The effectiveness of self-managed teams and self-leading teams measured in performance, quality of work life and absenteeism
Abstract
Self-managed teams and the more extreme form, known as self-leading teams, have become very popular in the last few decades. Many studies have done research on the effectiveness of self-management and many studies have found positive results. In this study, data from different firms in different industries has been collected to create a general view on the effectiveness of self-managed teams and self-leading teams. Effectiveness is measured through performance, quality of work life and absenteeism. The results indicate that self-managed teams have limited advantages over traditionally managed teams, but self-leading teams do show many positive effects on both performance and quality of work life.
Table of Contents

1. Introduction 4
2. Literature Review 4
3. Methodology 11
4. Analysis 14
5. Discussion 20
6. Conclusion 23
1. Introduction

Every year, the MKB krachtcentrale selects seven firms as most intelligent firms of the Netherlands. In the list of winners in 2014, almost all firms have something in common. Namely, the majority of the firms have a relatively new managerial style, often referred to as the ‘SEMCO-style’, developed by Ricardo Semler. Ricardo Semler gives his employees more responsibility and the point of focus in his firm is ‘managing without managers’ (Semler, 1989). Nowadays, many firms have adopted this management structure, which is also known as self-management. Even though these winning firms favour self-management, self-management is still under a lot of criticism. In recent years, more extreme forms of self-management have been introduced where for instance firms let their employees determine their own bonuses. This is most often called a self-leading team. Especially this form of self-management has not been studied often. Therefore it would be interesting to formulate a general statement on the effectiveness of self-managed teams and self-leading teams.

2. Theoretical Framework

2.1 What are self-managed teams?

Manz & Sims (1980) were the first to extensively explain self-management. They introduced self-management as a substitute for leadership and focused on how people can lead themselves. However, the beginning of self-management is dated some time before that. In, 1963 there was a study of Trist, Higgin, Murray and Pollock on self-regulating English coal miners in the 1950s. However, it is only since the 1980s that self-managed teams became popular, and its popularity grew fast (Cohen, Ledford & Spreitzer, 1996).

Self-managed teams are not only seen as a substitute for leadership. Fredendall and Emery (2003) described the largely shared view of a self-managed team as a vehicle for continuous improvement. Team self-management has been based on socio-technical systems theory and job characteristics theory which both promote that teams should be the main focus and not the individual (Cummings, 1978; Hackman and Oldham, 1976). Many different definitions have been given to self-managed teams and many different characteristics have been linked to it. The definition that will be maintained in this study is that self-managing work teams are
groups of interdependent individuals that have been given authority over work processes and have the freedom to regulate their own behaviour (Cohen et al., 1996; Stewart, Courtright & Manz, 2011).

Self-managed teams have more responsibility over organizational tasks than traditionally managed teams. To be able to do these tasks, they need more power to make decisions, more training to develop the skills to do these tasks, more access to several resources and they need more information about for instance work processes, customers and competitors (Cohen et al., 1996). The organizational tasks often assigned to self-managed teams (Cohen et al., 1996; Stewart et al., 2011) include the control of production management activities, for instance by ordering the appropriate materials for production, determining budgets and monitoring quality. Also, self-managed teams often have influence on several human resource activities. Some of these activities are selecting new employees and firing team members when necessary, the documenting of hours worked, training team members and assessing them, possibly assigning them a pay raise. Besides these tasks, typical for self-managed teams are the shared leadership and the shared responsibility (often including the rotation of task responsibility between team members) and the compensation and feedback on the success for the group as a whole, rather than assessment on individual team members (Manz, 1992; Cohen et al., 1996; Yang & Guy, 2010). A self-managed team sometimes has a direct supervisor, but this is not always the case (Cohen et al. 1996). Cohen and Ledford (1994) found that teams with supervisors tend to perform less than teams without a supervisor.

Self-managed teams can take on many forms with many different degrees of team empowerment. Stewart et al. (2011) created a continuum based on a theory by Manz (1992) with different degrees of team empowerment, as shown in figure 1. Manz also included participative teams. This structure contains a relatively low level of team empowerment, so it is left out of consideration, only making a distinction between externally (traditionally) managed teams, self-managed teams and self-leading teams.
Within organizations, the distinction between the different structural forms is often not so clear, especially for self-managed teams and self-leading teams. Manz (1992) described some features that distinguish self-managed teams from self-leading teams. His theory contains one main difference; within self-managed teams, employees have influence regarding how a task should be completed, but an externally chosen standard has to be met. Within self-leading teams, employees can choose how to do a task and on top of this they have the power to choose what the task will be and why it has to be done. In other words, self-leading teams have a lot more influence in strategic organizational processes, the team has the possibility to enhance the system rather than just maintain it. Also, the influence a team can exert on the purpose of the team is of great importance. Besides these factors, Manz explains another significant difference with self-managed teams. Self-managed teams are most commonly externally rewarded, which is their most important motivation. For self-leading teams on the other hand this does not apply, team members are mostly intrinsically motivated to do their tasks.

2.2. Criteria for successful self-managed and self-leading teams

There are many possible advantages resulting from a different management structure such as self-managed teams. However, there are several criteria that are said to be necessary for a self-managed team or a self-leading team to work. Also, effectiveness of these management structures is different depending on several factors. For instance, the effectiveness of self-management is highly dependent on the type of task a team is responsible for and in which way they are responsible for it. Task variety is of importance and especially tasks that need a considerable amount of creativity seem to suit self-managed teams best (Cohen et al., 1996; Stewart et al., 2011). Secondly, task significance and task autonomy have a positive influence on motivation. Thereby, they have the power to make adjustments to their work process
as they are working on the task. Because they have knowledge on their own task, they can properly judge if adjustments have to be made (Cohen et al. 1996). Feedback on the tasks is another feature that is very important for the group, it stimulates the group to critically look at their task results and improve their work if necessary (Cohen et al. 1996). Not only the tasks within a team are of importance. Group characteristics can also influence the functionality of a team. It is very determining which skills the group members have. Self-managed teams only improve performance if team members have more knowledge and skills than management (under the conditions that team members are motivated to use this knowledge and skill in discretion and the organization allows for them to do this) (Fredendall & Emery, 2003). Stewart et al. (2011) found that a team is most effective when there is a clear mix of members with different skills, as long as the team does not grow too large. This makes coordination more difficult and therefore more costly. In addition, it is important that a group is stable and the turnover rate is small.

The former arguments are mostly internally focused. There are also some criteria that influence team effectiveness that are determined externally. One of these criteria is the behaviour of a team leader if there is one. Leadership can influence team processes, attitudes, beliefs and behaviours of team members so the way a team is lead is determining (Ensley, Pearson & Pearce: 2003). Communication skills are especially important for leaders of a self-managed team. These skills should be used to empower team members and to encourage them (Gust-Thomason & Yantis, 2006). Stewart et al. (1996) state that leaders or supervisors should encourage six different behaviours: self-evaluation, self-goal setting, self-reinforcement, self-criticism, self-expectation and rehearsal.

Finally, Fredendall and Emery (2003) explain the importance of an appropriate reward system on the team’s motivation and productivity. Individual reward systems often have a negative effect on the team because it increases competition between team members. They suggest a combination plan, which rewards the team as a whole but also team members individually. It generates a bonus at group level that is distributed at individual level. This method avoids negative competitiveness and social loafing because individuals are still held accountable for their work.
In practice, employees in self-managed teams often turn out to be subject to significant control and supervision (Manz, 1996). This can limit the benefits found in self-managed teams. It may be that team leaders have the perception that they service a self-managed team, but in reality they exercise too much power. There has not been much research on the different perceptions of team self-management between team leaders and team members. Examining this could shed more light on the cause of the problem found by Manz. Also, the flexibility that makes self-managed teams effective can also be harmful in case of a conflict. Langfred (2007) found that self-managed teams sometimes respond to conflicts by redesigning themselves in a wrong way, which makes them ineffective.

Manz (1996) also explains what criteria are necessary to make the change from self-managed teams to self-leading teams. For instance, cognitive conceptual skills related to work are necessary for this type of empowerment and employees should be able to manage themselves completely.

Research is often done in a specific industry or for one firm. The effectiveness of self-managed teams is then determined but this is dependent on the industry or firm. A general view on the effectiveness of self-managed teams measured across different industries is lacking.

So, since the introduction of self-managed teams there has been much research on self-management. Self-managed teams differ from traditionally managed teams because they have more responsibility over organizational tasks and human resources. Self-managed teams can have a supervisor, but this is not always the case. There is also a more advanced type of a self-managed team, also known as a self-leading team. Self-leading teams have more influence on strategic organizational processes. Self-managed teams and self-leading teams have advantages, but for those advantages to come forward there are several criteria that have to be fulfilled.

2.3 Effectiveness of self-managed and self-leading teams

There have been many studies in which authors have tried to determine the effectiveness of self-managing and self-leading teams. First, a consideration has to be made on the determinants of effectiveness. For instance, Yang and Guy (2011) categorized three domains that determine effectiveness. These three domains are participant satisfaction, goal attainment and system resources. Cohen et al. (2011) made a more extensive list of determinants based on a literature review. They
distinguished ten influential factors: Productivity/quality, creativity, self-efficacy, psychological empowerment, job satisfaction, organizational commitment, absenteeism, turnover and stress/anxiety. In this thesis, three outcomes will be considered. These outcomes are performance, quality of work life and absenteeism.

Performance is an outcome that has been studied several times. Productivity is an important determinant of overall performance. The conclusions about the effect of self-leadership on productivity vary in a large extent. Yang and Guy (2011) found no significant evidence that the level of self-management is positively related to team productivity. They do mention the fact that they found a significant positive relationship between the level of teamwork and productivity, but they do not assume that teamwork is always better under self-managed or self-leading teams. However, there have been many experiments that did show the positive relationship between self-management and productivity. For instance, Fredendall and Emery (2003) did research on the productivity of self-directed work teams in service garages. They found that productivity is significantly higher with service garages using self-managed teams than with garages that do not use them. Stewart et al. (2011) mention several other studies that have found a positive relationship between the level of self-management and productivity. Secondly, creativity has been studied as an effect of an increase in self-management. Gilson and Shalley (2004) interviewed and observed employees in a large multi-national and found that teams with higher engagement and task interdependence often showed to be more creative. Stewart et al. (2011) also summarized several articles that looked for a relationship between self-managed teams and quality. The overall finding was positive. For instance, Cohen and Ledford (1994) did a quasi-experiment in a telecommunications firm and found a significant positive effect on quality. From these performance related effects, it is formally proposed that:

\[ H_1: \text{A higher level of self-management within a team results in higher performance delivered by that team.} \]

The former hypothesis is mainly focused on performance, but there have been many findings on different areas as well. The following findings all relate to the quality of work life (QWL) for employees. One of these findings is related to job
EFFECTIVENESS OF SELF-MANAGED AND SELF-LEADING TEAMS

satisfaction. Most findings on job satisfaction are that self-management is positively related to job satisfaction (Cohen & Ledford, 1994; Pearson, 1992). However, there are some findings that have found no effect on job satisfaction (Yang & Guy, 2011) or even a negative effect (Mueller & Cordery, 1992 in: Stewart et al., 2011). Differing effects have also been found regarding organizational commitment. Cordery, Mueller and Smith (1991) did a study in a mineral processing plant and found that autonomous work groups have a higher commitment than traditional teams. Cohen and Ledford (1994) on the other hand, did not find a difference in organizational commitment between self-managed teams and traditional teams. Stewart et al. (2011) also show ambiguous effects on stress of employees. From their literature review they have found mostly positive effects where self-leadership meant less employee stress than with traditionally managed teams. However, they do mention another study where the opposite effect has been found. Motivation does seem to increase with team empowerment. Solansky (2008) did a laboratory study on team processes within self-managed teams and found a positive relationship between team empowerment and motivation. Also he found that confidence increases with empowerment. There is not a clear view on the level of trust with self-managed teams. For instance, Cordery et al. (1991) have not found a significant difference between self-managed teams and traditionally managed teams regarding trust in management. Langfred (2004; 2007) has done research on trust in team members. From his perspective, there is not necessarily a higher level of trust with self-managed teams. Finally, Cohen and Ledford (1994) found a positive relationship between self-management in teams and growth need satisfaction. All in all, these findings result in the following hypothesis:

\[ H_2: \text{The quality of work life for team members rises when the level of self-management on team level rises.} \]

Another concept that is often examined is the relationship between self-management and absenteeism. Although Stewart et al. (2011) name an article in which the conclusion is made that absenteeism is lower with self-managed teams, most research has indicated otherwise. For instance Cordery et al. (1991) found that absenteeism was higher for the self-managed team in their study compared to the
traditionally managed teams that were considered. Turnover also turned out to be higher in the self-managed work groups.

\( H_1: \) There is a positive relation between the level of self-management of teams and the level of absenteeism of that team.

Concluding, there are several factors that have been used to measure the effectiveness of self-managed teams. In previous research, relationships have been found between the level of self-management and performance, quality of work life and the level of absenteeism. However, these results have not always pointed in the same direction.

3. Methodology

3.1 Gathering data

In order to test the hypotheses above, a cross-sectional field survey is used. Firms from several industries and with different organizational structures have been tested. This is done in an attempt to formulate a general statement on the effectiveness of self-managed teams, applicable to more than one industry. This could also give complications because effectiveness in general can be highly dependent on the industry. A sample of seventeen different teams from six firms has been used, with a total of 51 respondents. The firms are Albert Heijn, Buurtzorg, Doctor Feelgood, Emile Thuiszorg, Effectory and Levitas. Buurtzorg and Emile Thuiszorg are both health care firms, Albert Heijn is a retail store, Effectory is active in the corporate services industry, Levitas is a sports centre and Doctor Feelgood is a massage salon. The firms are mostly small and medium enterprises, except for Albert Heijn and Buurtzorg, which have many employees.

Two questionnaires have been used to measure the effectiveness of self-managed teams, which were all sent by email. The first questionnaire concerns 24 questions and was meant for team members. Ten questions are used to classify teams into one of three categories; traditionally managed, self-managed or self-leading. These ten questions include two control questions. Seven questions concern the quality of work life perceived by the team members, four questions are about the perceived performance and the final three questions ask for information about the
gender of the respondent, the firm he or she is active in and the team he or she belongs to. Except for the last three questions, all questions asked for an answer based on a given seven-point scale (1= strongly disagree, 7= strongly agree).

The second questionnaire exists fifteen questions and was meant for team leaders (if there is one). This questionnaire is mainly set up to get a better view on performance. Again, there are some questions to recognize a team’s structure. Besides being a tool to categorize firms, it could possible show why self-managed teams are often still subject to significant control. As explained before, team leaders could have a different perspective on their control over the team. The remaining six questions concern performance of the team as perceived by the team leader. These questions are about the quality of the product that is made, goal attainment, productivity, creativity, output and efficiency. By comparing the results on performance, we can see if perceived performance by team members is representative for measuring performance of the team. This way, we may be able to judge the performance of teams without data from team leaders.

Absenteeism is measured in a different way than quality of work life and performance. Dependent on who has access to the appropriate data, Human Resources or the team leader is contacted and asked if they can look up data about absenteeism of the team. To measure this, information about the hours that should have been worked per month are collected together with the hours that were cancelled by team members because of for instance illness. Vacation hours are not included. This data is asked for the past three months.

3.2 Analysis

The collected data is analysed in four steps. The first step is intended to label firms. Ten questions in the questionnaire are meant for identifying the different teams. These are the only questions that are considered in this part of the analysis. In order to make a distinction, the following characteristics are chosen: When respondents have an average score of 4.5 or higher on two or more questions, they are labelled as a self-managed team. However, a team can also be self-leading. To qualify as a self-leading team, the respondents should have an average score of 6 or higher for two or more questions. When neither of the two criteria applies to a team, this team is considered as traditionally managed. Most questions represent a continuum, which is similar to the continuum from traditionally managed teams to self-leading teams. This creates
the possibility to categorize teams based on this continuum and therefore a higher average score points to a higher level of self-management. Traditionally managed teams can have characteristics of a self-managed team to a certain extent. For instance, traditionally managed teams often have some say in how they want to do their tasks. This is why the border of 4.5 is well over the second half of the scale. An average score of 6 or higher represents almost complete or complete self-management, therefore this is chosen as the second boundary.

The second step relates to the comparison of the results of team members and team leaders. Perceived performance by both groups is measured. In order to measure the validity of the perceived performance by team members, the perceived performance of team members is compared to the perceived performance of team leaders. If the difference is significant, determined by a t-test, this means it is hard to make a conclusion about the performance of that team or firm because we are not sure who is right. We assume a normal distribution with equal population variances, but the population variances are checked before the test is executed. To measure performance, the following factors are chosen: quality, creativity, goal attainment and quality. For team leaders, efficiency and output are also included. These items have been chosen, mainly based on the questionnaire by Yang and Guy (2011).

Once a distinction can be made between the firms, the firms are pooled together according to the type of teams. Three groups are formed, one group of firms with traditionally managed teams, one group with self-managed teams and a group with self-leading teams. The results from the questionnaires are included, but the results from the interview regarding absenteeism are also included. After all this has been ordered and tested, we can see whether there is a difference in absenteeism, quality of work life and performance between the different teams. To test if the differences are significant, again a t-test for unequal samples sizes is used. Depending on the outcome for the test on equal population variances, the t-test is executed.

The last step is a check for correlations between QWL variables and performance variables. If they are strongly correlated, this would make the direct effect of team empowerment on both factors unclear. A higher level of self-management could have a positive effect on QWL. If performance and QWL are correlated, this could mean a higher level of self-management has an indirect effect on performance through QWL, but no direct effect on performance exists. If there is a
correlation found, this does not necessarily mean they are causal, but it does not exclude causality either.

4. Analysis

4.1 Categorizing firms

First, the teams have to be divided in the three categories. The categories are shown in table 1. Regarding the team questions, Albert Heijn does not meet an average score of 4.5 or higher for any of the questions. Therefore, it is qualified as traditionally managed. However, team leaders have also filled in the questionnaire. From this answer sheet, the average score is higher than 4.5 for two questions. This could mean team leaders feel like they give their team members more power and freedom, but team members do not feel this way. The same counts for Doctor Feelgood regarding the team members. Unfortunately, there are no team leaders that have responded to the questionnaire. Emile Thuiszorg is labelled as self-managed. It has an average score of 4.5 or higher for two questions. These questions are ‘my team can decide how to do a task’ and ‘my team shares responsibility and leadership’. Again, the scores are higher for team leaders. The team leaders score four questions higher than 4.5 and one of these questions even has an average answer of 6.14. The team members from Levitas have scored higher than 4.5 for six questions, so they are also seen as self-managed. No score is higher than six and no team leader has filled in the questionnaire. When looking at Effectory, the average scores on the team questions are a lot higher than for the former firms. Effectory has a score of 4.5 or higher for five questions, of which two are higher than 6. For the team leaders, four questions are scored above 4.5, all of them are also higher than 6. Buurtzorg does not have team leaders. Regarding the team members, there are 5 questions that have an average answer of 4.5 or higher and two questions have a score above 6, just like Effectory. Therefore, both Effectory and Buurtzorg are qualified as self-leading.
Table 1.

<table>
<thead>
<tr>
<th>Firm</th>
<th>Traditionally managed</th>
<th>Self-managed</th>
<th>Self-Leading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albert Heijn</td>
<td>Emile Thuiszorg</td>
<td>Effector</td>
<td></td>
</tr>
<tr>
<td>Doctor Feelgood</td>
<td>Levitas</td>
<td>Buurtzorg</td>
<td></td>
</tr>
<tr>
<td>Number of team members</td>
<td>18</td>
<td>13</td>
<td>7</td>
</tr>
<tr>
<td>Number of team leaders</td>
<td>4</td>
<td>7</td>
<td>2</td>
</tr>
</tbody>
</table>

In order to see if team members and team leaders have the same view on performance, the answers are compared. Only from Emile Thuiszorg, Effectory and Albert Heijn data has been collected from team leaders. To see if the perceived performance of team leaders and team members is similar a two-sample t-test is executed with a confidence level of 95%. The test on equal variances has shown that variances can indeed be assumed as similar. Overall performance is used, which is a combination of perceived performance on creativity, goal attainment, productivity and quality. For Emile Thuiszorg, there is a significant difference between perceived performances of both groups. The p-value is below 0.000, which is much smaller than 0.05. For both Effectory and Albert Heijn, no significant difference is found, with p-values of 0.4609 and 0.5872 respectively.

4.2 Comparison of the results for the different teams

Now, all results from the different firms are pooled together into the three different categories and effectiveness can be tested. First, the results from the team leaders are considered. Table 2 shows the statistics for the answers that were given by team leaders. Only productivity is significantly higher for both self-managed teams and self-leading teams compared to traditionally managed teams. Interestingly, goal attainment is significantly higher for self-managed teams than for self-leading teams.
Table 2.

<table>
<thead>
<tr>
<th>Performance</th>
<th>Traditionally managed teams</th>
<th>Self-managed teams</th>
<th>Self-leading teams</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Productivity</td>
<td>5</td>
<td>.816</td>
<td>6.143*</td>
</tr>
<tr>
<td>Creativity</td>
<td>4.24</td>
<td>.857</td>
<td>5.714</td>
</tr>
<tr>
<td>Goal attainment</td>
<td>5</td>
<td>1.826</td>
<td>6****</td>
</tr>
<tr>
<td>Quality</td>
<td>5.475</td>
<td>.957</td>
<td>6.429*</td>
</tr>
<tr>
<td>Efficiency</td>
<td>4.708</td>
<td>1.294</td>
<td>5.429</td>
</tr>
<tr>
<td>Output</td>
<td>4</td>
<td>.816</td>
<td>5.143</td>
</tr>
<tr>
<td>Overall</td>
<td>4.5</td>
<td>1.063</td>
<td>5.810*</td>
</tr>
</tbody>
</table>

* Significantly higher than traditionally managed teams at p<0.05
** Significantly higher than self-managed teams at p<0.05
*** Significantly higher than traditionally managed teams and self-managed teams at p<0.05
**** Significantly higher than self-leading teams at p<0.05

From now on, only the results from team members are considered. As shown in table 3, the mean for the different performance factors are mostly higher for this sample when the level of self-management rises, except for productivity and quality, where the mean of traditional teams is higher than that of self-managed teams, although it is still lower than that of self-leading teams. However, none of the results from self-managed teams are significantly different from traditionally managed teams. For self-leading teams, performance is always significantly different from one or two team categories. When all factors are combined and overall performance is measured, self-leading teams have a significantly higher performance level than both traditionally managed teams and self-managed teams.
Table 3.

<table>
<thead>
<tr>
<th>Performance</th>
<th>Traditionally managed teams</th>
<th>Self-managed teams</th>
<th>Self-leading teams</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Productivity</td>
<td>5.056</td>
<td>1.259</td>
<td>4.615</td>
</tr>
<tr>
<td>Creativity</td>
<td>4.056</td>
<td>1.162</td>
<td>4.538</td>
</tr>
<tr>
<td>Goal attainment</td>
<td>4.333</td>
<td>.97</td>
<td>4.692</td>
</tr>
<tr>
<td>Quality</td>
<td>5.389</td>
<td>1.378</td>
<td>5.231</td>
</tr>
<tr>
<td>Overall</td>
<td>4.708</td>
<td>1.294</td>
<td>4.769</td>
</tr>
</tbody>
</table>

* Significantly higher than traditionally managed teams at p<0.05  
** Significantly higher than self-managed teams at p<0.05  
*** Significantly higher than traditionally managed teams and self-managed teams at p<0.05

Table 4 concerns quality of work life. Just like before, self-managed teams do not differ a lot from traditionally managed teams. In this area there are two significant differences from traditionally managed teams, namely team members find their job more challenging and they feel more useful. Team members of self-leading teams again have many significant differences with the other two. The feeling of usefulness during their jobs is significantly higher for both traditionally managed teams and self-managed teams, just like the level of trust in their team.
Table 4.

<table>
<thead>
<tr>
<th>Quality of Work Life</th>
<th>Traditionally managed teams</th>
<th>Self-managed teams</th>
<th>Self-leading teams</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Challenging</td>
<td>3.722</td>
<td>1.32</td>
<td>5.231*</td>
</tr>
<tr>
<td>Valued by team</td>
<td>4.833</td>
<td>1.043</td>
<td>5.077</td>
</tr>
<tr>
<td>Valued by management</td>
<td>4.167</td>
<td>1.618</td>
<td>4.846</td>
</tr>
<tr>
<td>Engagement</td>
<td>4.333</td>
<td>1.609</td>
<td>5.231</td>
</tr>
<tr>
<td>Feeling of usefulness</td>
<td>4.611</td>
<td>1.501</td>
<td>5.462*</td>
</tr>
<tr>
<td>Personal growth</td>
<td>4.889</td>
<td>1.278</td>
<td>5.615</td>
</tr>
<tr>
<td>Trust</td>
<td>5.278</td>
<td>1.179</td>
<td>5.154</td>
</tr>
<tr>
<td>Overall</td>
<td>4.548</td>
<td>1.429</td>
<td>5.231</td>
</tr>
</tbody>
</table>

* Significantly higher than traditionally managed teams at p<0.05
** Significantly higher than self-managed teams at p<0.05
*** Significantly higher than traditionally managed teams and self-managed teams at p<0.05

In order to see if QWL and performance are related, table 5 is made. In table 5, the correlations between the variables for traditionally managed teams are shown. A correlation is found between productivity and quality, job ‘challenge’, engagement and personal growth. Also a significant correlation exists between creativity and job challenge, the feeling of being valued by team and management and personal growth. The rest of the significant correlations are shown in table 4. For self-managed teams and self-leading teams there are also correlations found, even though the correlations are not similar for all the variables.

The firms that were analysed were asked to give information on absenteeism numbers. From the interviews, it became clear that the firms with self-managed teams and self-leading teams do not keep track of absenteeism numbers. Effectory for instance named that there is someone who monitors absenteeism, but only to recognize extreme absenteeism. Not every hour missing is recorded. Also, they explained that team members monitor each other, but the team mostly depends on trust in each other.
<table>
<thead>
<tr>
<th></th>
<th>Trust</th>
<th>Growth</th>
<th>Usefulness</th>
<th>Engagement</th>
<th>Valued by management</th>
<th>Valued by team</th>
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<th>Quality</th>
<th>Goal attainment</th>
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* Significant at 0.05
5. Discussion

5.1 Team members versus team leaders

Based on the data analysis, there are several conclusions that can be made. First of all, team leaders from both Effectory and Albert Heijn have more or less the same view on performance by the teams as the team members themselves. For Emile Thuiszorg this is not the case. Because there is only data from team leaders of three firms, it is difficult to make a clear statement about the relationship between perceived performance of team leaders and team members. Even though the majority of firms in this research show a relationship, it would be best to use more firms in order to make a definite statement about the relationship. This could be done in further research. Besides from performance measures, team leaders and team members are shown to have a different view on their management structures. The questions that were designed to distinguish different team structures showed that team leaders often see the team as more self-managing than the team members did. This could explain the problem given by Manz (1992) where self-managed teams are often subject to more control and supervision than they appear to be. There were not many team leaders that have filled in the questionnaire, so the results from the team leaders are less reliable. There is also a possibility team leaders interpret the questions differently. Also, some questions could lead to different answers depending on the position of the team leader. In the questionnaire the following question is included: ‘I decide what tasks have to be done’. This question is highly dependent on the position of the team leader and the interpretation. For instance, team leaders from Albert Heijn only have limited power on this subject. Higher management predetermines the tasks that have to be done; team leaders only have the power on which tasks have to be done at a certain moment or in a certain period. This could have made them score lower, but this does not mean team members have the freedom to choose how to do their task. In order to avoid this in further research, some more explanation is needed on this question.

The results of the team leaders are quite surprising. Self-leading teams only score better on performance than traditionally managed teams. Self-managed teams however show better results and score significantly higher than traditionally managed teams on more factors. Regarding goal attainment, the result is even higher than self-leading teams. However, there is only data available from three firms with eleven
respondents in total. Effectory only has two respondents for instance. This makes the results highly unreliable.

5.2 Implications of the data on performance, QWL and absenteeism

Once focused on team members again, the difference in performance between traditionally managed teams and self-managed teams does not seem to exist. No significant difference has been found in this study. However, a significant difference is present with self-leading teams. Interesting is the significant increase in quality of self-leading teams compared to self-managed teams but the absence of significance for the difference in quality of traditionally managed teams and self-leading teams. This could mean that quality goes down after the transition from traditionally managed teams to self-managed teams, but it rises again when the level of self-management increases. However, there is no significant difference found between traditionally managed teams and self-managed teams, so this cannot be determined by means of these results. Overall performance is significantly higher for self-leading teams than for traditionally managed and self-managed teams. This could mean that the first hypothesis is correct with the condition that this improvement in performance is only achieved when there is a substantial increase in team empowerment.

A similar result has been found for the effect of self-management on quality of work life. There is a significant improvement in the feeling of team members that they are challenged and that they are useful for self-managed teams compared to traditionally managed teams. These are the only significant differences that have been found. Therefore, the conclusion cannot be made that QWL is higher for self-managed teams than for traditionally managed teams, although it can be concluded that some factors increase. However, for self-leading teams, again there is a significant difference between the other teams. The only two factors that are not significantly better for self-leading teams concern the feeling of being valued by management and the contribution of their jobs to personal growth and development. Team members of self-leading teams do feel more valued by their own team. This may be due to the fact that management loses its importance as teams become more independent and therefore they don’t have much to do with assessment of management and in this way not with value either. All in all, QWL is significantly better for self-leading teams compared to traditionally managed teams and self-managed teams, but QWL is not different for self-managed teams and traditionally
managed teams. Therefore, hypothesis two is only true regarding self-leading teams, there has to be a high level of self-management for QWL to actually increase.

Hypothesis three is especially hard to judge because there is no concrete data found on absenteeism in this study. From the interview in accordance with the data on QWL, the conclusion can be made that there is more trust in team members. They stress that monitoring does happen within the team, but there is no record kept of absent hours. Langfred (2004) found that monitoring often goes down when there is a high level of trust in autonomous teams. When there is more trust within teams, this does not necessarily imply that monitoring is not necessary and this definitely does not mean that absenteeism is by definition lower. Because there is not much monitoring, the tendency to skip work for invalid reasons or to call in sick can be greater. However, because the QWL is on average higher for self-leading, team members may be more motivated to work. From this you can suggest that absenteeism is lower for self-leading teams. For self-managed teams on the other hand, QWL is the same as for traditionally managed teams. In combination with less monitoring this could lead to higher absenteeism numbers. To measure this, it would be necessary to study self-managed teams for a period of time, so absenteeism can be recorded. It would also be interesting for further research to study the transition within a self-managed team from no monitoring to a strict monitoring system. Changes can then be measured.

5.3 Correlation and other limitations

Something that is also worth examining more is the correlation between the factors that are measured. As shown in the analysis, there are quite a few significant correlations found in the answers to the questionnaire. Even though correlation does not mean there is a causal relation, it could be possible that higher quality of work life results in more motivation to work harder. This in turn could lead to higher performance results. This would mean that self-leading teams only indirectly result in higher performance. It could also be the other way around in a way that higher performance gives more satisfaction. Arsenault and Dolan (1983) found a negative relationship between job stress and perceived performance. This could probably be an explanation for the correlation. Either way, this creates uncertainty on the direct influence of self-management on effectiveness because the variables are not independent.
There are some other limitations related to this study. Firstly, the attempt to make a general statement on the effectiveness of self-managed teams also has its downsides. The introduction of self-managed teams could for instance have very different consequences in different industries and how large a firm is could also influence the effect. Because this study does not have a large number of respondents, these differences are more present. Also, this study considered different teams within one firm and made a general conclusion on all teams combined. In general, these teams were organized similarly, but there is always the possibility one team functions differently and therefore performs differently. Future research with more respondents could improve the validity of the results.

6. Conclusion

This study shows that there are several advantages related to self-managed teams. Employees in self-managed teams feel more useful on the job and they find their jobs more challenging. However, performance does not seem to be significantly different from traditionally managed teams and quality of work life overall does not seem to increase either. The number of respondents for this study was relatively low; more respondents could give more insights on the advantages of self-managed teams. Self-leading teams were also examined and this has shown many more advantages of team empowerment. Overall performance is higher than both self-managed teams and traditionally managed teams. Also, quality of work life is substantially higher than QWL of traditionally managed teams or self-managed teams. Unfortunately, the correlations that are found between the variables measured create uncertainty on the validity of the effects of self-management. This uncertainty could be investigated in further research.
Reference List


Appendix A. Questionnaire effectiveness of different teams – team members.
The following questionnaire is sent out to team members of the different firms. They are asked to answer based on a seven-point scale (1 = totally disagree, 7 = totally agree). A Dutch questionnaire is sent out to Dutch firms.

1. My team can decide how to do a task.
2. My job is challenging.
3. My team is productive.
4. My team has influence on the wages of its own team members.
5. I feel valued by my team.
6. I feel valued by management.
7. My team shares responsibility and leadership.
8. My team has to meet a certain performance standard.
9. Tasks are imposed on my team by management.
10. My team is creative.
11. I feel engaged to the firm.
12. I am assessed based on my team’s performance.
13. My position within the team changes regularly.
14. My team meets its targets.
15. I feel useful in my job.
16. My team has a say in which tasks have to be done and why.
17. The product delivered by our team is of high quality.
18. My team is involved in strategic organizational processes.
19. My job contributes to my personal growth and development.
20. The responsibility regarding the team’s performance lies with our leader or management.
21. I trust my team.
22. I am a: (gender can be chosen).
23. What company do you work for?
24. Which team do you work for?
Appendix B. Questionnaire effectiveness of different teams – team leaders.

For team leaders, the following questionnaire is sent out:

1. I assess team members based on the performance of the whole team.
2. My team has a say in which tasks have to be done and why.
3. My team meets its targets.
4. My team has influence on the wage of its own team members.
5. My team meets the expected turnover.
6. My team is involved in strategic organizational processes.
7. My team is productive.
8. My team has to meet a certain performance standard.
9. My team shares responsibility and leadership.
10. My team is creative.
11. My team can decide how to do a task.
12. The product delivered by my team is of high quality.
13. I have responsibility regarding the team’s performance.
14. My team works efficiently.
15. I decide what tasks have to be done by the team.
16. I am a: (gender can be chosen)
17. What company do you work for?
18. Which team do you work for?