

Intervention Framework to Support Employee-Driven Innovation Between R&D and Manufacturing Department - DTU Orbit (08/11/2017)

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This paper is exploring the area of employee-driven innovation (EDI) and describes how we in our research project have developed and tested a framework for initiating employee participation between R&D and manufacturing department. EDI refers to the generation and implementation of significant new ideas, products and processes originating from employees who are not assigned to this task [Kesting and Ulhøi 2010]. EDI is not a well-documented field of research in the general innovation literature [Sørensen and Wandahl 2012], and there is limited descriptions about how EDI is initiated and supported in product innovation. This paper aims at bridging the gap by presenting a novel and state of art intervention framework to initiate employee-driven initiatives and accommodate the need to demonstrate how EDI can be applied in future product development processes. The framework is unique in the sense that it delivers a pragmatic approach to research and business practitioners promoting EDI. The intervention framework is developed as a part of a research project study called "Employee involvement in product innovation" at the Technical University of Denmark, and is currently being tested in an on-going study to further validate the framework. Innovation capabilities are today a key imperative in order to survive in the ever growing competitive landscape in both public and private organizations [Gressgård et al. 2014]. Being widely adopted in the Scandinavian countries, the notion of employee involvement is considered a way for organizations to achieve the responsiveness needed in a hypercompetitive world [Riordan et al. 2005]. As workplaces become more complex and employees increasingly demand more satisfying jobs, employee involvement becomes a way for companies to attract and retain the best human talents [Kesting and Ulhøi 2010]. It is argued that companies should not restrict themselves to relying exclusively on R&D employees, but also recognize that manufacturing employees possess abilities for innovation [Høyrup 2010]. Several other theories, such as high-involvement innovation share the conviction that innovation is a team-discipline and rely on participation and involvement of people outside R&D [Bessant and Caffyn 1997]. The underlying assumption of EDI is that all employees have hidden innovative potential that can be made visible, recognized and exploited to the benefit of both the company and its employees [Kesting and Ulhøi 2010]. Innovation is originally defined as "novelty creating economic value" by Schumpeter in 1934, but in terms of EDI and workplace learning, other values could mean employability, welfare in working life, learning culture and innovation [Høyrup 2010]. Some of the benefits of turning towards EDI thinking can be described as:

- Higher levels of employee involvement are positively associated with increased financial performance of a company [Riordan et al. 2005].
- Increased employee autonomy has positive impacts on employee satisfaction and retention of good employees [Kesting and Ulhøi 2010].
- Happy and satisfied employees are more productive and have fewer sick days [LO 2008].
- Increased focus on radical innovation. Compared to user-driven innovation, EDI can breed more radical innovative thinking, where user-driven innovation tends to focus on sub-optimization and incremental design changes [Kesting and Ulhøi 2010].
- Involving employees improve collaboration and knowledge sharing to optimize processes and product development. It is considered a key success factor in complex environments where networking, fast renewal and innovation are central competitive factors [Alasoini et al. 2013].
- It can generate a flow of additional information and tacit knowledge from employees to point out opportunities that management cannot [Kesting and Ulhøi 2010].

With a long list of known benefits from EDI, one might wonder why it is not implemented everywhere? The list of EDI obstacles includes [Sørensen and Wandahl 2012]:

- No incentives or motivation to engage in development and innovation activities
- Management focus is on production tasks, hence no management support
- No systematic approach to facilitate idea generation and knowledge-sharing
- Organisational culture
- Development and innovation are based on few individuals. The company culture is one of the main barriers, and supports the management truism; that "culture eats strategy for breakfast". The formality of the R&D organisational structure becomes a limitation when trying to make organisational changes to support the product development process. Well knowing that the innovative capabilities of a company is also determined by a complex set of different aspects such as the culture and mind-set of the employees in all levels of the organization [Sørensen and Wandahl 2012], this project investigates how to initiate an organisational change to support the ideation of employee participation in two case companies. The overall purpose of this paper is to present, develop and test participatory methods for initiating employee-driven innovation across R&D and manufacturing employees.

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