Shop assistants as instigators of innovation: analysis of 26 innovation initiatives in 17 Dutch supermarkets

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Abstract: Many organisations work on innovation and change processes in order to be successful in the knowledge economy. There can be recognised various assumptions underlying these change efforts. These assumptions appear not always to be effective. In this paper, we study these assumptions and propose alternative assumptions to change and innovation. We conclude that in successful supermarkets shop assistants adopt innovative and entrepreneurial behaviour that leads to a variety of sustainable improvements in their work environment; in the innovation initiatives we saw that uniform working procedures that are designed by the headquarters do not contribute to innovation. In some cases it even hindered the innovation initiatives; innovative behaviour requires personalised learning processes fuelled by intriguing questions, the felt need for urgency to improve, and active experimenting with developing a new practice. Sharing innovative initiatives across other supermarkets is not self-evident.

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1 Introduction

Supermarket managers constantly seek for innovative ideas to improve their business. They want to adopt ideas such as self-directed working, customer-orientation and performance improvement in order to stay ahead of the competition. Staff, sometimes supported by external consultants, must then develop these ideas further and implement practical manifestations of the ideas in the organisation. However, this does not always work out in the way that the original thinking intended. According to Boonstra (2000) these planned change processes often do not have the results that were initially expected. In our opinion this is related to the assumptions that underlie these change efforts. In the last decades, society has changed from an industrial economy to a knowledge economy (Drucker, 1993). This has drastically changed working relationships and the way of working in organisations. In many organisations old assumptions, based on work in an industrial economy, still prevail. In a knowledge economy, however, it is necessary to consider revising these assumptions (Miles and Martinez-Fernandez, 2011). In this paper, we present a conceptual framework in which we critically examine the assumptions that often underlie change efforts. We also explore alternative assumptions and develop a participatory research approach in order to conduct empirical research in the context of a supermarket chain. The findings from this empirical research show that a set of alternative assumptions provides a helpful starting point for organisations to work on innovation and change.

2   Conceptual framework: review of assumptions underlying change efforts

First, this section explores some of the differences between work environments and work relationships in the industrial economy and a knowledge economy. Then, this section elaborates on three assumptions that often underlie change efforts and innovation initiatives in organisations. For each of these assumptions we explore where the assumption came from; we elaborate the critique; and finally, propose an alternative assumption.

2.1   Characteristics of work in a knowledge economy

Practices that determined success in the industrial economy, such as the replication of products and the focus on productivity, need re-examination in an economy in which the value of knowledge is seen as a major economic resource. In a knowledge economy an organisation's success is more determined by intellectual than by physical resources (Harrison and Kessels, 2004). The success of organisations in a knowledge economy is determined by the extent to which they manage to create new knowledge and apply that new knowledge to the improvement and innovation of their products, services and working processes. Table 1 summarises the differences between the workplace and working relationships in the industrial economy and in the knowledge economy.

Table 1   Characteristics of a work environment in the industrial economy and in a knowledge economy

	In an industrial economy	*In a knowledge economy*
Organisation structure	Hierarchical way of working with a strong division between managers and executive staff.	Flat organisation structure, with an emphasis on networks based on subject matter expertise.
Responsibility of employees	Employees are responsible in doing their part of the work. When problems occur that are not directly in their scope of work, they can wait for someone else to solve it.	Employees are responsible for delivering good results. They have the autonomy and responsibility to solve problems they encounter.
Problem solving	Emphasis on solving 'technical' questions. Importance of developing new approaches is less present.	Necessity to develop improvements and innovations instead of just-good-enough solutions to problems that employees encounter. Speed of new questions that emerge is very high.
Role of learning in the context of work	The working process is occasionally interrupted for doing a course or training.	Doing the work is not possible without a constant learning process. The work itself has become a form of learning.
Relationship between employee and employer	Employees are loyal and conform themselves to their employer. In return they expect security of employment and career prospects.	Employees make long working hours, and take high responsibility. In return they expect reward for performance and autonomy to do their work.

With respect to the organisation structure, it becomes clear that with the rise of the knowledge economy a shift takes place from traditional hierarchical structures of companies, towards new forms of cooperation and organisation that consist of network structures (Huemer et al., 1998). Indeed, instead of hierarchy as a mechanism to divide and organise the work, networks become the structure in which employees connect to each other in order to do their work. This form of cooperation makes it important that employees choose peers, experts and like-minded colleagues to work on intriguing and urgent questions that they encounter in their work environment (De Jong, 2010).

In this work environment there is no management layer that holds exclusive responsibility for achieving predetermined goals or results. Instead, employees set together with their colleagues and managers their own goals. This freedom to set one's own goals goes together with the responsibility to deliver results; therefore employees are given a lot of autonomy in their work. Intrinsic motivation becomes more important in these kinds of work environments. Intrinsically motivated employees tend to be more vitalised than people who are extrinsically motivated (Nix et al., 1999). Intrinsically motivated teams will persevere when things are getting tough, while others would rather give up (Kessels, 2001; Van Lakerveld, 2005).

Maybe the type of questions that employees encountered in the workplace in an industrial economy did not differ so much from the questions that employees face in a knowledge economy. But the necessity to come up with innovative solutions has grown. Where a single-loop learning process (Argyris and Schön, 1978) could lead to satisfying results in the industrial economy, the necessity to develop the ability to go through double-loop learning processes that break the existing thinking pattern, becomes more and more important in a knowledge economy.

In the knowledge economy, learning with the intention of improving and innovating is very important (Verdonschot, 2009). Work and learning are not separated – as they were or have been though the industrial economy. The training paradigm has changed into a learning paradigm and the work environment takes on characteristics of a learning environment (Dixon, 2000; Kessels and Van der Werff, 2002).

Finally, the relationship between employees and employers has also changed. Baruch (2004) speaks of the 'old deal' and the 'new deal'. In the old deal, employees are loyal and conform themselves to their employer. In return they expect security of employment and career prospects. In the new deal, employees make long working hours and take high responsibility. In return they expect reward for performance and autonomy to do their work.

2.2 *Assumptions underlying change efforts*

Many organisations work on innovation and change processes in order to be successful in the knowledge economy. Although the day-to-day practice in many organisations is marked by characteristics belonging to a knowledge economy (see Table 1), the assumptions that underlie the change efforts often still originate in the way of thinking that was common in the industrial economy. We could, however, develop alternative assumptions, derived around the nature of the knowledge economy, and these which might be more effective in realising innovation.

Assumption 1: *Management is responsible for initiating and developing a change process. Employees have to execute the predefined steps diligently.*

Often, management takes initiative in change processes. They develop, either by themselves, or with help from internal or external consultants, new concepts that need to establish a new way of working. Then, they develop a predefined path for the new change to be implemented and prescribe this way of working to the employees. When employees are not immediately enthusiastic for this way of working, this is called 'resistance' and management develops strategies to break through this resistance (Cummings and Worley, 2008; Ardon, 2009).

Critical reflection on this assumption:

A core point in this assumption is that the initiators of change and the actors are different people. Furthermore, the subjects of the change project are regarded as the 'receivers' of this process. They are seen as passive entities who do not change themselves but who need to be managed for change (Homan, 2006; Ardon, 2009). However, research on innovation in knowledge intensive firms has shown that in the end the knowledge workers are the ones who step-by-step innovate their work (Van Poucke, 2005). Furthermore, in a knowledge economy, as was explained in the previous section, employees carry the responsibility to develop new solutions for problems they encounter. This means they need to be seen as workers who improve, and from time to time radically innovate their own work (Drucker, 1999). If obedience and loyalty are core values, then it is possible for employees to execute something that is developed by someone else. But when work takes on the characteristics of a learning process, it requires that employees feel closely connected to the change process and that they engage as co-developers.

Possible alternative assumption:

A possible alternative assumption could be to regard all employees as knowledge workers who actively work on improvements and innovations in their day-to-day-work environment (Drucker, 1999; Kessels, 2001). The work environment becomes a 'hotspot' for innovation. Gratton (2007) characterises a hotspot as a place that is full of energy, where employees collaborate, where ideas become contagious and new opportunities appear.

Assumption 2: *The end point of the change process is known and can be well-defined.*

In change processes the desired situation is often portrayed as a well-defined end point of the change process. This representation gives a sense of control over the change process to the actors involved. When the end point can be well-defined in advance, this means that the change process can be planned in advance completely. This makes control and monitoring easy.

Critical reflection on this assumption:

In our knowledge economy, success is realised through the continuous creation and implementation of new knowledge and applying this knowledge to day-to-day work practices (Kessels, 2001). The challenges that organisations nowadays face ask for innovative approaches. The solutions to these kinds of challenges cannot be defined and prescribed beforehand. These solutions are developed while working (Garud and Karnøe, 2003; Van Poucke, 2005). Van Staveren (2007, p.319) refers in her research on collaboration in innovation processes to this approach as a developmental design. According to her the learning environment necessary for innovation cannot be designed in advance. It is an environment that the participants develop by constantly adapting it to

the dynamics in the innovation process. Knowledge workers have an important role in developing these innovations during their work. There is no single expert or HR-department that can develop training for the kind of learning that is required in these innovation processes. Since the end point cannot be predefined, managers cannot take the role of controlling this change process in terms of implementing a pre-described solution. The term management in this context implies control of processes that may be inherently uncontrollable (Von Krogh et al., 2000).

Possible alternative assumption:

An alternative assumption might be: knowledge workers develop improvements and innovations in their work in a step-by-step process that is characterised as developmental design. In this process three phases can be distinguished: (a) experimenting with new approaches; (b) developing sustainable improvements and innovations; and (c) sharing these improvements and innovations with other contexts.

Assumption 3: *The intended change is supposed to be totally new for the organisation.*

Organisations change initiatives start from scratch. Organisations often use the starting point that the desired situation is totally new for the organisational members.

Critical reflection on this assumption:

Organisations that start from the idea that the intended change is totally new undervalue what already happens in the workplace. Many successful innovations stem from employees who encountered problems in their work and found innovative solutions (Verdonschot, 2009; De Jong, 2010). In fact, employees, when given freedom, are constantly working on new solutions. Improvement and innovation are feasible when management connects to these developments rather than imposing an intended change as if it were completely new. Connecting starts when management looks for these 'seeds' or successful examples and uses these to help others in the organisation to learn from these examples. This approach to change and innovation relates to the concept of positive organisational scholarship (Cameron et al., 2003) in which learning from successes and excellence plays an important role.

Possible alternative assumption:

A possible alternative assumption might be: for every change, no matter how big, small seeds or successful examples can already be found in the workplace. By sharing these innovations within one context and across other contexts innovation initiatives can further develop and have more impact.

3 Central research questions

The present study aims to find out whether the alternative assumptions to change and innovation, as presented in the previous section, will be favourable for the development of improvements and innovations at the workplace in a supermarket. Therefore, the three research questions that lead the empirical part of this study are closely related to the alternative assumptions presented in Section 2. The first research question aims to trace successful seeds of innovation. These seeds refer to bigger and smaller improvements and innovations developed by employees of the supermarket organisation. The second

research question aims to learn more about the people who contributed to these 'seeds of innovation'. The third question wants to find out whether this particular example of innovation has been spread throughout the context of one supermarket, and even across the contexts of different supermarkets. The three questions in the day-to-day work environment of a supermarket are:

1   What innovation initiatives, that aim to improve work processes and procedures, can we identify?

2   What is the contribution of employees, management and the headquarters to the development of these innovation initiatives?

3   To what extent have these innovations been shared with others inside and outside the context in which the innovation was developed?

4   Method

The main objective of this study is to explore how alternative assumptions to change and innovation lead to the development of innovations in the workplace. The main aim of the field research was to trace innovation initiatives in the supermarket context. We investigated 17 supermarkets in the Netherlands and in each supermarket we did a one-day field study in which we traced innovations.[1]

4.1   Choosing the context: supermarkets

At first sight, supermarkets are not work environments that we typically think of when talking about innovative environments in which knowledge workers operate; most work processes have been standardised, and a large part of the workforce consists of employees without professional education. The line of reasoning is that if it is possible to recognise the alternative assumptions to change in this specific context of supermarkets, the alternative assumptions provide a useful basis to work on innovations in other contexts as well.

4.1.1   Background of the supermarket organisation

The head office, based in the centre of the Netherlands, supports local 'entrepreneurs' who lead supermarkets. The supermarket chain, that is studied, is unique in the Netherlands because entrepreneurs own the supermarkets. The head office offers support in marketing, category management, IT and real estate. Besides this, six distribution locations provide the supermarkets with the necessary products.

4.2   Selection of the shops and participants

Supermarkets were included in the sample if the manager and employees were enthusiastic to join the research in order to learn more about their own approach with respect to innovation. A snowball sampling led to a selection of 17 supermarkets throughout the Netherlands. During a one-day site visit all employees present on that day were involved in the research: the shop assistants as well as the general manager or owner of the shop.

4.3 Instruments

Interviews focused on finding out how employees experience working in this shop, what makes this shop special, what makes their team special and how they reflect upon their own contribution. The aim was to trace innovation initiatives. Examples of the questions that were used to find out more about the success of the supermarket included: What is your favourite place in the shop? What makes you proud in your work? What is an example of something that you started to do different in your work? This approach finds its basis in the method of appreciative inquiry (Cooperrider et al., 2003) in which successes and strengths are used as a starting point for research.

4.4 Procedure

Every site visit contained at least the following elements:

- interview with the general manager or owner
- short interviews with all the employees present
- participative observation by doing work on the shop floor, together with the employees (see Figure 1).

Figure 1   Participating during work processes (see online version for colours)

The findings were collected on large sheets of paper that were put down in the canteen. Employees could immediately validate the research findings. In addition to the text reports, every employee was asked for his or her favourite place in the shop and then a picture was made of this employee standing there (see Figures 2 and 3). After the site visit a poster was made on the basis of the input of the shop floor assistants and local managers, and of the pictures we had taken.

Figure 2 Two employees in front of the vegetables and fruit section (see online version for colours)

Figure 3 A young self-stacker in front of her favourite isle (see online version for colours)

4.5 Data analysis

The within-case analysis was done using the shop poster. From these posters, we could draw examples of smaller and bigger innovation initiatives, 26 in total. This was followed by a cross-case analysis (Cooper and Schindler, 2003). Two researchers analysed the 26 innovation initiatives independently for each of the predefined categories. Results were put in a matrix (Miles and Huberman, 1994) that answered the questions:

- Who initiated the innovation?

- What colleagues were involved in the process of development?

- What was the primary objective of the initiator?

- To what extent has the innovation been shared with others?

The two analyses were compared and differences were discussed until agreement could be reached.

5 Results

Section 5.1 presents an overview of the innovations that were traced in the day-to-day work environment of the 17 supermarkets that were involved in the research. Section 5.2 offers the analysis of these innovations in order to answer the main research questions.

5.1 Overview of innovation initiatives

The 26 innovation initiatives that were found are enumerated below. The innovation efforts all concern places in the supermarket context where workers aim to develop new solutions that can lead to sustainable innovations.

A   Gerda is responsible for the bread department. She orders the bread and decides to work together with another company that bakes famous Dutch cakes. Now, the customers can order these cakes in the supermarket. Customers are really enthusiastic about the initiative and the revenues of the bread department have gone up significantly the last couple of years.

B   Butcher Emiel runs the meat department and autonomously decides what to put on sale. For instance the pork chops. Pork chops that are not sold in a week are given an 'upgrade': "I turn the pork chops into schnitzels and make a special price. In that way I am able to sell all of the meat for a nice price, that is not below the purchase value".

C   The butcher and greengrocer collaborate quite closely. The greengrocer sees nice melons that he wants to purchase. Also ham is for sale. Together with the butcher he decides to order a large quantity. They present the ham and melons together in the shop and offer customers' samples to taste. The profit is shared on their sub-accounts.

D   The grocery shipment comes in each day to stock the supermarket with all the products. The specific timeslot the truck delivered the products each day was exactly during the busiest time for the supermarket. The employee responsible for stocking the supermarket contacted the planner of the deliveries and explored the possibility to deliver at a different timeslot. The result was a better-timed filling process of the store and a better-filled supermarket during the busiest timeslot.

E   One of the cashiers provides extra service to her customers. She puts the scanned pre-packed meat in a separate plastic bag to avoid leakage of meat juices that can damage the other groceries the customer just bought.

F   The butcher and greengrocer completed a successful action together: they bought several barbeque sets and prepared some typical dishes in the store. A lot of extra meat and vegetables were sold. Most of the barbeques sets were also sold. The butcher and greengrocer came into rivalry about who was eligible to book the profit of the barbeques on their sub-account to claim the profit.

G   A constant point of attention for cashiers is that customers are not allowed to leave the shop without paying for the products that are placed at the bottom of their cart. Typical products that leave the shop without being paid include diapers and cases of beer. Turnover can be highly affected by this. The head of the cashiers wants to prevent this from happening, and she develops a course for the new cashiers that start working at the shop. A friend of hers worked at another supermarket. There they developed a special system that demands the cashier to type in a number that is visible at the bottom of the cart on to their cash system, before they can start to scan products of the next customer. The only way to see the number is to check the bottom of the cart. And, by doing so, they are forced to automatically check whether there are still not scanned products lying in the cart. She adopts this way of working to her own supermarket. She does not implement the technical system however, but teaches her new employees to make it a habit to always checking the bottom of the cart.

H   A supermarket manager finds out that his employees really like it when he sometimes works with them on the shop floor. It motivates other employees to do well and be visible to their manager. The managers likes doing it and shares that it helps him to teach others specific skills of running a supermarket and to share his perspective how to run the supermarket. He also says that it helps him to look in a different way at his work.

I   The employee responsible for the inventory left the storage room in a mess. The colleagues that worked in the next shift could not do their work properly. The supermarket manager helps the employees to identify the main problems and made pictures of the situation. The next day, when, the employee responsible for the inventory started working, they discussed the specific pictures and identified actions to prevent that the same situation would happen again.

J   In one supermarket the manager experienced that the quantity of products on the shelves and in stock did no match with the amounts indicated by the computers that automatically process new orders of products. Too many products were ordered, the storage became too full, and other products declined. He wanted to overcome this problem and decided to give every member of the 'filling team' the specific responsibility for an aisle. They were held responsible for filling it, for counting the products and checking that with the amounts in the computer, and adjusting with the new supplies. Employees found this really fun to do: they all took the responsibility very well. The manager trusted them in doing so and granted them the authority for this work, making it valuable for them as well. The supermarket manager says about this: "every aisle has specific filling teams and regularly I organise so-called 10-minute conversations in which we discuss problems, difficulties and points of attention".

K   Another supermarket constantly explored new ways to connect the local community to the store. The staff organised all sorts of activities for children and adults, such as moonlight shopping (an evening on which the shop would be open late at night), carnival days and dress-up activities.

L   An employee was very professional in communicating with customers who stole items. It never resulted in aggressive behaviour. In other supermarkets this is often a problem the staff cannot easily deal with. We asked him what his 'secret' was. He stated that he never accuses people of stealing. He simply asks them if they have taken something without paying for it. Or, he refers to the camera installation and invites them to see the images. Often, this helps to prevent aggressive behaviour.

M   A supermarket manager always asks his colleagues for help and their opinion regarding hiring new people. It is never an exclusive HR process, rather the decision to hire a new shop assistant is a collective process. In that way, as the manager states, the team becomes close and committed to their new colleagues.

N   In one of the stores, employees often come in too late for work. The manager develops a way to deal with this successfully. He not only states that they are late, but also makes the result of their action clear. For instance: you came in late after lunch, due to this fact the line at the cash register was very long and two of our colleagues could not go for lunch.

O   One of the supermarket managers discovers that giving feedback on paper does not work. Instead he organises informal meetings and shares his perspective on a situation. Colleagues like the open and direct style.

P   One of the supermarket managers is also mentor of two student-employees during their internship. He gives the students specific assignments that are both relevant for their studies and for the functioning of the supermarket. An example is to carry out a survey for the meat department, or running a specific department for a week and to come up with proposals for improvement.

Q   A supermarket manager discovers that it does not work when *he* opens letters and mail that is sent to his management staff. They wound not read it anymore because they assume that their manager will take actions that follow from the mail. The manager now sorts the envelopes and hands them over personally to his staff. They now take responsibility for the content and inform their manager if necessary.

R   In a supermarket every department manager needs to be able to operate a cash register. In that way they have more knowledge about the store and they can cover for each other. If you do that, lunch times are more pleasant. It creates commitment to each other and it is easier to address someone as a colleague if you want something.

S   There is a new butcher responsible for the meat department. He has a different way of handling things. The manager of the supermarket shares: "The previous butcher was easier in letting colleagues go home earlier, even when the work was not completed. The new butcher is stricter as you need to finish your work first. And you know what, people like it!" Colleagues like the clarity of it and also the responsibility to finish their tasks. It makes clear your place in the store. And if you can also see the revenue figures every week, you see that you have influence on your work, no matter how small it sometimes is.

T   In one of the stores the atmosphere is very personal and attractive; moreover, some employees come earlier or stay longer for a chat. They pop in even when they do not have to work that day. One of the shop assistants has a day off, but comes to drink coffee with her colleagues. While she has her coffee, she sees a long line of shopping carts outside, blocking the cars at the parking lot. She immediately calls a colleague to ask to fix it.

U   One supermarket manager always returns home in a happy mood. During his bike ride back home he explicitly thinks about the "profit of the day", such as a good meeting with his colleagues. This short moment of reflection each day keeps him alert.

V   A supermarket pays a lot of attention to local marketing and traditional meals and products that attract citizens from different countries living in this city. Next to the products there are cards with recipes and with suggestions for combinations with other products. Local customers highly appreciate that service.

W   One of the employees shares that he sometimes has difficulty with the shelf-stacking crew who are not always motivated. "They are making jokes in the storage room and make a mess of it". Karin, the baker, hears the remarks of her colleague and suggests that she could intervene once in a while since she has a good relation with most of the shelf-stackers. "If I start a quick chat with them, I can avoid most of the problems, is my experience".

X   For already 15 years, the manager initiates a yearly bike ride through the surrounding villages. All employees have an active role in organising the event. Inhabitants from the villages around the supermarket enjoy this very much.

Y   In supermarkets in the city we observe often very active staff associations. The employees, often young employees, join such an association and frequently organise events such as a party or a night out to watch the world soccer games together. This creates strong ties among the employees, with effects on the work environment as well. They form a team in which people are willing to fill in for each other, to change shifts or to help when necessary.

Z   Employees collectively determine the sale items during their lunch break. One of the employees: "There is one thing I like the most, and that is the aisle with all that week's special offers. Every week I plan a new special offer and take in these products accordingly. Every day I follow how it goes with these special offers. That aisle is mine and I love it!".

5.2   *Analysis of the innovation initiatives found in the supermarkets*

Table 2 gives an overview of the innovation initiatives and the criteria against which they were sorted. For each of the innovations it was determined who the initiator of the innovation was; what colleagues were involved; what was the primary objective of the initiator with the innovation; and the extent to which the innovation has been shared with others.

Table 2   Overview of innovation efforts

Innovation initiative	Initiator			Colleagues involved				Primary objective			Extent to which innovation has been shared		
	Shop assistant (SA)	*Store manager (SM)*	*Head office manager (HOM)*	*Shop assistants (SA)*	*Store manager (SM)*	*Head office manager (HOM)*	*External parties (EP)*	*Happy customer ☺*	*Selling more products #*	*Work environment →*	*Single experiment **	*New approach is consolidated in day-to-day practice ***	*Also adopted by other shops ****
A	SA			SA				☺				**	
B	SA			–					#			**	
C	SA			SA					#			**	
D	SA			SA + EP						→			***
E	SA			–				☺				**	
F	SA			SA					#			**	
G	SA			SA					#			**	
H		SM		SA + SM						→		**	
I		SM		SA + SM						→	*		
J		SM		SA + SM						→		**	
K		SM		SA + SM				☺					***
L	SA			SA + SM					#			**	
M		SM		SA + SM						→			***
N		SM		SA + SM						→			***
O		SM		SA + SM						→		**	
P		SM		SA + SM						→			***
Q		SM		SA + SM						→		**	
R		SM		SA + SM						→			***
S	SA			SA + SM						→		**	
T	SA			SA						→		**	
U		SM			SM					→		**	
V	SA			SA + SM				☺					***
W	SA			SA						→	*		
X		SM		SA + SM				☺					***
Y	SA			SA + SM						→			***
Z	SA			SA + SM					#			**	

6   Conclusion

In this section, we answer the three main research questions and reflect on the alternative assumptions as stated in Section 3.

Question 1: What innovation initiatives, that aim to improve work processes and procedures, can we identify?

- Most innovation efforts (15/26) are focused on improving the work environment of the supermarket staff. A smaller amount (11/26) is focused on the connection with customers and selling more products.

- This could be an indication that the work environment acts as an important lever for innovation, where it is important that people feel respected and happy.

The nature of innovations in the work environment is often characterised by more autonomy, having influence on the way of collaboration, addressing difficult topics, interaction and the quality of the working relationship.

Question 2: What is the contribution of employees, management and the headquarters to the development of these innovation initiatives?

- Shop assistants are directly involved in all but one of the innovations efforts. They appear to be the main innovators. It is clear that they take ownership and show entrepreneurship.

- In about half of the cases it is the shop assistant who takes the initiative for an innovation. In the other half, the store manager takes the initiative. The head office manager takes initiative in no cases, and is even not involved in any of the observed innovations.

- When the store manager takes initiative, he almost always involves shop assistants in the further development of the innovation.

- External parties are only involved in one case.

- When is comes to selling more products, the shop assistants always take the initiative first. When the store manager takes initiative it mostly deals with improvements in the work environment. Innovations focused at the customer are initiated both by shop assistants and store managers.

- When shop assistants take the initiative, they mostly invite direct colleagues first, instead of involving the store manager.

Question 3: To what extent have these innovations been shared with others inside and outside the context in which the innovation was developed?

- Most of the observed innovations became regular practice in the supermarket where they emerged (marked with ** in Table 2).

- Out of the 26 cases, nine innovations have been implemented and observed in other supermarkets as well. However, it is not clear whether and how the learning process supporting the implementation took place. It is even doubtful whether a deliberate implementation process took place, especially when the large number of employees involved in other stores is observed.

- Among the best spread innovations are those initiated by shop assistants and by store managers. Apparently, both types of actors are important for bringing the innovation process into the third phase, the phase of dissemination.

- We could observe innovations spread to other stores that were originally initiated by shop assistants. And, the other way round, there are also innovations initiated by store managers that were only a one-time action. In short, it seems that the successful development of an innovation effort does not depend on the hierarchical position of the initiator.

- The innovations focusing on selling more products often stay local practices that are not shared with other stores.

Headquarters stimulate a uniform approach with respect to the presentation of products in the different supermarkets. At the same time, successful innovation initiatives often do not comply with this uniformity. And, because the innovation initiatives are quite often conflicting with the national approach as imposed by headquarters, local shops are not motivated to share their innovation ideas with respect to selling more products. This might be an explanation for the fact that not many innovation initiatives are shared among shops.

Reflection on alternative assumption 1. All employees who actively work on improvements and innovations in their day-to-day-work environment can be regarded as knowledge workers.

The analysis of 26 innovation efforts in 17 supermarkets supports the assumption that regards shop assistants as innovators. In about half of the cases shop assistants take the initiative for an innovation. Shop assistants are involved in all innovation efforts, except for one. They are able to take ownership and have a leading role when it comes to signalling problems, active experimenting, consolidating the results of successful experiments in the day-to-day work practice.

Reflection on alternative assumption 2. Knowledge workers develop improvements and innovation in their work, in a step-by-step process that show characteristics of developmental design. In this process three phases can be distinguished: (a) experimenting with new approaches; (b) developing sustainable improvements and innovations; (c) sharing these improvements and innovations with other contexts.

The results support the assumption that innovation should be regarded as a step-by-step developmental process instead of a predictable process that can be deliberately implemented. The first two phases could be clearly observed in the supermarkets. It is not easy to recognise the third phase. We found similar innovations in more than one context. However, it was not clear whether the various shops adopted these innovations by learning from each other. It is likely that shops experiencing similar problems independently came to similar solutions.

- Some innovation initiatives remain singular changes that never evolve into a sustainable and renewed work practice, while others do.

- In none of the cases, the headquarters played a role in the observed innovations. We did not see local mangers actively rolling out new work procedures. Moreover, innovation efforts aiming at increasing turnover were not shared with other shops.

- It looks as if shop assistants need local freedom to act when it comes to developing viable innovations. Here, imposed measures from the headquarters seem not to be effective.

Reflection on alternative assumption 3. For every change, no matter how big, small seeds or successful examples can already be found in the workplace. By sharing these innovations within one context and across other contexts innovation initiatives can further develop and have more impact.

The first part of the assumption seems to find support in practice. An appreciative inquiry of what is already there reveals many local innovation efforts: some in an initial phase, others are already well developed. The supermarket staff experienced the inquisitive and appreciative uncovering of these initiatives as stimulating and encouraging. As for the second part of the above assumption, sharing innovative initiatives between contexts does not appear to be self-evident. This might indicate that innovation requires an individualised learning and development process. It seems that one cannot simply transfer what is successful in place A to place B (see also Dixon, 2002). There is a need to experience an intriguing question, to feel the urgency for finding a solution and than collaboratively experiment with developing a new practice. Achieving high impact from innovations shared among different contexts then might need deliberately facilitated learning processes where participants from various contexts meet and engage in exploring similar intriguing questions, searching for existing initiatives, and share their experiences. Then adaptation, adoption and successful local implementation might occur.

7 Discussion and reflection of the research method and findings

The validity of the findings has been secured by immediate feedback on the reports and posters by all the respondents/participants in the supermarkets. And, where needed, the quotes, incidents and reports have been amended at local shop level. Reliability was improved by conducting all research activities by two researchers, who examined all 17 cases, gradually improving their data collection techniques when consecutively conducting the 17 studies. The cross-case analysis has been independently executed on the basis of unambiguous guidelines, resolving discrepancies of interpretation by ongoing deliberation. A critical friend (Costa and Kallick, 1993) followed the research process and commented on the within-case and cross-case analysis, as well as on the interpretation of the findings, leading to the presented conclusions.

Three phases of innovation were used as a starting point to collect innovation initiatives in the supermarkets that were studied. We found many innovation initiatives that were still in the first phase (being 'experimenting with new approaches'). The choice to include those innovation initiatives leads to a great variation of innovation initiatives to be analysed. This makes it hard to compare the results of this study to results of other studies that investigated workplace innovation. On the one hand, it is possible that this leads to a distorted picture on the conclusions with respect to instigating innovation. On the other hand, the study at hand adds a worthwhile perspective since it might give insight into factors that can enable innovation initiatives in the first phases, to develop further.

Figure 4   Employees discuss the first findings of the research (see online version for colours)

When it comes to generalising the findings to a larger population, the applied methodology has its constraints, as requirements of representative sampling could not be met. However, job environments where employees work in close contacts with clients, and that are connected to a headquarters that determine the corporate identity, may show strong similarities with the context of the supermarkets. Other supermarket chains, employment agencies and organisations in which teams work under supervision of a manager may find convincing evidence in this study, worth of exploring further in their own context. The findings of this multiple case study may shed light on the intricate role of headquarters in centrally instigated change processes, in specific. Viewing change processes, involving innovative behaviour, as intrinsically learning processes that cannot be deliberately rolled out and implemented, is a conclusion that is worth consideration in a variety of contexts, and most probable is not limited to shop floors in supermarkets.

8   Avenues for further research

It would be worthwhile to conduct similar research in other sectors or industries in order to explore if this findings can be generalised to other contexts as well. Furthermore, the findings in the present study offer interesting opportunities for follow-up research. It would be worthwhile to explore in what way managers can instigate the learning processes as described in phase 1, 2 and 3 of the step-by-step innovation process. Further research can help to find out what interventions management could initiate in the direct work environment to support innovation initiatives of employees in the different stages. It would be interesting to explore whether innovation initiatives can be supported if management experiments with appreciative inquiry techniques (Cooperrider et al., 2003).

The conclusions in this study with respect to the third assumption evoke further research as well. It would be interesting to learn more about the conditions that support sharing local innovation initiatives across departments, business units or sectors (Martinez-Fernandez and Miles, 2011). In this respect it would be relevant to also pay attention to the role of clients and suppliers. Carland (2011) found that cooperation with clients and suppliers offers opportunities for innovation.

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Note

1   The research was developed and carried out between 2006 and 2008.