpeterian System, innovation can never be a group activity and there are no dividends. It is the genius of the little man, without excluding the big man altogether, that is behind the shift, and no authorities can control or direct that activity. One could easily think that the profit is the only motivating factor for the

entrepreneur. That is not the case in Schumpeter's theory. The profit is important, but not as a motivating factor. The profit is the only proof that the entrepreneur was right and succeeded. Schumpeter points to three motivation factors as explanatory incentives for the entrepreneur: the dream and the will to found a private kingdom, the will to conquer, and the joy of creating. Money or profit has nothing to do with the case; it is actually not involved in making the innovation or the entrepreneurial profit, because that kind of profit is made only achieved by use of the land and the labor, excluding capital as an input factor in the dynamic production process. Schumpeter treats capital as an independent agent, which resolves into land and labor. Still the entrepreneur might need funding before launching the new product or service on the market. The entrepreneur might possess capital from previous successful entrepreneurial activities. If not, he will be forced to turn to the banker, the only one who can create new purchasing power out of nothing by claiming values that is not included in the circular flow. However, after the successful introduction of the innovation to there is no need for debt financing, because the cash flow will be sufficient of the funding of the enterprise in its escalation and sustainability. The new technology will arise alongside the old, but not from the old, and subsequently the new will abolish the old and a new paradigm will occur. This is the process of development.

Legal judgmental decisions. Mark Casson [8] makes the definition that the entrepreneur is someone who specializes in taking judgmental decisions about coordination of scarce resources. Judgmental decision-making is based upon the analyses of the consequences that the result of an activity will impose on the project. No special qualification is required to fulfill the process of judgmental decision-making because everyone is involved in taking judgmental decisions at one time or another. Anyhow, that does not make the person a specialist at it. Furthermore, according to Casson, the entrepreneur is someone, an individual person, not a team, or a committee or an organization. The reason is obvious; only individuals can take decisions. Any kind of groups of people jump to conclusions by aggregating votes. A voting system might represent equality and a voting democracy, but it can never satisfy the requirements of decision making in the process of entrepreneurship. The personal quality of entrepreneurship represents a limited supply, and it is difficult to identify the requisite personal qualities when they are available. According to Casson, the entrepreneurs operate their enterprises in such a way as to obtain the maximum profit from a given amount of effort. In that context, the entrepreneurs should be understood as the economic man.

Social innovation. Jan-Urban Sandal constitutes the Franco-Austrian-Norwegian (FAN) scientific tradition of innovation and entrepreneurship based on Say, Schumpeter and Sandal by defining social innovation. Social innovation is the process whereby the individual makes free and independent decisions concerning the combination and use of factors of production, with the aim of introducing a social service which improves people's lives and has not been on the market previously [9].

Interest on productive loans. The interest on productive loans in the free market functions as a signal. Demand for productive loans determines the market price of productive loans rates based on expectations of future purchasing power. When the innovation rate in an economy is high, demand for productive loans increases based on expectations, which in turn pushes the borrowing rate up. The free capital will therefore always seek the dynamic production functions where the expectation of future consumption is greatest. When the rate of innovation in an economy is low, the interest on productive loans will be low and the huge capital accumulated through entrepreneurial profits has difficulty locating due to the low number of dynamic production functions available on the market [10].

Social class structure. Innovation plays an important role as a determining factor of social class structure. The new social class structure, presented by Jan-Urban Sandal in 2016 [11] divides the world population into three distinct social classes depending on the individuals' relation to innovation: the starving class, the desperate class, and the elite class. Based on the production function and the individual person's relations to wages and profit, it is possible to make a scientific approach to the modern world social class structure. The characteristics of the three social classes are based on their relations to earnings. The starving class members are incapable of elevating themselves to a better life position without help or pressure from outside because they are captured in a static framework. The desperate class members are totally dependent on wages or capital profit as an outcome from the static production function, and they are desperate not to fall down into the starving class. The elite class members are independent people and live dynamic lives and they have a great impact on their own lives. They have opportunities of changing the situations, not only for themselves but also for the society. Not taking orders from others, or being dependent on funding from others, be it individuals or any kind of systems is the meaning of living independently. Innovation is a superior driving force for economic development in a capital, market-based economy [12]. The result of successful business and

social entrepreneurship is economic development, equal rights, a better world, peace, freedom, a more secure society for everyone, as well as technological, economic and social progress.

The entrepreneur is a male. In the classical writings on innovation and entrepreneurship, the entrepreneur is a male. It is not only a question of biological sex; male or female, or gender; it is something much bigger, the right and ability of legal decision-making. Every society has their own specific legal systems regulating the rights, privileges and formalities concerning entrepreneurship and the entrepreneurial activities as well as the role of the entrepreneur. The scientific analyzes reflect the situations in various societies throughout history. We have seen no indications that the biological sex or gender positions are changing in the role of the entrepreneur, other than in a political context. The political system can decide, demand, promote and even force individuals of any sex or gender to take the role as entrepreneur, but that does not guarantee a successful result as entrepreneur. Innovation management is the specialized coordination of human action of the production function to secure the creation of entrepreneurial profit.

Innovation management. The creation of innovation is always managed by human, the entrepreneur, and cannot be substituted by any kind of groups of people or technology. In this context, the meaning of innovation management is to manage oneself. The entrepreneur is managing himself. Innovation management implies how the entrepreneur is making legal and judgmental decisions that secure an entrepreneurial profit. The opposite is managing others, the staff. When the entrepreneur is managing his staff, he is out of the role as entrepreneur, he is operating the production function like any other skilled staff member, and the value of his work is equivalent with the marked price for salaries of the same kind of jobs in the same sector at the same time. Management of staff is traditionally based on planning, organizing, staffing, leading and controlling. The aim is coordination of goals and resources efficiently, to reach the optimum of the production function, as a means of competition factor in the same market, which is contradictory to innovation. The entrepreneur can choose to hire a qualified staff member to do the job for him. In any case, managing staff is always paid for by salary, which means that salaried people lead salaried people, and that is characterized as static production. Innovation management of staff be it by the entrepreneur himself, or any other person is static, because there is no entrepreneurial profit involved in that process.

Only entrepreneurial profit counts. Organization theory is the analyzes of systems for reaching goals

based on production using natural, human and financial resources. Three distinct roles, the capital owner, the entrepreneur and the manager characterize the systems that constitutes the organization. The capital owner is responsible for the debt. Investing capital in the enterprise will, in specific cases bring back a capital profit, or interest on capital, the ROI, return on investment. The entrepreneur could very well be the capital owner, but in that case, he is having two different roles, capital owner and entrepreneur. When the enterprise goes bankrupt, the entrepreneur loses his money in the role as capital owner, not as an entrepreneur. Any other party investing capital or act as guarantor for the debt will lose their possessions when the enterprise fails. This fact is specifically important especially when politicians and governments invest taxpayers' money in the process of entrepreneurship. Investing taxpayers' money in entrepreneurship will only result in loss, because politicians and governments do not have access to innovation, which means that their engagement will be limited to the static production function. The entrepreneur is responsible for carrying out new combinations. His remunerations is entrepreneurial profit, never salary or capital profit. Finally, the manager is always remunerated by salary when managing the staff. Managing staff is the action of the static production in any organization, be it governmental or private.

Innovation and entrepreneurship are words that have been very popular throughout history, and in recent years, their popularity have risen considerably. Actually, innovation is something that should not catch the attention of parliaments, governments, bureaucrats, churches and belief systems, organizations or any other groups of people. Still, we see a huge involvement in the actions of societal development based on this phenomenon. The reason for this development is quite obvious; in a capitalist economy development must take place, otherwise the society will fall into socialism with its consequences, and both socialist Marxist societies as conservatives and liberal states look to innovation and entrepreneurship as the solution to the problems of stagnation. Marxist nations pretend, and sometimes even believe that they can intervene in the development by talking about innovation, entrepreneurship and organizations as means of altering the slow change of society. Innovation and entrepreneurship not only created capitalism, but also nurtured and develops capitalism. Economic growth stagnation in the western economies, which is a fluctuating phenomenon, is a sign that innovation does not function as the prime engine in the economic

development in times of economic downswings. Anyhow, innovation is the change mechanism that makes economic upswing with the capacity of creating new possibilities, not only for the rich and the elite, but also for the entire population. Innovation created capitalism and modern democracy is only possible in an economy that can provide development based on innovation. Innovation is not a political dogma as the analyses based on the roots, definitions and modern use of innovation and entrepreneurship has showed. Goodwill from kings and generosity from governments cannot produce innovation and consequently development. On the contrary, political, ideological and religious intervention in economic development usually represents less freedom, less peace and less joy in the population. The universities should stop motivating and teaching their students to apply for private and governmental funding for start-ups and social entrepreneurship. It represents a waste of time, effort and money. What they should do instead is lecture on relevant topics based on real science.

Conclusions. The scientific theoretical analyzes of innovation and entrepreneurship goes back almost 300 years in time to the French Physiocrats. The Franco-Austrian-Norwegian (FAN) scientific tradition of innovation and entrepreneurship based on Say, Schumpeter and Sandal defines innovation, social innovation and entrepreneurship. Innovation is defined as the carrying out of new combinations of land and labor and constitutes a spontaneous change in the economic system. Entrepreneurial profits are the proof that a change has taken place and that the entrepreneur was right. Entrepreneurship is the action undertaken by the entrepreneur, and no group of people can take the role of entrepreneurship, because they are incapable of creating innovations. In the historic scientific analyzes, the entrepreneur is a male, not a woman or any other gender. Innovation management is the specialized coordination of human action of the production function to secure the creation of entrepreneurial profit. To manage oneself is the action of the entrepreneur, to manage others is the action of static economy. Organization theory is the analysis of systems for reaching goals based on production using natural, human and financial resources. Three distinct roles, the capital owner, the entrepreneur and the manager characterize the systems that constitutes the organization. Investing taxpayers' money in entrepreneurship will only result in losses, because politicians and governments do not have access to innovation, meaning their involvement will be limited to the static production function. Innovation is the foundation of all entrepreneurship.

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