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**"Motivation on the job: how extrinsic rewards may backfire.
Analysis of the theories that link motivation, effort and performance."**

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Abstract

La motivazione è l'insieme degli scopi che spingono un individuo ad agire e a comportarsi in una certa maniera per raggiungere degli obiettivi. In economia questo tema è affrontato da sempre perché lavoratori motivati si impegnano, aumentano i propri sforzi e influiscono positivamente sui risultati della performance aziendale.

Non esistono risposte universali alla domanda su come motivare efficacemente le persone e come guidare il loro comportamento verso gli obiettivi aziendali, ma in letteratura si trovano diverse teorie e soluzioni che continuano a evolvere per adattarsi ai nuovi modelli di business e ai cambiamenti sociali ed economici.

In particolare, l'elaborato si concentra su due tecniche motivazionali largamente diffuse e utilizzate: la prima incentiva gli individui ad essere più performanti premiando e remunerando il loro lavoro con ricompense estrinseche, quindi con l'uso di mezzi e strumenti esterni all'individuo, mentre la seconda mira a stimolare la motivazione intrinseca della persona utilizzando la passione interna che dimostra di avere per un'attività o per un lavoro. Poiché molti studiosi ritengono che la motivazione estrinseca possa essere un complemento a quella intrinseca, questo lavoro di tesi analizzerà in che maniera i fattori che compongono i due tipi di motivazione interagiscono tra loro e influenzano la soddisfazione personale, l'impegno profuso e i risultati ottenuti.

Dopo una prima analisi della teoria classica e dell'origine della motivazione, è stato dato particolare rilievo a due rami dell'economia, quello comportamentale e quello organizzativo. Attraverso l'analisi di teorie, modelli, casi aziendali reali ed esperimenti sul campo e di laboratorio, si è giunti alla conclusione che un lavoro appagante per l'individuo, progettato in maniera tale per cui possa essere espressa competenza professionale e autonomia nella gestione del lavoro e nelle decisioni da prendere, sia più efficace come spinta motivazionale di un sistema basato sulla remunerazione esterna in base alla performance data o con l'uso di bonus e incentivi. Ciò non esula dalla retribuzione economica del lavoro svolto, ma è una prospettiva che mira a dare più rilievo e importanza al desiderio comune in molte persone di trarre soddisfazione anche personale dall'attività svolta quotidianamente, perché risulti più *arricchita*. L'elaborato termina ponendo nuove domande che si spera continueranno ad alimentare il dibattito di come sia più adeguato e sostenibile motivare i dipendenti, anche in un'ottica sociale che tenga conto delle complicate relazioni all'interno delle aziende.

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Introduction

*Il lavoro dovrebbe essere una grande gioia ed è ancora per molti tormento,
tormento di non averlo, tormento di fare un lavoro che non serve,
che non giovi a un nobile scopo.*

Adriano Olivetti

This thesis has the main aim of finding a new way to deal with human motivation within a working context today. It is well known that the topic is not new and that the organizations have always been struggling about it because motivation is inherently connected with positive effort and effective performance, thus affecting the economic results. People have been dealing regularly with motivation to try to satisfy every kind of survival, emotional and success needs. However, across the centuries the perspective of work motivation has changed and it will be here analysed to understand which further steps have been made and which direction is taking this matter.

There are two predominant schools of thought when a practical solution is searched to raise and sustain motivation: either rewarding people for their work with extrinsic rewards, praising them with monetary perks and making their retribution contingent on their performance, or taking care of the individuals' intrinsic motivation to perform a job and thus designing tasks and activities to be motivating and likely to satisfy the workers just for the pleasure of doing that job. Therefore, the research questions that this paper is willing to answer are:

- *Do extrinsic rewards really work better than an intrinsically motivating job?*
- *Do contingent pay methods motivate the employees more than an enriched job?*
- *How are jobs being designed in the new century to guarantee both economic efficiency and effectiveness, but also work motivation?*

Basically, the division lies in the difference between using money as a motivator factor to receive in return any kind of performance and result, and the chance of letting a person free to express his best potential on a task that sincerely interests and challenges him, or that has been designed to arouse challenge and interest. Motivation originates from the external environment in the first case and from within the individual in the second one. Of course, the world is not totally black or white, so a wise use of the two streams of motivational tools is the best solution to the problem of dealing with non-motivated employees. However, if the topic exists since the first firm ever was built, it means that arousing human motivation is not an easy task, and it needs to be constantly monitored and adapted in order to coevolve with the people that are the subjects of the analysis and with the economic world, which is steadily developing.

This work revises in Chapter 1 the classic economic theory starting from the definition of work motivation (Pinder, 2008) as “the set of energetic forces that originate both within as well as beyond an individual’s being, to initiate work-related behaviour, and to determine its form, direction, intensity, and duration”. The huge literature existing on motivation can be divided in a more simplistic way in three main streams, the first one of which is named Content Theory. Authors like Maslow, Alderfer and McClelland take the human needs as starting point of their studies, while Herzberg considers a duality of work content and work environment. Process Theory combines the equity model of Adams with the expectancy theory of Vroom and Porter & Lawler, which states that people base their effort on a task on the relationship between the effort exerted, the performance achieved and the rewards obtained. Finally, Outcome Theory uses mainly Skinner’s Reinforcement Theory belief that behaviours can be controlled and guided towards a desired direction when extrinsic rewards are used as motivational strategies. The chapter ends with a consideration on the difference between intrinsic and extrinsic motivation (Ryan, Deci, 2000a). The former refers to “doing something because it is inherently interesting or enjoyable”, such as challenges on the job, achievement, and recognition, while the latter implies “doing something because it leads to a separable external outcome” like monetary benefits, promotion or bonuses.

Behavioural science and organizational theory are the two general philosophies of dealing with personnel management and they will be analysed in Chapter 2 and 3, respectively. Behavioural economics’ analysis takes the so-called crowding out hypothesis of extrinsic and intrinsic motivation as starting point, meaning that the external rewards have the result of decreasing the intrinsic motivation of the individuals. This theory refers to the Self-Determination models elaborated by Deci and to the Self-Perception theory of Bem. Field and lab experiments (Gneezy, Rustichini, 2000; Deci 1971) about this hypothesis are largely described and commented, presenting also some contradictory evidences that were found (Hamner & Foster, 1975). The conclusion is a sort of compromising perspective, arguing that extrinsic rewards do indeed undermine the intrinsic motivation, but some external factors can be used in service of the internal drive because are supportive of the personal’s sense of competence (Amabile, 1993, Deci et al. 1999).

Chapter 3 first revises why firms pay wages that are higher than the market equilibrium’s ones, and then tackles once again the existing debate of the crowding out hypothesis. The question is whether the best way to motivate the employees is either through retributions based on bonuses or on patterns that link pay to performance, or through a design of jobs which involves interesting, challenging and enriched tasks. Contingent pay methods as extrinsic motivators are described in theory and in practice with some business cases of companies using

them. Some guidelines of implementation (Armstrong, 2014) are also provided to find a way to bond this approach to the enrichment model as it was designed by Hackman & Oldham (1976). The Job Enrichment model is seen as the key to improve both task efficiency and individual satisfaction designing more complex jobs with spare room for personal and professional achievement. It builds upon five core characteristics, namely skill variety, task identity, task significance, autonomy and job feedback. These are mediated by the individual's growth strength and self-realization, since it is structured as a model which gives opportunities to those willing to take them at any level of the firm's organigram.

Finally, Chapter 4 looks to the most recent present and to the future to draw the final conclusions. The 21st century is the age of the knowledge economy, based on great investments in technology, high-tech industries and more high-skilled labour force to produce, transmit and transfer knowledge and information. Workers' motivation is likely to have more demands for jobs with meanings, challenges, identity and achievement (Ariely, 2013). The classic external rewards, as defined before, lead the people to be narrow minded and do not work in this changing environment. The solution is found in the job enrichment model and its reliance on the intrinsic motivation of the individuals to perform activities because it matters to them and they found it interesting and important to do. Autonomy is seen as the main characteristic of the new approach, and some evidence from companies like Atlassian, Google and 3M are reported. The work concludes with an analysis of the Contract Theory, winner of the 2016 Nobel prize in economic science and with the questions that still remain unsolved and that can become matter of future analysis about the job design as a primary source of motivation, the intrinsic one.

However, before getting to the main concepts, reflections and take-away of this work, it is surely useful to study firstly the perspective of the economic background where the people move, conducting an analysis of the economic context in which work motivation is inserted. It helps to understand how dealing with motivation has changed across the years.

At the beginning, economics was considered a moral science guided mainly by philosophy and its virtues and values, where ethics gave the rules of conduct and people felt motivated following the doctrine they had been taught with. However, after the Industrial Revolution and the rise of a middle class who became extremely successful in the emerging open market, motivation became a more egoistic and selfish issue and the moral philosophy gave slowly space to the rise of Positivism. This current argued that society and the social welfare had to be based on laws, and that all that was previously introspective and metaphysic had to be demonstrated by reason and logic, the unique sources of knowledge supported by empirical

evidence. Taking further steps in the economics' approach development, from the 20th century neuroscience raised as a new way to investigate the human behaviour, motivation and the consequent economic actions. This scientific field bonds a variety of disciplines and through the advance in medicine and the availability of new scientific tools is able to determine via lab or field experiment which brain areas activate according to different decision making processes.

More in details, looking at the pre-Smithian economics and especially according to the Aristotelian tradition, economics was an inquiry into ethics and politics (Alvey, 1999), and disputes about usury, for instance, were judged according to moral laws. Until the 18th century economics was treated together with jurisprudence based on moral philosophy, but afterwards a new economic doctrine became preponderant: mercantilism. The wealth of a nation was now said to be grounded on the amount of profits earned, and the States were granting a protectionist policy for the imports while inciting the exports. This was the point that started to break with the tradition of economics as a moral science, since people were no longer basing their motivation on morality, they were instead freed from values and theology's restrictions and they were starting to be guided by egoism and self-motivation.

Human behaviours pointed to reach the best possible outcome for someone's own profits and success, and the ethical aspect was no longer considered as important since it was of no help for the agents involved and, on a higher social level, for the common wealth neither. In this sense, the classic theory of Smith is explicative and marks the beginning of modern economics between the period 1750 – 1790. In his work "The Wealth of Nations" he argues that economic growth should be the normal state of the society, with the goal of increasing the power of the nations (Smith, 1776). Anyway, virtues, values and ethics in general were still part of Smith's thought, and the pure egoism advocated by many to be found in his theory through the metaphor "it is not from the benevolence of the butcher, the brewer, or the baker that we can expect our dinner, but from their regard to their own interest" is actually, most of the times, misunderstood. Looking at the bigger picture of this image (The Economist, 2013) it emerges that butchers, brewers and bakers can do their job without caring for what is going on in the society, while philosophers, given their higher status position, have to deal with bigger issues like the most pressing problems of the common wealth. Thus, the words 'their own interest' of the quote do not mean that egoism is the only motivation of the human behaviour, only that not everyone faces occupations which are at the same level of sense of public duty.

Smith also recognized already in the 18th century that job division would have been revolutionary, because a proper separation and combination of different operations would have granted success and business fortune. Nonetheless, he immediately realized also the downsides

and the negative outcomes of employing the workers in extreme labour specialisation given the fact that the worker has no chance of exerting his creativity or his capabilities and loses all of his motivation to work because he sees no room left for personal development. The disadvantages in the long run come both for the individual, who becomes, with Smith's words (1776), "stupid and ignorant" and for the society, which loses the economic profits deriving from the lack of motivation of the workers, and loses the chance of having active citizens as well (Sen, 2010).

Finally, another well-known metaphor is the one of the invisible hand guiding the market, in the sense that if the conditions for a free market are reached, then the pursue of someone's own selfish interest would benefit the whole society as well. A general economic equilibrium would be obtained thanks to the motivation and the consequent behaviour of single consumers and entrepreneurs, who being committed to reach their own maximum individual satisfaction would lead also to the wealth of the society, even if they were not intending to promote it. When advocating free trade as the main goal for the development of a nation, Smith argues though, that commutative justice is always due because someone's own interest cannot violate the moral framework of natural liberty, or with his own words: "every man, as long as he does not violate the laws of justice, is left perfectly free to pursue his own interest in his own way" (Smith, 1790), meaning that Smith's economics still fits in the moral science sphere.

It is important to remark also how the view of the 'invisible hand' and the fact that the pursuit of self-interest would serve as trigger for the public economy is strictly connected to the more general branch of Welfare Economics and to how motivation varies depending either on the individual perspective or on the aggregated level one. Thus, in the Smithian's view, the individual motivation of self-interest is a much stronger lever for the public wealth than any leader could ever exert, even the most dedicated ones (Stiglitz, 1991).

Generally speaking, welfare economics evaluates the well-being at the aggregate, or economy-wide, level trying to find the best possible way to allocate resources in terms of both efficiency and equity. The analysis normally implies a social welfare function which is usually defined as a utilitarian function given by the sum of the personal utilities of the people involved. The positivistic methodology, however, argued that interpersonal comparisons of satisfaction are subjective, and for this reason had to stay out of the realm of economics (Alvey, 1999). The new approach said that economics deals with facts and that preferences are given, so interpersonal comparisons were not allowed, and for this reason mathematics and econometrics became fundamental in every analysis and dissertation, making economics a positive and objective science. Therefore, the utilitarian social welfare function was seen as defective, and the new approach relied only on one criterion of social improvement, the Pareto efficiency.

Pareto's criterion captures the idea of Smith's invisible hand of getting a better social outcome for everyone through the motivation of the single agents doing their job, in the sense that the criteria applies whenever everyone's (or of some of them) utility goes up but with no decrease for anyone (Sen, 1995). The second fundamental theorem of welfare economics states that every Pareto efficient allocation can be attained through the price system and that all the governments need to do is engaging in some initial lump sum transfers in the form of taxes or subsidies (Stiglitz, 1991).

Nevertheless, markets are not perfect, they are incomplete and information are imperfect, and it is not possible to evaluate precisely which workers are more productive and motivated. In the context of a principal-agent relationship, one of the main problem is the one of incentives, which arise because managers provide them to the people who have worked for them and have helped to gain more benefit for the company. In the neoclassic example of sharecropping, for instance, the worker usually had to pay one third or half of his output to the landlord who gave him the land and who was unable to monitor how the job was being done. This institution is inefficient on the equity's point of view, because the two actors are not endowed in the same way. The only way to solve this incentive issue would be to redistribute the land from the landlords to the peasants, but this would not be a Pareto efficient solution because the old land owners would be worse off, even if the total output for the economy would increase (Stiglitz, 1991). The conclusion is that equity and efficiency cannot be neatly separated because of market imperfections, and combining individual preferences, motivations and interests to reach a collective decision of social welfare is a complicated framework of logic reasoning and analysis by axioms of social choice theory.

Since welfare economics has close ties with social choice theory, Arrow's impossibility theorem is also considered an important step in the analysis of the neoclassic view of social wealth. Arrow stated that in trying to obtain an integrated social preference from various individual preferences, it is not possible to reach the desired outcome without violating at least one of four axiomatic criteria: unrestricted domain, non-dictatorship, Pareto efficiency and independence of irrelevant alternatives (Arrow, 1951). An implication is that there is not a voting method that can be considered completely fair, because every ranked voting method is flawed and if it is not, then it is a dictatorship. This applies because to respect simultaneously all the conditions listed above there cannot be a unique preference order. Individual preferences, as considered initially, are just ordering of items considered separately by every individual without any interpersonal comparisons. If these comparisons are allowed though, then some possibilities open up especially for equity reasons and in the area of welfare economics. Amartya Sen (1977) re-examined in this light Arrow's theory with the example of a voting

proposal of taking some of the income of the poorest and dividing it among other people. In a society of egoism motivated members this would be a majority improvement, but for welfare economics it is important to add interpersonal comparisons in the judgements to prevent extreme immoral decisions to be ruled out so that moral values, and reasoned and democratic social choices can be attained. Sen (1995) cared very much also for human rights and liberties, normally ignored in the traditional utilitarian welfare economics because situations are judged exclusively by the utilities generated in the respective states of affairs.

In the 20th century and still nowadays in the new millennium, a new theory became popular and discussed in many publications thanks to its flexibility of approach and interdisciplinary use: neuroscience. It is the scientific study of the nervous system, but generally speaking it affects the passage from cognitive science to cognitive neuroscience, in the economic field as well. The rapid development of this discipline is due to the greatest availability ever experienced of methods, technologies and tools provided by medicine, physics and chemistry, plus an open approach which melds various discipline like neuroanatomy, -physiology, -pharmacology and, for what interests us more, economics and behavioural economics (Oliverio, 2004). Neuro-economics is a branch of neuroscience that combines insights from various disciplines (Fig. 1) to better understand how the human brain generates decisions in economic contexts.

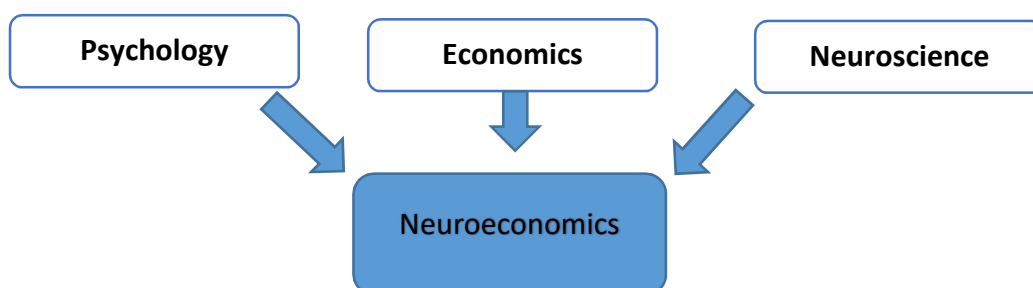


Fig. 1 – The disciplines of neuro-economics – Source: personal elaboration

This new approach creates a distance from the cold positivism of the previous centuries and helps gaining information about the neurobiological foundations of social preferences, and how motivation changes based on other's people behaviour or by being put in different situations. Neuro-economics as a cognitive neuroscience provides improved models of human decision making, explanations about the ability to choose among alternatives and about how the brain is affected and reacts to different economic behaviours. This can occur thanks to powerful new techniques and instruments like fMRI (functional Magnetic Resonance imaging) and TMS (Transcranial Magnetic Stimulation), for instance (Oliverio, 2004). The former uses the fact that haemoglobin has different magnetic properties depending on whether there is little or much

oxygen in the blood, and by the use of a contrast it is possible to see which brain's regions are activated during a task and look for statistically significant differences in the BOLD (Blood Oxygen Level Dependent) signal with a control group. The latter adds noise to normal brain activity and it is used to create sorts of temporarily "neurological virtual lesion" to measure movements, reaction times and task performances. Social neuro-economics takes a step away from traditional economics removing the assumption that people are motivated exclusively by their own self-interest and promoting the hypothesis of the existence of social preferences, meaning that people actions are "based on a positive or negative concern for the welfare of others and on what other players believe about them" (Fehr & Camerer, 2007).

Combining the scientific tools mentioned above with well-structured tasks taken from economic theory, it is possible to get common results across studies that thanks to neural evidence provides answers (analysed later in Chapter 2) to questions like what are the motivational forces behind charitable giving, or punishment of greedy behaviour or choices of trust and altruistic behaviour. This perspective is far from the homo economicus view of fully rational and fully informed agents endowed with unbounded willpower, because now emotions and rewarding factors matter and they explain why people exhibit non-standard preferences, non-standard beliefs and non-standard decision making processes.

For example, reciprocal fairness pushes the players to value positively kind intentions and to value negatively hostile's ones through punishment. Motivation to act in this way comes mainly from the desire to increase the social wealth or to experience a warm glow from altruistic giving or for image's concerns, implying that subjects prefer cooperating than defying the other player, even if in the classic prisoners' dilemma game, the egoistic decision would lead to a higher economic payoff.

In summary, neuro-economics adds to the classic and neoclassic economics' point of view the idea that social preferences of fairness, equity, trust and punishment need to be added to the social welfare function and be traded off with selfish economic interest, as showed by the activation of dedicated brain regions when particular situations comes out.

This introduction on the background of the development of economics is useful to better comprehend the situational context in which work motivation is nowadays still found. Behavioural economics relies mainly on the cognitive neuro-science aspect of economics and benefits therefore of the technological improvements to test behavioural patterns. Organizational theory is still more positivistic and deals with motivation applying the concept to the division of labour, the team work, the coordination mechanisms and the centralization decisions. Both these aspects will be analysed and discussed.

Chapter 1 - The origin of motivation

1.1 - Definition of motivation and work motivation

An organization is a social entity driven by objectives, built as a system of structured and coordinated activities interacting with the external environment. Within an organization the individuals are not all the same and they cannot be reduced to mere operators endowed with a more or less bounded rationality, instead, their personality and their psychological and social characteristics affect the working behaviours and consequently the value they contribute with to an organizational relationship.

Many workers increase their productivity by learning new skills and perfecting old ones on the job, therefore on-the job training is something that increases future outcome at a cost at the expenses of the firm (Becker, 1962). Some of the perks of the investment in Human Capital are not even economic, because investing in schooling and training increases productivity, income generated and it leads to a better health, a longer life and a higher probability of participating in the social life of the community. On the economic side, H.C. returns are given by conspicuous investments in general or specific training and they are of fundamental importance for the individual, through a higher salary in the older age, and for the organizations and the economy as a whole, thanks to successful development and positive externalities that may be spread in the market (OECD, 2007).

Organizational theories attempt to identify ex-ante the value of the human capital through the recognition of specific competences in the workers to predict the organizational behaviour and to operate reaching the best possible economic outcome (Costa, Gubitta, 2008).

A competence can be defined following the organizational theorist Boyatzis (1982) as: “an intrinsic characteristic of a person that becomes causally correlated to an effective performance”, and it can be declined in different ways:

- motivations
- personal traits
- self-perception
- knowledges
- skills

The last two elements collect information, theories and abilities to perform a specific task, these are not hard to evaluate and to develop, what is needed is significant formation on the job. Self-perception is declined in values that arise when the personal competences work jointly with

positive organizational relationships, because only in this way a resource can be combined in different ways and influence the final value.

Finally, motivation and personal traits are identified as mental schemes, needs and boosts that guide the individual's actions or that lead him to react to a situation in a certain way. These are particularly hard to evaluate and to develop, but are fundamental because an analysis of the decisional processes of an organization is not complete if it is only limited to the visible competences, and this explains why there is a much ongoing debate about the reasons that influence the way people act and about the drives that guide their behaviours.

How to define motivation, then? A common shared definition is the process that initiates, guides, and maintains goal-oriented behaviours, or in other words the dynamic process that finalizes the individual's activity towards an objective.

Basically a motivation is a mental, theoretical construct through which a particular behaviour can be explained in the light of people's actions, desires and needs, useful to understand why they may or may not want to repeat an action.

To relate this definition to a working context it is necessary to give a more specific meaning to work motivation following the one given by professor Pinder (2008): "work motivation is a set of energetic forces that originate both within as well as beyond an individual's being, to initiate work-related behaviour, and to determine its form, direction, intensity, and duration."

The two definitions are basically equivalent, but the second one describes more in details a series of elements useful when describing an on-the-job behaviour. The set of energetic forces implies a wide range of needs, instincts and factors associated with weak or strong efforts at work, with effort meant as primary indication of motivation. The intensity of work motivation is referred to the magnitude of the boosts that individuals employ regardless of their available potential, the direction is important because work motivation only matters when oriented to a global vision, a goal and a sense of mission, and finally duration as a characteristic that implies that persistence is a major element of work motivation (Pinder, 2008).

Evaluating work motivation is made even more complicated by the fact that it is an invisible element, an internal construct representing a mental elaboration of a cause-effect relation, which is unobservable and unmeasurable directly.

To talk concretely about work motivation, it is necessary to rely on the theories that researchers have come up with, commenting and explaining their results in the light of the manifestation, the actions and the behaviours that are said to be consequences of the inner motivation. For this reason, even though it is complicated and wide to investigate the subject of motivation, it is first possible to evaluate different forces that origin and activate the

behaviour, especially in a working environment and within a professional relation, and secondly to sum up the theories that have been developed in recent years.

When the motivation is due to biological forces, it can be simply described as an organic state of need, in the sense that the individual feels a non-equilibrium condition caused by the urge of satisfying a need or a desire. It manifests itself with a state of tension and wait, which precedes the activation of a series of actions to appease the need, and that only once it has been fully satisfied restores the normal homeostasis (Maslow, 1970).

Another force which affects motivation, and consequently the behaviour, is the social one, meant as the cultural and anthropological reply to the ensemble of relationships in the reference environment. The development of a person is influenced and controlled by a series of actors like colleagues, bosses, politician and other social manipulators (Skinner, 2005) who limit the complete realization of the human being and guide his behaviour towards a certain direction they have influenced.

A third concept of motivation is the Freudian one, where the main pushes are the instinctive ones, governed by unaware forces intrinsic to the nature of the individual or at most learned by common habits. According to the Austrian psychoanalyst, the human mind is structured in three layers: the first acts in a completely irrational way to satisfy the needs that arise, and does not even consider the consequences, the second one mediates the urges of the inner unconscious reality and the real external forces, and the third one represents the moral conscience and evaluates critically the actions (Bazzanella, 2013).

Finally, the last force that activates behaviour is the emotional one because people feel the need to be part of a group. The reference group of family, friends and colleagues is particularly important since together the chances of learning are constantly increasing and have a reinforcement effect on an individual's motivation through the exchange of receiving and giving signals of membership.

To conclude, the four forces briefly described above are the first perspective through which it is possible to analyse the world of human motivation and the understanding of people's behaviour. Starting from these insights of human psychology, researchers modelled a great number of theories about work motivation which have become the milestone to approach customers when doing businesses, exploiting their desires and needs, and to select, interact and stimulate workers on the job, trying to shape them around the position they have to cover and to integrate them in the company's environment.

1.2 - Main theories of motivation

The analysis of motivation is a macro theme that has been approached by scholars and researchers from various perspectives. Moreover, work motivation is the result of the interaction between the many individual actors and the specific organizational characteristics. Theories of motivation centre on different aspects of this complex process, and it is possible to combine three broad categories: the individual's predisposition, the cognitive process, and the consequences deriving from the individual's action. From this taxonomy three types of theories of motivation follow: content theories, process theories, and outcome theories.

1.2.1 - Content theories

Content theories of motivation analyse the internal reasons of an individual to adopt certain behaviours and to be motivated in different ways and by different work settings.

The basic assumption of content-based theories comes in the first place from the needs-based theories of Maslow, Alderfer and McClelland, where a need is more or less the lack of an object or a sensation that triggers various actions to satisfy the urge.

Another content-based theory that has been widely accepted and has obtained stronger empirical support is Herzberg's one, which considers the duality of the content of the work that a person does, in opposition to the environment where the individual works, a duality of factors that could either motivate or demotivate him.

Abraham Maslow postulates what has been defined as a hierarchy of needs, relying on the fact that the man is a wanting animal and that he is never fully satisfied, because once a desire is realized another arises and so on.

Therefore, Maslow first assumes that the individuals live in a condition of constant relative satisfaction and secondly that there are some kinds of needs that will always be a prerogative compared to others, since the satisfaction of certain upper needs like leisure or personal growth on the job will always be postponed to a full stomach or to a safe shelter (Maslow, 1970).

The source of motivation is thus encountered in the unsatisfied needs, which trigger a sense of tension and non-equilibrium, and that serve as motivator factors to take on actions and guide the behaviour towards the fulfilment of the desire and towards a sensation of temporary satisfaction. Satisfied needs, instead, produce no tension and cannot be considered motivation enhancing factors. Before discussing the elements of Maslow's taxonomy, it may be useful for the analysis to show what the actual suggested needs-pyramid looks like (Fig. 2):

ABRAHAM MASLOW HIERARCHY OF NEEDS



Fig. 2 – Maslow’s pyramid of needs – Source: www.broadreachtraining.com

The first class of needs is the one of physiological needs, extremely summarized in food, water, shelter and warmth, the most assertive of all needs (Maslow, 1970).

A person who is lacking food, safety, affection and self-esteem would certainly be begging more for hunger than for anything else. Body and mind become dominated by the physiological need and the rest does not raise any reaction and it is probably left behind while all the resources, knowledges and competences are tools to satisfy the prominent need.

Accepting this theory, however, means also the understanding that, in particular in some societies, chronic hunger is rare rather than normal, actually with the opposite problem of people experiencing too much of food-wealth.

Once physiological needs have been gratified, safety needs emerge in the form of the desire for security, stability, protection and freedom from fear or anxiety. As said for the hungry man, once someone is experiencing an unsafe condition, the main goal is just the own protection and all the rest becomes irrelevant, even the physiological needs that are now satisfied and thus not considered anymore.

The following class is the one of love and belongingness, in terms of both giving and receiving affection from family and friends, and feeling part of a group, rejecting loneliness and fighting against it.

The upper need is the one of esteem that Maslow expresses in two different categories. The first one is related to the own private achievements, competences earned, and confidence towards the world, while the second one is more a boost to gain external reputation and status acknowledgement from the others in terms of fame, glory and appreciation.

Once the rest of the pyramid is satisfied, the individual aims and strives for its top, the last supreme class of need that is the one of self-actualization. With the words of the author it is the

“desire for self-fulfilment, the tendency to become actualized in what a person is potentially”, meaning becoming more and more what he is looking forward to be, or to be wide open to every potentiality he is able to attain. It is probably the need that gives rise to the biggest differences among individuals, given the multitude of possibilities and human aspirations, the personal functions and life circumstances.

Maslow’s theory can be useful in a working context because job design may incorporate characteristics to stimulate the higher ranking needs, to serve as potential factors for motivating workers once they have satisfied the lower human needs and commit to realize themselves professionally within an organization, which on the opposite side should facilitate their employees’ self-actualization (Barling, 1977).

To test empirically Maslow’s hierarchy of needs, a study was, for example, conducted to check whether the individual’s aspiration for promotions should be related to the need for self-actualization. If we assume that working hard increases the chances to get a promotion, then promotional aspirations are a part of the motivation to work and if this is true, then Maslow was right affirming that there is a positive relationship between work performance and self-actualization (Barling, 1977). The sample used was made of 69 men working in a gold mine who were given motivation and satisfaction questionnaires that reflected the five classes of needs, plus an ‘aspirations for promotion’ questionnaire. For Maslow’s theory to have consequences on the utility of work situation, significant positive correlation between the higher order needs and promotional aspirations as a component of work motivation should be obtained. However, the results show that even though all the correlations between promotional aspiration and the five needs were positive, none of them was significant. Moreover, if self-actualization is the main driver for aspiration for promotion, then positive and significant coefficients for the correlation between the lower order needs and promotional aspirations should be obtained, because if the lower needs are not fully satisfied, then self-actualization cannot arise. Nevertheless, even though coefficients were positive, the main results were not significant (Tab. 1), meaning that Maslow’s theory may not be adequate for a theory of work motivation and for being used in the industrial situation.

	Satisfaction				
	Physiological	Safety and Security	Love and Belongingness	Self-esteem	Self-actualization
Promotional aspirations	0.22	0.18	0.38*	0.18	0.31**

* p < 0.005

** p < 0.01

Tab. 1 - Correlations between prom. aspirations and satisfaction of the five needs –

Source: personal re-elaboration from Barling (1977)

Alderfer's theory is a sort of consequence and extension of Maslow's pyramid of needs. His main contribution consists in refining the different levels of needs and postulating three classes of them: Existence, Relatedness and Growth needs, as the results of the relationship between the satisfaction of needs and human desires (Alderfer, 1969).

Existence needs are related to safety as prevention from fear, anxiety and danger, to physiological needs like leisure or exercise and finally to material needs as the set of resources required for the basic needs of food and clothing.

Relatedness needs include what makes an individual feel accepted and recognized as a part of a group, therefore belongingness and respect demonstrated both giving and receiving love and earning recognition from the peers through popularity, social status and compliments.

Growth, finally, applies to the needs of self-esteem and realization. Confidence, achievement, knowledge and competence are the key words in this context. Self-realization is made possible when personal goals are reached and an individual is able to fulfil his potential, to develop his personality while helping others to grow too.

It may seem that this analysis differs from Maslow's one only in the grouping of different needs, with Alderfer reducing the hierarchy to three broad categories instead of five.

Actually, the originality introduced by the author is to create a sort of continuum (Fig. 3) among the ERG needs, because the importance of the three elements can differ among the individuals and therefore there is no pre-established order or pyramid configuration. (Yang et al., 2011). Since there is no sort of chain sequence of needs to be satisfied, in Alderfer the satisfaction of the lower order needs is not required to even just approach the upper ones.

To conclude, Alderfer's theory can be viewed as extremely present and up to date to study human motivation in the workplace as a tool for increasing morale and productivity. In the context of the modern labour market, characterised by instability and precariousness, the fluid movement among different needs described by the ERG theory is a possible interpretation to find out what leads to job satisfaction and to identify proper and motivating incentives.



Fig. 3 – Double direction of Alderfer's ERG theory. Source: Personal elaboration.

An empirical economic approach to the ERG theory comes from a study conducted by Arnolds and Boshoff (2002) testing especially the "G" need. They analysed the influence of need satisfaction on self-esteem and on job performance surveying top level managers and front-line employees in South African industries. The empirical results show that "esteem as a personality

variable exerts a significant influence on the job performance of both top managers and frontline employees” (Arnolds, Boshoff, 2002). Top managers are motivated by opportunities of growth and development that subsequently influence their performance. Employees are motivated especially by peer relationship and compensation, while pay and benefits do not matter for self-realization.

Herzberg wrote a famous paper about worker’s motivation in 1968 (republished in 1987) examining common organizational practices that are said to increase employees’ commitment, and as he explained why they fail, he elaborated a two factors theory to successfully recognize and install motivation on the job in an economic context.

The most common personnel practice used to try to increase work motivation is cutting time off the working schedule, followed in the ranking by an increase in the wage. However, it is also argued that motivated people are intrinsically satisfied of doing their job, so actually they should seek for more hours of working time, while a rise in wages makes people happier but pushes them to seek for always higher increases in the pay slip.

Motivation through fringe benefits was an achievement ages ago, but nowadays, in the words of Herzberg (1987): “people spend less time working, for more money and more security than ever before. These benefits are no longer rewards; they are rights”. His point is that perks as reducing time on the job or providing health or job insurance are almost taken for granted, and they will not act on the inner motivation of employees, they will only raise their rage if they are not provided.

Most organizations act on the human relations approach to look for motivated workers and to enhance their commitment through training and formation. Nevertheless, these programs turned out to be extremely costly for the business and not satisfying in their results, blaming the employees for not making the most of the support they were given and for not appreciating the employers’ efforts. Therefore, communication sessions have been introduced in many companies to demonstrate that organizations care, but no increase in motivation has generally been noticed, probably because employees felt that they were not heard.

Herzberg found that the practice of giving the employees a bigger general picture had a good theoretical intention to make the most of the double sense communication between management and employees. It was made to make the employees feel part of the organization as a whole, being not just a single number doing the same operations over and over again. What happened, however, was that giving a sense of achievement and feeling part of something was not the same as actually providing the chance for achievement, which requires an adequate task to make it real (Herzberg, 1987).

From this critique to the tools that most organizations use to try to motivate employees, an impasse situation was reached. Herzberg overcame it stating first of all that “factors involved in creating job satisfaction (and thus motivation) are different from the ones that produce job dissatisfaction” (1987). The main point of his analysis relies on the fact that he does not consider satisfaction and dissatisfaction as opposite terms, the contrary of job satisfaction is instead said to be ‘no job satisfaction’ and the opposite of job dissatisfaction is ‘no job dissatisfaction’. Afterwards, he took from the previous authors the main distinction between lower order needs and higher order ones, the first being related to the biological, physiological needs of feeling good and safe in a reference environment, and the second ones to the needs of achievement and growth. Putting these concepts in a job setting, it emerges that the lower needs are found in the job environment, while the higher ones are found in the job content through tasks that push to grow. Therefore, it is useful a distinction between motivator factors intrinsic to the job, which are the recognition for achievement, the work itself, responsibility, growth and advancement, and hygiene factors extrinsic to the job like the company’s policy and administration, supervision, interpersonal relations, safety, status and salary (Herzberg, 1987). To test this theory, 12 investigations were conducted in different labour contexts, levels and regions and the results indicate that motivator factors were the ones causing the biggest satisfaction on the job, while hygiene factors lead to no job satisfaction results. Among all the factors presented to the interviewees and said to create job satisfaction, 81% were motivator ones, while 69% of those held to be responsible of job dissatisfaction were hygiene factors (Fig. 4).

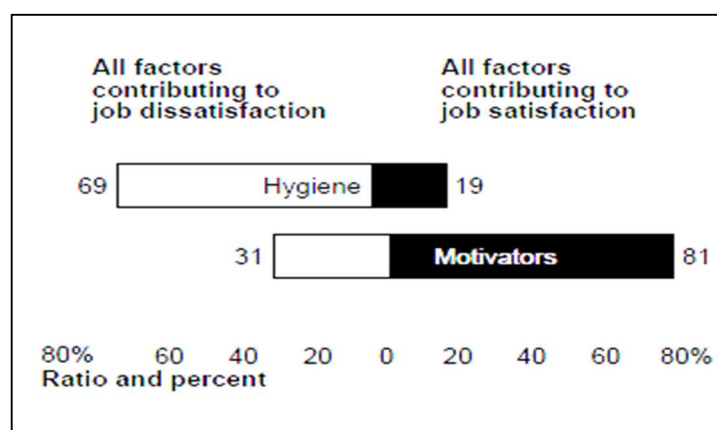


Fig. 4 – Factors affecting job attitudes as reported in 12 investigations. Source: Herzberg (1987)

Herzberg found that a cluster of factors intrinsic to the job as the job itself and the personal and psychological growth and achievement lead to job satisfaction, while the extrinsic ones related to the job environment will never be motivating for the individuals, they might lead at most to job satisfaction but not to motivation.

To test empirically Herzberg's theory, a study was, for instance, carried on in a ski-resort in northern Sweden to understand work motivation in a sample of seasonal workers (Lundberg et al., 2008). Data were collected through questionnaires and in-depth interviews testing by a structural equations model the two factors theory. The results of the structural model strongly support Herzberg's theory since t-values for growth factors (+4.86), which included issues as feedback, information, training on the job..., were considerably above the critical level +1.96 for a 5% significance, while hygiene factors were found to be non-significant. Work motivation has thus its roots in the satisfaction of the higher needs of self-fulfilment, as it was found before also by the previous authors.

McClelland considers three orders of needs that are partially related to Maslow's upper ones. They are acquired over time and are shaped by a person's experiences in life, affecting the motivation and the productivity on the job.

The achievement need is the desire to excel, to gain personal success and to realize extraordinary performances. People with a high need for achievement require regular feedbacks to control the progress of their results because they want to show competence and professionalism.

However, they will perform more and better when they feel that personal recognition for the effort will be granted, and for this reason they might tend to avoid both low-risk and high-risk situations (McClelland, 1987). Low-risk tasks do not reflect a great achievement and are thus not motivating because results are met too easily, while high-risk ones are seen as a kind of lottery, where the effort will not be rewarded since it is more a matter of chance and luck.

Power is in McClelland's (1987) own words: "the need to influence a person, to orient his behaviour to meet someone's own requirement. It expresses the necessity of reinforcing someone's authority in a visible way". It sounds like a negative need and desire but it can actually be declined in two forms, the personal and the institutional one.

Personal power is directed only at monitoring other people's work, and when it comes with a full control of resources and bossism it is perceived as undesirable. On the other hand, institutional power is a social one and it is aimed at organizing and directing other people's efforts to boost the goals of an organization. No need to say that successful organizations are the ones directed by leaders that are high achievers and with a need for social power.

Finally, affiliation need is the drive to establish and maintain positive relationships with other people. On the job it means to accept and to conform to the norms of the work group, creating friendships and a confidential environment to avoid isolation.

This theory is also known as the “learn needs theory” because needs are learnt from dealing with the surrounding environment making them familiar and recurring at a higher frequency. Once a person feels the urge of satisfying a desire, he feels motivated to act and to orient the behaviour to appease it, as he has learnt and practiced to do before.

The relationship between learning and the needs classification, especially the one for achievement, is particularly interesting and evident when it is used to test the wealth of different economies. The sociologist Max Weber (1904) assumed that capitalism evolved in Northern Europe when the Protestant ethic influenced large number of people to engage in business activities and trade developing their own enterprises and accumulating wealth for further investments. Protestantism, as opposed to Catholicism, was associated with higher literacy rate and better education because people were instructed from a younger age to read the Bible and the gospels personally and autonomously, thus generating the necessary Human Capital to boost the economic prosperity. It has been argued that the increased literacy and partially the Protestant ethic have been important forces behind the unplanned and uncoordinated emergence of modern capitalism, thanks to a big emphasis posed on universal schooling and on hard work (Weber, 1904).

McClelland in his work “The achieving society” (1967) takes Weber’s view and states that his argument on the relationship between Protestantism and the rise of capitalism has to be seen as a family revolution leading to a new generation with strong achievement drives.

To test empirically if there exist linkages between Protestantism, achievement and economic development, a study was conducted to look for evidences of Protestant countries being more economically advanced than Catholic countries for natural resources (Tab.2). Economic development is measured via consumption of electricity, since modern industrial society relies heavily on that. The results in the first column appear already in favour of Protestant countries, but given the disparities between the two groups for water power and coal supply (with greater resources availability in Protestant countries) this effect was removed by a regression analysis, and in the second column the output that could be expected from a country based on its resources is presented. The final column shows if a country has done better or worse than could be expected on the basis of its natural resources (McClelland, 1967). The ranking exhibits clearly that 9 out of 12 Protestant countries have done better than expected, while only 3 Catholics countries have performed better. To conclude, Protestant countries are on average economically more advanced, especially stressing the hypothesis of greater need for achievement based on a higher literacy rate, Human Capital accumulation and self-esteem values.

<i>Countries</i>		<i>Consumption of electricity kwh/cap (1950)</i>	<i>Combined natural resources</i>	<i>Rank of difference</i>
<i>Protestant</i>	Norway	5310	+2.73	1
	Canada	4120	+2.49	4
	Sweden	2580	-0.35	2
	United States	2560	+1.42	9
	Switzerland	2230	+0.08	3
	New Zealand	1600	+0.42	11
	Australia	1160	+0.51	20
	United Kingdom	1115	+1.86	24
	Finland	1000	-0.67	6
	South Africa	890	+0.30	21
	Holland	725	-0.58	15
Denmark	500	-1.39	5	
<i>Catholics</i>	Belgium	986	+0.96	22
	Austria	900	-0.71	8
	France	790	-0.25	16
	Czechoslovakia	730	+0.68	23
	Italy	535	-1.20	7
	Chile	484	-0.53	18
	Poland	375	+1.02	25
	Hungary	304	-0.70	19
	Ireland	300	-1.29	10
	Argentina	255	-1.17	14
	Spain	225	-0.91	17
	Uruguay	165	-1.29	13
	Portugal	110	-1.38	12

Tab. 2 – Avg. per capita consumption of electric power, corrected for natural resources, for Protestant and Catholic Countries outside the Tropics – Source: personal re-elaboration from McClelland (1967)

1.2.2 - Process theories

The authors presented up to this point have focused on the kinds of motivations that are at the basis of behaviour, while others have mainly tried to explain the mechanisms through which motivation influences the actions, examining how people initiate, direct and maintain their motivation. In this sense the concept of equity matters, as theorised by Adams affirming that people seek a balance between the perceived equity in the relation between personal contribution and outcome obtained. Vroom, instead, formulated an expectancy theory that assumes that people act based on rational choices choosing from a range of expected outcomes, a model which was later expanded, refined and made more dynamic by Porter and Lawler.

Adams elaborated an inequity theory which can be applied to any everyday life event, but that takes as a paradigm the employer – employee relationship and the organizational consequences in an economic context. It is grounded on the idea that the perceived equity of the ratio between personal contribution and outcome received is being compared with the one of other individuals of the reference environment and it matters for the work motivation, which is the dynamic result

of the perceived equity. Motivation increases when the perceived equity does, so when the agent believes that his performance and the corresponding reward are appropriate.

More in detail, everything originates in an exchange process whenever an individual feels a sense of relative deprivation, an unfair disappointment of expectations. This feeling of injustice that people exhibit causes dissatisfaction and a reaction with a certain behaviour taken by a set of rational choices as a “response to a discrepancy between what is perceived to be and what is perceived should be”, to use Adam’s (1965) own words.

Homans (1961) formulated a simple model on this theme, asserting that distributive justice is met when, in an exchange relationship, the profit of each person is proportional to their investment. Profit is what is given in return of the exchange, minus the opportunity cost of every other option foregone, and investment is what is brought in the relationship in terms of, for instance, skills, effort, training or experience. Graphically:

$$\frac{A's\ reward - A's\ cost}{A's\ investment} = \frac{B's\ reward - B's\ cost}{B's\ investment}$$

When an inequality in the proportion is confirmed, the individuals will know that injustice is real and the one with the smaller ratio of profits to investments will experience relative deprivation. Injustice is said to be rational because people will relate that to greater investments are associated greater rewards, and thus they will not consider it as a case of injustice because meritocracy is at stake. While comparing with a superior, the individual knows that greater compensation, better working conditions, and more varied job are matched on the input side of the ratio by more education, wider range of skills, greater responsibility and more experience (Adams, 1965).

Inequity exists for a person in terms of ratio, and not in absolute values, whenever he perceives that the ratios of his and the other person’s outcomes to inputs are unequal. Inputs and outcomes are other ways to call investments and rewards, but with an extra emphasis on the recognition and the relevance for the exchange relationship of what is brought in and what is received by both of them. In the context of an employer – employee relationship, the outcomes refer to the pay, seniority benefits, job status, fringe benefits and so on. While designing the organizational structure, it is important to rethink to Herzberg’s (1987) hygiene factors leading to dissatisfaction and no motivation as elements which may also affect the perceived equity and the workers’ motivation.

The inequity sensation causes a sort of tension in the person that will motivate him to eliminate it or reduce the inequity. The strength of motivation is proportional to the tension felt

(Adams, 1965) and it will guide the behaviour of the person to reach equity or reduce the inequity in different possible ways:

- distorting inputs and outputs
- leaving the field
- acting on the others
- changing the object of comparison
- altering the inputs
- altering the outputs

Cognitive distortion refers to a modified representation of the facts related to someone's own contributions and results, thinking for example that the inputs given are not so profitable as thought at the beginning. To reduce the perceived incongruities, individuals may alter the importance and the relevance of inputs and outcomes, changing in this way the weights associated with their inputs that enter the proportion $O_P/I_P = O_R/I_R$ (with P standing for person analysed and R as the referent subject).

Leaving the field in a job relationship means to quit, to ask to be transferred or to be more absent than usual. It has been shown that, even though it is a radical solution, absenteeism increases when the magnitude of inequity rises and when there are no other ways to deal with the tension felt.

Instead of leaving or acting on himself, the agent may decide also to act on the referent subject. If the inequity is perceived because of one's lack of job experience, an option could be to induce the other to decrease the relevant input instead of increasing someone's own. Cognitive distortion of other's inputs and outcomes may be less difficult than the distortion of one's own, since cognitions about other individuals are probably less anchored than those concerning oneself (Adams, 1965). Solving inequity by changing the subject of comparison may be complicated if the person has been comparing himself to someone for quite some time, because first he needs to make that person not comparable anymore, for instance recognising that the previous comparable agent has now assumed more responsibility for a job and thus deserves a higher salary.

Finally, it is interesting to analyse the options of altering someone's own inputs or outcomes. Before testing empirically these options, it is necessary to point out that the person is motivated to minimize the cost while maximising the gains, as in any other economic situation, and also the fact that altering someone's own inputs will likely affect also the other's outcome with the change operating in the same direction, and thus reducing inequity.

Adams conducted several experiments to test the altering of inputs hypothesis, in particular to test if a person perceiving that he is overpaid in an exchange relationship with his employer because of a lack of adequate inputs, will reduce inequity increasing those same inputs.

In one of these (Adams, Jacobsen, 1964) students were asked to correct grammatical, typographical or misspelling errors in a manuscript, detecting, underlining and signalling them. Productivity was measured by the numbers of pages revised and the quality of the work was checked through the mean number of errors found. Students were randomized in three conditions of inequity: in a high inequity condition (H) they were induced to perceive that they were totally unqualified for the task but that they were going to be paid nevertheless 30 cents per page, in the reduced inequity condition (R) the perception of inadequacy was the same but the piece rate was reduced to 20 cents (matching lower inputs to lower outcomes) and in the last condition of low inequity (L), students were said that they were fully competent to perform the task and thus earned the 30 cents piece rate. The authors predicted that there were not going to be any significant differences between R and L students, while H ones were going to reduce inequity perceived by altering their inputs and investing more in their skills in terms on quality work, while at the same time increasing their employer's outcome.

Results confirmed that H students performed less in terms of productivity checking less pages than R and L students but they did significantly better quality work detecting more errors per page, sometimes identifying even non-errors, a signal that reflects the strength of motivation to alter the inputs and to reduce inequity.

To conclude, the equity theory of motivation states that positive outcomes and high work motivation can be expected only when employees perceive that they are being treated fairly.

Vroom elaborated in 1964 what has been defined as “expectancy theory”, a model that affirms that people act choosing rational behaviours in the attempt of reaching the highest expected outcome. It means that people believe in the relationships between the effort they put in a task, the performance they achieve from that effort and the rewards they obtain from their effort and performance (Lunenburg, 2011a). Workers in an organization bring with them a set of needs, motivations and past experiences which influence their behaviour in the environment in a rational and conscious way, and they orient their behaviour to gain what they value the most, like a good salary, job advancements or responsibilities.

From these assumptions follow the three key points of Vroom's theory, since motivation arises when a person believes that his effort will lead to an acceptable performance (expectancy), that the performance will be rewarded (instrumentality) and that the reward will have a positive value for him (valence).

- Expectancy is the probability that higher efforts will lead to better performance. It ranges from 0, when the individual believes he will not succeed in the task, to 1 if the task can be successfully done. To increase the expectancy belief, individuals must be endowed with the proper resources and skills to complete the job.
- Instrumentality is the probability that to a good performance will follow a valued outcome. A person perceives a positive value of instrumentality if he sees transparency in the reward process and if there is mutual trust and respect in the organization for what concerns assigning rewards to outcomes (Chaudhary, 2014).
- Valence is the strength of an employee's preference for a particular reward, it is the importance a person puts on an expected outcome and for this reason it is highly different among individuals. It is not a probability and it ranges from -1 to +1 assuming value 0 when a person is indifferent to a reward. Its value is negative when, for instance, someone valuing more status recognition receives a monetary bonus. Rewards generally have a valence because they are related to an employee's needs, providing thus a connection with the need theories examined before (Lunenburg, 2011a).

Vroom concluded that motivation is the result of an equation relating the three elements presented (Fig. 5). The multiplier effect is particularly important because if expectancy and instrumentality are positive, but the reward obtained has no or negative value – valence - to the individual, then the effort and the performance are thought of not being recognised and motivation will be zero.

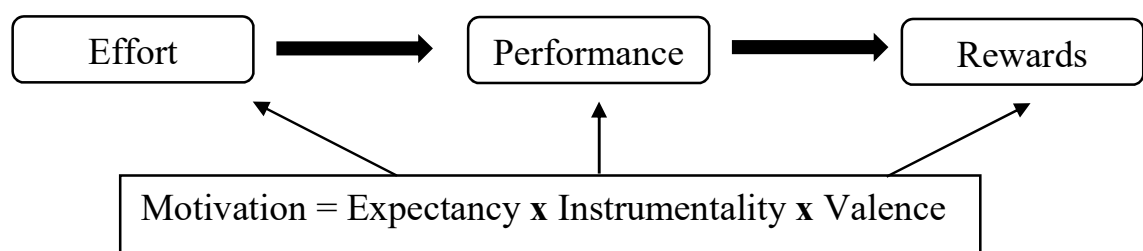


Fig. 5 – A simple model of expectancy theory. Source: personal elaboration

This theory differs from content ones because motivation is not driven by strong internal drives and needs, while it is the result of a rational process being evaluated after the behaviour has been guided by perceptions and expectations.

The practical implications of expectancy theory are of managerial importance for motivating employees, a practice that can be done altering the person's effort-to-performance expectancy, performance-to-reward expectancy, and reward valences (Lunenburg, 2011a).

E → P expectancy can be realized whenever leaders make the desired performance attainable, providing on the job training, sufficient time and resources and being available to cope with problems that may arise during the performance.

P → R expectancy is successful when the employees see that the tasks performed are accompanied by a concrete link between the performance desired by the leader and the reward desired by the individuals. Job performances have to be measured precisely and rewards have to be clearly stated, bearing in mind also that not only monetary perks can be appreciated, but also recognition and verbal reinforcement.

The same is true for the valences or rewards, since they yield the best results when they are individualized, given the wide heterogeneity in an organization.

Empirical approaches supporting the expectancy theory are mainly within-subject studies, analysing how an individual is motivated by different tasks. A research conducted (Chaudhari, 2014) involved business students at a Masters' degree level at Carnegie-Mellon University to test the appeal of potential employers. Students were given in depth questionnaires where they were supposed to rank individual goal preferences like for instance high salary, no supervision or general perks, and then they had to select three companies they believed could most help them satisfying their goals. An instrumentality – goal index was calculated for each company and was given an attractiveness rating. Results show that companies seen as providing the chance for goals achievement were the most attractive, and 76% of the students chose the company with the highest instrumentality score.

Porter and Lawler used Vroom's expectancy theory as starting point to develop their expectancy theory. They also believe that the motivation to complete a task is the result of a multiplicative process affected by the final reward the individuals expect to receive. However, they introduced additional aspects that make it a more complete theory because it points out the difference between intrinsic and extrinsic rewards, task requirements and ability, and the perceived fairness of rewards (Alderfer, 1968). Satisfaction is finally determined by the perceived equity of intrinsic and extrinsic rewards for a high level performance (Fig. 6).

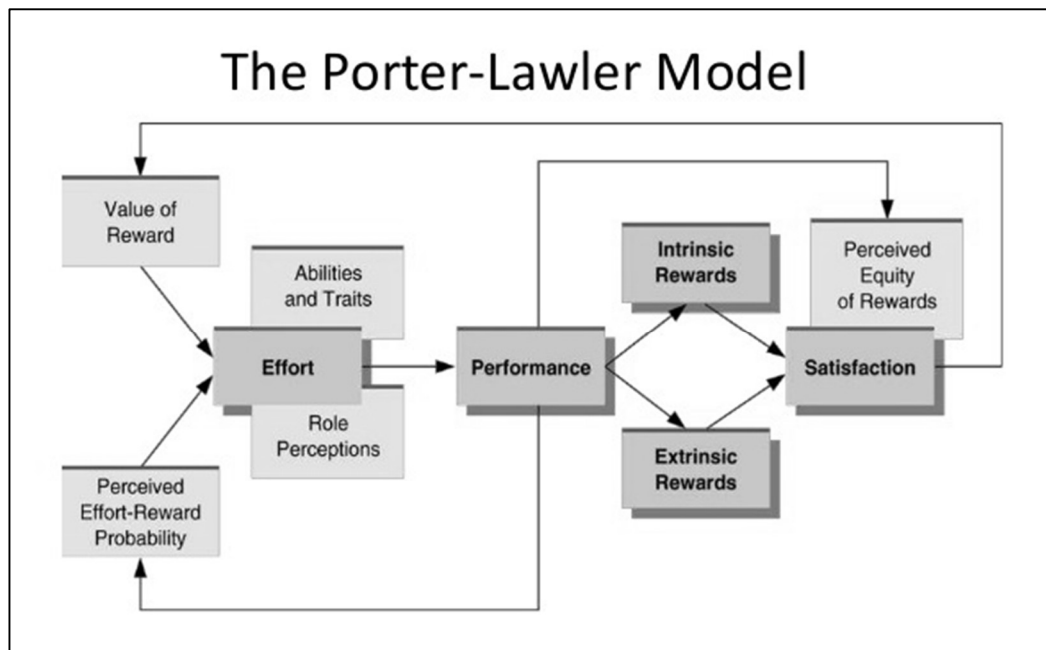


Fig. 6 – The Porter-Lawler Model. Source: www.slideshare.net

The easiest way to explain the convergence of the three factors leading to motivation (effort, performance and satisfaction) is explaining the model analysing its components (Lawler et al., 1992).

- The value of the reward is compatible with Vroom's valence, since if the reward is attractive, then the individual will exert the effort on the job otherwise he will lower it. Every person values rewards differently and these are also affected by the level reached in Maslow's needs pyramid or by the McClelland's personality traits.
- The perceived effort-reward probability is the second element considered before putting any effort in the task, since the value of the reward is weighted with the perceived probability that a certain level of effort will lead to a performance that will allow him to gain a reward, summarising Vroom's concepts of expectancy and instrumentality.
- Effort is, finally, the amount of energy involved in the assigned task. While previous theories only focused on it, now Porter and Lawler expanded the analysis of the factors influencing the performance.
- Abilities and traits & Role perceptions are two other dynamics of the effort exerted in a task. Competences earned through on the job training, knowledge and personal social skills like perseverance and goal direction enter the outcome of the effort too, as well as the perception that the individual has of his role in the organization. Employees value their personal contribution along with the one of their colleagues, with consequences on the direction of their behaviour and their actions (Costa, Gubitta, 2008).

- Performance is the result of the effort and it is what the organizations are mainly interested in. Managers could act on it asking the employees for more effort or providing them with ways to acquire more skills. They also have to bear in mind that performance may be increased or decreased by the weighted value of the rewards and the personal role perception.
- Rewards are the counterpart of performance and they are of two types, extrinsic and intrinsic. The former are administrated by the organization and take the form of money, recognition, status, career, the latter are internal to the individual feeling gratified or competent when a good job is done.
- Perceived equity of the rewards is conceived as the results of the ratio between performance and outcome applied to the individual's own contribution but also in relationship with the others.
- Satisfaction is the final step and it is determined by the degree of equity perceived, as theorized by Adams. If inequity is perceived, the individual may act on his future performances to reduce inequity, and he will give a different weight to the effort-reward probability because he has already experienced a sense of deprivation. If, in an opposite case, he perceives the reward as superior compared to his performance, the individual may both increase his satisfaction and effort, and decrease the future effort making the most of the advantageous inequality and ignoring the distributive justice.

To test the model, Porter and Lawler conducted a study on a sample of nearly 600 managers from public and private organizations to investigate how job performance and job attitudes are related. Job attitude was measured with in depth questionnaires and job performance was rated based on efforts and results from the subjects themselves and their supervisors. Since the value put on a reward is combined with the perceived effort-reward probability that affects the effort put in a task, it is expected that a manager placing a high value on the pay and confident that the organization will reward him with a higher pay will show the highest effort level, as substantially supported from the study (Alderfer, 1968).

As concerns the satisfaction with the pay and its relationship to performance, it emerged, collecting data on the real earnings of the sampled managers, that there is low or no significance between performance rankings and pay, because pay did not reflect performance evaluations. However, this was found not to be true for managers in the private sector subsample, where positive and significant correlation between pay and performance was found.

1.2.3 - Outcome theories

This last type of motivation theory tries to explain motivation starting from the end, from the consequences that motivate people to act and to work. Skinner has developed a famous reinforcement theory mostly used in practice through the Organizational Behaviour Modification (OBMod), the technique managers use to modify or eliminate undesirable behaviour while they replace it with actions that are more compatible with goal attainment. It will be showed that this system has positive effects on employees' performance, but human motivation is not only limited to extrinsic rewards. It will be described here and following in the work, that extrinsic factors are only one side of the coin in motivating people, learning and the desire to contribute and to belong to an organization are also extremely strong.

Skinner's reinforcement theory of motivation deals with modification of voluntary behaviour, which is seen as a function of its consequences, thus focusing on what happens when the individual takes some actions. Back at his time, the main original elements of his theory were taking a distance from the causes of individual's behaviours like the feelings and the inner drives, bringing instead the scientific method in the behavioural science testing his hypothesis mainly with lab experiments. Reinforcement theory is based on Thorndike's 'Law of Effect', which states that behaviours followed by positive consequences tend to repeat, as tested by an experiment where a cat placed in a box had to escape by pushing a lever. Once the cat had been put in the box again and again he learnt that pushing the lever would let him go out and this successful behaviour occurred sooner and sooner (Skinner, 1953). This means that when a positive outcome was obtained from an action, satisfaction would follow and the behaviour was likely to be repeated, with the contrary happening for an unfavourable outcome.

Skinner introduced a new element to Thorndike's contribution: reinforcement, meaning that a reinforced (strengthened) behaviour will tend to repeat, and this will happen controlling and modifying the behaviour through extrinsic rewards that can be used as a motivational strategy.

Empirical tests were conducted in lab studies testing the operant conditioning, the fact that similar responses would occur after the use of reinforcements that lead to a change in the behaviour. The word 'operant' describes the class of responses through which the behaviour 'operates' in the environment generating the desired consequences more probable or frequent (McLeod, 2015). Four kinds of consequences alter behaviour, and they can be analysed as positive and negative reinforcement and positive and negative punishment.

Positive reinforcement implies giving a positive response to a positive behaviour, thus increasing the probability of repeating the desired behaviour, and it often comes in the form of

rewards, praises, ... Skinner tested positive reinforcement putting a hungry rat in the so called “Skinner box” which contained a lever. As the rat moved around the box he accidentally hurt the lever and saw a food pellet falling next to him. After a few times the rat was put in the box he was conditioned to push the lever knowing that he was going to receive food.

Negative reinforcement works removing an unpleasant consequence and strengthening the behaviour because it stops an undesirable experience. In the context of the rat experiment, the animal was subjected to an unpleasant electric current, but once it pushed a lever the current would stop. As before, being in this situation for some time would drive immediately the rat to the lever strengthening the desired behaviour and rewarding it by removing something bad.

The opposite effect of weakening the behaviour is through punishment.

Positive punishment works applying undesirable consequences to undesirable behaviours, and negative punishment lowers the probability of undesired behaviour by removing a reward or a favourable event.

Outside of the lab experiments conducted by Skinner, a practical application of reinforcement theory is feasible and established in workplace contexts thanks to the practice of Organizational Behaviour Modification (OBMod). It is a technique that modifies the behaviours of the agents of an organization engaging them in desirable ones, while the undesired behaviours are sanctioned and removed. It helps the company to increase the efficacy and the effectiveness and it can motivate the employees through the use of positive reinforcement tools. A development of OBMod comes from Luthans et al. (2008) and it represents a behavioural approach to H.R. management for performance improvement. Their model consists of five different steps (Fig 7).

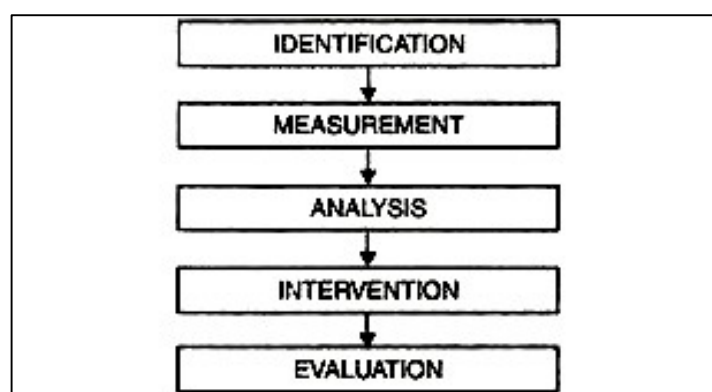


Fig. 7 – Steps in OBMod representation – Source: Luthans et al. (2008)

Identification means making the employees familiarize with desirable and undesirable behaviours related to their performances. Through discussions with singular individuals or in group, critical behaviours like absenteeism, complaints, criticism or attention to the instructions

should be given the due attention because they are likely to be repeated if they are not individualized, brought up and modified by the top management.

Measurement refers to the frequency these undesirable behaviours happen. Once a threshold of acceptable limit is exceeded, the behaviour cannot be tolerated because it risks to harm the results of the organization and actions need to be taken. Measurement is also useful ex-post to control the success of the OBMod practice.

The managers are required afterwards to do an analysis of the behaviours that require modification to understand the antecedents and the consequences of it. Also contingent consequences matter because the behaviour may have latent implications of various degrees, which need to be removed as well through the intervention, the fourth step.

Intervention applies after a reasoned understanding of the circumstances that brought up the undesired actions and outcomes, and it is conducted through the tools of positive or negative reinforcement or punishment, as explained above. After implementing a particular strategy, the frequency of the resulting behaviour is monitored and if it goes in the right direction, the managers will operate to maintain the desired behaviour (Luthans et al., 2008).

Finally, the evaluation works both in a short and long term, because the purpose of OBMod is to change undesired behaviours while at the same time improving the performance, so the accomplishments have to be analysed both at an individual and organizational level examining whether the change is permanent or temporary, and whether the interventions applied are harming the performance or supporting it.

To summarize reinforcement theory and OBMod, it has to be pointed out that confronting this model with needs theory of motivation, the former is based on external conditions and makes it easier for the organization to motivate a group of workers within the workplace monitoring and rewarding them through external factors like pay raise, promotions or recognitions (McLeod, 2015).

Moreover, since it involves learned behaviours, whenever a worker joins a company he learns to react to certain stimuli and events in the way he is taught by his supervisors, knowing that they are the ones who will be rewarding or punishing him. However, it is important to bear in mind that reinforcement theory does not value internal motivation. The intrinsic motivation to perform a task is left behind as well as the heterogeneity of the agents, because what is studied is only the reaction to consequences.

Even though OBMod can help to motivate the employees driving a change in their behaviours, does not ethically sustain the personal or professional growth of the individuals favouring exclusively the increased production. It may also be misused as behaviour motivation technique because desired behaviours are decided by top managers and through the threat of

punishment, both positive and negative, leaving the individuals little or no freedom of choice (Redmond, 2010).

To conclude this overview on the main theories of motivation, it has to be highlighted that any model tries to summarize and approximate a certain number of variables that may have an effect on the working performance. Every theory is useful to help the development of the research to ask the right questions, more than to find right and universal answers.

Economic agents are far away from the neoclassical thought of being endowed with full rationality, they actually have non-standard preferences, beliefs and decision making processes. Individuals have a bounded rationality also in the perceptions and the direction of their motivation, and the organizations are adapting the way they deal with the development of their employees looking for a convergence between working and leisure values to help the individuals to look for the satisfaction of their upper needs (Costa, Gubitta, 2008). This is feasible also in the perspective of rewarding adequately the workforce identifying first whether extrinsic and intrinsic motivation add up or crowd out.

1.3 - A focus on the difference between extrinsic and intrinsic motivation

If it is clear at this point that there are many points of view to discuss motivation, its origins and its consequences, it is also evident that it is not a unitary phenomenon and that individuals do not only vary in the level of motivation, the “quantity” aspect of the strength they are moved by to perform an action, but they also vary in the orientation of motivation, the type and the underlying goals that are the cause for a certain behaviour.

For example, an employee could be enthusiast and interested in attending a formation meeting for his company because he is interested about the topic of the meeting and he finds it pleasant to be there, or he could just feel motivated to attend the seminar because it will yield recognition by his supervisor and he is required to do so by the company. In this case, the types of motivation are different because of the reasons that give rise to an action.

Intrinsic motivation refers to “doing something because it is inherently interesting or enjoyable” (Ryan, Deci, 2000a) and it regards the opportunity to use one’s ability, the thrill of challenge, achievement, appreciation and positive recognition (Uzonna, 2013). Extrinsic motivation implies “doing something because it leads to a separable outcome” (Ryan, Deci, 2000a), it involves salary and fringe benefits, security, promotion, contract of service, the work environment and work conditions (Uzonna, 2013).

Intrinsic motivation relies within the individual whenever a person is moved to action for personal reasons of involvement and not for external pressures, causes or rewards. It is an important drive of motivation because people are curious by nature and they are raised to learn and grow, following the inclinations they have intrinsically developed. This has also consequences in the job performance, job persistence and in any relationship between a person and a task. However, given the connection between people and tasks, two points of view have emerged in the literature, wondering whether are the tasks being perceived as interesting or whether people find a personal engagement in a task because they are intrinsically motivated.

Reinforcement theory (Skinner, 1953) supports the first hypothesis, because since every behaviour is motivated by a reward, intrinsically motivating activities are the ones where the reward is the task itself. Ryan and Deci (2000b), in contrast, sustain the psychological consideration of behaviours, according to which people are motivated by psychological needs and thus intrinsically motivating tasks are the ones that enhance the needs for competence, autonomy and relatedness above all. The interest of the task itself is, though, an element to consider as well, most of all to improve the task design and to allow the individuals to express their intrinsic motivation. From this reasoning it follows that to analyse intrinsic motivation it is necessary to study the conditions that pull, maintain and increase it.

Further in the work it will be deeper explained the Cognitive Evaluation Theory formulated by Ryan and Deci (1985), but for the moment it is sufficient to say that it investigates the social and environmental factors that facilitate or undermine intrinsic motivation.

An intrinsically motivated individual may be positively affected by external events like rewards or feedbacks, increasing his performance and satisfaction too, because these are factors which impact his perceived sense of competence and are thus likely to facilitate intrinsic motivation. Competence, however, has to be accompanied by a sense of autonomy and self-determination, otherwise intrinsic motivation is hindered by suffocating factors. Rewarding employees is, as stated before, the focus of expectancy theory, and many compensations systems have arisen in recent years to gratify people based on pay-for-performance plans like piece-rate system, incentive-stock option plans and commission plans. Empirical support, though, seems to be in contrast with monetary rewards, while symbolic and verbal forms of recognition are said to be more effective (Lunenburg, 2011a). It will be showed that many studies both in lab and field experiments have proven that positive feedbacks enhance intrinsic motivation and that the need for autonomy is more important when a high level of intrinsic motivation is desired, because extrinsic rewards like monetary incentives could move the perception of autonomy, weakening the satisfaction of the individual and his intrinsic motivation as a consequence (Ryan, Deci, 2000b).

In any case, the tasks a person experiences are many, and not all of them can be intrinsically motivating; when they are not, extrinsic motivation to perform comes in action.

Even when an individual is fully satisfied with his job, feeling appreciated, being given autonomy and the chance to auto-direct his work, he will always be forced to take responsibilities for some non-intrinsically motivating tasks because the job requires him to do so. When this happens, extrinsic motivation is the boost that guides the behaviour, because a task is done to obtain some outcomes external to the individual.

Extrinsic motivation implies an 'instrumentality' (Ryan, Deci, 2000a) that varies according to the external force. For instance, an employee attending a formation seminar he is not intrinsically motivated about, might do it because it will allow him to acquire some extra skills useful for his career or he might be present only for an authority imposition that will avoid him sanctions. Both the situations imply instrumentalities rather than appreciation of the task itself, but the first case brings with it a sense of acceptance and approval, while the second one is carried out only for an external imposition.

If the central question to comprehend intrinsic motivation was how it is facilitated or undermined, the issue about extrinsic motivation is how to help workers to self-regulate the tasks assigned without any external authority to pressure them.

Self Determination Theory explains a model of "internationalization and integration of values and behavioural regulations" (Deci, Ryan, 1985) that provides a set of motivations, which range from a-motivation to active personal commitment. It works internalizing the different values imposed by the external force integrating them at increasing degree and being willing to express them voluntarily.

Figure 8 presents the whole taxonomy of motivation according to the extent to which it originates from the individual himself. On the top left a-motivation can be found as first element, up to the top right intrinsic motivation, intended as described above in the paragraph. However, this representation does not imply a developmental process, there are no stages to follow, and based on the task and on the regulatory external force, one can adopt a motivational behaviour at any point (Ryan, Deci, 2000a).

A worker feeling a-motivated lacks any intention to act, he does not value the tasks he is being assigned to and he does not feel competent enough to execute them.

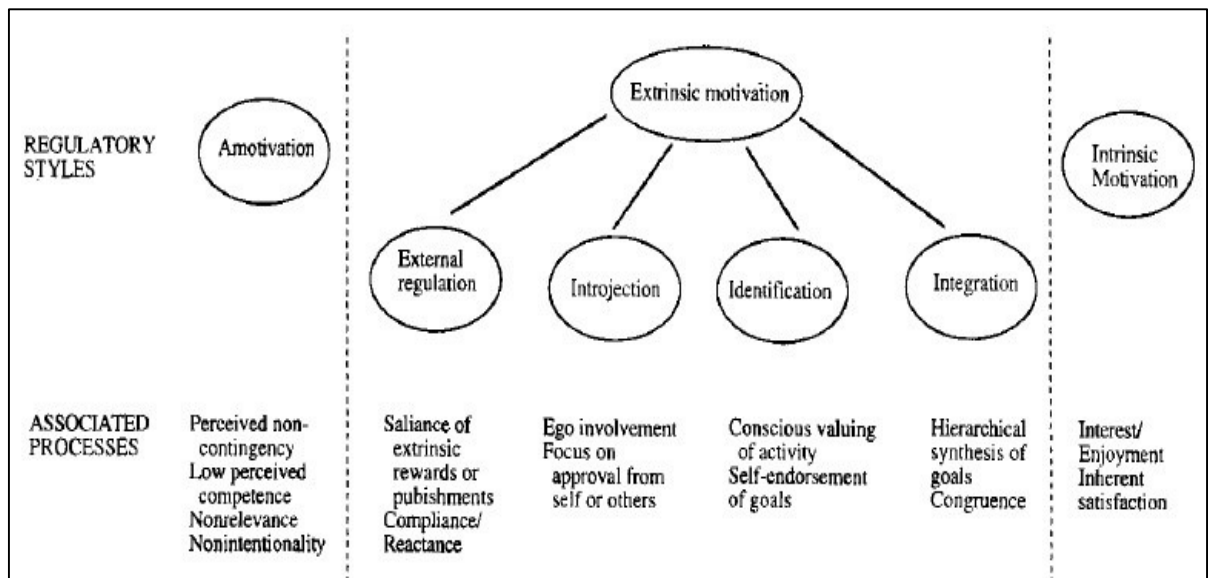


Fig 8 – A taxonomy of human motivation – Source: (Deci, Ryan, 1985)

Once entered the sphere of extrinsic motivation, it emerges that there are at least four different kinds of it, depending on how autonomous and self-determining can be the agent. External regulations bring no proactive behaviours, operations are only via rewards to praise the individual or through punishments to sanction him, as it was theorized by Skinner and any other reinforcement theorist. Introjected regulation is still quite controlling and the agents are motivated mainly by the pressure put by the authorities to avoid guilt and tensions.

The last two types of extrinsic motivation are identification and integrated regulation, they apply to a person who has identified more and more with the importance of a behaviour and makes the regulations imposed as his own. Integrated forms of motivations lead to a sort of matching with someone's own values, and they share the goal of autonomy and self-determination with intrinsic motivation, even if for every kind of extrinsic motivation, the external instrumentality with respect to a certain outcome is maintained.

Another element which stands out from extrinsic motivation's analysis is relatedness, a factor that facilitates the internalization of the external drive. People are willing to perform certain tasks because those same tasks are valued significantly by their peers or supervisors. Accepting some not intrinsically motivating tasks is easier if the individuals feel competent to perform them and to master the skills required, and if they know that they are respected and considered by colleagues and supervisors. A person's motivation, job satisfaction and work performance is determined by the strength of competence, autonomy and relatedness needs and expectations, and to the extent to which they are accomplished. Some people may rationally decide to forego intrinsic motivation in exchange with high economic rewards, while others

may find it more appealing to accept lower economic rewards in favour of a highly intrinsic motivating job (Uzonna, 2013).

It will be shown later in the work, that supporting agents' feelings of competence, autonomy and relatedness are the keys to maintaining high intrinsic motivation and becoming more self-determined with respect to extrinsic motivation, allowing the individuals to perform better quantitatively and qualitatively and exposing them to new ideas sharing and new skills exercise (Ryan, Deci, 2000b). This is feasible because both intrinsic and extrinsic factors exist for many tasks people have to deal with when they work, and in Chapter 2 it will be analysed how the two combine and interact, to see if they can build one on the other or if they are incompatible.

For example, examining high-creativity projects and low-creativity ones in R&D labs through interviews and questionnaires (Amabile, 1993) it was found that some extrinsic motivators like win-lose competition, restrictions on how the work has to be done and expected negative evaluation of someone's ideas have negative effects on creativity and on new ideas production. Instead, other extrinsic factors like recognitions, well defined organizational goals and frequent feedback enhanced creativity, as did intrinsically motivating factors like autonomy on the job, the perception of doing something important and that requires responsibility, and pure interest and excitement for the work itself.

There are some take-away for management and organization's design that are already evident from this introductory analysis. Relying entirely on extrinsic motivation may be dangerous for an organization, especially because it is extremely complicated to design extrinsic rewards systems that elicit the desired behaviour. However, not all extrinsic motivators have a negative effect on intrinsic motivation, and some jobs or single tasks require external motivating elements, while jobs based primarily on creativity, ideas' diffusion and complexity need to be fostered by high levels of intrinsic motivation to be highly performative.

Managers will need to develop specific competences to promote engagement and high performances among the individuals and within teams. Business knowledge and social skills will not be enough, since successful leaders need to focus also on the nature of the work, of the groups and of the different kinds of human motivation, so that an equilibrium between inner motivation and external outcome may be attained (Amabile, 1993).

The tools to achieve such a result are many, like a precise selection at the beginning of a work relationship to identify the intrinsically motivated agents who are more suited to certain tasks given their skills, attitudes, and personal interest. Work design is another goal to be set, so that it may stimulate the intrinsic motivation and spur the employees to deal with it as a personal challenge also when working together, to create high performing teams. Understanding the motivational orientation of the individuals is another key step to use

adequately both intrinsic and extrinsic motivators giving the people supportive feedback and job conditions that increase their sense of competence and autonomy, while rewarding them differently at various steps of their career or removing extrinsic factors that may be perceived as punishments.

This last point is particularly important in the light of the difference between movement and motivation (Herzberg, 1987): movement is said to be a function of fear of punishment or of the feeling of not being rewarded in the future, while motivation is a function of personal growth that starts from interesting and challenging tasks which are rewarded extrinsically. Herzberg argues that movement is the only result being obtained by the supporters of the reinforcement theory, because people are not being motivated, their behaviour is simply modified by someone else and has to be rewarded constantly not for the accomplishments obtained, but rather for complying in that moment with the rules imposed.

Motivated workers, instead, bring to an organization higher performances and for a longer time. They do not need continuative strengthening because their inner drive is personal internal growth and management should foster employees' motivation using job enrichment as a main tool.

Job enrichment is a "job-design strategy for enhancing job content by building into it more motivating potential" (Lunenburg, 2011b), thus it increases work motivation making the job more interesting and the worker more responsible, in such a way that he is not meant to be just 'moved' to perform, but willing and fully motivated to do it because he is put in the condition of expressing higher levels of skills and responsibilities and wider autonomy on the performance.

Chapter 3 will deal, among other things, with the job enrichment model, but it can be pointed out here that it involves five core job characteristics, namely, skill variety, task identity, task significance, autonomy, and job feedback, which contribute to enhance a person's sense of meaningfulness on the work, the experienced responsibility for the outcome and its actual result. The job enrichment model has the final goal of helping designing jobs that, incorporating particular tasks characteristics, will drive the employees to feel highly motivated at work, satisfied with their jobs and able to perform effectively (Lunenburg, 2011b).

To conclude, there are two general philosophies of personnel management, the first based on behavioural science and the second one on organizational theory. Behavioural economics, in this context, deals with group feelings, the attitudes of individual employees and the general organization's social environment (Herzberg, 1987). Dealing with workers in this case means to emphasize the human relations development in order to install a reliable and pleasant working

climate suitable for the workers. As recognition, they should show the desired attitude towards the organization and react proactively to the job showing efficacy and efficiency.

On the other side, the organizational perspective considers the individuals to be adjustable to different situations, thus the emotional or social sphere is not particularly important as long as pragmatism in the organizational design is assured. The most efficient outcomes will be granted if the tasks are carefully planned and bonded together one with the other, favouring as a consequence a positive attitude and behaviour of the workers towards the job.

In the following of the work it will be tried to find a compromise between the social view of behavioural scientists and the rationality of the organizational theorists, to test whether the practical specialization occurring in many companies may come at the expenses of, for instance, turnover, absenteeism, errors, strikes, higher wages or external benefit with reduced profits for the organization.

Chapter 2 – Behavioural Economics approach

Starting from the beginning of the XX century and still nowadays in the new millennium, behavioural economics has emerged proposing models that integrate in a profound way the areas of psychology, neuroscience and microeconomics, helpful to be applied in a wide range of areas and useful to develop new concepts, methods and results.

As said at the beginning of this work, during the classical period, Adam Smith was already mixing economic issues with psychological ones to investigate how the human mind would react differently to concerns about fairness or justice, undergoing some of his utility to praise or punish agents who were showing certain kinds of behaviour (Smith, 1790). However, the advent of Positivism tried to cancel out this more personal view of economics and established the figure of the homo economicus, fully rational and untouched by emotions and moral values. Nevertheless, this cold and unbounded man was left out and abandoned when the economic psychology gained acceptance thanks to experiments and studies that formulated testable hypotheses about decision-making processes under conditions of uncertainty, limited rationality and intertemporal consumption. In the '60s, cognitive neuroscience helped behavioural economics to get better and more detailed results thanks to the development of tools and techniques able to shed light about what is actually going on in the human brain when people are making decisions, and thus studying the effects of psychological, social and emotional factors of their economic choices and the consequences for work motivation which in turns affects, among other things, personal effort, market prices and resource allocation. According to behaviourism, motivation is a dynamic driving force which stems from the individual and that once felt, activates him along the whole course of the action enthusiastically, while pushing also the organization to attain economic success.

Researchers, though, have not always seen motivation as the main driver of human behaviour because early theorists were studying different conditions that maintain and reinforce the behaviour starting from the study of animals' one, which provided important foundation to the literature, especially thanks to Pavlov's contribution. While realizing experiments with dogs' salivation, he found out what is now called "classical conditioning", meaning a reflexive type of learning in which a stimulus acquires the capacity to evoke a response that was originally evoked by another stimulus (Pavlov, 1926). A dog normally began to salivate in the moment a bowl of food was presented to him, a situation of an unconditioned stimulus (food) with an unconditioned response (salivation). Once a whistle was introduced to this scene nothing happened, because the dog found no relationship between the object and his meal time, the whistle was just a neutral stimulus and it lead to no response. However, when conditioning

learning was taught, the dog began to associate that the whistle was actually linked to the food, and thus the noise became a conditioned stimulus which, as a result, produced the conditioned response of salivation after repeated associations.

In this theory, the fact that the dog is instinctively hungry, and thus it is inner motivated to look for food and to behave consequently, is not taken into consideration because Pavlov did not include motivation in his studies, since he thought that all learning was due to mechanisms of classical conditioning.

An opposite contribution in this sense comes from Skinner (recall Chapter 1) and his operant conditioning theory, where motivation finally begins to enter the variables that influence behaviour. He deals with modification of voluntary behaviour investigating how learning is affected by various stimuli after an action is performed, and argues that extrinsic rewards can control behaviour and should be used as motivational strategy. This happens because some stimuli are likely to be repeated, they are reinforcers of behaviour because the consequences are desired and increase the likelihood that an action will be repeated, while aversive consequences decrease its future possibility of repetition because are seen as punishment. Skinner argues that extrinsic rewards should be used as reinforcing tools to guide the behaviour in the desired direction, and this has mainly benefited the educational field because teachers have mostly used the behaviour modification approach to control and motivate students for improving both learning and attention (Skinner et al., 2000).

Even if supported by proofs and empirical results, earlier theories of motivation have not held up under close examination or have fallen out of favour mainly because substituted by contemporary behaviourist theories with valid supporting documentation.

Across the variety of themes about motivation that behavioural economics deals with, one has especially been discussed and tested along the years in a still ongoing debate:

“How do extrinsic rewards affect intrinsic motivation?”

To answer this question, the theories and models behind it will first be discussed, and afterwards field and lab experiments with empirical evidences will be presented.

2.1 – Methods of investigation – The crowding out hypothesis

First of all, to approach this motivational theme it is necessary to separate the traditional view in economics from the most recent studies and analysis.

Early theories of motivation like the expectancy theory and the reinforcement one, make the assumption that extrinsic rewards and intrinsic motivation add up, meaning that providing the agent with something external that normally takes the shape of trophies, money, social recognition or praise does not negatively impact his intrinsic inner motivation, it rather helps it.

Expectancy theory (recall chapter 1 while analysing Vroom's process theory) believes that the motivation of an agent is the result of the desirability of the outcome expected from performing a certain task. With a cognitive process, the individual evaluates his choices and estimates how the results of a given behaviour will lead to a desired outcome. Motivation is the product of his expectancy that a certain effort will lead to a certain performance with the instrumentality of this performance and the valence of the desirability of the result.

Expectancy theory emphasizes the necessity for the organizations to relate rewards to the performance and to ensure that the extrinsic outcomes are the ones deserved and valued by the employees (Wigfield, Eccles, 2000).

The second traditional theory is the reinforcement's one and it argues that extrinsic rewards and intrinsic motivation add up because behaviours that lead to positives consequences (the rewards) tend to be repeated, or in Thorndike's words (1911): "the greater the satisfaction or discomfort, the greater the strengthening or the weakening of the bond". This Law of Effect (recall chapter's 1 outcome theory) suggests that of the several external responses made to the same situation, only those accompanied by satisfaction will be connected with that situation, so that when it recurs, the behaviour will be more likely to be repeated.

In the '70s, though, a new line of thought emerged and gave a complete new and opposite interpretation. Some economists argued that *extrinsic rewards and intrinsic motivation actually crowd out*, in the sense that increasing extrinsic rewards has the result of decreasing intrinsic motivation. The main theories supporting this view are the Cognitive Evaluation Theory and the Self-Determination Theory elaborated by Deci and the Self-Perception Theory of Bem.

Cognitive Evaluation Theory asserts that the underlying intrinsic motivation of an agent is given by his needs for autonomy and competence, and in this sense the effects of a reward affect his perceived contribution and self-determination, in a direction that could be either positive or negative.

The main accusation to the previous theories is that the older approach tries to motivate employees using externally mediated rewards, in the attempt to monitor the performance at work and to control whether the individual is doing what he is been told to do. The fact that motivation is reached through *externally mediated rewards* implies that only some kinds of reinforcers will be successful and helpful, referring to those class of needs defined by Maslow (recall chapter 1) as lower-order needs. Money, fringe benefits, promotions and verbal praise do not fall under the class of the higher-order needs of self-esteem and self-actualization, which are needs that have been reported by many employees to be important for their work motivation,

since a positive correlation between opportunity for self-expression and job satisfaction has been found (Deci, 1972).

For the additive hypothesis formulated above to be true, job positions should be structured to increase intrinsic motivation while rewarding extrinsically and contingently the workers for performing well. However, this idea crashes with other recent approaches to personnel management who believe, instead, that individuals can be motivated by the job itself and that their satisfaction in this case would fall in the sphere of the higher-order needs, where the reward is provided and gained by the person himself, and not by his boss or superior.

Intrinsically motivated workers are effectively motivated because they work at tasks designed carefully to be interesting and which require resources that they themselves can uniquely provide, and they become also more participative and responsible when they are given the chance to contribute to some decision regarding their own work. This involvement in the decision making process makes the individual feel competent and autonomous, and as a consequence of this intrinsically motivating job performance, higher achievements are reached in the whole organization (Deci, 1971).

The debate comes, finally, between the compatibility of the assumption of contingent pay schemes, with the hypothesis of participative management focused on enhancing intrinsic motivation.

Deci (1972) believes that a person's intrinsic motivation to do a job does not remain unaffected by external rewards because there may be a shift of the perceived reason why he is doing that activity. This concept of "shift" was recalled by De Charms' concept of *locus of causality*, in the sense that, starting from the assumption of the human need for competence and autonomy, the effects of rewards depend on whether they are perceived as controllers of behaviour or indicators of competence (De Charms, 1968). The locus of causality shows whether the events are produced by personal behaviours and actions, or by causes independent to someone's will. All external rewards have indeed two aspects:

- a controlling one: reduces satisfaction of the need of autonomy, changes locus of causality to external and undermines intrinsic motivation.
- an informational one: provides satisfaction for the need of competence and thus enhances intrinsic motivation.

Depending on which aspect is predominant, extrinsic rewards may increase or decrease intrinsic motivation.

Generally speaking, an intrinsically motivated worker finds the perceived locus of causality for a certain behaviour within himself because his actions are explained by internal satisfaction and pleasure. Performing a task for an external reward means that the reinforcement, such as

money, becomes the reason why he is performing the activity and thus the locus of causality shifts from the worker to the external environment (Ryan, Connell, 1989).

However, as said above, external rewards have two aspects and as a matter of fact they can affect intrinsic motivation in two ways:

1. If the locus of causality changes, the individual perceives that his own intrinsic internal needs are no longer at play and he will perform the task only if instrumental for attaining the external reward.
2. If the external reward comes with a shift in the feelings of competence and self-determination, then if the reward conveys to the individual that he is actually competent, the intrinsic motivation will increase, while if it does not, it will decrease.

This difference emerges especially depending on the *kind* of external reward. Money and other tangible perks are said to be often used to “buy” services which otherwise would not be provided, meaning that without paying the employee he would never perform the task (Deci, 1972) and thus he would never be intrinsically motivated to do it. On the other hand, verbal rewards, even if they are extrinsic motivating factors, may enhance intrinsic motivation as well because they strengthen the additional positive value and interest that the person already derives from the activity.

Nevertheless, the relation between verbal reinforcements and intrinsic motivation is not linear: positive feedback is associated with an increase in work motivation because the sense of competence is empowered, but too much feedback makes the person dependent on it (as he would be dependent on money as instrumental tool to perform the task) and lead to a decrease in intrinsic motivation. Negative feedback, instead, affects the sense of competence of an individual providing him with a feeling of failure and inadequacy, thus decreasing intrinsic motivation when too much negative feedback is provided. A small amount of negative feedback, though, could serve as a lever to challenge the person and to push him to perform more and better, increasing as a consequence his intrinsic motivation (Deci, 1971).

Summing up to this point, it emerges that if extrinsic rewards can motivate behaviour, it happens at the expenses of intrinsic motivation, especially when monetary rewards are made contingent on the performance. With contingent pay methods, the individuals perceive that they are performing a task for the money they will later receive, so the reward is the reason of their activity, while when rewards are not contingent on performance, the two aspects are not directly linked and the subjects are likely to rather find the work motivation in the job itself.

Therefore, the answer to the initial question “do extrinsic factors and intrinsic motivation add up or crowd out” using Deci’s Cognitive Evaluation Theory is that the two tend to cancel out. An organization needs to pay a competitive salary to its workers and provide them with some

benefits, but this does not mean that they will be *motivated* to perform effectively. Money is a motivating factor not per se, since it is always granted when a person works, but when it is administered as a controller of behaviour and made contingent on someone's performance even though this may decrease intrinsic motivation. A system that assures to motivate the employees while enhancing their intrinsic motivation and satisfying their higher order needs is the one of participative management realized through job enlargement and active participation. Non-contingent payment systems allow to give enough money to the workers to satisfy their lower-order needs and at the same time grants that their inner motivation would not decrease because jobs would be adequately structured to satisfy their higher-order needs of competence and self-realization through effective performance (Deci, 1971).

It is now clear that Cognitive Evaluation Theory argues that external motivating factors like rewards, surveillance and evaluation tend to decrease the feeling of autonomy, change from internal to external the perceived locus of causality and decrease intrinsic motivation to perform a task. In contrast, external factors like positive feedback and choosing in autonomy some characteristics of the job position increase the perceived possibility of self-realization and move the locus of causality from external to internal, thus increasing intrinsic motivation. Basically, this theory is based on people's need to feel autonomous and competent, so whatever diminish these necessities undermines intrinsic motivation leaving the individuals controlled by the environment or a-motivated.

However, soon emerged some problems with the Cognitive Evaluation Theory as a theory of work motivation (Gagné, Deci, 2005):

1. It is complicated to include the theory in the prevalent behavioural economics approach of expectancy – valence theory.
2. Many tasks in an organization are not intrinsically motivating, and involving all the employees in the decision making process to make them feel autonomous and competent is not always feasible.
3. It is hard to admit that people work for pleasure and not for earning money, so giving them monetary rewards as a motivational strategy sounds actually appealing to many.
4. The theory seems to imply that management has either to focus on promoting intrinsic motivation through people's empowerment while declining the use of extrinsic factors, or on praising them with rewards stimulating the extrinsic motivation and forgetting the intrinsic one.

Self-Determination Theory (SDT) was developed by Deci (et al., 1985) to address these critiques and issues. It incorporates the Cognitive Evaluation Theory but has a wider, though more complicated, scope.

Central to SDT is the difference between autonomous motivation and controlled motivation (Gagné, Deci, 2005). Intrinsic motivation is an example of autonomous motivation because the individual experiences a set of choices and engages in tasks which he finds interesting. Controlled motivation applies when there is a sense of external pressure whenever someone requires to perform a task, and it is the case of using extrinsic rewards. Both these kinds of motivations are anyhow intentional, and stand in contrast with a-motivation, the lack of intention and motivation.

Autonomous and controlled motivation, though, can differ in terms of the underlying regulatory processes and any kind of behaviour can be characterized by a variable degree of autonomy or controlling aspect (recall in this sense Fig. 8 – Ch. 1.3).

According to SDT, within motivation, autonomous motivation includes both intrinsic motivation and well-internalized extrinsic motivation. The former is the ‘classic’ inner motivation arousing from the agent’s personal interest, the latter includes the values and the regulations of the activity that the individual has integrated within himself. Controlled motivation is, instead, an external regulation which depends on the degree to which the person feels controlled and obliged to act in a certain way (Gagné, Deci, 2005).

Therefore, SDT, in comparison to CET, opens up to extrinsic motivation because the external forces are not always seen as behaviour controlling, they can also spread within the intrinsic values of a person and become a sign of competence and autonomy, the prerogative of intrinsically motivating behaviours. This happens because activities that are not interesting require extrinsic motivation, so their initial activation depends on the existence of a relationship between the behaviour required and a desired consequence, even if it is positive feedback or a tangible reward.

Before pointing out that extrinsic rewards have an aversive impact on motivation, therefore, it is necessary to analyse the “hidden costs” of rewards and punishments, because incentives schemes are also proven to work with efficacy in some contexts, so it useful to understand when they are expected to *crowd out* (Bénabou, Tirole, 2003).

In a classic principal – agent relationship, the agent faces uncertainty about his payoff performing a particular task because he does not know how hard or enjoyable the task is and if he will be able to perform it, and the principal will obtain a benefit only if the agent performs successfully the task. However, both parties have private information about the agent’s suitability for the task. The agent will decide to undertake it only if he is confident enough to

succeed and if he sees adequate returns for him. Moreover, he can judge based on his previous performances and on third parties' signals if the task seems attractive and if he will be able to commit with enough effort and capabilities. The principal, on the other side, knows exactly how complicated the task is, he knows how enjoyable and interesting it is and if the payoff is commensurate to the effort. The principal benefits from this situation only if the task will be completed effectively, thus he has strong incentives to manipulate the signals that have a relation with the agent's self-knowledge, with the aim to boost his self-confidence and his interest in the task (Bénabou, Tirole, 2003). To succeed in this objective, the principal may think that external rewards can be the push for the agent to complete the task assigned, but, as theorized by CET, incentive schemes may backfire, especially in the long run, because they tend to undermine the self-confidence of the agents or be perceived just for the value they put on the reward.

In the short term, external motivation through rewards may serve as a weak reinforcer, but once its use is prolonged, hidden costs arise, like the fact that once the rewards are withdrawn the agent believes that the principal is not trusting him anymore. Empowerment, instead, is more likely to increase the agent's intrinsic motivation and it is a signal of complete trust and autonomy left to the individual. Nevertheless, SDT argues that there may exist processes through which extrinsic motivation can become autonomous and can be a representative tool to get a successful performance in an economic organization, without threatening the agent's responsibilities and satisfaction.

Self-Perception Theory is a model of self-attribution of motives, meaning that when people are unsure about their feelings and motivations, they will use their own behaviour to infer how they feel. In this case it is especially evident how this theory is a modern one, since it is supported by the emergence of the neurosciences and of their wide approach, useful also in the economic and organizational context. Before the '70s, no one would have dared to include emotions and feelings in the analysis of the consequences of economic behaviours, however field and lab experiments, that will be analysed in detail in the following paragraph, largely support the fusion of the purely economic perspective with the social psychological one.

Two main assumptions are the starting point for this theory:

- 1- People do not have perfect knowledge about their ability in performing tasks and why they are doing that task
- 2- They do not know how much they are driven by intrinsic motivation

According to Bem (1972), who first wrote down and tested this model, an individual bases his beliefs and attitudes “on the self-observed behaviours whenever these behaviours are emitted under circumstances that have in the past set the occasion to reveal the truth”.

Thus in other words, people tend to infer motives of their actions from the circumstances under which they perform the task, meaning that the individual behaves in a certain way basing his reactions on the observation of his own behaviour, the external environment and the condition under which it occurs.

An interesting phenomenon that is likely to occur when SPT is at stake, is the over-justification effect. Basically, a person makes post-behavioural attributions on the causes of their own behaviour and he will infer that he was intrinsically motivated to execute the induced behaviour, like the task, to the extent that there were no signs of external motivation through the use of reinforcements tools. In this case the person feels that he was interested in the task and that he was willing to perform it.

On the other hand, an over-justification is expressed whenever the external contingencies of reinforcements are strongly perceived, and the individual feels that the task does not represent his intentions and interests (Bem, 1972). In this case the external reward for an initially interesting task becomes the motivation and the reason to perform, and the interest displayed at the beginning is therefore discounted. The intrinsic motivation level in the post-behaviour scenario will be lower when an extrinsic reward is provided than in the scenario with no rewards.

Considering the over-justification effect means also providing further answers to the crowding out hypothesis of extrinsic rewards reducing the intrinsic motivation to perform certain activities. Perceiving that a task has been carried out because an external contingency was given, means that the activity in itself was not enjoyable and not so intrinsically motivating. To better comprehend this model it is useful to delineate two different cases (Bem, 1967):

1 – the individual faces non-salient extrinsic rewards

→ people will self-attribute that they are doing the task just for their intrinsic motivation as a reason to perform

2 – the individual faces salient extrinsic rewards and the task is intrinsically rewarding

→ the individual would perform the task even in the absence of one of the two motives, but since strong and salient extrinsic rewards are given, he will attribute his motivation to the external reinforcer. Moreover, if the extrinsic reward is later removed, the total motivation is likely to be lower than without extrinsic motivation at all.

However, as pointed out before, extrinsic rewards are not all the same, they have different degrees of autonomy and different levels by which an individual can internalize them and come closer to intrinsic motivation's boosts.

Monetary reinforcements are proven to decrease inner motivation because money in the individual's past experience has probably acquired the fame and the discriminatory property of "buying compliance" (Deci, 1972). The same happens with the threats of punishment but not with verbal praise, which is indeed motivation enhancing.

Self-perception theory is also widely applied in marketing to test the effectiveness of many persuasive techniques, among which the most famous is the foot-in-the-door one. The premise of this approach is that a person who agreed to comply with an initial small request, "is then more likely to comply with a larger and more substantial demand" related to the first one (Snyder, Cunningham, 1975). It means that the person who agreed to commit on the small request, afterwards analyses once again his behaviour of paying attention and complying with it and rethinks of the context in which it happened, where no rewards or incentives were given. When the second moment with the second request arrives, the post-behaviour self-perception is of a person who likes the products that are being sold or that agrees with the offer that are being stated, so the individual will infer that he honestly and truly has a preference for those products and will comply with the larger request. It is the change in self-perception that leads afterwards to a change in the likelihood of engaging in other actions, and the individuals try to justify their own actions by arranging their behaviour in response, so answering positively to the first request is a good starting point to agree to the subsequent larger request because people want "to justify themselves that they are the type of person who responds yes to such requests" (Forbes, 2014).

Practically, it is useful for the organizations to use this technique when there is a solid marketing plan available, because people would not comply even to the first small request if it seems that the salesman cannot offer any content to his product.

To conclude, the foot-in-the-door technique sounds rude and intrusive, and the name, as a matter of fact, comes from the times when sellers put their foot between the doorframe and the door and people could not slam the door in their face. However, analysing the modern development of this method, it emerges that it is a kind of gentle persuasion (Snyder, Cunningham, 1975) where the customer actually persuades himself with a method that has been defined as "compliance without pressure" and finds in his post-behavioural analysis the motivation to act and to perform.

2.2 – Evidence to extrinsic and intrinsic factors on work motivation

The three modern models analysed in the previous paragraph serve as a frame into which testing empirically the crowding out hypothesis of extrinsic rewards causing a natural decrease in intrinsic motivation. This effect has been alternatively called the ‘undermining effect’, the ‘over-justification effect’ (Bem, 1967) or ‘the hidden cost of a reward’ (Lepper, Green, 1973).

A great number of studies have been conducted to look for empirical evidence on the crowding out hypothesis, and the body of search is so large that it is impossible to summarize every finding. However, some studies have become appreciated and replicated more than others thanks to their flexible approach, wider applicability and persuasive results.

Experimental economics is the perfect match with social psychology, because the price effect suggested by classic economic theory, stating that a higher price induces an increase in the supply, and thus a higher compensation undoubtedly raises the effort and quantity of work (Frey, 2012), turns out to be failing in some situations.

2.2.1 – Supportive evidence

For instance, an experimental field study (Gneezy, Rustichini, 2000) was conducted in 10 different Israeli day-care centres to assess the problem of parents arriving later than the closing time to pick up their children, forcing the employees to work longer hours. The typical economic solution to sanction this behaviour would be introducing a fine, and this is what has been done in six of the day care centres, while the other four served as control group.

During the first four weeks it was simply conducted an observation of the late comers in both the treatments, but then from the fifth week only the treatment group was assigned to sanction the delays with a fine of about 2,7\$ for every parent who arrived at least 10 minutes late and per child. The amount of the fine was designed for being small but still not insignificant. Finally, the fine was removed during the 17th week of the experiment without any explanation (Tab. 3).

	Period 1 (week 1 – 4)	Period 2 (week 5 – 16)	Period 3 (week 17 – 20)
Control	No Fine	No Fine	No Fine
Treatment	No Fine	Fine	No Fine

Tab. 3 – Setup of the field study – Source: personal elaboration

Results, however, proved the opposite of what the price effect would expect, because when negative consequences are imposed on an undesired behaviour they will produce a reduction of

it, but when those same consequences are removed the behaviour will tend to reappear. As a matter of fact, (Fig. 9) during the first four weeks there is no significant difference between the two groups, but once the fine was introduced in the treatment one, the researchers actually found an increase in the late-comings and when the fine was removed the rate of delays was still on a level twice as high as the initial one. So, how to explain that the rate of delays increases when a sanction is introduced and that the rate remains stable and higher than the control group after the fine is removed?

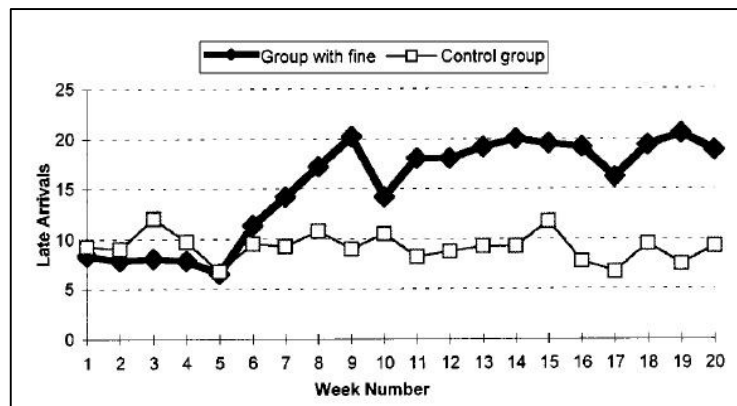


Fig. 9 – Average number of later comers per week – Source: Gneezy, Rustichini, 2000

This is a case of extrinsic factor, in the form of punishment, backfiring. The introduction of the fine changed the perception of the parents regarding the social environment in which they were involved. Social norms provide an explanation for this: at the beginning the parents simply believed the employees to be nice taking care of their children after the normal closing time, and they did not want to take too much advantage of them. However, the fine changed the perception of the situation because now the fine was seen as a price, as the cost that a parent is willing to pay for a service that is provided by the day-care assistants. The undesired behaviour, moreover, does not decrease after the removal of the norm because adaptation tends to develop to the punishment itself, and whenever severity and parameters are unchanged the effectiveness decreases.

Another aspect to consider is that the initial contract between the agents was incomplete, and the parents had no information about the consequences of a late arrival. The fine made it clear and parents kept on increasing the delay because the fine “is the worst that can happen” (Gneezy, Rustichini, 2000), even when the sanction is removed.

The same initiative took place very recently in Italy too, where in a nursery school of a small town in the North East, the city hall decided to fine the late comers parents. The fine varies from 10€ to 40€ and exceptions for documented necessity will only be accepted if at least 8-10

families will request it (TgCom24, 2016). Since the initiative has just begun, there is not yet a documentation of the results, but the Israeli case presented above and other similar ones all seem to point in the same backfiring direction.

Deci conducted what is now known as a famous study to find empirical evidence for both the Cognitive Evaluation Theory and the Self-Determination's one. The two theories are investigated because the agents are both faced with the perception of a shift of the locus of control (CET), and of the differences among external rewards (typical of SDT). The two lab experiments that will now be presented, confront the different motivational power of money and verbal reinforcement, since as it has already been said, money is seen as a mean that shifts the locus of control of the individual to the external, and that quits intrinsic motivation because it is a way to 'buy' a service which is not worth to be motivated by. On the other hand, verbal praise is a kind of external reward that provides also autonomy and self-realization.

The hypothesis to be tested are therefore two:

1. External rewards in the form of monetary incentives decrease intrinsic motivation to perform a task
2. External rewards in the form of social approval enhance intrinsic motivation to perform the same task.

The setup of the lab experiment (Deci, 1971) involved 24 university's students, 12 in the treatment group and 12 in the control one. They were told they had to complete a series of 3D puzzles called Soma because it seemed that college students would be intrinsically motivated to do it. The time to complete each configuration of the puzzle was measured, and after 13 minutes if the subject was not able to solve it, he was shown how to do it. The experiment consisted of three sessions:

T₁ —> Treatment and control group are intrinsically motivated to perform the task.

T₂ —> Subjects in the treatment group are paid 1\$ for every puzzle solved. Subjects in the control group receive no payment for the performance and they are not informed about the other group.

T₃ —> Payment from the treatment group is removed, and the control group keeps with the same condition of no payment.

The only difference among sessions and among groups is that the experimental individuals were paid for their performance in T₂, meaning that during that session they were performing both for intrinsic motivation and for the external reward. A measure of intrinsic motivation was needed, and it was identified in a "Free-choice situation" (Deci, 1971) which occurred when the experimenter left the room for 8 minutes in the middle of each session. During this free

time, the students could choose to carry on with their puzzles or to read the New Yorker, the Time or Playboy, which were also left on top of their desks. The measure of motivation was the amount of time spent on the puzzle during the free choice situation and it was established by the experimenter who observed through a one-way window.

Hypothesis one tests whether money given as external reward decreases intrinsic motivation for the activity, and the results are presented calculating the average number of seconds spent on the task by the two groups in the three sessions (Tab. 4).

Group	Time 1	Time 2	Time 3	Time 3 - Time 1
Experimental (n = 12)	248.2	313.9	198.5	-49.7
Control (n = 12)	213.9	205.7	241.8	27.9
	$E(T_3 - T_1) - C(T_3 - T_1)$			-77.6 sec.* (SE = 58.5)

Note.—The higher the score, the higher the motivation.
* $p < .10$, $df = 22$, one-tailed t test.

**Tab. 4 – Mean Number of Seconds Spent on the Task during the Free Choice Periods—
Source: Deci, 1971**

As it can be seen from the red square of the table, the motivation of the experimental group considerably increased from T_1 to T_2 when the external monetary reward was provided, while the time spent on the task by the control group is almost the same among the sessions.

Thus, as expected, motivation increases when money is paid to the subjects, but then as hypothesis 1 predicted, motivation in T_3 is remarkably lower (yellow square) than in both the previous sessions. The statistics used by the author to analyse this result is the difference in difference, which compares for both the Experimental and the Control group a first difference of the time spent by the agents in T_3 and in T_1 with a second difference that calculates the variation across the groups. Mathematically: $E(T_3 - T_1) - C(T_3 - T_1)$.

Hypothesis 1 predicts the result to be negative and evidence shows a result of -77,6 seconds, significant at the .10 level, meaning that external rewards in the form of monetary reinforcement lead subjects to a cognitive re-evaluation of why they are performing a task, shifting the answer from pure inner interest and pleasure to money.

To test hypothesis 2, Deci performed the same experiment as described before, but the only difference was that the students were not paid any money in the experimental condition in

session 2, they were given verbal rewards in the form of appraisal. During T₂ they were told they had performed well previously and during the configuration of every puzzle they received positive feedback. As before, in T₃ the positive verbal reinforcement was removed and motivation was measured during each session through an eight-minute free choice situation.

Results (Tab. 5) show that for the control group there was a steady decrease in motivation over the three sessions, while the experimental one were quite constant over time. The difference in difference statistics should be positive to support hypothesis 2 and it actually is, with a value of 177.4 seconds and significant at the .05 level.

Group	Time 1	Time 2	Time 3	Time 3 - Time 1
Experimental (<i>n</i> = 12)	134.0	146.7	129.3	-4.7
Control (<i>n</i> = 12)	246.8	146.1	64.7	-182.1
$E(T_3 - T_1) - C(T_3 - T_1)$				177.4 sec.* (<i>SE</i> = 88.1)

Note.—The higher the score, the higher the motivation.
* *p* < .05, *df* = 22, one-tailed *t* test.

**Tab. 5 – Mean Number of Seconds Spent on the Task during the Free Choice Periods—
Source: Deci, 1971**

From this analysis and empirical evidence, it seems to be true that money buys off the intrinsic motivation of the individuals, and not even just temporarily. Other measures of externally mediated rewards, like verbal praise, are though found to be perceived as less controlling and instead motivation enhancing or, anyhow, not responsible for affecting it negatively.

The main focus of Deci's analysis was the different impact of two kinds of extrinsic rewards, namely money versus other material reinforcers, while in order to test Self-Perception theory a different kind of study has rather to be conducted. The main interest is to find evidence in support for the over-justification hypothesis, where the perception of the individual is influenced by an activity that has been conducted in order to attain any extrinsic goal, no matter its nature or shape. The over-justification effect is predicted whenever an individual's intrinsic interest is undermined by "inducing him to engage in that activity as an explicit mean to some extrinsic goal" (Lepper, Greene, Nisbett, 1973) meaning that a person might re-think about his

action and infer that the motivation for a certain behaviour was the external contingency, and not the intrinsic interest he had thought showing at the beginning.

A widely accepted empirical test involved preschool children found to have an intrinsic interest in drawing. The children were randomly assigned to one out of three experimental conditions: in the expected-award one the children agreed to engage in the drawing task to obtain an extrinsic acknowledgement, a certificate with a gold star and a ribbon, in the unexpected-award condition the subjects performed the same task and only at the end received the same award, unexpectedly, and finally in the no-award condition the drawing task was the same but the children nor expected nor received any award.

The experimenters decided to include in the programmes of the classrooms a new experimental activity, drawing with some ‘magic markers’, to add an activity highly likely to be appreciated as intrinsically rewarding and still not too far from the ones the children were used to do. The subjects were accompanied in a separate room and followed by two different experimenters to draw and either receive the reward, surprisingly or expectedly, or not. The measure of intrinsic interest was calculated as an index recording the percentage of time the child decided to draw with the new markers out of the total time he was in the class with the material available. The over-justification hypothesis predicted that subjects in the expected-reward condition would show less subsequent intrinsic motivation in the target activity, spending less time in the drawing task than the subjects of either one of the other two conditions (Lepper, Greene, Nisbett, 1973), and results in Tab. 6 support this hypothesis.

Experimental condition	<i>n</i>	%
Expected award	18	8.59
No award	15	16.73
Unexpected award	18	18.09

Tab. 6 – Mean Percentage of Time Subjects Chose to Draw – Source: Lepper, Greene, Nisbett, 1973

Also when controlling for the difference between the intrinsic motivation in the pre-experimental and in the post-experimental sessions, children in the unexpected- or no-award treatment showed a small and insignificant increase in their interest for the task, while the subjects of the expected-reward condition showed a significant decrease in the drawing task, sign that the over-justification applied because the children were no longer moved by the pleasure of drawing, but they were just performing the task to attain the goal of the award.

The case just described applies to an educational context but it is of general applicability because the final considerations that can be drawn are of wide application. It shows that educational systems are often quite insensitive to preserve the intrinsic interest and curiosity in learning that children seem to show when they first approach the school. In this situation the task described was intrinsically motivating for sure, and external awards were thus superfluous (Lepper, Greene, Nisbett, 1973). For this reason, the design of extrinsic rewards ends up undermining the spontaneous and honest interest of the individuals, and empirical results prove that the consequences may be undesirable. This should foster the teachers, and generally managers too, to use careful discretion to exert these solutions.

As said before, an almost direct consequence of the Self-Perception model theorized by Bem is the Foot-in-the-Door phenomenon, practically applied as persuasive method mainly in the marketing field. To test the applicability and the range of results of this technique, a field experiment was conducted differentiating the subjects according to the treatment they were randomly assigned to. In the small-initial request's one, individuals were asked by a phone call if they were willing to answer 8 questions, while the people in the large-initial request treatment were asked to reply to 50 questions. The number of questions was designed by a pre-test to be adapt to guarantee a high and a low compliance rate, respectively (Snyder, Cunningham, 1975). After having recorded the acceptance or the denial to the first questionnaire, the same subjects were approached once again in the following days and asked, in both the treatments, if they were willing to reply to 30 questions for a survey, thus a moderately sized request. As a control group, other subjects were selected and contacted just to ask if they were willing to answer to the moderate request of thirty questions. SPT predicts that subjects in the small-initial request treatment should be more likely to accept the subsequent moderate request than control subjects involved just with that single medium request. On the other side, individuals assigned to the large-initial request should show a lower compliance rate to the moderate request than the ones in the control condition. Results are in line with the SPT and FIT expectations (Snyder, Cunningham, 1975), since more than one half of the subjects initially contacted with a small request accepted to follow on with the moderate sized one, while only one third of the control group complied with the moderate request. On the contrary, people initially approached with a large request showed a lower compliance rate, about 20%, to the average request with respect to the subjects of the control group.

Moreover, also when controlling for an overall test of self-perception, the total compliance rate in the small-initial request was much larger than in the large request treatment, a proof that the motivation of this behaviour can be identified in inducing a person to do something he

probably would not have, changing the ex-post perception of the reason why he acted and the environmental contingencies he is surrounded by.

2.2.2 – *Contradictory evidence*

The evidence presented until now are the strongest and most famous studies in support of the crowding out theory. Nevertheless, it has been said that the debate is still ongoing because above all reinforcement theory and expectancy's one, which have been presented in Chapter 1 and recalled also above among the "old" theories, find still appreciation and empirical support.

The greatest practical application of this motivational problem regards the organizational design of tasks and jobs, and the consequent effective performance of employees within a business environment. For this reason, the debate tends often to focus on the option of whether it is better to provide the people with a non-contingent on performance pay plan or a contingent one. Deci's CET and his empirical evidence show that non-contingency has no effect on intrinsic motivation and verbal reinforcement increases it, while when money is paid contingently on an intrinsically motivating task, then the inner motivation drastically decreases compared to any other experienced condition.

Not believing in this perspective, Hamner & Foster (1975) conducted a study to test this hypothesis with both a boring and an interesting task. They expect that if Deci's theory is correct, then a non-contingent pay plan should result in a higher level of performance for an interesting task, while a contingent pay plan should result in a higher outcome for a boring task because piece-rate systems should not affect an activity which is already not intrinsically interesting.

The main arguments against CET rely on the fact that additional studies are needed before a generalization on theory of motivation can be made, especially because some concerns emerged with regards to Deci's studies:

- The Soma puzzle chosen as intrinsically motivating task might not be the most suitable measure for job motivation. According to Vroom (1964), since *performance = motivation x ability* and the subjects in the studies were still on the learning curve with little experience of the task, the motivational measure might have been influenced as well. What is argued is that the results obtained might be useful for the job training phase and not for the maintenance stage of job performance (Hamner, Foster, 1975).

- Another point is that since the topic of the experiment was to find out about the motivation to perform, then *performance* on the task and *not the time* spent on it should have been the correct measure of intrinsic motivation. An intrinsically motivated worker should spend less time on a task while at the same performing more.

- An alternative definition of intrinsic motivation is also proposed to extend its applicability from the simple persistence on the task to a set of characteristics that make an activity enjoyable for the subject like variety, autonomy, identity with the task and feedback from it.

- Finally, a conceptual problem arose regarding the time at which the performance was measured. In Deci's it was during the free time period, while both expectancy and reinforcement theory predict performance levels measurements during the reward period, since it seems a reasonable trade-off working harder when the pay is dependent on performance and performing less in no-rewards free time periods.

The empirical experiment conducted by Hamner & Foster involved undergraduate business students required to "help determine how many part-time employees were needed to score typical surveys conducted by Michigan State University's Test and Evaluation Centre" (1975). Subjects were randomly assigned to a 2x3 experiment design providing either a boring or an interesting task, and one of three payment condition among no pay, contingent pay and non-contingent pay. The boring task involved the transfer of scores from a math survey, while the interesting one the scores coming from a sexual-attitude one. The no pay condition served as control group, while the contingent pay gave 5 cents for each item scored and the non-contingent gave 75cents for every 20 minutes.

In order to test again for support to CET, three different hypotheses were made:

- 1) Talking about the interest in the task, a measure of the quality of the performance calculated as number of items scored correctly,
 - For the boring task the intrinsic motivation in the contingent pay condition *will be bigger* than the one in the non-contingent and no pay situation.
 - For the interesting task the intrinsic motivation in the contingent pay *will be lower* than in the non-contingent condition and in the no pay one.
- 2) The same conditions should hold true for the quantity of performance, the number of items scored
- 3) Fewer errors should occur in the interesting task relative to the boring one given that in the former a greater involvement should be registered.

Results are presented in Tab. 7.

	Condition	No pay	Noncontingent pay	Contingent pay
Interest in the Task	Boring Task	2.267 (N = 15)	2.000 (N = 16)	2.764 (N = 17)
	Interesting Task	3.800 (N = 15)	3.667 (N = 15)	3.600 (N = 20)
	Mean	3.033	2.807	3.216
Level of Performance	Boring Task	373.800 (N = 15)	428.563 (N = 16)	386.883 (N = 17)
	Interesting Task	293.400 (N = 15)	312.200 (N = 15)	378.700 (N = 20)
	Mean	333.600	372.251	382.450
Error Rate (Quality)	Boring Task	7.200 (N = 15)	7.562 (N = 16)	7.294 (N = 17)
	Interesting Task	2.560 (N = 15)	4.166 (N = 15)	3.900 (N = 20)
	Mean	5.361	6.060	5.150

Tab. 7 – Summary of the field study - Source: re-elaboration from Hamner, Foster, 1975

Evidence for hypothesis 1, interest in the task, are in line with the expectations for what concerns the boring task, but there is no significant difference in the level of the quality of the task among the pay plan conditions for the interesting task, failing to support the initial hypothesis.

As concerns hypothesis 2, the level of performance, results are totally against the initial considerations. Contingent paid subjects exhibit lower performance scoring less items on a boring task than non-contingent subjects on the same boring task. The opposite happens for the interesting task, where a higher output was expected from both the non-contingent and no pay conditions but it is actually higher in the contingent one.

Finally, testing for hypothesis 3, results show that an interesting task results in a lower quantity of output as found out just above, but the quality improves and less errors are made compared to the boring task condition. As regards the different pay plans, there is no effect on the error rate and quality of the performance.

To conclude, the results of this field study failed to support CET, while they find new evidence for reinforcement and expectancy theory. The effect of externally mediated monetary rewards on intrinsic motivation is found in this case to be additive (Hamner, Foster, 1975). Especially for boring tasks it emerges that contingent pay plans raise the interest of the subjects compared to situations with no pay or a fixed payment, and the explanation could be that in repetitive activities money could enhance workers' motivation especially when the pay comes quite close in time to the depicted performance. The take away for manager seems to be that effort should be combined to increase both intrinsic and extrinsic rewards in the job setting.

2.2.3 - *A reconciliation*

The fact that extrinsic and intrinsic rewards have been found to be additive does not rule out crowding out, and other kind of studies have emerged looking for a synergy between extrinsic and intrinsic motivation. For example, through a combination of personality traits and work environments, the two kinds of motivation can combine to yield both high levels of performance and personal satisfaction. The starting points for the analysis of this synergy are that (Amabile, 1993):

- it is highly likely that both intrinsic and extrinsic motivators are present for most of the activities that people perform in their work

- motivation can be seen both as a state, meaning that it depends on the reference environment changing and adapting to situations, and as a trait, namely referring to the fact that there exist constant individual differences in motivational orientations.

Following these assumptions, a Work Preference Inventory (WPI) was designed (Amabile, 1993) as a short personality instrument to assess different aspects of both intrinsic and extrinsic motivation. It was handed out to a sample of professionals in different industries and levels and it emerged that intrinsic motivation builds in two scales, challenge and enjoyment, while extrinsic motivation's expressions are clustered as recognition and compensation. It was later found that, *as motivational traits*, the intrinsic and extrinsic scales are uncorrelated between them and are essentially orthogonal, a signal that individuals could be at the same time motivated by both money and personal challenges in a stable way across time. However, changing the focus to *motivation as a state*, it is clear that some kinds of factors in the social environment can have an influence on motivation and performance even if just temporarily. This is what has been put in practice by the previous Lepper & Green's (1973) research, which affirm that salient extrinsic rewards, or general constraints, can undermine intrinsic motivation.

The use of the WPI instrument showed that when extrinsic rewards are suddenly at stake, a decrease in creativity shows up, especially in R&D laboratories where competition through the use of extrinsic rewards was used. On the other hand, other extrinsic factors were found to operate in support of creativity like, for instance, recognition for creative ideas and frequent constructive feedback. Always through the use of the WPI, intrinsically motivating factors were elicited as supporting creativity, like autonomy at work, the perception of growing challenges and excitement about the work itself.

The research through the WPI instrument on motivational states, traits and task performance gave some useful results for the total analysis about the relationship between intrinsic and

extrinsic motivation. People can generally be more oriented towards one kind of motivating factor, but temporary changes can occur whenever a salient extrinsic reward is introduced or the job changes its nature in an unpredictable way. Therefore, the most suitable analysis to investigate motivation must include both the work environment and the individual as a person who is inserted in the society.

A simple additive or crowd out perspective is difficult now to sustain since research shows that personality orientation towards high levels of intrinsic motivation can coexist with orientation towards high levels of extrinsic motivation (Amabile, 1993).

It may happen, for example, that the initial level of intrinsic motivation is so high and the person is so inner motivated by his job, that extrinsic motivating factors find it hard to undermine that intrinsic motivation, as suggested by Bem (1972) who said that external influences are more likely to apply to those subjects who are vague on their personal states and thus more easily “corruptible” when a salient extrinsic reward is provided.

As a matter of fact, the research and the studies presented above referred mainly to lab contexts where subjects were given tasks for which they did not really have a totally honest interest, whereas in real world situations reinforcing and additive effects were established.

Additive effects, moreover, were found only with respect to certain kinds of extrinsic rewards, a very important issue which allows to find a further synergy between these forces.

It is now considered true and verified that some factors called “extrinsic in service of intrinsic” do not undermine intrinsic motivation because support the individual’s sense of competence without damaging his self-perception, while helping his self-determination.

For example, providing rewards, recognition or feedback that are rich in content to help the worker improving the performance, as well as employing motivator factors that increase the sense of involvement in the job will increase extrinsically the intrinsic motivation. The same holds true for general feedback and rewards which are task oriented and not person oriented or anyway non-threatening. On the other hand, there exist “non-synergistic extrinsic motivators” (Amabile, 1993) that undermine the person’s self-determination without adding either any competence to his job or involvement in his tasks and that mainly manifest through external control and external imposed constraint.

To conclude this final part regarding an approach to work motivation completely directed to the human behaviour and supported by empirical researches that try to look for homogenous answers,. The aim of this technique is to summarize results from numerous studies to generate an overall picture, here namely the effect of extrinsic rewards on intrinsic motivation.

An analysis of 128 controlled experiments (Deci, Koestner, Ryan, 1999) used two different dependent measures of intrinsic motivation, free-choice persistence and self-reported interest, and many and various kinds of extrinsic rewards: tangible rewards, verbal ones, expected or unexpected, task contingency, engagement contingency, performance contingency, the combination of all of them, ...

The main results confirmed what has been said and proven along the whole chapter, that tangible rewards have a significant negative effect on intrinsic motivation for interesting tasks, and this applied to expected and unexpected rewards, engagement- and performance-contingent ones, and for both the aspects of free-choice intrinsic motivation and self-reported interest.

The measure of the effect size of each study is given by Cohen's d , a measure that reflects the difference between the means of the treatment and the control group divided by the within-group standard deviations. If it is negative, then it is in support of the crowding out hypothesis and results range indeed from values of $d = -0.17$ to $d = -0.40$. However, verbal rewards or more generally positive feedback had a significant positive effect on intrinsic motivation for both the free-choice behaviour, $d = 0.33$, a sign of enhancement, and the self-reported interest, $d = 0.3$. Strong of the support of behavioural economics through its theories and empirical evidence, the work turns now to a more *business* perspective to investigate the best ways to keep the employees motivated, since the personnel's invoice is often the most expensive item of the balance sheet.

Chapter 3 – Organizational approach to work motivation

The competitive economic advantage and the subsequent well-being of the modern economies has largely been a result of the high level of productivity that has allowed an increase in wages, a lower price of goods and services and a higher standard of living and social welfare.

The forces that compose a country's productivity are many, and work motivation is an important one, since motivated individuals increase firms' productivity which in turns affects positively the general well-being (Pinder, 2008).

According to neoclassical economics, labour is an input just like capital and raw materials, but the real modern world is different, and working people bring with them a much more complex sphere of analysis. First of all, labour costs are particularly high compared to any other accounting invoice, and in many economies this is mainly due to fiscal pressure. In Italy, the tax wedge of the relationship between work and firm's profits is around 43,4%, the double of Germany and almost five times as much compared to the U.S. (Sole24ore, 2014) and this trend is not likely to decrease easily. Secondly, standard economics affirms that in equilibrium the firm pays market-clearing wages and workers provide a minimum effort's level. This assumption is also difficult to believe, since some employers actually pay more than the market-clearing threshold, and workers are spontaneously willing to put more effort than the required minimum.

The neoclassical extension comes with a model defined "gift exchange model" (Akerlof, 1982) according to which the worker provides a 'gift' to the firm by exerting more effort than the minimum standard, and the firm on the other side gives the worker as a 'gift' a higher wage than the equilibrium one's. Positive or negative reciprocity in this case is also an important matter, because workers can respond with their behaviour and with higher or lower effort to the wage levels imposed by the firms, if they do not perceive an equal balance between input and outcome.

An interesting empirical testing for this model comes from a field study that was conducted in an American University testing undergraduate business students. They were told they had to computerize the holdings of a small library at the university and that they were going to be paid 12\$ per hour (Gneezy, List, 2006). For experimental reasons, the treatment noGift actually paid the students a flat wage of 12\$ per hour, while in the Gift treatment the participants, once they were about to perform the task, were informed that they were going to be paid more than what had originally been promised, namely 20\$ per hour. Results (Fig. 10) show that in the first 90 minutes, there is a consistent difference between the two conditions. In the Gift treatment, students logged in almost 25% more books than in the noGift treatment, a result significant at

the .05 level and consistent with the gift exchange hypothesis. However, after the first hour and half, the evidence indicate that the model is not supported anymore, because effort levels in the noGift treatment remain more or less constant over time, while in the Gift treatment there is a steady decrease until a level similar across the two treatments is reached. Even if the task involved in this experiment is an easy and anyway not so challenging one, a criticism that has emerged, widening the use of scope of the gift exchange model in real world situations, is that people may not consider wages to be high for a gift made by the firm, they may rather infer a higher wage due mainly to equity or fairness hypotheses.

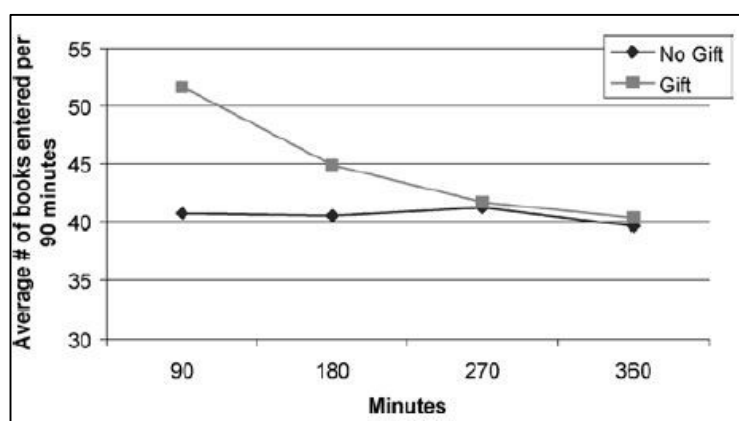


Fig. 10 – Average books logged per time period – Source: Gneezy, List, 2006

A consequence of this model came combining studies of personnel management, sociology and psychology. A model of “fair wage-effort” (Akerlof, Yellen, 1990) was developed stating that workers elaborate their own idea of fair wage and if it is lower they withdraw the effort in proportion. Thus, depending on the wage-effort elasticity and the cost of the firm of holding back, the fair wage becomes a part of the wage bargain. The fair wage hypothesis finds its main motivation and reason to exist in simple observation on the human behaviour, because when people do not receive what they deserve, they try to get it back.

Central evidence for this model comes from Adam’s equity theory (1965, recall Chapter 1.2.2.) who stated that in a labour relationship, the input of the employee is the perceived value of his job, and his outcome is the perceived value of his remuneration. For a firm, the input is the perceived value of the remuneration and the outcome the perceived value of the labour. During the wage bargaining, the equilibrium’s effort e , which is the number of units of effective labour input, times the perceived value of a unit of effective labour w^* will equal the perceived value of remuneration w . In the economic notation: $e = w / w^*$, with w^* as the fair wage.

The economic consequences of this model are determined by how the fair wage is calculated, and according to relative deprivation theory (Akerlof, Yellen, 1990) the individuals’ perception is influenced by comparisons with other salient subjects. If the wage is not the perceived

deserved one, people express anger which results in lower motivation and in the reduction of their effective labour input below the level they would have provided if they had been satisfied.

Based on the perspective of personnel management, a sound agreement to equality in wages with reference to significant comparisons group is confirmed, and pay satisfaction is said to be the starting point of every labour relation.

Generally speaking, the gift exchange model and the fair wage effort's one, fall below the more comprehensive model of *efficiency wage*, which states that paying wages higher than the market clearing ones, pays off in terms of increased productivity and decreased costs.

The basic premises of efficient wages consist in the fact that (Stiglitz, 1981):

- higher wages lead to lower quit rates
- higher wages bring more productivity on the job
- higher wages result in a higher quality labour force.

Moreover, an improved morale is found to facilitate team work, to increased feelings of loyalty to the firm and to increase general effort levels.

Beside the sociological implications of wages above the market clearing ones already described, other micro-foundation theories are necessary to comprehend the phenomenon, for instance to avoid shirking (Katz, 1986). Shirking means doing less work than initially agreed on, and it is a behaviour likely to happen in those organizations where it is complicated to measure and monitor the quantity and the quality of the worker's effort. To prevent this moral hazard and to avoid costly firing threats, the managers may have a greater incentive to pay the employees a higher wage. The same consideration applies to the problem of minimizing turnover, an issue that can again be solved increasing the wage to reduce the worker's motivation to quit the job and to prevent the firm from letting him go and training again, costly, other people. A final implication that can be drawn, is that during the selection process there may be the case of adverse selection due to the fact that the true worker quality and performance are not observable, but if firms offer higher wages they will attract a higher quality sample of applicant job-seekers, willing to show their above-average skills.

Neoclassical market-clearing wages are no more than a simple theoretical construct in a modern and complex world which has a lot of different and various interests at stakes for job related relationships. However, if a wage, which is sufficiently high in comparison to the individual's expectations and to his reference group, is determinant for a substantial and admirable job performance, it may have no implication at all with the worker's motivation and its maintenance. Job performance and work motivation are not the same and many times managers tend to infer that a poor job performance is the result of low motivation (Pinder, 2008).

External factors like stiffer competition or an economic slowdown may be responsible, for instance, for a sales downturn independent of the ability or the motivation of the employee, and beyond his control. However, when is the person's motivation the primary source of difficulty, what is the best way to proceed? If a higher than classic market equilibrium wage is not enough to obtain a firm desirable performance, is it because the employee needs rewards or payment systems that foster his effort and performance while enhancing his motivation? May it also be a problem of jobs and tasks designs? The following of the chapter will try to tackle these questions, in the attempt to establish whether contingent pay systems and wage incentives in general are actually better than job enrichment models. Once again, the inquiry is directed to infer whether working on job motivation through extrinsic rewards has a positive or negative impact on the original intrinsic motivation of the individuals.

3.1 – Contingent pay systems

Organizations operating in every kind of business and at any kind of level must clearly know how their remuneration system looks like, since it is the starting point for the establishment of harmonious relationships in the organization. Both employees and employers have the aim of, respectively, be remunerated and remunerate with an effective, motivational, fair and clear systems of wages and rewards, typically selected from a wide range of choices. As a compensation for the performed job, the individual normally receives a base remuneration he is entitled to get for his work, plus tangible and intangible rewards identified with financial premiums or bonuses or other material perks and benefits, promotions, empowerment, greater independence or recognition, ...

Whatever form of total remuneration is chosen combining basic wage, salary, contingent pay and intangible benefits, it is important that it differentiates among employees at various levels, because of different competences involved, and between performing and non-performing employees. A well designed system is able to motivate and foster growing performance, but to better comprehend the whole picture it is necessary to put under the magnifying lens the contingent pay, the most famous and used method of remuneration given through tangible rewards.

Contingent pay refers to any pay scheme that rewards employees on top of their base rate and that is connected to individual/team/organization performance, competency, contribution or skill (Armstrong, 2014). It can be provided either as connected to base wage or salary, thus it is usually paid continuously when there is a performance to be rewarded, or it can be a sort of lump sum reward paid as a financial bonus.

Contingent pay methods are said to be the most successful way to motivate employees, especially when the initial level of intrinsic interest is considerably low and managers wish to raise involvement, or when the attractiveness of the activity is evident only once the individuals have engaged with it for some time or they have developed a certain mastery (Lepper, Greene, 1973). However, Human Resource Management emphasizes the importance of the third class of total remuneration, those intangible rewards listed above, to sustain long-term motivation. A long lasting effect is granted only if financial tools are combined with internal motivators like attention to the job content, autonomy and personal and professional realization.

Another important difference to point out about contingent pay systems is the difference between financial incentives and financial rewards. The former are a kind of direct motivators telling the people how much money they will receive in the future if they perform well, while the latter are indirect motivators and are either retrospective because award an individual for what he has done in the past, or prospective because rewards are given now for something already done and that will bring a greater achievement in the future (Horváthová et al., 2012). The main reasons advocated for the organizational use of contingent pay are:

- Motivation. The reward is made contingent on a precise result to be accomplished in terms of performance, competence or skill, and the employees are said to be more motivated and pushed to get better results. However, this only happens when strict conditions are respected, like the knowledge of the objectives and standards to achieve, the precise measurement of tasks and rewards, their close connection to success and effort, and the saliency of the reward.

- Message. It emerges that performance and skills are valued and rewarded, and the organizational culture may praise especially specific behaviours and results. However, in this case a sustained work of business culture and identity may be a substitute for contingent pay methods.

- Justice. Meaning that it is fair that to a higher and more brilliant performance is related a higher contribution and reward.

3.1.1 - Types of contingent pay

An interview with John Timpson (The Telegraph, 2012) reported that: “*Bonus schemes are a brilliant way to put buzz into your business, but if you get them wrong they can cost money and demolish morale. Find a system that works and stick with it – good incentives keep running for years*”. Contingent rewards are mostly paid in the forms of bonus, sales commissions and profit sharing incentives, realized through recurrent schemes presented in Fig. 11.

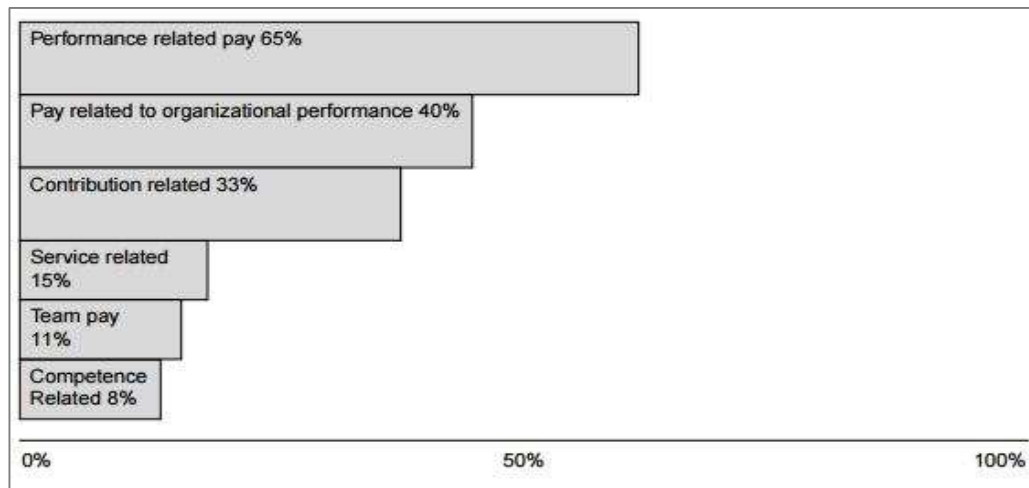


Fig. 11 – Incidence of contingent pay schemes – Source: eReward survey, 2004

- Performance related pay. Pay increases are related to the achievement of agreed results and the underlying logic is a pay progression within pay brackets connected with levels in a career structure (Armstrong, 2014). Additionally, special results or peak performances can be rewarded by cash bonuses that are lump sums made normally available when employees reach the top of their pay bracket for their current career level. The PRP method is designed to decelerate in amounts and levels because first of all it should be higher in the initial period when the individual is at the highest point of his learning curve, and secondly because after having attained a certain level, employees are already well paid and their retribution does not need to increase constantly so rapidly. However, this is easy to understand according to the economic reasoning, but difficult to agree with by the person involved, who suddenly sees a smaller percentage bonus when they are top performing and at a high level.

- Pay related to organizational performance. Organization-wide bonus schemes are designed to share the success of the whole company with all of its employees, with the final goal of increasing their commitment to the organizational culture and objectives. It is mainly realized through gainsharing and profit sharing (Armstrong, 2014). The former starts from the produced financial added value or any other productivity measure and subsequently

shares the financial gains obtained, while the latter gives to eligible employees a part of the profits in the form of cash bonuses or of shares of the company. Gainsharing relates to improvements in productivity that have been reached thanks to the individuals, while in the share of profits enter variables that have increased the performance, but that were not credit of the rewarded employees. It is not a form of motivation because there is no direct link between individual's effort and the result, but they can increase the identification with the organization's identity (Armstrong, 2014).

- Contribution related pay elaborates assessments on both the outcome of the work done by the individual and the inputs in terms of competences he brought with to perform the job. Basically, it consists in a mix of performance related pay scheme and the competence one, and it rewards the employees for what they do and how they do it, providing their personal skills and efforts to get to a greater level of performance.

- Service related pay provides fixed increments of pay that are usually given on an annual basis for continued service in a job. It is a kind of contingent pay still common in the public, voluntary and educational sectors, while most of the private companies have migrated mainly to the performance related system. Unions appreciate this scheme because it rewards all employees equally and because the pay or the bonus is linked to the time in the job, an easy measure to calculate, which prevents judgements and imprecise information. However, even if rewarding people for loyalty seems positive, it still appears as an inequitable measure, because it does not recognize who contributed more than others to the firm's success, thus not encouraging to exert more effort to get a better performance, because effort will still be paid in a neutral way.

- Team pay rewards groups of employees that carry out related work linked to the performance of the defined team. Results are measured in terms of outputs or based on the achievement of pre-established levels of standards, sometimes involving in the judgement decision also the customers asking them about the service levels. It is paid in proportion of the base rate of the payment and much more rarely it is shared equally. The advantages of this scheme are that it is done to encourage effective team play, cooperative behaviour, development of soft skills and multi-skilling, and to provide incentives for the whole team to push the efforts and increase the performance, especially involving the less effective team members. However, it is difficult to design and to put to work efficient teams, especially if the individuals have never worked together before, and there may be situations of negative peer pressure which could undermine the whole group.

- Competence related pay was designed as a method to reward people for the ability to perform now and in the future (Armstrong, 2014) increasing their base pay according to the

level of competence they show in their job. Concerns have emerged about these schemes because it seems that they reward mainly individual's personality traits, and this only works when they are tied to particular abilities connected with performing efficiently a task, thus getting competence related pay close to the more used PRP.

3.1.2 - Business cases: profit and no profit organizations

How do organizations put in practice in the real world the contingent schemes analysed above? Are the employees happy, satisfied and motivated by the implemented solutions? A first example of contingent pay method comes from Safilo, an Italian private company leader globally in the eyewear sector. The firm wisely mixes a design oriented behaviour with the typical Italian artisan knowledge, the attention to the different brand identities and the market innovation. Analysing the company's culture, it emerges a primary focus on four different competences (Safilo, 2015):

- mastery of the eyewear sector
- sharing a sense of trust
- realizing in teams
- creating the future

An interesting focus for this work is the team-oriented behaviour, because the contingent pay scheme that will be described is a case of team pay. Safilo gives a precise importance to team work, because it allows to overcome differences and divisions, letting a high degree of interdependence emerge to reach greater results. This is done through international and inter-functional teams that openly share information to enhance cooperation and a wide consensus through coordination's efforts. The team is said to be more important than the single individuals, and any diversity is a point of strength that allows multiple forms of enrichment. This is possible only if communication within and across teams is clear, simple, open, attentive and encouraging (Safilo, 2015).

In February 2016, the company signed with three main Unions an *Integrative Deal* that adds up to the normal labour contracts and that provides the employees with better working conditions in multiple ways. The main points discussed were 300€ per worker in flexible benefits integrating a part of the salary which was already related to the firm's profitability, 150€ per worker to be dedicated to complementary healthcare services, and the new idea of *Smart Working*, an innovative and experimental system which allows to work from home 20% of the weekly or monthly time, thanks to the informatics tools provided by the company.

The H.R. director Visconti said that the aim of this deal was to create an organizational environment able to recognize everyone's value and to enhance the motivation of the employees

so that they are given the possibility and the conditions to accomplish big results for the future of the company (Il Gazzettino, 2016).

During Summer 2016, an annual team reward for the previous year was given to *every team* and *every team member* that respected prescribed standards. The external reward in terms of contingent pay was given according to indicators that refer to appreciable attained results in terms of efficiency, quality and net productivity. It could also happen that a team was eligible for the reward, but some of its members not, and in this case the whole team but this individual was appraised.

In this particular case study, the team contingent-pay regards the Call Centre Operation Unit. Following the company's organizational chart, every team leader is responsible for a number of markets. For example, referring to the available data (personal internal source), one team leader is responsible for three groups: BeNeLux, U.K., Nordix (Finland, Island, Norway, Sweden and Denmark), respectively formed by 5, 8 and 6 members.

The evaluation works in this way: the team leader expresses an opinion on every member of the three groups, while every employee has the opportunity to choose a colleague to be evaluated by and another evaluation is given by another co-worker randomly chosen. In the end, every individual evaluates two colleagues and is evaluated by three persons. The external reward of about 200€ per person is assigned based on the team and on the individual results, and it is segmented across the markets followed by each team leader.

The evaluation form (Annex 1) assesses the performance across several dimensions:

- overall evaluation of the performance
- achieved result, namely a high standard of service and a high capacity to handle the customers' needs. It is measured in terms of number of phone calls taken, average phone ringing time, problem solving ability and overall customer's general satisfaction.
- mastery of Safilo's core competences. It refers to a score from 1 to 5 to each of the four competences of the firm described above in this paragraph.
- technical competences, namely a score from 1 to 5 according to the level of emotional intelligence the employee shows through a positive language and communication, active comprehension and reasoning of the objections.

Finally, the subject making the evaluation had to list 3 key priorities related to his targets of career and a general synthesis of the career's development interests, accompanied by the indicators to measure the corresponding achievements.

For the research's purposes of this work it is important to point out that the most performing teams among the Call Centre O.U. could choose to either receive the monetary remuneration or its conversion in free hours of work permits. The winning team of year 2015 was acknowledged

to be only the BeNeLux one, and the majority of its member chose the timing compensation, rather than the monetary one.

A conclusion that can be drawn is that, even assuming that team pay may work as a motivational tool, individuals in this case seem to prefer an extrinsic but not monetary compensation.

A different perspective comes from a no profit organization's business case in Australia (Tippet, Kluvers, 2009). The paper wished to find what motivates people to work in a NFP (Not For Profit) organization, testing especially for the existence of strong intrinsic motivators since external rewards, like pay, are much less consistent than in the private sectors, and thus human motivation is found to be a more compelling source of action.

The organization has received public recognition for its work providing services for disabled people. It is divided in two units, the *employment* one, which looks for jobs for people with disabilities, and the *lifestyle* one that teaches general living skills. While the latter is financed by the Victorian State Government grants, the former unit has received funding by the Australian Federal government with the implication of realizing a more business alike design of the unit. The government decided to generally fund the organizations working as job agencies not on the basis of a fixed amount of money, but rather on the number of clients they were able to find a job for. As a result, management of the employment unit decided to offer a bonus to the employees who were particularly able to place a larger number of clients, while the pay scheme of the lifestyle unit remain untouched, creating anyhow a difference between the two organizational units.

Work motivation is of primary importance in the no profit sector because studies show (Tippet, Kluvers, 2009) that employees' turnover in the disable service area is about 27.4%, compared to an all-industries average of 12.4%. Such a high turnover implies different kinds of costs like job posting, recruiting, administration work, training and loss of productivity. Even if some studies suggest that financial incentives and contingent pay schemes may be successful as motivators, other application like an OECD research (1993) testing the difficulties of the implementation of performance bonuses especially to managers in the public sector, suggest that performance appraisals highlighting the development needs of managers work better, because the individual internalizes the organization's requirements with his own values and career's needs.

The empirical test in the Australian organization was realized through a survey asking the employees the degree of agreement with six statements on a scale from 1 to 5. The statements analysed the intrinsic or extrinsic orientation to the reward:

- I am satisfied with my pay
- I believe that bonus schemes can increase work performance
- I would prefer a reward system based on individual rather than team outcomes
- I am motivated by the achievements of my clients
- Working at the organisation allows me to achieve a good work/life balance
- I have fun while working at the organisation

Responses show (Tab 8) that people are not so sure about their pay satisfaction and this implies that money cannot be a prime source of motivation, as stated by Herzberg's hygiene factors (1987). They agree, though, that bonus schemes can improve performance, but this does not mean that intrinsic rewards are not important, since the provided bonus as a motivator may reinforce the intrinsic reward of doing something worthwhile in a socially useful organization (Ryan, Deci, 2000a). Additionally, the employees reported being motivated by the achievements of their clients, another sign of the strong intrinsic motivation at stake, especially in no profit organizations where the firm's mission is the main source of motivation.

	I am satisfied with my pay		I believe bonus schemes can increase performance		I am motivated by the achievements of my clients	
	Frequency	Valid Percent	Frequency	Valid Percent	Frequency	Valid Percent
Strongly Disagree	2	3.9	3	5.8	0	0
Disagree	14	27.5	8	15.4	2	4.2
Neutral	14	27.5	16	30.8	4	8.3
Agree	19	37.3	14	26.9	22	45.8
Strongly Agree	2	3.9	11	21.2	20	41.7

Tab 8 – Main results of the study – Source: personal elaboration from Tippet, Kluvers, 2009

To conclude, evidence show that extrinsic motivators do indeed play a role, but not in the direction suggested by many authors as the main force that guides behaviour. People, in this case and especially in the no profit sector, are mainly motivated by non-economic rewards. However, findings also suggest that even if extrinsic rewards do not work alone, once they are coupled with training or enhancing feedback (Tippet, Kluvers, 2009), they can assist the individual to accomplish a greater performance.

3.1.3 - Arguments for and against contingent pay

Contingent pay	PROS	CONS
1	To recognize, reward and improve performance	Dependence on accurate and reliable methods, hard to attain
2	To attract and retain high quality people	Requirements are too difficult to achieve
3	To influence behaviour	Drawbacks for team work
4	To focus attention on key results and values	Reliance on management judgement, may be arbitrary
5	To deliver a message about the importance of performance	Money does not result in sustained motivation
6	To motivate people	Money does not motivate everyone equally
7	To support cultural change	Performance is not always under people's control

Tab. 9 – Summary of Pros & Cons of contingent pay methods – Source: Personal elaboration

The table above summarizes the main arguments in favour and against the contingent pay method. The strongest opinion in support of contingent pay is that it is right and appropriate to link employee's reward to his performance, contribution, competency or skill, avoiding those kinds of appraisal methods that reward individuals just based on their 'presence'. The reasoning is that "the higher the merit, the higher the reward" (Horváthová et al., 2012).

Among the other motives to advocate the usefulness of contingent pay, it is also said that it guides the behaviour, instigating and supporting a desirable one which fosters a closer attention to the organization performance, since the individuals are made a central part of it, and it helps recognizing and rewards better results and performance.

Linking behaviour to monetary rewards works as well as motivating tool and contributes to identify, select and maintain highly qualified people, also using financial rewards and incentives (Armstrong, 2014).

When the topic is moved towards the organization itself, contingent pay helps changing the culture, for example strengthening the organization's values and supporting the development of a more performance culture, spreading the idea that results, contribution, competences and skills are important.

Nevertheless, on the other hand, it is argued that contingent pay is not so strong in orienting desired behaviours and it is not a durable way to ensure constant motivation, especially because the amounts of money destined to this cause are typically low and not significant for the employee's appraisal, so not influent as personnel incentive.

Another strong downside of contingent pay is that it demands a strict set of conditions for its realization and fulfilment. The requirements to get the rewards are often too demanding and hardly achievable (Horváthová et al., 2012), especially because employees need to know precisely the desired objectives and the standards they are supposed to achieve.

Moreover, to be well implemented, a contingent pay method has also to name explicitly the rewards and has to state in details the tools or the instruments used to measure and evaluate the performance. This has to be done to connect reasonably and adequately the individual's outcome to the expected reward, even if the performance does not always depend on the person, because it may be influenced by the condition and the system where he works, thus affecting the rewarding procedure.

To continue on a more sociological side, not everyone is motivated by money in the same way, and this has to be taken into consideration together with the fact that money could motivate in the short run those who receive it, but it may drastically negatively influence those who did not, especially when it comes to individual rewards within a working team. Not only the team could suffer from it, but the whole organization.

Implementing contingent pay is not easy also because it relies on management's judgement, and it can be arbitrary or unfair, thus a combination of not reliable data, wrong information and subjective perception causes dissatisfaction and ends in demotivation (Kohn, 1993).

Another interesting source about the downside of contingent pay comes from the so called "myths about pay" (Pfeffer, 1998) stating among other issues that:

- myth #5: individual incentive pay improves performance.

In reality studies show that this system undermines teamwork, encourages a short-term focus and that the aim of performance is finally the relationship that leads to the reward.

- myth #6: people work for money.

Yes, they do, but it is not the single reason. If firms ignore this fact, they will pay for it with absence of long term loyalty and commitment.

A supporting case comes from the SAS Institute, one of the biggest software companies, that shows a turnover rate of below 4%, explained by the offer of an intellectually engaging work and a friendly environment, which do not include contingent pay methods.

Nevertheless, one of the strongest evidence in favour again of contingent pay comes from the research from Rynes et al. (2004) who found that employees tend to say that pay is less important to them than it actually is. This has repercussion on HR professional, who may underestimate the motivational impact of pay, and on HR journals and magazines, who tend to take the employees' surveys for certain, without deeply examining the behavioural evidence. The difference emerges comparing employees' surveys and behavioural studies, because from

the former it emerges that pay is not so important as motivator, ranking more or less at the fifth position, while from meta-analytic studies of real behaviours it rather comes out that pay is quite often the most effective motivator.

An explanation to this controversial situation is given by the fact that when people are responding a survey, they have in mind a precise *socially desirable response* (Rynes et al, 2004). In the case of pay they believe that a socially approved behaviour implies understating the importance of money, because in many organizations and firms it is quite a taboo topic or because it is considered a less noble motivation's source than a challenging and exciting work.

It is argued by the same research that another possible explanation comes from the literature about pay in the HR journals, since they mainly focus on surveys to employees rather than behavioural evidence, and the main widespread idea is that pay is not a very important motivator. Considering the Harvard Business Review, which has a circulation of about 25.000 copies, it pops out that articles like "Six Dangerous Myths about Pay" (Pfeffer, 1998), "One More Time: How Do You Motivate Employees?" (Herzberg, 1987), "Why Incentive Plans Cannot Work" (Kohn, 1993) have all agreed on considering pay and contingent money as a not motivating factor, and have indeed being cited also previously in this work as they have had, and keep on having, a large follow-up and testable conditions.

In summary, Rynes' research suggests fiercely that pay is a very important motivator because it is useful for obtaining many other things that the individuals desire. Dating back to Maslow's hierarchy of needs, money opens the gates to the first classes of lower-order needs but to the higher ones as well, because it enables the people to gain a higher social status and a good education, for instance, leading also to self-esteem and -actualization.

However, the research conducted in support of contingent pay argues that no behavioural studies are being tested to gain evidence of money's effect on employees' performance, while, just to mention one of them, Deci and Ryan's literature (as describer in Chapter 2) largely refers to behavioural economics experiments and proves that contingent pay has a negative effect on the individuals' intrinsic motivation.

Thus, even if the 'socially desirable response' hypothesis can be accepted, it is not entirely true that there is a complete lack of literature and research of real behaviours situations that holds the balance of power in favour of contingent pay.

Moreover, since this issue cannot be entirely viewed as black or white, both supportive and against sides emphasize the fact that even if it can be stated that money is a kind of motivator, it is not the only one. Multiple motivators are suggested by personnel management to be the most suitable tool to guarantee the highest level of individual motivation and successful performance, as it happens for example in Microsoft or General Electric where, anyway, it is

administered in a way that is dependent of many variables like situational ones (what other firms are paying) or individual ones (personality or performance level) (Rynes, 2004).

3.1.4 - A reconciliation

Finally, some general conclusions can be review and summarized across four principles (Rynes et. al, 2004):

- for pay to work as motivator there has to be variability in pay options. This is because if pay increases based on merit are given equally to the employees, despite differences in performance, then it is not motivating because is not used in a motivating-enhancing way.

- the motivational effect of money is non-linear across career levels. This refers to what has been said before talking about the declining marginal utility of a pay increase, meaning that a bonus scheme of 100€ is more likely to be motivating for someone at the beginning of the career than for a top manager. Generally speaking, this applies to any argument about reservation wage, the threshold level of retribution a person is willing to accept to take the job.

- people compare their outcome in relative terms. Once again Adam's equity theory (1965) comes back in practice to warn manager about payments and bonus given to related co-workers in a company and to employees at a similar level in other firms, because those will be the agents an employee will compare himself with.

- Payment's importance depends on the phase the individual finds himself in, meaning attraction, retention or on-the-job performance. Pay level is likely to be quite important at the beginning when managers try to attract and select the best candidates. Money happens to be a powerful lever, above all because it is one of the few job characteristics that can be known with precision during interviews, opposite to management's quality and working environment. It is also important at the end of a job relationship, even if it may hinder it if the employee feels that money is just a "bribing" tool. However, when a person accepts a job, money stops to be such a profound motivating tool and needs to be accompanied by deeper intrinsic factors as challenges, responsibilities and autonomy.

To conclude, even if the motivational potential of pay cannot be underestimated, its effectiveness depends on a variety of individual and situational factors, also because in the words of Deci (2000a): "*some forms of extrinsic motivation may appear to be intrinsic. It is a form of regulation through identification that implies valuing a behavioural goal so that the action is accepted as personally important*", meaning that the efficacy of the extrinsic rewards is linked to what the employee believes to be important.

3.2 - The Job Enrichment Model

3.2.1 - The model

Job enrichment is a job-design strategy to enhance the job content by building into it a more motivating potential (Herzberg, 1987). It occurs when an employer places an extra amount of work on the employees but with the aim of making their job more interesting and meaningful. It has become a necessary tool in every organization to improve individuals' motivation and to stimulate the economic growth, because job challenges and responsibilities are added, and employees react with a higher involvement, morale and effort.

Firms are nowadays faced with an environment which is constantly moving and subject to increasing competition levels from multiple global sources. In this dynamic context companies should value even more their workforce and use every available tool and technique to keep within the organization the employees they have strived to train, enhancing their effort and work motivating them adequately. Money has largely been seen as the greatest motivating factor, but bigger importance is now also placed to all those work situations where individuals have the possibility to exert in their jobs a wider variety of skills and to put a higher value on what they do, scheduling their work and deciding how it could be done at best. Herzberg has been the first to theorize 'job enrichment' as the way to make jobs more inspiring and rewarding for the workforce. Some motivating factors are added to jobs to make them more rewarding and interesting and they can be named as (Choudhary, 2016):

- giving more freedom
- encouraging participation
- giving employees the freedom to select the method of working
- allowing employees to select the place they would like to work
- allowing to select the tools that they require
- allowing to decide the layout of the office

The basic argument in favour of job enrichment is creating jobs that people will enjoy doing, so that money will no longer be needed as extra motivation to perform. However, designing jobs in such a way is a complicated task and it requires a deep development effort, mainly because managers must investigate and understand what people want and what they expect from their jobs. If the job enrichment model is well implemented, it will not be so complicated to change the organizational culture and to realize those practical changes that secure the attainment of the firm's welfare and of employees' loyalty and commitment. The final result will be a humanised organization where people really matter and can experience the relief of developing constantly new competences and performing interesting jobs that encourage them

to grow professionally. Among the companies that have placed particularly high attention to enriched jobs, common features found were great opportunities to grow vertically, open communication, flexible working hours, excellent reward schemes, employees' oriented work environment and sharing and learning from others. Therefore, if on one side employees get benefits in terms of satisfaction and motivation on the job, on the other side firms benefit in terms of increasing reputation, because individuals are proud of the business and of its people and believe in what the future holds, gaining also economic success through increased efficacy and performance.

However, even if the job enriching model sounds promising and effective, a deeper analysis of why enriched jobs lead to positive economic outcomes is necessary, and it will be proposed a model that focuses on how the characteristics of jobs and those of the employees interact to determine when enriched jobs will be profitable (Hackman, Oldham, 1976).

Starting point for the analysis is the motivation-hygiene theory (Herzberg, 1987), stating, as can be recalled from Chapter 1, that the primary determinants of employees' satisfaction are factors intrinsic to the work itself like recognition, achievement, responsibility and advancement. These are called motivators because are said to be the only effective ways to obtain higher effort levels and performance, while dissatisfaction is seen as being caused by all those hygiene factors that are extrinsic to the job like company policies, pay plans and working conditions. A job will thus enhance work motivation and effective performance only to the degree that motivators factors are designed into it, because providing only hygiene's factors will not increase either motivation or satisfaction. However, even if Herzberg's theory sounded convincing and feasible, lots of research has not been able to provide empirical satisfying support for its main points, and additionally, the theory does not include any difference among employees' types and their responsiveness level to enriched jobs. It is unlikely that all individuals will be equally motivated by more complex and 'superior' jobs, and nothing has been said about how these differences among individuals should be dealt with, both in theory and in practice. Finally, the motivators-hygiene theory does not give any detailed clue about how to measure the presence or the absence of the two factors, making it difficult to test it and to put it in practice in real world situations to design jobs effectively and to draw appropriate before and after considerations.

The model is designed to help the workers get enjoyment from their jobs but also to make them realize that they are doing something meaningful and valuable (Choudhary, 2016). It is built on five core job characteristics that are seen as prompting three critical psychological states, which in turn lead to several personal and work outcomes. The connection between all the elements is mediated by the individual's growth and the need's strength (Fig. 12).

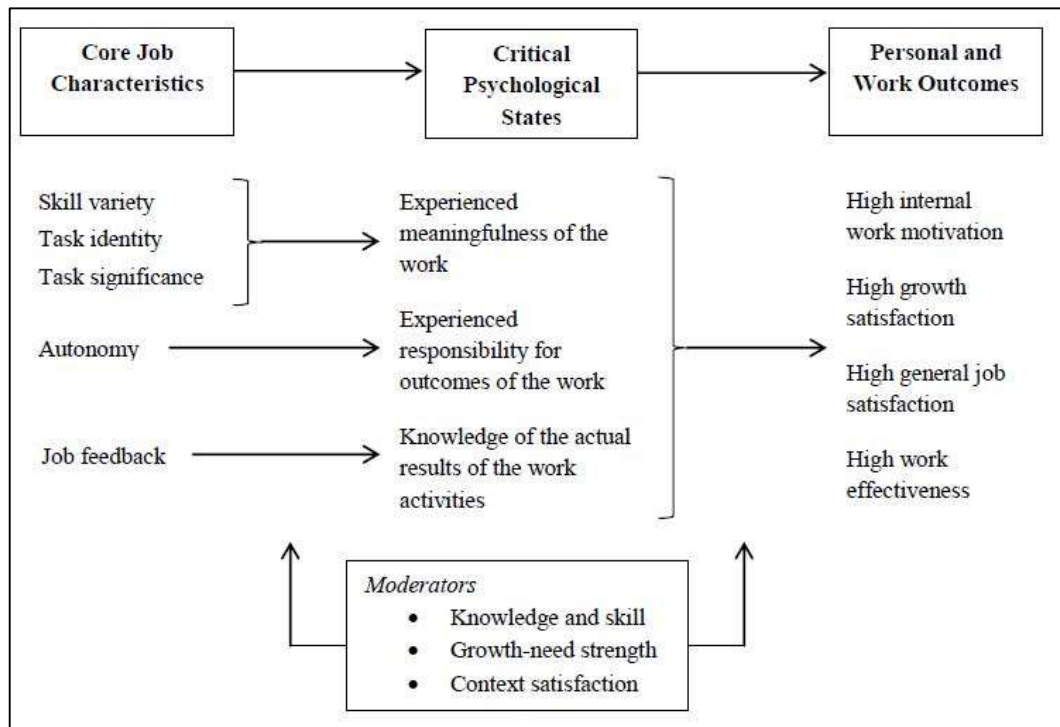


Fig. 12 – The job enrichment model – Source: Hackman, Oldham, 1976

Job dimensions are summarized into five core characteristics:

- Skill variety is the degree to which a job requires a variety of different activities in carrying out the tasks, the existence of multiple skills and abilities. When a job stimulates the individual in several ways or requires the use of a variety of competences, it is likely to be perceived as meaningful for the individual, relieving him from monotony of repetitive tasks and challenging him thanks to the range of skills involved.

- Task identity applies whenever a person is required to complete a job along all of its journey, from the conceptual beginning to a final visible outcome. Working just on a small part of the whole makes it hard for the worker to identify the service or the product with the personal effort, but when tasks are enriched to produce the complete outcome, then task identity has been achieved.

- Task significance refers to the degree to which the job has an impact on the lives of other people, either within the organization or outside. It matters because if people see that the results of their work has a positive effect for real on the well-being of other people, then they understand their role in the overall mission of the company and they feel more motivated because they believe they are doing something important.

- Autonomy refers to the degree to which the job provides substantial freedom, independence and discretion to the individual in scheduling the work and in determining the procedures to be used in carrying it out. It is motivating because the outcome of the job

depends on the individual's efforts, initiatives and decisions, without simply undergoing the rules and the instructions of the superiors. The personal responsibility deriving from the success or the failure challenges and enhances positively the performance.

- Feedback is obtaining clear and direct information about the effectiveness of the performance. It can be either positive or negative, and both these extremes are dangerous, thus researchers are in favour of a balanced feedback.

The first three job characteristics (skill variety, task identity and task significance) contribute to one psychological state, namely they combine to favour the experienced meaningfulness of the work. It is the degree to which the individual lives his job as valuable and worthwhile.

Jobs that provide a great deal of autonomy are said to enhance the experienced responsibility for work outcomes, because having more freedom to decide what to do and how to do it brings with it a feeling of autonomy too.

Finally, job feedback is said to give the employees a complete knowledge of their results, useful to know on a continuous basis how they are performing and to make them able to develop and improve their effectiveness (Choudhary, 2016).

The model explains that an individual experiences a *positive affect* when he learns (knowledge of results) that he personally (experienced responsibility) has performed well on a task he cares about (experienced meaningfulness). This is reinforcing to the individual and pushes him to continue to perform well and to establish a cycle of positive work motivation sustained by intrinsic rewards. This cycle is predicted to continue until one or more of the three psychological states are no longer present, or until the intrinsic motivation fades away (Hackman, Oldham, 1976). The final outcomes to be reached are a high quality of work performance, job satisfaction with special reference to career developments and personal growth, and work motivation, which is usually tested through questionnaires that dig deeply in the feelings of achievement and general performance satisfaction.

The main novelty element of this model is that it distinguishes among different people's traits across some moderators. Those who have a high need for personal growth and development will be more likely to respond positively to a job that is high in motivating potential, a combination of the five core characteristics analysed above, than people with a low growth need strength.

The job enrichment model was tested empirically (Hackman, Oldham, 1976) using data from 658 employees across 62 different jobs in 7 organizations. The heterogeneity of the sample is granted because it included blue collars and white collars, industrial and service organizations, urban and rural settings. The instrument used to collect the data was the Job Diagnostic Survey (JDS), a tool that was designed to measure all the variables of the model.

The survey was administered to groups of employees, and area managers were asked to rate on a seven-point scale the work performance of each respondent based on the effort levels exerted, the work quality and the work quantity. To test for absenteeism, absence data were registered from company records in terms of number of days the employee had been absent in the preceding year.

The first empirical test was to study the relationship of the job dimensions and the psychological states with the outcomes (Tab. 10). Results are in line with the expectations of the job enrichment model, with correlations with acceptable level of statistical significance and in the predicted direction (all positive but negative for absenteeism). Additionally, the three psychological states correlate higher with the outcome measures than do the job characteristics.

To conclude, the job enrichment model is the key to keep employees motivated, satisfied and focused on both the company's success and their own. Opportunities are given to enhance the job satisfaction and to prevent the staff turnover through the mutual sense for skill variety, task identity, task significance and autonomy.

Human resource management sees it as a dynamic process of *“increasing the work structures and processes within an environment that gives room for autonomy, flexibility, personal growth and satisfaction to the workplace”* (Choudhary, 2016).

	Outcome measures				
	Internal motivation	General satisfaction	Growth satisfaction	Absenteeism	Rated work effectiveness
Psychological states					
Experienced meaningfulness	.64**	.64**	.64**	-.03	.13*
Experienced responsibility	.65**	.41**	.51**	-.16	.16**
Knowledge of results	.23**	.33**	.33**	-.11	.10
Job characteristics					
Skill variety	.34**	.32**	.48**	-.15**	.07
Task identity	.25**	.22**	.29**	-.18	.15**
Task significance	.31**	.21**	.35**	.16	.12**
Autonomy	.31**	.38**	.51**	-.24**	.19**
Feedback	.35**	.38**	.45**	-.12	.21**
Motivating Potential Score	.48**	.43**	.58**	-.25*	.24**

^a Correlations were computed separately for each of the seven organizations where data were collected, and medians are reported here. See text for explanation of how levels of statistical significance were computed. Total $n = 658$.

* $p < .05$.

** $p < .01$.

Tab. 10 – Median correlations of job dimensions and psychological states with outcome measures –

Source: Hackman, Oldham, 1976

3.2.2 - Managerial applications

To answer the question about how managers should implement the job enrichment model, it is first useful to examine the organizational conditions that allow its application.

Firms require to find a balance between job enrichment and job enlargement, meaning that managers need to realize how to keep the employees satisfied and motivated to go the extra mile through jobs that are designed on one way as constantly expanding in duties and responsibilities (job enlargement or horizontal job loading) and on the other way as provided with more intensive and challenging tasks (vertical loading, later described).

Before enriching jobs, it would be positive to establish collaborative cross-departmental discussions about the types of opportunities that the employees would appreciate the most.

A cross-functional training enables the individuals to learn skills, procedures and business strategies from other departments, beneficial to understand how their work complements with the one of their co-workers and with the more general business goal.

Discussing about career developments helps installing a flat hierarchy where people are encouraged to ask questions in order to gain new insights into the business (Choudary, 2016), useful to widen the personal perspective and accomplish greater performances.

Of course, this is feasible only if employees are well educated and trained, and this is another aspect that can come from the company. A well trained and prepared workforce proceeds in the career's path and is kept motivated. Moreover, recruitment costs decrease because new positions for qualified employees are covered by the already existing ones, and at the same time the retention rate diminishes.

Generally speaking, the job enrichment model also provides more details and practical suggestions about the ways in which jobs can be enriched to enhance their motivational potential.

- Vertical loading means giving the employees responsibilities that were previously reserved for managers above their level. They are empowered to set schedules, determine work methods, make their own decisions about the moments of start and end of a job or a project, assigning priorities and seek solutions to problems rather than calling a manager whenever their job goes out of the routine's track (Lunenborg, 2011b). They are also made responsible for the quality and the quantity of work they produce, and all these responsibilities put together increase the level of autonomy that the job offers and complement with those positive psychological states theorized by the model getting to higher satisfaction and performance.

- Natural grouping is realized to raise skill variety, task identity and task significance, because rather than having several workers performing a separate part of a whole job, assembly line style, each individual is in charge and follows entirely from the beginning to the end the job.

- Formation of natural teams means that, as a consequence, individuals performing complete jobs are grouped into a unit that has the typical characteristics of a team, a division, a department, ... Groupings are created according to the geographic location, the type of activity or the customer groups.

- Opening feedback channels goes back to the psychological state of knowing the actual results accomplished, and this is only possible if jobs are designed so that employees are provided with as much feedback as possible. The sources of feedback are many and are all useful, like the supervisors who direct the work, the co-workers who may help to improve, the customers that express their wishes to orient the employee's future performance, and also the job itself can provide useful feedback. Additionally, since people invest effort and time in their work, it is rewarding to know how they are doing it, and knowing it often is fundamental because performance varies across periods of time, so being aware of how they are doing at the moment is useful to make future adjustments.

- Establishing client relationships is helpful to enhance employees' motivation because coming in contact with the recipient of the service does not only provide useful feedback, but it enriches in terms of skill variety, task significance and autonomy as well. This is given by the fact that as the individual realizes concrete contacts with several agents and performs a multitude of activities, he sees the connection between what has been done and what are the final consequences and impressions for the client. Finally, the person is given the freedom to manage a private and own relationship with the served customers.

3.2.3 - Final considerations on the practical feasibility

All the characteristics and the implications of the enrichment model described, are particularly relevant in the light of the further generality of the findings, the feasibility of making changes and the consequences to be expected (Paul et al., 1969).

The varieties of studies conducted to test the model reflect the fact that positive results can be obtained in any type and level of job across several company's functions and industries, because results did not ever depend on the firm's circumstances, while rather on the management's approach to the enriching process.

The model has a general but unifying application because it is not true that meaningful results can only be reached by those jobs where a large number of people perform the same task and their effort and results can be easily measured. Changes to the organizational setting had sometimes to be tailored to individual jobs, for example in defining more precisely the initial theoretical precept of the model.

It means that talking about “sense of responsibility” has a general and common translation for everyone, but it needs to be adapted to single situations as well, allowing a better measurement opportunity which in turn opens to a more accurate assessment of individual performance and to a better recognition of the problems to be solved as well.

It may also be asked whether giving so many responsibilities, autonomy and scope for achievement to employees who have never exerted it before may be a risk for the whole organization, and the answer comes both from practice and theory. Practice, as seen in the empirical studies testing the model in real life situations, shows that no big disasters or problems of huge size have ever emerged.

Theory argues that negative hygiene factors such as oppressive supervision and inefficient control systems constrain and harm individual performance, and personal responsibility is so undermined that it gets lost. When motivator factors are given, instead, the employees see the possibility of a development while the hygiene factors remain at the status quo. It means that the person is given the chance to achieve more, but he may choose as well to avoid taking that chance. What both approaches emphasize, is that people respond with caution to new responsibilities, but if it is something that they really want, then it is the use of motivator factors, and not hygiene ones, that control the performance standards. Giving new opportunities and powers leads to no harm or risks for the organization (Paul et. al. 1969).

This fact has implications on the idea that some people have of realizing changes selectively, a practice which is however not effective or successful. Individuals are different and react in various way to the enriched jobs, but sometimes not in the direction foreseen by the managers.

As said above, the model provides a chance to take on responsibility and autonomy, but it was found, in certain cases, that those individuals who appeared to be predisposed to these enriched jobs were actually *yes-men* who did not improve their new performance. They actually lost some value because they were no longer supported in the same way in a context that was now requiring them for more initiative. On the opposite side, unexpected employees turned out to be particularly inventive and successful when they were given the chance to prove it. It is thus important not to select the people at the beginning of the enrichment process because those “genuinely good performers get better. Some remain poor but nothing

is lost. Changes are opportunities and not demands” (Paul et. al, 1969).

The positive aspect of the job enrichment model is that some people, that could have never got the chance to develop, actually do thanks to the new conditions, and the firm benefits both from a general better performance and from a clearer picture of the individual potentials.

Taking one step further, it is useful to analyse whether participation in the organizational decisions can be seen as a substitute for the job enrichment model.

Consultation, involvement, creating the sense of being a team are actually effective for the hygiene factors control, but lead to no motivation. Who is motivated becomes actually the manager asking for a second opinion, because the employee, whose was initially directed the action, does not face any responsibility for the consequences deriving by the advice requested. The sense of involvement generated does not provide the individual with any chance for personal achievement because not facing the responsibility holds it back and it is just a hygiene factor masquerade as a motivator, thus preventing dissatisfaction but not motivating.

One last consideration has to be made with regards to the old supervision roles that are now superfluous with the design of enriched jobs. Managers in the empirical studies never felt a loss of authority or prestige simply because their jobs became enriched too, being given the chance of dealing with more urgent economic matters than spending time and resources controlling other people’s work.

To conclude, the job enrichment model tries to improve both the task efficiency and the individual satisfaction designing more complex jobs with spare room for personal and professional achievement. Advancement and growth are the final individual objectives, even if, as always, it is not all black or white, so that motivator factors should not be used “as an alibi for the neglect of the hygiene” (Paul et al., 1969). If people spontaneously choose to take on more responsibility and to gain greater competences and skills, then this must also be rewarded with hygiene factors like the pay contingent system described above to sustain the intrinsic motivation that only enriched jobs can help to develop.

Chapter 4 – Motivation in the 21st century

4.1 – The knowledge economy

This work began with a description of the modern economy of the 18th century with the contribution of Adam Smith, and has evolved around the main shifts that since then have interested the labour market, moving the attention to the most recent approaches of the measurements of effort on the job, of performance, of the remuneration of the results accomplished and the commitment exerted.

Adam Smith is said to be the father of efficiency, given his precise instructions about how to raise productivity in factory industries (Smith, 1776). Taking his example of producing pins, he stated that if the production chain is divided in 12 steps, then assigning one single step to each person can increase the production in a really steady and impressive way.

This division of labour was found to be extremely visionary and promising, and it was the reason why the Industrial Revolution changed the way of doing business and affected the economy consistently.

However, Karl Marx affirmed just one century afterwards that the alienation of labour is incredibly important in how people think about the connection to what they are doing. In the Industrial Revolution the focus was on efficiency, and doing one step at the time had a sort of meaning for the worker, even if he was not caring about the final product. His aim was to respect the rhythms of production of the factory in his single task. Marx, on the other hand, said that if people do all the 12 steps, then you care about the pin, about what you are producing. This shift of attention from the mere efficiency of production to a certain level of involvement in the job has produced a shift in the view of economy as a whole too.

This is the century of the knowledge economy, where production and services are based on knowledge-intensive activities that contribute to great investments in technology, high-tech industries and more highly-skilled labour to produce, transmit and transfer knowledge and information. A huge importance is given to investments in R&D, education and training, and in new managerial approaches to organization design (OECD, 1996).

This “new growth theory” gives credit also to formal and informal networks that allow to share impressive amounts of information, which are being codified thanks to the advances in the internet surfaces and in the communication of the new information society, driving both productivity and economic growth. Great importance is placed on the tacit knowledge, which includes the skills to use and adapt to the already codified firm knowledge, and which explains why highly skilled workers are a necessity. Human Capital upgrading is the key to gain access

to wider skills development and to the capacity of learning as the necessary step to spread the knowledge distribution through collaborative networks (OECD, 1996).

So where does a more modern concept of work motivation place itself in this changed world? People are moving to situations where they have to decide autonomously how much effort or attention they want to place in what they do. In this context, the classical link about labour being highly correlated to motivation and payment equally is hard to sustain nowadays. Workers have more demands for their jobs, like meaning, challenges, ownership, identity, pride, achievement (Ariely, 2013). For the exact same reasons, rewarding systems are appearing obsolete and are highly likely to slowly fade away if their design does not change. All those incentive systems, bonuses or commissions made to foster economic ideas and to accelerate creativity are backfiring, because they actually restrict thinking. Contingent motivators in the shape of “if you do this, then you get that” work only in a restricted set of situations, but businesses tend to ignore this fact and keep on relying on these extrinsic motivators.

If – then rewards work well for tasks where there is a precise set of rules and automation and a clear path to follow. They are proven to be successful in this case because rewards narrow the focus of attention, and concentrate just on the final goal that an individual has to attain.

In the past this was enough for job design, but in the 21st century tasks and operations do not work with a mechanistic approach. In the knowledge economy, people cannot be so narrow-minded, they need to open up to a more peripheral view and be willing and disposed to look further than the classic solution, and in this sense rewards restrict the possibilities of action.

Routine jobs and rule-based tasks have become easy to outsource or to automatize, software and computers can do plenty of things and faster than any individual, so what is left to the employees are the more creative and conceptual types of abilities (Pink, 2009).

This means that there is a sort of mismatch between what the social sciences know and what business does, because economists and social psychologists are spreading the idea that those kinds of extrinsic motivators made contingent on someone’s performance function only in a narrow set of circumstances and often destroy creativity, but are still widely used. Moreover, intrinsic motivation is really important and should be better designed and improved to take an economic advantage of that inner drive to do something because it matters to the person.

To test this issue, the Federal Reserve Bank of Boston commissioned a study to check whether providing subjects with different levels of incentives results in an increase or decrease in performance. The hypothesis is that raising incentives above a certain threshold results in lower performance. To test also the generality of this detrimental effect, several types of tasks were prepared, involving different skills (Ariely et al., 2005).

The first test was conducted in India in a rural village, where subjects were randomly assigned to an incentive treatment either small, average or very large, and payment was given only if a certain performance level was reached. People had to play six different games involving primarily either creativity, concentration or motor skills.

Performance was studied with a three (incentive levels) by six (games) mixed between and within subjects (incentive and games) repeated measure analysis of variance (ANOVA) and results showed a significant effect for payment condition and for game.

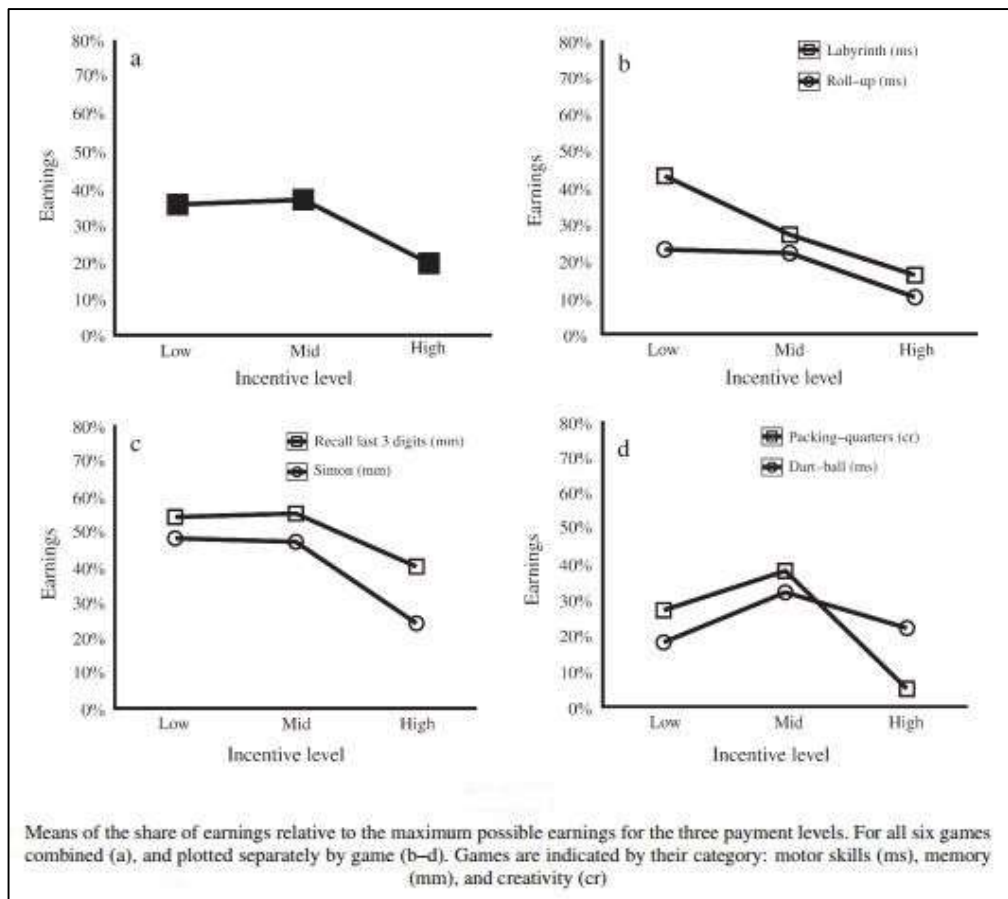


Fig. 13 – Aggregated performance levels – Source: Ariely et al., 2005

Fig. 13 shows that the aggregated performance levels across the games is in support of the original hypotheses, namely that high monetary incentives undermine the performance. The average share of earnings is always at its lowest point in the high payment condition, and above all whenever the task involves some creativity or some sort of cognitive skills.

To check the robustness of the results, a similar test was conducted by the same researchers at the MIT with 24 undergraduate students. The incentive conditions were two, high and low, randomly assigned, and the tasks were two, adding and key-pressing. The former required the subjects to just find two numbers in a matrix that would add to make 10 and was thus an activity

requiring cognitive resources and effort, while the latter was simply a matter of pressing the ‘v’ and ‘n’ keys of the keyboard, exerting a mere physical effort.

The design of the tasks allows to check whether high performance-contingent incentives increase effort and, as a consequence, improve performance that is solely based on effort, and on the other side whether high performance-contingent incentives decrease for real performance when it is based on cognitive skills (Ariely et al., 2005).

As expected, the ANOVA results (Fig. 14) confirmed that for effort-only task, key pressing, high incentive lead to an improvement in performance, while the adding task, which required also cognitive skills, performance got worse at the increase of the incentives.

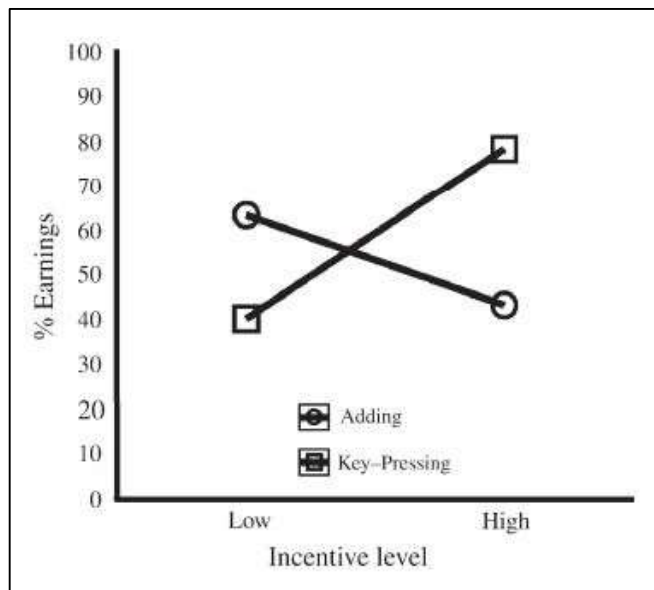


Fig. 14 - Means of the share of earnings relative for the two tasks – Source: Ariely et al., 2005

To conclude, incentives have been proven to work only in a restricted environment, the one involving just effort related tasks, because those requiring cognitive components and creativity are not likely to be positive affected by high incentives, especially after a certain threshold.

4.2 – A solution to the mismatch: autonomy

Jobs in the 21st century’s knowledge economy are mainly endowed with exactly those types of cognitive activities that are generally unsuccessfully rewarded by managers with large economic incentives. The existing mismatch between what economic theory predicts and business does, has already been mentioned. The supposed better insights of managers, and the idea that incentives enhance performance, collapses with the proven results that these contingent pay systems cannot be assumed to work for every job and for any level of monetary amount. For tasks that require problem solving, concentration and creativity, there seem to be

a boundary level above which the effects are not beneficial for the employees' performance and the costs sustained by the firms are expensive to maintain.

The solution to increase the performance around these modern tasks relies in a whole new approach, that has been theorized also above (recall the enrichment model of Chapter 3) and that relies on the intrinsic motivation of the individuals, on their desire to exert effort and to perform activities because it matters to them and they find it interesting and important to do. This new operating system rotates around three main elements (Pink, 2009):

- Autonomy, the need to direct someone's own life and job
- Mastery, the desire to constantly improve at something that matters
- Purpose, the acknowledgement of doing something because it leads to a greater and bigger goal, also outside the person's sphere.

Autonomy is particularly interesting to analyse, because managers are arranging complete new ways to guarantee a higher level of it in modern organizations. Traditional patterns of manager solutions are successful to get compliance, but to engage the workers' self-direction is more suitable and long lasting.

Atlassian, for instance, is a very successful Australian software company founded in 2002 and employing about 400 employees. It serves clients of the calibre of Google, Facebook, Twitter, Skype, Adobe, Salesforce, ... In their sector innovation is crucial, and the top management has come up with a new idea to boost creativity and sharp thinking: the FedEx Day, exactly as the fast delivery company. It is a 24-hour event in which the engineers are given this time to work on anything they want as long as it not part of the ordinary job, and then deliver it overnight (Pink, 2009). They are given complete autonomy to decide on which project to work on, the people they will be working with, and how they are going to do it, the only condition is that any kind of result has to be presented at the end of the event.

The idea is that people like to commit on something they find interesting and challenging, especially when they are given the chance to combine skills and opinions with different colleagues across teams and departments. The time constraint has a negative impact on the actual execution, but it is mainly awarded a feasible idea than an already concluded project.

The business model behind the FedEx Day implies that the autonomy reserved to the individuals enhances the intrinsic motivation of the person on the job and can also lead to new innovative ideas, not only in the production or in the delivery of the company's core business, but it can also promote an improvement of the general work. The short time window of this business pattern induces a high-intensity work environment where information is shared more freely and in an informal way. The result has been called *agile implementation* (Van Lanen,

2012) because this operational setting facilitates self-organization, putting the responsibility of how to best develop a task in the hands of those people who are actually doing the job.

Beside the innovation aspect, another characteristic being highlighted by those companies willing to try a new approach to an enriched job, was that team work had been definitely enhanced. People get to know each other in a different context, and even if team building is a hard factor to measure, the atmosphere in the workplace is likely to improve. This is the typical case of a motivator factor (the agility) increasing a hygiene's one (a nice workplace) through the use of a challenging job as intrinsic motivator.

The biggest resistance to new business models is that management is not often so inclined to realize changes which may impact the business culture and the core activities, even when the status quo is not so satisfying. But assuming and agreeing on the fact that motivation is enhanced by self-direction on doing something that matters for the individuals, the FedEx Day model is a good compromise to show the top management that even just a small group of motivated people can deliver innovation in various ways and in 24 hours. The consequence that follows is that single planned events spread in time, which are organized to give more autonomy to the workers, can both make the employees more motivated and the top levels more willing to concede autonomy across the worktimes on a yearly basis.

Google has become a typical example of a successful company enthusiast of scheduling a sort of autonomous regime with their policy of the "20% time". The engineers have the free choice over their time, task, team and technique for the 20% of their working hours. Half of the innovative yearly products are produced during this self-organized time, like Gmail, AdSense and Google News (Pink, 2009).

However, some downsides have emerged because it became difficult for the employees to take some time off from their normal jobs. Google's HR managers suggest though that it matters more that the idea exists, because it is not true that employees are not forced to work on additional project, but they have the chance to do it if they have an innovative idea, and they normally spend 5% of their time on something separate from their daily tasks until they found the way to demonstrate the new innovative impact and dedicate to it more efforts and time (Business Insider, 2015).

Nevertheless, Google's founders wrote in one of the latest IPO letters, that they were putting some rules around the '20% time' policy. Some saw in this communication the end of this new business model, which they considered simply as a driver for innovation done more for public appearance than for any probability of success (Inc., 2016). Some researchers believe that the individuals would actually use that time to catch up on emails or delayed work, because great and innovative ideas come from busy people who have ideas while on the job and try them,

even without permission. Google policy has been seen by some people as one that just celebrates innovation, while good ideas are said to come from people who try, and fail and then maybe succeed. Even though the critics directed to Google's policy are understandable, this does not mean that the 20% time is dead, since as a matter of fact, the American colossus has just placed some guidelines around the employees' use of it.

A company cannot expect to be competitive if the time is spent on tasks and projects that have no clear alignment with the company's strategy, but some rules are a positive move for at least three reasons (Forbes, 2013):

- 1 - "Urgency without alignment is wasted energy" in the sense that the company has to look for innovation focusing the efforts on those projects which are the most important for the business strategy that will drive the company forward. General direction goals are broadly defined so that innovation and ideas are not restricted.
- 2 - "There's power to be generated from those intrinsically interested" because everyone can still use this famous 20% of time if the individuals focus on accomplishing the goals of the team. It exists the possibility to create an actual alignment between the urgency of such a big organization and the intrinsic interests of its engineers.
- 3 - "Focused free-thinking builds a change engine into the culture" since employees are allowed to focus their ideas and projects on aligned strategic business goals. This can lead to a radical change in the company's dynamic as well, making Google a firm that encourages people to move towards new ways of doing things and shifting the entire company in a new and successful direction.

No wonder, thus, that Google has been elected for the fourth year in a row as the best place to work in the U.S., with job satisfaction, job meaning and compensation as the top reasons reported by the interviewed employees (The Business Insider, 2016).

Finally, another successful company chose to praise autonomy as a mean to take advantage of the creativity and the intrinsic motivation of its employees to use their efforts in new innovative solutions: 3M. The company has about \$20 billion in annual sales across a huge product line of about 50.000 products and 22.800 patents. 3M invests more than \$1 billion in R&D and it decided to launch their '15% time' program back in 1948 (Fastcodesign.com, 2011). The main philosophy of the company has always been 'innovate or die', therefore the whole organizational culture is pervaded with the idea that giving the employees the chance to follow their abilities and instincts is beneficial for the firm as well because big opportunities can come out. For instance, workers use their 15% time to explore more deeply something they discovered during their usual work, and this applies not only to researchers of the R&D department, but also to every worker, since innovation can be found in every working context.

4.3 – The case of 2016 Nobel Prize in Economic Science

This work began stating that economic science was no longer either that branch of moral philosophy guiding human actions, or that mechanistic and simplistic discipline where agents are resolute and fully rational people, completely aware of their possibilities, desires, choices and consequences. Economics is changing because it is opening itself to the other social and human sciences, ranging from sociology to psychology, from neurology to law.

The Swedish Academy of Sciences started long time ago to award those personalities of the economic field able to put together the bonds between several areas and their wide use of application fields and implications for the modern world. The awarded academics for the year 2016 have been two researchers from the economic and law disciplines, Holmström and Hart. The former analysed especially the principal/agent relationship to investigate how to secure that the agent will work in the interest of the principal, while the latter took into consideration the problematic of incomplete contracts (as seen in the behavioural study of Gneezy and Rustichini of the day care centre) to try to answer questions like how much and which possibility should count more when designing contracts (Il Sole24Ore, 2016a).

The Swedish Royal Academy stated that these researchers have been awarded because they developed a comprehensive scheme of the theory of contracts, useful to analyse plenty of organizational situations like, for instance, performance based pay of top managers. This theory has been reported to be important not only for the mere economic sphere, but also for other areas like constitutional law or bankruptcy, and in general to better comprehend contracts in financial and allocative terms (Il Sole24Ore, 2016b).

Contract theory is particularly important to regulate future actions, like assigning rewards for good performance and sanctioning the bad results in the employment contracts, but it is also useful for the acknowledgement of risk sharing between the parties involved. It helps explaining why there exist various forms and designs of contracts, which have different impacts on the existing institutions, and poses questions about the most appropriate compensation systems, namely fixed salaries or contingent pay methods, bonus programmes or stock options.

Holmström's work refers exactly to this kind of principal/agent employment relationship. If the employee would act always according to his interests and also to the employer's ones, then no incentives would be needed and the insurance part of the contract could be neglected defining a simple fixed salary. However, employee's behaviour is difficult to monitor and to measure, thus a link between performance and pay may be beneficial as risk protection.

The design of this situation pictures a risk averse agent, the employee, whose actions cannot be directly observed by the principal, the employer, who can indeed just imperfectly assign a measure of the agent's performance. Results point to the fact that an optimal contract should link the payment to all the outcomes that potentially can provide information about the tasks that have been performed, a condition defined by Holmström as "*informativeness principle*". It means that payments should not only depend on the outcomes determined by the agents themselves, while rather also to other conditions that can be independent by the agent's wills and powers.

Researchers report as an example the situation of a manager whose action affect her own firm's share price but it would not be correct to pay a manager just based on her firm's share price, because this method will reward her for good luck and punish for bad luck (The Royal Swedish Academy of Science, 2016). Therefore, it is better to connect the retribution to a weighted measure of the share price of similar firms in the industry and focus on a fixed salary compensation when risk is high in particular economic sectors.

This problem emerged especially with regards to the high retribution of top-level managers and bankers, being paid a disproportionally high amount of money even when leaving their position and letting the firm in a complete financial disarray. The solution consists in preparing a remuneration model that aligns the interests of the stakeholders with the ones of the managers, arranging the compensation as distributed across time, organized in several shapes like stock options or career's development, and considering every possible conflict of interests or free riding situations (Il Sole24Ore, 2016a).

Another point expressed by the Nobel's winning researchers highlights the fact that to avoid the moral hazard of the employees concentrating on tasks for which the performance is highly likely to be easily measured, and thus rewarded, it might be better to offer weak incentives. The example reported by the authors applies to teachers, who may rationally choose to focus on the preparation for tests and thus be remunerated for their students' scores, which is an easy measure to obtain and calculate, but it omits the teaching of cross competencies like creativity and independent thinking (The Royal Swedish Academy of Science, 2016).

Optimal compensation schemes and job design should take into account a more balanced allocation of effort across tasks, also when team work is at stake, since the danger of group effort is free-riding and shirking.

Contract theory is extremely pervasive in every human and economic relationship because it is a civic and liberal tool to regulate social interactions. However, it has been argued that economic contract theory drives a precise vision of the individuals and of their scope of

existence, relegating their goals of actions and behaviours to the incentive theory, which affirms that everything is feasible and possible if the tasks are well remunerated.

In such a context, the space left for other kinds of motivations, especially the intrinsic non-monetary ones of personal and professional growth, are left behind and considered not important enough because said to be not reliable or believable.

According to the incentive theory, the worker provides effort and comes up with a good performance only if he is adequately remunerated, while the importance of the job itself and the value that the work has for a person is no longer appreciated and sustained (Bruni, 2016). Therefore, the first primary work motivation of a person is apparently no longer professional ethics or personal engagement, it is just taking economic advantage of the situation whenever it is possible.

Contracts are precise and adequate instruments to regulate economic transactions, but the individuals are more complex than that, and they bring to every working situation an ensemble of motivational and relational complex dimensions, which cannot be analysed merely on a technical point of view (Bruni, 2016). The more balanced perspective is instead rather a non-neutral, subjective and concrete reality where individual aspirations matter and are the intrinsic force driving human behaviour.

Luigino Bruni's critique to the newly awarded Nobel price's winners is particularly harsh on contract theory and its implications for the society, but it allows to deepen the always existing contrast between intrinsic and extrinsic factors affecting work motivation. The answer is always that the modern world is not only black or white, therefore the contribution of the 2016's Nobel winners bring to the economic literature and research a great contribution and a starting point for further analysis. Nevertheless, the intrinsic motivation of other forms of drivers for individuals' satisfaction and accomplishment should not be neglected as their results have been proven and acknowledged.

Moreover, managers' compensation systems in the forms of variable remuneration methods as monetary incentives, bonuses or stock options may have worsened the financial crisis. It clearly stems from this work as well, that these contingent methods have always been a point of debate in the economic literature for the adverse consequences that they can produce.

These forms of retribution have to be carefully planned and supervised not only within a firm's mechanism, but also based on the market fluctuations, because the organizational efficiency may be harmed by a vision which is directed only towards the short term profitability, an excessive moral hazard and a short term motivation sustained by weak economic reinforcers. Anyway, on the other side contingent pay methods can also positively affect the corporate governance serving as a stimulus for the economic growth (Lavoce.info, 2009). A valid

acknowledgement in this sense comes from the U.S. experience from the early '80s until the beginning of the new millennium, when the economy grew steadily also thanks to incentives given to the managers in the shape of shares as a form of auto-funding, or as an alignment between the interests of the shareholders and the managers, or finally as a way to ensure a long-term creation of value.

It is therefore wrong to refuse completely to use incentive based remuneration systems because the consequence would be to consider uniquely fixed compensations forms, which may avoid some drawbacks but on the other hand exclude any form of merit of the individuals.

The case of contract theory applied to managers' compensation has an interesting recent application concerning States' corporate executives. The public welfare and well-being requires managers endowed with competence, sense of responsibility, commitment and value for ethics. Any public or private manager needs to have the goal of being able to motivate his employees and to put a solid basis to allow them to grow, while in return he benefits from their solid commitment and their skills, which are the premises for the future development of competence based organizations (Lavoce.info, 2012).

An American study analysed the attitude towards effort on the job of the employees in the public sector, and the results point to their manager as the primary source of productivity enhancing behaviours. Public administrations' executives are found to be the origin of the effectiveness of their subordinates' performance whenever they show five different kinds of behaviours (Lavoce.info, 2012):

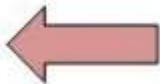




- insisting on the necessity of goals' attainment
- taking care of the development of the collaborators' competences and relationships
- giving importance to creativity and sharp thinking
- valuing diversity and individuals' necessities while pursuing honesty and decency on the job.

An Italian research recreated the above mentioned study to find out which one of these is the most suitable to increase effort and performance of public sector individuals. The sample includes 142 people working in Italian ministries, who were asked to work in a project which was the same for everyone, but different only for the leadership style of their top manager (Lavoce.info, 2012).

Results are presented in Tab. 11 where it emerges that the most effective leadership approach to enhance the effort of the subordinates is the one integrity oriented. Employees in the public sector are more likely to be motivated and high performing if they recognize the credibility of their superior, meaning the acknowledgement of the person's value both professionally and

ethically and both within the public administration itself and outside with the other stakeholders. The pursue of honesty and integrity is really important because it goes beyond the strictly result of efficient performance, but it impacts also the responsibility that public companies have in avoiding the loss of trust of the citizens towards the public welfare and to avoid the increasing public costs they are bearing. Top manager have to represent a role model for values, commitment and competence, and in order to get prepared managers, transparent and meritocratic systems have to be implemented. Results also show that other leadership techniques are not effective, like for example, insisting on getting results and especially the dramatically low results of creativity enhancing ways of doing business. This last data, in particular, crashes with the solution to the mismatch between what science knows and business does, mentioned above and solved through a higher level of autonomy given to the employees.

This result shows a huge divergence between the private and the public sector as consequence of a big cultural delay in the introduction in the public sector of logics that reward innovation and that may accelerate and simplify the business processes. It seems that public executive managers are still not able to identify themselves with the work they are doing, and therefore they tend to be short-sighted towards new ways of problem solving, keeping on working with consolidated praxis and traditions (Lavoce.info, 2012).

Leadership Style	% increase of effort inclination
Change oriented leadership motivated by creativity and sharp thinking enhancement	 -5,0% (p=0.247)
Task oriented leadership motivated by a goal attainment attitude	+0,3% (omitted) 
Relations oriented leadership motivated by a relational and professional skills development	+1,5% (p=0.736) 
Diversity oriented leadership motivated by attention for individuals' necessities and identity	+3,0% (p=0.419) 
Integrity oriented leadership motivated by an honest attitude, respect for rules, unfair behaviour sanctioning	+8,0% * (p=0.057) 

Tab. 11 – Pertinence of leadership style with effort enhancement –
Source: personal re-elaboration from Lavoce.info, 2012

The transformation of bureaucrats into managers seems still a bit far away, and finally, it is crucial to implement and guarantee a measurement system of the evaluation and the rewarding

of top executives that takes seriously into consideration the output and the outcomes of their conduct. Only in this manner, monetary incentives and rewards, sometimes given disproportionately, might find a reason of existence and a suitable relationship between results and actions.

4.4 – The future of job design, where should research point?

From this work it emerges that there exists a clear contrast between *Taylorist* and enriched jobs. The former refers to Fredrick Taylor's job design of the mid '900s, when job design was an optimization problem that could be solved by setting up efficient ways to split the work into individual and specialised tasks, performed by highly prepared workers, who are simply required to perform without experimenting and innovating. The latter applies instead to the models of Hackman, Oldham and Lawler of the '70-80s, which consider scientific job design as suboptimal, because workers should be encouraged to learn and exercise more skills since this is likely to increase their motivation and consequently to perform tasks more precisely and with a new spirit, directed to productive innovations. In the recent years enriched jobs have multiplied but two key questions remain to be answered:

Do enriched jobs increase satisfaction? Which direction is taking the economic research to address the new demands of the labour market?

Once again, the focus on job satisfaction is important because it impacts the turnover rate, the absenteeism one and the levels of work effort, thus causing higher labour costs and low productivity, if negative. Job enrichment in this sense may contribute to avoid this adverse situation because of the wide set of possibilities that includes, like for instance self-directed teams, quality circles, job rotation, information sharing and so on. These are practices that stimulate professional challenges, autonomy and recognition, and that might motivate workers while increasing job satisfaction and increasing productivity.

To test if enriched jobs do really increase job satisfaction, two different hypotheses have been formulated (Mohr, Zoghi, 2006):

- *motivation hypothesis*: job enrichment meets the employees' psychological and social needs and increases the motivating potential of work, thus increasing effort and satisfaction. Job enrichment is predicted to have a positive and significant effect on job satisfaction.

- *intensification hypothesis*: workers may dislike the enrichment model because it can be associated with an intensification of work involving bigger responsibilities, widely defined tasks that make employment security conditioned on the market's success and not on their defined task and increased monitoring in the form of peer surveillance that can lower job

satisfaction. Since workers differ in the desire for the fulfilment of higher order needs like autonomy, challenges or self-determination, job enrichment is expected to have a negative effect on job satisfaction.

The ideal setting to empirically address these hypotheses comes from a study on the Canadian labour market, because thanks to the local Workplace and Employee Survey (WES) a huge data set is available. The estimations of the study of Mohr and Zoghi (2006) are based on about 30.000 observation of detailed answers to questions about the typical characteristics of the enrichment job model, namely decision-making, quality circles, teams, suggestion programs, feedback, and self-directed work. From a first analysis it emerged that a considerable fraction of the interviewees had experienced each of the practices mentioned above, but at the same time for instance only 16% reported being a member of a task team, while nearly 70% of the workers participated in suggestion programs and about 80% were informed about workplace changes.

Job satisfaction is measured as a function depending on pay and benefits (y), and other factors like the hours worked (h), individual (i) and job (j) characteristics, which includes the measures of enrichment. Job satisfaction can be defined as: $s = s(y, h, i, j)$.

The results are presented in Tab. 12, showing the effects of the job enrichment policies on job satisfaction. The four models differ in terms of the control variables used (Mohr, Zoghi, 2006).

- model 1 controls only for the workers' characteristics and it emerges that the enrichment variables have a positive outcome, since six out of eight of them are positive and significant at the 95% level, and the remaining two (participation in employees' survey and in self-directed workgroup) are significantly different from zero.

- model 2 adds a control measure for the workplace practices reported from the employers' answers to the WES survey to see if there could be any bias, but results remain confirmed, with the exact same enrichment practices being statistically significant.

- model 3 controls additionally for wages and benefits to check whether the differences in compensation systems may offset the job satisfaction, but the enrichment policies are still supportive for increased job satisfaction.

- model 4 finally controls for any other possible plant's characteristic that may have an influence on the analysis, but the same previous results are confirmed and this time also the participation in a self-directed workgroup is positively linked to job satisfaction.

	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>	<i>Model 4</i>
Participate in employee survey	.0332 (.029)	.0427 (.032)	.0317 (.032)	.0040 (.033)
Participate in suggestion program	.1618*** (.031)**	.1707*** (.033)	.1757*** (.034)**	.3047*** (.035)**
Participate in job rotation	.0642** (.033)	.0620 (.035)	.0717 (.035)	.1311 (.034)
Informed about workplace changes	.2669*** (.037)	.2807*** (.040)	.2682*** (.040)	.2806*** (.042)
Participate in task team	.1466*** (.041)**	.1582*** (.044)**	.1628*** (.044)**	.2240*** (.042)**
Participate in quality circle	.1481** (.037)	.1476** (.039)	.1408 (.039)	.2535*** (.038)**
Part of self-directed workgroup	.0115 (.034)	.0036 (.035)	-.0102 (.035)	.0782** (.033)
Received classroom training	.0945*** (.031)	.1040*** (.032)	.0872*** (.033)	.1558*** (.032)
Worker Characteristics controls	YES	YES	YES	YES
Wage control?	NO	NO	YES	YES
Establishment workplace organization controls?	NO	YES	YES	YES
Establishment fixed effects?	NO	NO	NO	YES
Pseudo R ²	.0489	.0531	.0567	.0002
Number of observations	32,047	29,272	29,272	26,094

Notes: Columns 1-3 report ordered probit coefficients (dependent variable takes on four possible values). Fourth column reports fixed effects logit coefficients (collapsing dependent variable into two values). Standard errors in parentheses. *** - p<.01, ** - p<.05, * - p<.10.

Tab. 12 - Effect of job enrichment policies on worker job satisfaction – Source: Mohr, Zoghi, 2006

But what if there is a self-selection that makes only satisfied employees being more inclined to report the existence of enrichment policies, or what if employers are more likely to give only to the satisfied workers those tasks involving enriched activities?

For the first issue, a correlation's test by satisfaction level between the enrichment measures on the employer survey and on the employee's one has been run out. If satisfied workers would be more likely to report the positive data, a stronger positive correlation would be expected from these subsample of workers, but the results prove that there is no significant difference.

Moreover, for the second argument, to check if it is more probable that satisfied workers will participate in enriched jobs, the authors compare the job satisfaction of the initial period of the individual that began participating in one of the enrichment policies to the initial satisfaction of those who did not took part in any of those activities, and it does not appear that those who initially participate are more satisfied.

To conclude, this study shows that the results are in favour of the motivation hypothesis, which states that suggestion programs, job rotation, information sharing, quality circles and task teams have significantly positive results on job satisfaction.

It confirms that the enrichment model is able to offer powerful solutions to pull out the employees' intrinsic motivation and to allow them to reach those higher order needs which sustain motivation and bring to higher effort, productivity, performance and finally satisfaction, both personal and professional.

The core of the job enrichment theory lies in the fact that certain job characteristics can increase the likelihood that a person will find his work as meaningful, that he will experience responsibility for its outcomes and that he will have consistent knowledge of the results of his conduct (Hackman, Oldham, 1976). The value that people put on opportunities for growth and learning will drive the internal motivation to perform a job, resulting in the above mentioned satisfaction and in high quality outcomes.

Nevertheless, the world has changed from the first formulation of the model and the organizations are profoundly moving to adapt to the new knowledge economy, making the research and the theory on work design subject to developments as well.

Economics is opening itself to the influences coming from those scientific disciplines that were previously kept apart from it, and especially for the case of job design both research and theory are changing in the kinds of phenomena being studied (Hackman, Oldham, 2010).

In the past, the organizations were organized as a precise set of specific jobs, constructed to be performed by individuals who worked quite independently. Now it is the concept of the job itself that is changing, because it implies a complete new set of relationships among people, different tasks they are required or willing to do and kinds of organizations they work for.

For example, telecommunications change the relationships now more than ever, people may be responsible of doing several activities but none of these might defined as their main job, workers operate in temporary teams put together for the most various organizational necessities, and even managers are changing their role since they may be held responsible for a number of organizational activities rather than being just the leader figure of a department or a division.

All the reasons that have guided the economic research until now are anyway still valid, because even if lots of organizational changes are happening, the issues that pushed the academics to investigate the human aspects of work design are still a fact. Alienation, dissatisfaction, low work motivation and turnover are still present nowadays, and their 'cure' will probably be in the design of the work itself rather than in the people who do the work.

The research of the future is highly likely to focus on the jobs of the knowledge economy such as those done by managers and professionals, and it will be directed probably at finding a way to take advantage of the technological progress to help the individuals and the teams to

self-direct their work and to coordinate their effort. More in details, some points are destined to be a matter of careful attention:

1. Social sources of motivation. The original job enrichment model found the two social dimensions of the work in the degree to which the work required dealing with other people and in the amount of feedback received. However, in the new century, social interaction has become a prerogative matter, given the huge variety of services' organizations and the necessity of productive firms of addressing great importance to the interaction among co-workers and with the clients as well.

The economic research should therefore consider that the social dimension of the work is increasing in the level of significance, and it has concrete effects on the motivation, the performance and the well-being of the individuals. The two dimensions identified by the enrichment model are no longer enough because other factors like the interaction outside the organization, the social support, and the interdependence between people and tasks may contribute to the employee's motivation and satisfaction (Hackman, Oldham, 2010). New empirical investigation is needed to test the real impact of these variables because just brief results have emerged linking the effects of four other social characteristics on the behavioural outcomes while controlling for a set of non-social job characteristics and signalling that the social factors contributed to the performance assessment, the turnover intentions and the job satisfaction.

Moreover, behaviours in a working environment such as the altruistic one, or a satisfying relationships with the co-workers, have a strong social component which enriches the individual at the same level of the four core characteristics of the classic job enrichment model, namely skill variety, autonomy, task identity and significance and job feedback. In this sense, there is spare room for the social dimensions of work to become a core characteristic and add up to the ones of the existing model, which should be modified to take into account not only the motivational properties of jobs, but also the motivational properties of the social context.

2. Individual differences. Starting from the assumption that the social aspect of jobs is increasing in relevance and acknowledgement, the individual differences that were considered previously only in terms of growth- need strength might be the starting point for a new kind of analysis. The new approach should study if this individual's diversity might moderate the impact of the social aspects of jobs. For example, employees working in teams or in the customer service were found to perform at a higher level when they showed attention to the details, agreeableness and emotional stability (Hackman, Oldham, 2010). Finally, another interesting development might be studying the effects of the *social*-need

strength, the causal consequence of the old moderator of the job enrichment model (*growth-need strength*), which now refers to the degree to which an employee values the opportunities for social interactions.

3. Job crafting wants to highlight the new emphasis on the autonomy's aspect of the new jobs in letting the employees following their own initiative and in customizing their work, in a certain way. This perspective takes a distance from the classic top-down managerial approach where the redesign was expected just to foster the intrinsic motivation, and it is now intended as a way to reassess, modify, and make more personal the job, sometimes discussing with the managers about the restructuring of the work and some other times without even waiting for them. Models and initiatives of job crafting have already been analysed and discussed while talking about those companies that have implemented this kind of system (recall in this chapter paragraph 4.2), but the field is genuinely new and many questions remain open for the economic research to be addressed. For instance, it is not yet clear whether the bigger benefits of this new practice come mainly from the redefined job itself or from the satisfaction that the individual gets for being involved in designing his job. It will be also interesting to study whether the new modified jobs are considered improved because they are made more attached to the person's skills and competences or because they were previously considered inefficient and needy to be corrected.

Finally, empirical studies should also dedicate attention to personal aspects of job crafting like testing whether only proactive people are more likely to engage in this kind of activity, or if the employees will try to maximise the fit of the job with their personal requirements without taking into consideration the implications for the whole unit or team, or finally whether job crafting could create inequity feelings within a department, thus decreasing someone's satisfaction and productivity. The inequity's aspect comes once again under the spotlight because the comparison among agents within a same unit may have implications for the concession of realizing jobs in autonomy but without harming anyone.

4. The organizational context is another element which is not new but that needs a different approach in order to consider aspects like the business culture, the centralization, the formalization, the technology and the control systems in a changed optic. Researches should be fostered to identify the organization's features that are likely to refrain the workers from an effective performance because of inefficient sizes of units or departments, levels of hierarchy or decision-making centralization, for instance.

The results could help the firms to implement managerial practices able to motivate the employees by removing obstacles or by encouraging job autonomy. As concerns the business culture, keeping in mind the salient importance of the social and relational aspects of the

newly designed jobs, it should be reminded that some features of the work are more salient in some countries than in others (Hackman, Oldham, 2010), and specific job characteristics should be carefully paired to the various cultures in order to better comprehend the individual's motivation and performance.

5. Work design for teams is likely to be another subject of future analysis for the development and the arrangements of future jobs. Team work allows the tasks to be more varied, meaningful and possibly challenging, thus increasing the motivation of the individuals at a level that could not be possible for an activity performed by a single person. Moreover, teams are made of several individuals with different skills and mastery's areas, enhancing the exchange of information and competences and enriching the employees taking part in the task. The downside of teams, however, is that not every activity is suitable for this kind of job design. First of all, the members have to be clearly guided, instructed and supported, and secondly, it is not true that teams lead automatically to higher quality results. Certain tasks are inappropriate for a group work and can be better performed by highly specialized workers, teams often do not work if they are conceived as a way to strengthen the employees' commitment, there could be a problem of trust toward each other or towards the organization leading to low involvement and motivation and in indifference towards the results. More empirical studies should address these issues to improve team work design and to correct the many mistakes that managers tend to do, also providing them with instructions about the type of team that could perform at best in terms of responsibility assigned and timing of interactions.

To conclude, the business organizations and their designs are changing, moving from a rigid asset of job descriptions and job duties to a softer perspective of organizations and jobs, where the relationships among people are becoming a prerogative of interest and due attention, and where job design is likely to emerge as the new most powerful tool to enhance the individuals' intrinsic motivation. In this sense, further research, empirical evidence and new models are required to foster this analysis and help the organizations to make the most of this new reality.

Conclusion

This thesis began the study of the motivational aspect of work from the classic perspective of those authors that in this field have influenced the economic literature more than others. Even if their theories do not find enough empirical support in the modern world, their models are a milestone to understand the developments of the most recent years and the outlook for the future.

To study the interaction of extrinsic rewards and intrinsic motivation, a double analysis has been conducted exploring the two realms of behavioural economics and the organizational design of firms.

The results obtained using the behavioural approach, highlight the fact that the individuals' underlying drives are the psychological needs for autonomy and competence. Managers should therefore exploit these levers that people look for in a job, and concede more responsibilities and operational possibilities to enhance their employees' intrinsic motivation. The outcome will be more effort exerted and greater final outcomes.

Many organizations believe, though, that rewards in the form of money, trophies, social recognition and so on, will positively add up to the already existing intrinsic motivation and increase it substantially. However, only if these external tools are used to communicate to the employee that he is competent, they will have a positive informational role and will be likely to increase the intrinsic motivation. Instead, if the extrinsic factors are perceived as controllers of behaviour, the satisfaction of the need of autonomy is undermined and the intrinsic motivation decreases. This happens because people shift the cause of their behaviour from themselves to the extrinsic rewards, meaning that when they are rewarded for an interesting task, they attribute the behaviour to the reward and they discount the utility derived from their pure interest, thus lowering the total motivation.

Large empirical support is provided throughout the work to confirm that extrinsic rewards may hinder the intrinsic motivation, but it is also acknowledged that this is not a universal truth. As a matter of fact, some external factors, like providing rewards or recognition that are rich in content, as well as factors that increase the sense of involvement in the job, will increase extrinsically the intrinsic motivation, because they support the individual's sense of competence without damaging his self-perception, but rather helping his professional self-determination.

Moving the attention to the business world, the actual design of jobs and the implementation of remuneration systems, a critical dissertation of contingent pay methods has been carried out. Contingent pay refers to any pay scheme that rewards employees on top of their base rate and that is connected to individual, team or organization performance, contribution or skill. These

compensation systems are said to be the most successful to motivate the employees because they carry a positive message of evaluation of performances and skills, and they grant the existence of a fair treatment that rewards the most brilliant actions.

Nevertheless, contingent pay methods are not efficient in the long-term, above all because it is really complicated to design these kinds of bonuses. Strict conditions have to be respected for a correct and efficient implementation, like clearly establishing the objectives and the standards to achieve, provide a precise measurement of the task's effectiveness and its close connection to the probability of success and effort, and deciding the saliency of the reward. Secondly, it is once again fundamental to emphasize the importance of combining the financial tools to internal motivators like the attention to the job content, autonomy and personal and professional realization.

The solution to the debate on the most effective strategy between extrinsic and intrinsic motivation is found in the job enrichment model, which enhances the job content by building into it a more motivating potential. It is the most suitable tool for the knowledge economy, the 21st century perspective of the world based on knowledge-intensive activities. These contribute to great investments in technology, high-tech industries and more highly-skilled labour to produce, transmit and transfer knowledge and information.

Firms are nowadays faced with an environment which is constantly developing and subject to increasing competition levels from multiple global sources. In this dynamic context companies should value even more their workforce and use every available tool and technique to keep within the organization the employees they have strived to train, enhancing their effort and work and motivating them adequately.

Money has been seen until recently as the greatest motivating factor, but bigger importance is now also placed to all those work situations where individuals have the possibility to exert in their jobs a wider variety of skills and to put a higher value on what they do, scheduling their work and deciding how it could be done at best. Contingent and monetary rewards work well for tasks where there is a precise set of rules and routine activities, because they narrow the focus of attention and concentrate just on the final goal that an individual has to attain.

The jobs of the knowledge economy, instead, do not work with such a mechanistic approach, they require creative and conceptual types of abilities that open up to a broader view of job contents, in order to look further than the classic solutions.

Autonomy, responsibilities, more challenges and self-realization are the key words of the enriched jobs advocated by the most recent studies, but is this kind of job really feasible? Extrinsic rewards do not guarantee a long term motivation, but on the other side are

an instrument difficult to implement and design at its best, but rather easy to give in the short term and to keep controlled.

Assessing the importance of enhancing the intrinsic motivation is the key to increase the individuals' satisfaction, but it is definitely not an easy task to attain. The challenges of the job enrichment rely mainly on the sphere of power and control.

Are firms really willing to give up part of the decision making process to give their employees more autonomy to make choices and self-direct their jobs? It has been acknowledged, for example, that Google innovated job design realizing a "20% time" policy to work on activities non-related to the routine ones, with the aim of stimulating creativity, autonomy and innovation. It worked, and successful products like Gmail, AdSense and Google News came out, but then the American company had to take a step back and put some limits and rules to better monitor the behaviour of its employees.

The biggest barrier to a large diffusion of enriched jobs is finding the balance between empowerment and control. Managers recognise the need for innovation, autonomy, flexibility and creativity, but they also fear the exposition to excessive risks, hazardous behaviours, fines, business losses and missed opportunities that can put the company in jeopardy. Some control systems are emerging in the attempt to find a new equilibrium, but there is still a long way to go before achieving a real balance.

For the moment, diagnostic measurement systems are used to establish goals and set performance targets with the aim of guiding the behaviour of the employees towards the desired direction, expecting that they will act diligently.

Two rather new levers are used lately as combined forces to control the subordinates while giving them more freedom. On one side top managers make sure they meet regularly with their employees and they reaffirm the beliefs and the values that make the company strong, important and beneficial to a broad set of stakeholders, and on the other side they define the rules and the limits of their possible conduct. Communicating the core mission of the firm is a controlling tool in the sense that it guides the behaviour towards the main goal of the company and it puts responsibility and meaning in the people's jobs. It works at its best when it is accompanied by rules though, and that is the reason why boundary systems are another monitoring lever, which ensure that the reputation and the integrity of a firm are never compromised because specific thresholds exist (Simons, 1995). Effective managers anticipate pressures, temptations, and operational risks that have to be avoided, and they explicit therefore the rules of conduct. Attention on the values and punishment of behaviours work together to transform limitless opportunities into a focused environment carefully directed and motivating, where employees

and management work together exploiting the possibilities, and protecting the organization against the risks of opportunistic behaviours (Simons, 1995).

Once again a new tension emerges, though. If it seems reasonable that managers want to monitor their employees at work, does not this need of control hinder the human and relational aspect of jobs? The 21st century is also the age of the communities of practice, the creative commons standards and the open source software. The rise of new businesses relying on these novelties is possible because the formation of informal and informal networks allows the sharing of impressive amounts of information, codified thanks to the advancement in the ICT sector.

A community of practice is a group of people who share the goal of producing organized and quality knowledge and make it accessible to every group member. It helps the organizational performance decreasing the learning curve of its members, adapting to changes, sharing ideas and knowledge and stimulating innovation.

Creative commons are, in the words of his CEO, the way “to share your knowledge and creativity to build a more equitable, accessible, and innovative world. It unlocks the full potential of the internet to drive a new era of development, growth and productivity” (creativecommons.org). It is a copyright license that allows everyone to share and use the creative work, and it is implemented in powerful platforms like YouTube, Wikipedia, Vimeo, Flickr and many others.

The open source model is a decentralized method of production based on open collaboration. It relies mainly on software development with peer production and documentation available to the public for free, as a response to the limitations of proprietary codes.

The common features of these innovations are the process of sharing, of learning from the others, of participating with the group and getting from it the motivation to act. Conviviality, altruism and a sense of community are the drives of the performance and the results are in terms of personal and professional development and of increased social capital.

To conclude, hopefully the economic and cultural capital will increase in the future assigning a more central role to relational networks, transactions based on reciprocity, trust and cooperation, and the individuals will produce goods not just for an egoistic purpose, but rather for a common good. If this holds true, it may also be an explanation for the Easterlin paradox, also known as the happiness paradox, according to which in societies with a higher income, a raise in the revenues does not correspond to a happiness increase. Even though the explanations are many, an idea generally present in all the theories is that the economic science focuses on variables such as consumption, wealth, income, investments, ... but it avoids the human and

relational aspects of the existence, which impact the happiness and the people's well-being (Bruni, 2006).

This work began talking about the “Wealth of Nations” by Adam Smith, but nowadays it is more important to change the economic perspective, its nature and its scope. Future research will confirm or deny that what is missing in the motivational study of job design is really the link between economic science and human relationships, but the above mentioned paradox, the evidences presented along the work and the increasing focus of economists on themes like reciprocity, trust, social capital and relational goods are a good starting point for the analysis. The capitalist economy relying on rewards, punishment and profit maximization worked in the past and it is still quite successful nowadays, but Antonio Genovesi, an economist writer and philosopher, once said “what is our biggest desire after all? Just being happy” (Bruni, 2015).

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ANNEX 1

2015 - SCHEDA DI VALUTAZIONE DELLA PRESTAZIONE			
VALUTATO		VALUTATORE	
Nome	.....	Nome	.....
Ruolo	.....	Ruolo	.....
VALUTAZIONE SINTETICA DELLA PRESTAZIONE			
Scala di valutazione: 1 = Eccezionale, 2 = Eccellente, 3 = Efficace, 4 = Migliorabile, 5 = Non adeguata.			
COMMENTI GENERALI			Valutazione
.....		
RISULTATI RAGGIUNTI			
Rivedendo i risultati raggiunti per l'anno appena concluso, valutare il grado di raggiungimento dell'obiettivo (1-5) come segue: 1 = Raggiunto molto al di là delle attese, 2 = Raggiunto al di là delle attese, 3 = Raggiunto, 4 = Parzialmente raggiunto, 5 = Non raggiunto			
OBIETTIVI	INDICATORI DI SUCCESSO	RISULTATI RAGGIUNTI	PUNTEGGIO
Garantire un elevato standard di accesso al servizio	% di chiamate entro 30" >= 95%		
	% abbandonate <= 2%		
Migliorare capacità di capire e gestire le richieste del cliente	tempo medio di ringing <= 5"		
	CSI Tempo di risposta >= 8,2		
	CSI Problem solving >= 8,5		
	CSI soddisfazione generale >= 8		
COMMENTI DEL MANAGER			
.....			
VALUTAZIONE DELLE COMPETENZE SAFILO			
Valutare ciascuna competenza (1-5) come segue: 1 = Eccezionale, 2 = Eccellente, 3 = Efficace, 4 = Migliorabile, 5 = Non adeguata. Il punteggio medio per ogni competenza è calcolato automaticamente.			
PADRONEGGIA L'ARTE DELL'OCCHIALERIA	Valutazione	ISPIRA FIDUCIA	Valutazione
Focus sul prodotto	.....	Mantiene gli impegni	.....
Focus sul cliente	.....	Risolve i problemi	.....
Supera le aspettative	.....	Intelligenza emotiva	.....
Abilità professionale	.....	Focus sul lungo termine, raggiungendo gli obiettivi quotidiani	.....
Integrio medio	#DIV/0!	Integrio medio	#DIV/0!
REALIZZA CON GLI ALTRI	Valutazione	CREA IL FUTURO	Valutazione
Focus sul lavoro di squadra	.....	Si adatta al cambiamento	.....
Guida verso i risultati	.....	Guarda al futuro	.....
Valorizza le diversità	.....	Apprendimento continuo	.....
Comunica bene	.....	Gestisce le transizioni	.....
Integrio medio	#DIV/0!	Integrio medio	#DIV/0!
COMMENTI: indicare i punti di forza usati per guidare verso i risultati e le competenze che l'individuo può migliorare e che hanno maggiore impatto positivo sui risultati (identificare i comportamenti usando le Competenze Safilo come guida). Descrivere come questi punti di forza e queste aree di miglioramento sono state dimostrate (esempi concreti).			
.....			

VALUTAZIONE DELLE COMPETENZE TECNICHE

Valutare ciascuna competenza tecnica (1-5) come segue: 1 = Eccellente, 2 = Avanzata, 3 = Buona, 4 = Base, 5 = Non adeguata

COMPETENZE	Valutazione	COMMENTI
Linguaggio positivo: usare vocaboli positivi / neutri, formule di cortesia e professionali, forme impersonali e/o frasi che trasmettono l'attenzione al cliente, anche in situazioni critiche.		
Ascolto attivo e calibrazione: ascoltare il cliente, comprendere le sue modalità espressive verbali, paraverbali, non verbali e gli stati emotivi trasmessi dalla voce, ricalcare e guidare.		
Comprensione attiva: porre domande per aprire alla vendita, guidare la scelta, approfondire e per soddisfare i bisogni anche latenti del cliente attraverso l'individuazione delle sue leve		
Gestione obiezioni e riformulazione: argomentare in modo corretto alle obiezioni; reindirizzare il dialogo verso l'obiettivo, rinforzare la soluzione, ricapitolare i punti essenziali della comunicazione per focalizzare le priorità e chiarire gli accordi.		
Traduzione di caratteristiche in vantaggi: convertire le caratteristiche di prodotti e servizi in vantaggi coerenti alla tipologia del cliente e alle sue esigenze (Modello Nasce: Novità, Affezione, Status,		

PIANO DI LAVORO E DI SVILUPPO 2016

OBIETTIVI DI PRESTAZIONE

Programmando l'anno successivo, elencare gli obiettivi attesi per l'individuo (almeno 3 priorità chiave) legati a Target & Choices e i relativi indicatori di successo per ciascun obiettivo (come misurare il grado di raggiungimento).

OBIETTIVI	INDICATORI DI SUCCESSO	SCADENZA
crescere nel proprio lavoro		
migliorare il team work		
migliorare la comunicazione		

PIANO DI SVILUPPO

Indicare le esigenze di sviluppo, le azioni da intraprendere da parte dell'individuo e del responsabile per colmare ciascuna necessità di sviluppo (assegnazioni progetti, coaching interno, mentoring, ...) e specificare nelle celle della terza colonna se è necessario un corso di

COMPETENZE SAFILO

Esigenze di sviluppo	Azioni di sviluppo	Corsi di formazione

COMPETENZE TECNICHE

Esigenze di sviluppo	Azioni di sviluppo	Corsi di formazione

COMPETENZE INFORMATICHE

Esigenze di sviluppo	Azioni di sviluppo	Corsi di formazione

COMPETENZE LINGUISTICHE

Esigenze di sviluppo	Azioni di sviluppo	Corsi di formazione

SINTESI DEGLI INTERESSI DI CARRIERA

	Prospettiva dell'individuo Inserire obiettivi, tipo di lavoro, ruolo, livello, che l'individuo aspira a raggiungere.	Prospettiva del responsabile Questi obiettivi sono raggiungibili? Che cosa è necessario? Come le considerazioni/esigenze dell'individuo potrebbero influenzare la sua carriera?	Piano di Carriera - Prospettiva del responsabile funzionale Eventuali prossimi incarichi, progetti o esperienze che facilitano il raggiungimento di
Interesse di carriera per il breve termine			
Interesse di carriera per il lungo termine			
Destinazione preferita			
Considerazioni personali			

COMMENTI DEL VALUTATO

Data	Firma del Responsabile Operazionale	Data	Firma del Valutato
	Firma del Responsabile Funzionale		