

Employee involvement enhances productivity and innovation capability

By Frank Pot

The need for human talent utilization

Innovation is one of the big challenges for Colombia. This is recognized by the business community as well as the government. It's one of the key policy messages of the OECD in its report on Colombia (2013): "To strengthen innovation across the business sector, support for business innovation needs to be a priority and aimed at building the in-house innovation capabilities of firms, notably through investment in human resources." Investment in human resources does not only mean formal education, but also learning on the job and utilizing human talent. Many companies have a 'command & control' regime in which employees stick to their strict job descriptions only. This is a waste of human talent leading to suboptimal productivity and innovation. Many employees use other talents only outside work, coordinating community activities, managing sports clubs etc. 'Social innovation at the workplace' (also called 'workplace innovation') can change that. Attention to this approach was paid in Observar of June 2013 (Howaldt and Domanski 2013) and in a seminar of COMFAMA on 26 August 2013 in Medellin (Cuadernos de Pensamiento social No 23, septiembre 2013).

This approach was adopted in the industrial policy and innovation policy of the European Commission and a European Workplace Innovation Network (EUWIN) was established to disseminate these ideas all over Europe and to build national alliances of employers' associations, trade unions, knowledge institutes and governments.¹

Workplace innovations designate new and combined interventions in work organization, human resource management, labor relations and supportive technologies. It is important to recognize both process and outcomes. The term workplace innovation describes the participatory and inclusive nature of innovations that embed workplace practices grounded in continuing reflection, learning and improvements in the way in which organizations manage their employees, organize work and deploy technologies. It champions workplace cultures and processes in which productive reflection is a part of everyday working life. It builds bridges between the strategic knowledge of the leadership, the professional and tacit knowledge of frontline employees and the organizational design knowledge of experts. It seeks to engage all stakeholders in dialogue in which the force of the better argument prevails. It works towards "win-win" outcomes in which a creative convergence (rather than a trade-off) is forged between enhanced organizational performance and enhanced quality of working life.

Workplace innovation promises higher productivity and greater innovation capability for the (private or public) organization as well as competence development and stress prevention for the employees. The slogan is: "working smarter, not harder". There is lots of evidence to support this promise (see reviews in Pot 2011; Totterdill et al. 2013; Pot 2013)².

Example: Biddle Klimaatwerk³

¹ http://ec.europa.eu/growth/industry/innovation/policy/workplace/index_en.htm (accessed 30-10--2015)

² <http://portal.ukwon.eu/euwin-knowledge-bank-menu-new> (accessed 30-10--2015)

³ <http://www.biddle.nl/we-offer-climate-solutions-6.ashx> (accessed 30-10--2015)

Biddle is a company based in Kootstertille (the Netherlands) that develops and manufactures climate products. Every year, thousands of air curtains, ventilation convectors, and air heaters are supplied to supermarkets, shops, offices, industrial buildings, and elsewhere. Around 85 people are employed at the company, which has modern machinery and an extensive R & D department. In the past three years, Biddle and TNO⁴ have together designed the process for manufacturing components, assembly and dispatch according to flow. Human talent has been explored and activated and employees took part in the redesign processes showing innovative work behavior.

Working in parallel on process and product improvements.

Since 2009, Biddle has worked using Lean in order to streamline its sheet metal manufacturing process. A large proportion of the factory was refitted in 2010 for the punching, bending, spot welding and coating parts of the process. The assembly process for a part of the overall product family was equipped according to the principles of demand flow. Assembly work had previously been done in batches at fixed work places, which meant a lot of walking back and forth and extra handling. While the changes to the primary process were underway, it also proved necessary to make improvements to the product structure. The results of the Product Design for Flow Assembly project were directly incorporated into the new assembly plan. This led to, among other things, a smaller variety of casings, not so many different straps, and greater access to the assembly locations and greater involvement and motivation of the employees.

Improvements to work instructions

With the transition from batch-based assembly to one-piece-flow assembly, the total workload was divided into zones. The old manuals no longer corresponded to the actual process. Moreover, there was a greater need to deploy employees more flexibly.”

“We are very keen on this! We produce 40% more, but without extra people and without needing any extra space! In addition, there is no longer any need for overtime during the busy periods. The guys in production are fully behind it too, and they contribute towards improving the layout of their work places. They have to consider their internal customer during the process – that is, the next stage in the process. The first step is to optimize supply for your internal customer, followed by optimizing your own work environment. As well as the increase in production, it also offers many other benefits: the people acquire more knowledge and therefore become more involved. New employees, whether temporary or not, can pick up the work more rapidly because they do just a small part of the assembly and can quickly learn it”. (Sjouke Land, Manager Production at Biddle)

Biddle came to realize that work instructions actually come about during the design process, so responsibility lies with R&D. Engineers set down draft instructions, and production checks whether or not they are correct. The production foremen ensure that the work instructions are altered in the event of any changes to the product. Working out the details of the work instructions takes half a day a week, on average. It is very important that they are implemented and safeguarded consistently, and that they are communicated effectively and convincingly. The systematic incorporation and evaluation of work instructions leads to better coordination of engineering and production.

Productivity: 40% more turnover without extra people, and less haste

What has the overall change process resulted in for Biddle so far?

- No more costly overtime when pre-processing orders. That saves around €15,000 per year.
- Two FTEs fewer are needed during pre-processing
- 25% fewer assembly hours per machine
- Reduction of WIP (Work in Progress) of around € 100,000

⁴ Netherlands Organization for Applied Scientific Research TNO

- The investments repay themselves within one year. The production process is calmer, less hectic, and there are no longer any rushed jobs. Orders are entered on the input side of the assembly. The material is delivered to the assembly on the basis of *kanban*, in other words, working backwards from assembly-based demand.

The work places have been redesigned to make sure that the work is carried out more efficiently and ergonomically. Examples include having the tools in the right places and lifting devices for dealing with heavy parts (Rhijn et al 2014).

Conclusion

Core lesson is that utilizing human talent to the full and stimulating productive and innovative work behavior requires job autonomy at task level, shop floor consultancy at department level and a management- employees – relationship which is characterized by a ‘participation & trust’ regime.

References

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