

Mandatory systematic work environment management is poorly integrated into Swedish employers' management control of their operations

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Abstract: Regulated OHS management (OHSM) is the main government intervention to improve OHS. This specifies how employers shall conduct a systematic OHSM within their total management control. Mandatory OHSM is difficult to evaluate as it aims to change how employers manage their operations. Evaluations have been neither reliable (using managers self-claimed compliance) nor valid (covering only some processes but not the mandated risks prevention). The evaluation of the Swedish OHSM-provisions on Systematic Work Environment Management (SWEM) instead reviewed some 270 case studies. These revealed a consistent pattern of actual OHS-management. Divided on three requirement levels in SWEM, major results were:

I. Systematic OHSM-routines – e.g. risk assessments and action plans – are normal in larger employers but they are rarely fully implemented.

II. SWEM-actors are not capable enough. Managers are delegated SWEM-tasks but rarely with enough time, funding, authority and competence. This is worse in the public sector. Safety rep and worker participation is organized, but with limited prerequisites for an OHS dialogue.

III. The controlling level is poorest. OHS objectives are vague or limited. Only processes, sickness absence and sometimes accidents rates are monitored but rarely the dominating health risks. SWEM's effectiveness is rarely audited and improved. In all, this limited SWEM is fairly – but not enough – effective to abate technical risks, mainly for accidents, from noise and chemical hazards and to install ergonomic equipment. But organizational risks for stress and for RSI are rarely raised enough to be resolved. Small firms have less SWEM at all three levels. The increasing supply-chain economy erodes employer-managers and workers-safety reps as actors, which results in poorer SWEM e.g. subcontractors and for casual employees. Employers and executives thus leave SWEM in OHS's old side-car. The evaluation compares this to the requirements of an effective management control. It analyses this against changes in the Swedish economy and labour market and in intra-organizational prerequisites of management and accounting. The latter e.g. reveal why economic OHS arguments mostly are ineffective.

Keywords

OHS management, Regulation, Management control, Evaluation, Worker representation

I. Evaluating the implementation of Swedish mandatory OHS management

1. Analysing OHS management compliance against a broader background

Frick & Johanson (2013) and Frick, (2013a) evaluated how Sweden's mandatory

Systematic Work Environment Management (SWEM) is implemented. The paper on this is divided in three parts: background and the SWEM-evaluation, its results, and analysing these as a management control, with the following sections:

2. The development of mandatory occupational health and safety management (OHSM).
3. Why qualitative case-studies are better than surveys to indicate SWEM-implementation.
4. How the SWEM-provisions can be understood as three levels of control
5. Results on a implementation at the three required levels of control.
6. A summary of the SWEM-practice of medium to large employers.
7. Small employer mostly have started with SWEM but it is still a very ineffective OHSM.
8. Attempts to include employee health (and more) in broader management perspective.
9. Applying this management control perspective on the SWEM-evaluation.
10. Conclusions on the focus of the practice of and further research on implementing SWEM.

2. Mandatory OHS management is the new political strategy to improve health at work

The main regulatory strategy to increase employers' work environment consideration in their management control is, since around 1990, a mandatory systematic OHS management (OHSM), with EU's Framework Directive (89/391/EEC) as a major example. The employers' process to interpret and integrate OHSM requirements into their own management control will determine the reform's effects. Frick et al. (2000) discuss three interacting employer reactions to and OHS outcomes of the spread of mandatory OHSM:

I. *The success hypothesis*: Difficulties are inevitable in implementating a complex reform, but it should still improve the management control of OHS conditions and reduce risks at work.

II, *The paper-tiger hypothesis* doubts that the aims can be realised. The process management is based on an ineffective and mechanistic organisational model. OHSM is largely a wasted effort, which takes up scarce resources that should focus on traditional OHS strategies.

III. *The sham hypothesis* is openly critical. OHSM is as a pretext for deregulation. A weakly enforced paper OHSM is a justification for fewer substantive regulations, or for vague and less easily enforced standards. This will make OHS more of a voluntary choice for employers.

2. A review of qualitative research evaluated the implementation of SWEM in Sweden

Sweden regulated OHSM in parallel with the Framework directive (Frick, 2002). SWEM was mandated in the Work Environment Act (WEA) in 1991 and specified in provisions from 1993 (first labelled Internal Control, but with no principal differences in SWEM from 2001, AFS 2001:1). The 1970s reforms had strengthened state regulation and inspection, employees and their safety reps, and OHS experts in R&D and occupational health services. SWEM is to mobilize the fourth and most important OHS actor, the employers, to improve OHS in their management control. The reform is thereby to lift OHS activities from their old 'sidecar'-position (more talk than action; Frick, 1994) and integrate it into the management of production and thus its work environment. SWEM is a major aspect of the Swedish Work Environment Authority's (SWEA) supervision of the WEA (Frick, 2011).

SWEM is the main political strategy to cut the huge costs of poor OHS. SWEA has an action program to promote SWEM. Its research review of what is known of SWEM's

implementation, with an emphasis on Swedish studies (Frick & Johanson, 2013; Frick, 2013a). Some quantitative surveys try to measure employer compliance with the OHSM-regulations. Robson et al. (2007) used especially Norwegian data in their evaluation of the effects of mandatory OHSM and of voluntary OHS management systems. However, the surveys managers' self-reported legal compliance can as much reflect their knowledge of their obligations as what they really do. Neither are the surveys valid indicators. They ask which procedures the managers have introduced (such as risks assessments), but not if the procedures prevent risks at work, which is the definition of mandatory OHSM (article 6.1 in 89/319/EC, and section 2 in SWEM). And surveys can not illuminate employers' implementation process that links this input to output. To understand this, we have to look into the process of the SWEM-implementation.

Our SWEM-review thus used a qualitative methodology (Frick, 2013a, ch. 1). Database searches and snowballing generated around 700 reports etc. After screening for quality and relevance, some 270 studies were used. Their coverage varied with many on manufacturing, on small firms and on municipalities but few on government agencies and on service firms. The studies should give a reasonably reliable indication of how OHS is managed in Sweden as they present a remarkably consistent picture of this across economic sectors and industries.

3. SWEM's requirements can be understood as three separate levels of control

SWEM (all mandatory OHSM) is defined by its results: do what is necessary to prevent risks at work. However the provisions also require employers to implement means-procedures, deemed to be necessary to systematically manage the quality of the work environment. SWEM is thus a complex reform with several causal links between the regulation and a final work environment outcome. To understand the implementation process, the review separated SWEM's requirements on three levels of control. These are based on research on quality control and on the public documents behind the reform (Frick and Johanson, 2013, ch. 4):

I. What should be done? Sections on systematic routines to detect and abate risks, mainly on:

- organised routines (section 5):
- task allocation (6);
- risk assessments, including when changes are planned (8);
- action plans and inspection of effected measures (10).

II. Who should do it? Capable actors to implement the routines through sections that require:

- SWEM to be integrated into the daily management (3);
- that employees and their safety reps are given the possibility to participate in SWEM (4);
- sufficient resources, time, competency and authority for those allocated SWEM-tasks (6);
- to give employees sufficient knowledge of risks and risk control (7);
- employer to engage OHS services (or others with competence) when they lacks sufficient OHS or SWEM-competence (12).

III. Management control, audit and improvement. To secure that SWEM is aimed at all risks and eliminates or reduces these, sections require SWEM:

- to be how employers manage their operations so as not to cause injuries or ill-health (2);
- to cover relevant physical, psychological and social conditions (3);
- a policy of how the work environment shall be not to cause work related ill-health (5);
- a yearly follow-up and (if needed) improvement of how SWEM is conducted (11).

II. Results indicate some success but also much ineffective SWEM

5. Mostly procedures (I), partly capable actors (II) and rarely goal-directed SWEM (III)

The SWEM-review differentiated the results by industry, by size and by position on the labour market (Frick, 2013a) but the studies indicated a very similar SWEM across industries. The results below therefore stand for medium and larger employers (from 50-100 employees).

Employers' compliance is best at the *first level*: the required procedures-routines. They usually have organised SWEM with documented routines of task allocation, risk assessments and action plans for unresolved problems. But the procedures are not always comprehensive nor are they all implemented. For example, safety rounds and risk assessments may be lacking or ineffective to raise all risks. And when risks are assessed, the action plans may not cover all of them, nor are plans always implemented. The procedures are more effective against technical risks in on-going operations but less so against organisational risks and when changes are planned. E.g., large employers often have employee surveys with questions on psychosocial risks. However, few of them have a SWEM that acts effectively against such organisational risks, which instead may recur as e.g. too high stress levels in the next survey.

Ineffective procedures are caused at the *second control level*, of how employers empower their SWEM-actors. Written task allocations and instructions are the norm, as is at least some OHS training of managers. Yet, instructions may be unclear and training missing. But the main problem is that managers (and others) rarely have enough time, funding, competence and authority in SWEM. Managers often complain of lack of time for SWEM, which means that senior managers do not prioritise OHS enough to focus lower managers on this. A right to return SWEM-tasks is mostly an illusion as this is mostly seen as a failure as manager, regardless of the conditions. However, if e.g. safety provisions require employers to act against a risk, managers can mostly get extra funding for this. But many technical risks are still not assessed and resolved, due to managers' limited SWEM-abilities. Employers with limited SWEM, rarely hire OHS services that instead are more used by ambitious employers.

Participation is essential in SWEM (Frick, 2013b). There is also an organised dialogue between managers and especially the safety representatives, with e.g. workplace meetings and joint OHS committees. Yet, the participation is less effective in practice. Employees and reps often face too passive managers with a limited SWEM-capability. The passive and sometimes active resistance is more common for expensive or more complex problems, which (again) mainly are organisational risks for physical and mental overload. Safety reps also have less real chance to use their in theory extensive rights of participation and influence, with e.g. problems to get time off. But there are also examples where active safety reps have a good dialogue with managers, sometimes even on organisational issues.

The *third level of control* – to manage SWEM so as to secure that it raises and resolves all risks – is least implemented. SWEM-policies are common but they are rarely specific with few objectives to guide SWEM and to evaluate it against. SWEM is mostly followed up yearly, but mainly its means-procedures (e.g. numbers of safety rounds and joint meetings). However, most employers with notable accidents risks have objectives for these in their policies and monitor and try to improve their SWEM to reduce these risks. Yet, OHS risks are dominated by occupational diseases (Hämäläinen et al., 2009). These are only 'measured' as sickness absence, but this is a poor indicator of occupational diseases (Larsson et al., 2005). Employers thus rarely audit and improve a SWEM against the

dominating OHS risks.

6. Much a paper-tiger against organisational but more success against technical risks

As there is little management control of SWEM's effectiveness, the provisions are poorly implemented. Larger employers have 'ordered' the organisation of SWEM, but mainly by delegating this down as yet another task for lower managers to handle, though with limited objectives and resources. OHS is thus poorly integrated into the general management control.

SWEM's practice thus often supports the mentioned paper (tiger) hypothesis. Yet, there is also support for the success-hypothesis. SWEM's more hands-on, first control level of procedures to manage risks seems to have improved the routines compared to the old side-car. E.g., before the SWEM-reform technical risks could be discussed again and again in joint OHS committees without being resolved (Frick, 1994). SWEM seems to have raised and reduced technical risks and especially when provisions clearly mandated what to do. Case studies also demonstrate how ambitious lower managers find ways outside their too limited SWEM – as organised and monitored from above – to solve also other work environment problems. Nevertheless, many technical risks are still not effectively detected and resolved.

There is also much individual variation in employers' SWEM. While some neglect this others have high SWEM-ambitions. Their top managers specify broad objectives for and a strong support to an effective SWEM within their organisations. Their SWEM is also better to act against psychosocial problems that their surveys may indicate. Though even these employers have gaps in their SWEM, mainly for less common tasks and in changes.

7. Improving but still limited SWEM in small firms

There are also differences between industries (Frick, 2013a). With strong OHS traditions, many large manufacturers have integrated SWEM much (though not fully) into their management. This may include objectives for and monitoring of musculoskeletal risks and how to improve their SWEM to reduce these. Provinces and municipalities/local councils are less successful. They are also large employers with long traditions of a social dialogue and with formally well organized SWEM. However, these public employers have a structurally poor management capability to reduce their dominating health risks of mental and physical overload (see also Frick, 2013c). In line with results on small firms' poor OHS management (Hasle & Limborg, 2006), the SWEM-review (Frick, 2013a, ch. 10) found that:

- SWEM-procedures have gradually become more known and more implemented, which probably has improved their management of technical risks. Yet, many still don't assess risks and those who do may overlook less obvious such risks, especially organisational ones.
- This limited SWEM is linked to small firm managers widespread ignorance of OHS issues and overestimation of both their knowledge and of their firm's work environment. Small firms also very rarely use OHS services or other competent advisers to support their SWEM.
- The ignorance and poor SWEM depends on the limited time that small firm managers give to OHS. Yet, some firms have an improved SWEM, within still tight management resources.
- Their SWEM has little worker participation. They have only a third as many safety reps per employee as in larger firms and lone local safety reps have a weak position (Frick,

2013b).

- Small firms' SWEM improves by size. Micro-firms (of 1-9 employees) have hardly any SWEM while manufacturers with 40 employees usually try to manage at least accidents.

The improved but still poor SWEM in small firms results in higher accident rates and probably also in less action against other technical risks. Sickness absenteeism is low, but this may be caused by high labour turnover that leave few long term ill on their employee-lists.

III. Understanding SWEM as management control

8. Development of internal accounting and management control in parallel with OHSM

Parallel to the development of OHSM, there are, since the 1970/80s, critical debates and research on the limitations of general management control. These focus on too little relevance of economic accounting and on the consequences of this on financial control and on the broader management control (Johnson & Kaplan, 1987). This has e.g. resulted in attempts to include the management of human resources, such as their health and competence, in a broader management control. The discussions have been based on various points of view, of both the micro- and the macro-economic outcomes but also from ethical perspectives.

A Swedish project on Health Accounts in municipalities tried to broaden the management control practice (Johanson & Cederqvist, 2005). And an international project combined researcher who study OHS management and policies and those focusing on economic governance. It investigated how combine work environment with a financial perspective of the firm. It indicated many opportunities to improve OHS management if the external and internal research perspectives on management area joined, for example through a better understanding of what is required of an effective integrated OHS management and what organizational development is necessary to achieve such an integration into the general management control (Johanson et al., 2007).

9. A management control analysis of shortcomings in SWEM's practice

Our evaluation developed a model of what is required of an effective management control, to better understand how employers implement SWEM (Frick & Johanson, ch. 5):

Content of the management control

1. Clarification of the vision for the control.
2. Identification of key critical factors and risks.
3. Establishing strategies, action plans and objectives.
4. The use of performance measures.
5. Monitoring performance:

Form of the control

6. The importance of formal versus informal processes regarding factors 1-4.
7. Reward processes linked to the Systematic Work Environment Management.
8. Responsibility and contract processes linked to SWEM.
9. Evaluation processes for the entire management control.

Control ideal

10. Consistency between control's ideal and its content and form, especially on SWEM.

Comparing the model and the case study results clarifies the crucial shortcomings in how employers integrate SWEM into their management control. The OHS vision is unclear and sometimes not at all focused on achieving OHS results. At worst, it aims for the letter of

the law but ignores its objectives. The more complex a risk is to measure and/or its root causes, the less effective is the delegated, but insufficiently targeted, supported and audited, SWEM to recognize and manage the risk. Yet, this severe limitation is rarely recognized as SWEM's performance measures are inadequate, sometimes only measurement of the processes rather than the OHS objectives and results. When top managers rarely measure or assess more than a minor portion of the risks, they can hardly evaluate or improve their SWEM.

Responsibility and contracting processes are also inadequate. There is little monitoring of and rewards for how managers perform their SWEM-tasks. This often results in lack of managers' priority of SWEM. Except for some more ambitious employers, the SWEM-vision and the control ideal demonstrated by top managers focus more on means-procedures and on the important (but limited) issues of sickness absence and sometimes on accidents (as the tip of the ice-berg of risks). These narrow visions set examples throughout their organisations of what SWEM management is actually to implement. SWEM rarely comprises the necessary interacting combination in a management control chain of: 1. vision; 2. strategy with critical factors to achieve the vision; 3. plans; 4. measures; and 5. auditing and improvement.

10. Conclusions: Focus promotion of and research on SWEM more on top management

The result of this poorly linked management control chain is a usually too narrow focus on SWEM's procedures that is too ineffective against the widespread risks of physical and mental overload but often also against technical risks. However, line managers' limited SWEM is an effect of employers and their top managers too lack of objectives, resources, monitoring, rewarding and improvement of how their managers' implement SWEM. (Though it should be repeated that SWEM also is partially implemented, especially in larger organisation and especially against accidents and other technical risks.)

To improve health at work, OHS actors have to address how employers/top managers secure a SWEM that complies with the provisions' objectives of preventing all (serious) risks. This is mandated in the SWEM-provisions (levels II and III above) but information, surveys and debates on SWEM still focuses on risk assessment and other procedures. Further promotion of an effectively implemented SWEM therefore needs to go more to the top of organisations, where the prerequisites for SWEM's practices are determined (though SWEA's mentioned SWEM-program may be an attempt for such a reorientation).

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