Employee Ownership and Organizational Identification: 
The Role of Types of Employee Ownership

Gunnar Magne Økland
Associate professor, NHH Norwegian School of Economics
Email: gunnar.okland@nhh.no

Olav Kvitastein
Associate professor, Bergen University College
Email: olav.a.kvitastein@hib.no

ABSTRACT

Key questions being studied are: Will employee collective owners identify more strongly with their organization than employees working in a private conventionally owned firm? Will employee collective owners identify more strongly with the organization than employees holding shares individually in a private conventionally owned firm? 416 employees in an employee-owned shipyard are compared with 353 employees in a conventionally owned firm. The design – a natural occurring experiment is unique in that four years prior to the study, the two shipyards formed one firm. Results indicate that employee collective owners identify more strongly with the company than other employees. The study reveals that employee collective ownership is stronger related to organizational identification than employees holding individual shares in the private conventionally owned company. Employee collective owners are found to have a stronger feeling of being owners based on their co-ownership than employees holding individual shares in the conventionally owned firm.

Keywords
organizational identification, employee collective ownership, employee individual share ownership, employees’ feeling of being owners

The purpose of this paper is to gain more insight into the relationship between employee ownership and organizational identification. In this study we investigate the link between dissimilar forms of employee ownership and organizational identification. We here draw a distinction between co-ownership on the one hand and individual employee ownership on the other, and no comparative studies have so far been published that investigate how these two forms of employee ownership are related to organizational identification. As a first step in getting insight into these relationships this study aspires to test employee ownership
determinants of organizational identification while mechanisms of causality await to be explored for those hypotheses that turn out to be supported.

The empirical basis for this paper is a survey of employees in two separate companies: a shipyard owned collectively by its employees and a conventionally owned shipyard with individual employees owning shares, both located in the same city in Norway. Four years prior to the study, the two shipyards formed one firm which was then split into two almost equally large companies. Hence, factors such as type of industry, age of the organization, historical background, and size are quite similar in the two settings. The design is thus a natural occurring experiment.

A search in PsycINFO electronic database (http://www.apa.org/about/index.aspx) revealed 43 studies in the period 2004–2011 with the search term organizational identification in abstracts meaning that more than 120 studies on organizational identification have been published in international journals by the end of 2011.

Employee organizational identification is a significant research domain partly because it may impact on organizational strategic positioning. Czarniawska and Wolff (1998) claim that the identity of organizations must fit their institutional field. In a study of two universities, where one survived, they found support for this proposition. Organizations prefer to be positively evaluated and endorsed by their institutional environment, and organization members put efforts in identity formation in order to reduce identity ambiguity (Clegg, Rhodes, & Kornberger 2007). Organizations are also found to strive to bring their identity in line with their construed external image (Dutton & Dukerich 1991).

There are further reasons for the topic’s significance. The process of identification is seminal in understanding different domains of organizational behavior such as leadership, decision making, communication, and motivation. The advantages of a strong organization-employee bond, i.e. high organizational identification, may be that employees work more in the interest of core organizational values and goals, and that they stay longer with the organization. A meta analysis by Riketta (2005) concludes that organizational identification correlates with a high number of work-related attitudes, behaviors, and context variables. Organizational identification contributes to explaining individual and group behavior (Haslam 2004; Haslam, van Kippenberg, Platow & Ellemers 2003; Hogg & Terry 2001; Riketta 2005). Organizational identification is found to decrease employee turnover and increase extra-role behavior (O’Reilly III & Chatman 1986). Organizational identification also correlates positively with work-related attitudes like organizational commitment, occupational attachment, work group attachment, job satisfaction, organizational satisfaction and job involvement (Riketta 2005). Furthermore, organizational prestige and job scope/challenge as contextual variables are found to correlate positively with organizational identification in Riketta’s (2005) meta analysis.
Another reason for organizations to be interested in organizational identification is to gain more insight into how this phenomenon may interact with other identities like group identification. Organizational identification may be regarded as subsuming multiple identities in organizations in which each identity plays a key role in a specific context (Whetten & Godfrey 1998). According to this approach group identification is a component in understanding organizational identification. In the engagement model by Tyler and Blader (2000) identification with the group affects cooperation within groups. Cooperation within the group is defined as promoting group goals. Their empirical investigation reveals that identification plays a stronger role in affecting cooperation than incentives and resources. Identification affects extra-role behavior more than other types of cooperation. So, for organizations aspiring to increase group performance, insight into identification may be a fruitful avenue.

Employee ownership is found to positively impact firm profitability, growth in revenues and productivity (Beatty & Schachter 2002). In a review of thirty empirical studies, employee ownership is found to increase stability of employment without reducing economic firm efficiency, in addition to resulting in faster growth in employment and higher company survival rates (Rosen et al. 2005). In many cases employee ownership is one element in incentive plans in terms of entitling employees to become stock owners with its long term benefits (Rodrick 2006). In sum these findings indicate that studying effects of ownership is an important theme for scholars.

According to the National Center for Employee Ownership (http://www.esop.org/) it is estimated that 28 million employees in the United States were employee owners in 2012. Employees control 8 percent of corporate equity and about 4 thousand companies are majority owned by their employees. These figures indicate that employee ownership is a pervasive type of ownership, and the applicability of research on organizational effects of employee ownership is thus potent also for practice. Employees, managers, investors and politicians may have a need to comprehend the ramifications of employee ownership for individuals, groups and organization. These agents may make more informed decisions based on more insight into employee ownership effects on firm effectiveness, recruitment of personnel, mobilization and development of human resources, and specifically effects on turnover, absenteeism, employee satisfaction, product – and service quality and customer satisfaction. Such effects of employee ownership may be embedded within a human resource framework as a human resource strategy activity (Kuvaas & Dysvik 2012). As a part of human resource strategies, investors and managers may take advantage in decision making of knowing what research has to say about the impact of employee ownership on firm profitability, turnover, absenteeism, employee satisfaction, product – and service quality and customer satisfaction. For politicians one avenue may here be to encourage a human resource strategy that according to research has proved to be more effective for organizations.
In theoretical terms this study aspires to add knowledge on the link between psychological ownership and organizational identification. Psychological ownership has proved to be a potent concept in explaining, predicting and understanding employee attitudes and job behavior. Van Dyne and Pierce (2004) concluded that employees’ feeling of ownership is positively linked to organizational commitment, job satisfaction, organization-based self-esteem, and work behavior (performance and organizational citizenship). Van Dyne and Pierce (2004) also found that variance in organization-based self-esteem and organizational citizenship behavior determined by organizational commitment and job satisfaction may be explained by employees’ feeling of ownership.

For theory building the purpose of this study is also to gain more insight into the role that employee ownership and employees’ feeling of being owners, i.e. psychological ownership, play for organizational identification. From a managerial point of view more knowledge on how to strengthen the psychological bonds between employees and their organization may be instrumental in elevating organizational commitment, work group attachment, job satisfaction, organizational satisfaction, job involvement, extra-role behavior and organizational citizenship. For organizations with high employee turnover problems, increasing organizational identification may ameliorate this challenge.

Employees may be owners by virtue of owning shares in their company on a strictly individual basis. Alternatively, employees may own a substantial part of the equity of the firm collectively in a common fund of firm shares where shares are distributed equally among a majority of employees. It is these two types of ownership being scrutinized in this study. A third type, employee stock ownership plans (ESOPs) is an organizational arrangement where employees own shares in their company. Shares may not be distributed equally among employees, and a significant portion of the firm equity is held by employees (Klein, 1987). The only study found on the employee ownership – organizational identification relationship (Long 1978a) is a tentative study in a firm where about 70 percent of the employees purchased 100 percent of the shares in the firm individually. The results propose a positive relationship, but Long (1978a) claims that this conclusion must be interpreted with caution. Note that only 41 share owners and 18 non share owners in the company were included in the data analysis. Managers who were owners were not included. Only one item was applied to tap organizational identification keeping face validity at a low level. Based on this review we still need studies with more respondents comparing individual share owners and non share owners so that results may be valid for a wider population. Previous research also shows a lack of knowledge on the employee ownership – organizational identification relationship in that no studies include employee collective ownership.

In this study we will investigate the employee ownership – organizational identification relationship making a distinction between the two types of employee ownership identified above. Co-ownership reflects employees hold-
ing shares in their work organization collectively; for example in a commonly held trust. On the other hand individual ownership includes employees holding firm shares individually. This study aspires to advance theory on how disruptive events (Anteby & Molnár 2012), here in terms of employees becoming owners of their work organization, are linked to organizational identification. The study is a first step in getting insight into types of employee ownership as determinants of organizational identification. In order to reveal causality more fine-grained models encompassing mechanisms of the employee ownership – organizational identification linkage are needed. We thus do not aspire to establish causality in this study but employee ownership and feeling of employee ownership as determinants of organizational identification.

One key question is whether different types of employee ownership, in terms of collective vs. individual ownership, have different impacts on organizational identification. In the question of types of employee ownership this study may contribute to more insight on how these types are linked to the perception of being an owner. As a first step in getting more insight into the mechanisms that may explain the employee ownership – organizational identification linkage, we will here investigate the relationship between employee ownership and employee owners feeling of being owners. If feeling of being owners intermediates the employee ownership – organizational identification linkage, employee ownership should also be related to employee owners’ feeling of being owner in line with the requirements for mediators by Baron and Kenny (1986).

**CENTRAL CONCEPTS AND THEORIES**

In this section, we advance definitions and generate the theoretical underpinnings for the hypotheses advanced in the subsequent section.

**Organizational identification**

Organizational identification is in its nature conceptually embedded as a subtype of social identity (Ashforth & Mael 1989, Foreman & Whetten 2002). While identity reflects core psychological traits of who a person is, social identity is to the degree that an individual includes the perceived identity of other social units as a part of self. Social identity will according to this view be the answer to the question: Who am I as a part of this social system? In line with this view organizational identification reflects an employee’s belief about who he/she is as a part of an organization. According to Albert and Whetten (1985) such beliefs may encompass core and enduring organizational values and distinct characteristics making the organization to be perceived as something special by organization members.

The organizational identification concept is complex. Employees may have multiple identities (Foreman & Whetten 2002) to different targets in organiza-
tions like specific colleagues, immediate group of workers, with an occupation, workers as a wider group, trade union and stakeholders. Employee owners, being studies in this project, may for example have multiple identities to employees and owners. Hargreaves (1994), who studied the culture of teachers at high school in Canada, found that teachers may have dual and conflicting commitments and identities to their professional groups in contrast to their immediate teams being responsible for groups of students. Foreman and Whetten (2002) found that employees may have dual identities to stakeholders with competing goals and values, and such conflicts may be internalized.

A multilevel perspective on organizational identification complicates but adds insight into this domain of research. In line with DiMaggio and Powell’s (1983) concept of organizational form, Foreman and Whetten (2002) found that employees do not only identify with the organization itself. They simultaneously identify with the prototype of institutionalized organizational form like bureaucracy or clan controlled organizations. For example, what a bureaucrat identifies with, i.e. organizational identification, may be a network of associations of organization traits in addition to his/her image of what a bureaucracy is supposed to be including institutionalized norms, practices and structures in bureaucracies.

Organizational identification may be conceptualized in line with the conception of social identity. Organizational identification has been defined in a variety of ways (Albert & Whetten 1985; Ashforth & Mael 1989; Cheney 1983; Dutton & Dukerich 1991; Dutton, Dukerich & Harquail, 1994; Tajfel 1978; Whetten 2006). Common to these definitions is that they encompass characteristics of the social-psychological bond to the organization like unity, oneness, and feeling intertwined with core aspects of the organization as a social and cultural sphere. The concept denotes that an organization member perceives a psychological link to the organization. In its broadest sense organizational identification may be relative in its content and reflecting an individual’s beliefs about the identity of his/her organization as an integral part of the identity of the individual (Edwards 2005; Pratt 1998). The individual is aware of being a member holding one or more roles in the organization with the belief of some kind of oneness and perceived belongingness to the firm (Ashforth & Mael 1989). The cognitive component here also includes that the employee believes that there is an overlap between his/her values and those of the organization. Our argument for applying this narrow approach is that its formulation seems to be in line with social identity theory (Ashforth & Mael 1989; Bergami & Bagozzi 2000; Dutton et al. 1994) and self-categorization theory (Hogg & Terry 2000). These theories collectively make up a core conceptual foundation in this project. In sum, we here define organizational identification as an organization member’s belief and values reflecting some kind of oneness and perceived belongingness to the firm. These beliefs and values are self-defining and self-referent to the organization member in the sense that identification is based on the individual in the role as organization member.
Forms of employee ownership

Employee ownership has been defined in a variety of ways in the literature (Bellas 1972; Cornforth 1983; Copeman, Moore, & Arrowsmith 1984; Long 1980; Vanek 1975). A broad conceptual definition implies that workers are investors and thus owners of the company in legal as well as in financial terms. The degree of ownership can be determined on the basis of two criteria: the percentage of equity distributed amongst employees and/or the proportion of employees being owners (Long 1980). Deriving from these two criteria, one fundamental form is collective ownership, which in our context means that a majority of the employees collectively own more than half the firm’s equity. In such cases, employee collective owners will normally also control the majority of the votes on the board and in the general assembly normally being held as annual shareholder meetings (Rhodes & Steers 1981). Collective owners hold the firm equity in a common fund or trust with each collective owner holding equal portions of the equity. This entitles the shareholders an equal vote in central firm decisions. On the other hand, in employee stock ownership plan companies (ESOP) (Buckho 1992, 1993; Long 1980; Klein 1987) employees’ voting rights are normally limited to specific issues and, moreover, employees normally own a minority of the total number of shares in the firm (Jackson & Morgan, 2011).

Identification with what?

What precisely is being identified with? We here draw on a conceptual model by Elsbach (1998) who introduces the idea of social identification as a complex and dynamic process. In order to illustrate the complex and dynamic nature of social identification, Elsbach (1998) uses the metaphor of stellar constellations. In a stellar constellation what a person identifies with may be symbolized by how a person perceives the constellation of a sample of stars in the universe. The stars may for example reflect social targets, like immediate work group, workers in the company, union and company itself that come into play in the social identification process. Those stars being target of identification are visible while others are too distant from the person to be relevant. Star visibility increases with proximity. The most visible stars have shortest distance to the individual representing the highest psychological proximity. The most visible and brightest stars are most dominant as targets for identification.

According to this model what an individual identifies with is determined by a system of elements in terms of the visibility/brightness of the stars and their interconnectedness. In organizations visibility parallels to what employees attend to. In line with self-categorization theory (Hogg & Terry 2000) and social identity theory (Ashforth & Mael 1989; Dutton et al. 1994; Tajfel 1978) what organization members pay attention to is what is motivationally relevant to them in the identification process. Interconnectedness here means that one local identity target, like group identity, spills over to others like the organization. As an example of interconnectedness, Wilson et al. (1993) found that members of a church community identified more strongly with the church
when members were more involved in and identified more with local self-help groups. Since the church was a holographic organization, the local identities replicated the larger organization.

In line with the model of stellar constellations the identification process is dynamic. This is represented by a person “moving” in space and time. As time passes by and the individual makes moves, each constellation looks different. In organizations such moves evolve as organization members assign to different roles and tasks. Examples may be union leaders becoming members of the corporate board as representatives for employees, staff members becoming members of project groups, and a subordinate becoming a manager. In such cases it seems plausible that employees in question may change their psychological field attending more to macro level corporate units as identification targets.

The determinants of organizational identification

After attending to what individuals identify with, the next question is what determines organizational identification? More specifically our first two hypotheses below encompass the employee ownership – organizational identification linkage. We will here draw on self-categorization theory (Hogg & Terry 2000; McGarty 1999; Pratt 1998; Reger, Gustafson, DeMarie & Mullane 1994) and social identity theory (Ashforth & Mael 1989; Dutton et al. 1994; Tajfel 1978).

Self-categorization theory (Hogg & Terry 2000) is informative in explaining the target of identification. For identification to take place the employee must judge the target to be salient, and the employee must categorize himself/herself as fitting the social identity. The process of identification thus requires social categorization; i.e. that organization members shape beliefs about organization identity. Categorization is motivated by individuals’ need for uncertainty reduction being a part of a target group. The segmentation, classification and social order of the environment increases the individual’s perceived similarity to an in-group prototype. A prototype here reflects a cognitive image of attributes that the individual ascribes to an in-group like specific values, norms, behavior and emotions. Such attributes contribute to increase in-group homogeneity and intergroup heterogeneity. How the identity of a group matches the identity of a group member is context sensitive. For example employees exposed to threat of layoff, may define the top-management and the owners as out-group and this may accelerate intergroup differences and intra-group similarities. Individual group members are being depersonalized so that diverse personalities are cognitively suppressed at the expense of group characteristics, and the individual assimilates self to a prototype of the in-group. This happens because the individual needs to bring conception of self that is consistent with the relevant prototype of the in-group. In sum, self-categorization theory may help us explain why some individuals are more prone to define themselves and their self-identity as a part of social entities like groups and
organizations. Both individual motivations and cognitive factors constitute cornerstones in explaining why individuals identify with specific target groups.

In order to explain what determines organizational identification, more insight into motivational factors that explain why individuals identify is vital. We here draw on social identity theory (Ashforth & Mael 1989; Dutton et al. 1994; Tajfel 1978). Social identity is cognitive and motivational in its nature in that an individual defines and categorizes himself/herself into a group. The categorization helps the individual to define where he/she belongs in a social system. The motivation for categorizing to a target group is self-enhancement. Self-enhancement may here be in terms of need fulfillment so that the person feels better off. Examples may be a sense of worth, being a part of an in-group, status, meaning of life and other rewards leading to social-psychological and material need satisfaction.

Types of employee ownership and ownership feelings

The theories above motivate our first two hypotheses below. As a theoretical foundation for our third hypothesis, we draw on Pierce (1991). Hypothesis 3 posits that collective owners will have a stronger feeling of being owners through their co-ownership than employees holding shares individually in a private conventionally owned firm.

Pierce et al. (1991) outline a model explaining individual and group outcomes of employee ownership. The formal ownership is an exogenous variable and the model specifies intervening variables explaining how employee ownership affects individual and group outcome like norms and behavior. In brief, the model postulates that the employee ownership – individual and group outcome linkage operates through operationalized ownership, psychological ownership and integration. In the model integration includes organizational identification and organizational commitment while psychological ownership reflects the feeling of being owners.

It is not ownership itself that affects psychological ownership but rather the functions and pay-offs that the formal employee ownership offers in the psychological field of employee owners. Employee ownership infers the right to be informed, to participate in firm issues and the entitlement of financial inducements. In such instances employee owners tend to feel responsible by ascribing themselves into the ownership role. They will be more psychologically and behaviorally involved leading to a stronger feeling of being owners, and it is this involvement that produces a stronger psychological bond to the organization in terms of organizational identification. The identification process may be explained by employee owners associating pay-offs to the organization, and a variety of inducements of ownership is being evoked by employee owners’ value system.
To add subtlety to the formal ownership – feeling of being employee owner relationship, Pierce et al. (1991) outline four dimensions as moderators. In cases where ownership expectations (regarding equity, influence and information) are accomplished, the relationship will be stronger so that formal ownership leads to a stronger sense of being owner. Employees who become owners due to an instrumental financial orientation (motive for investment) will weaken the relationship. Klein and Hall (1988) found that employees’ feeling of being owners is higher in cases where employees have their own reasons for becoming owners as opposed to organizationally strategic reasons. A third type of moderator is the perceived legitimacy of ownership (regarding equity, influence and information). Employee owners will have a stronger feeling of being owners under higher legitimacy of ownership. Fourth, the organization and wider context from which these employee ownership systems arise (like bargaining concessions, employee benefit, organizational advantage) may also moderate the relationship. Croucher et al. (2010) found that the degree of employee financial participation, i.e. employee ownership, is to some degree affected by national context.

**HYPOTHESES**

Based on the theoretical discussions in the previous section we derive hypothesis 1 by drawing on the model of stellar constellations (Elsbach 1998), self-categorization theory (Hogg & Terry 2000) and social identity theory (Ashforth & Mael 1989; Dutton et al. 1994; Tajfel 1978).

We propose that employee collective owners will identify more strongly with their organization than employees working in a private conventionally-owned firm. According to the model of stellar constellations the organization as identification target may shift as employees become owners. Since employee co-owners, as opposed to non-owners, control vital firm decisions, this control component may be included in co-owners’ identification target.

According to self-categorization theory (Hogg & Terry 2000) categorization is motivated by individuals’ need for uncertainty reduction, in terms of job security, and being a part of the target group. For employee collective owners such a classification may be manifested in: “I am a part of a majority of employees holding a majority of the firm equity collectively. The collective ownership gives us co-owners control of vital firm decisions.” In line with social identity theory organizational identification may be motivated by these two types of self-enhancement leading to higher organizational identification.

*Hypothesis 1: Employee collective owners will identify more strongly with their organization than employees working in a private conventionally owned firm.*
Arising from the discussion of the model of stellar constellations (Elsbach 1998), self-categorization theory (Hogg & Terry 2000) and social identity theory (Ashforth & Mael 1989; Dutton et al. 1994; Tajfel 1978), in the section Central concepts and theories above, we now propose hypothesis 2.

In hypothesis 2 we focus on organizational identification by comparing employee collective ownership with employees holding shares individually in private conventionally owned firms. Based on the logic in the model of stellar constellations, collective owners, contrary to individual shareowners holding a minority of firm equity, are assumed to include their control of the firm as target of organizational identification. This is motivated by individuals’ need for job security and being a part of the target group in line with self-categorization theory. In line with social identity theory employee co-owners will have a stronger identification with the organization due to self-enhancement in terms of controlling core firm decisions.

Hypothesis 2: Employee collective owners will identify more strongly with the organization than employees holding shares individually in a private conventionally owned firm.

In our argument motivating hypothesis 3, we draw on the model by Pierce et al. (1991) discussed in the section Central concepts and theories above. According to Pierce et al. (1991) it is the degree to which employees feel that they are employee owners that will integrate them more with the organization in terms of identification. Moreover, the feeling of being owners increases with the total portion of firm equity owned by employees, the employee owners’ degree of influence/control on firm decisions and the amount of sharing of management-level information. Our proposition is here that employee collective owners will have a stronger feeling of being owners through their co-ownership than employees holding shares individually in a private conventionally owned firm. This may be due to the fact that employee collective owners score higher than employees holding shares individually on the three dimensions of employee ownership. The idea is here that an increasing score on these dimensions will occupy more of the psychological field of employee co-owners compared to employee individual shareowners in private conventionally owned firms. It is this perceptual occupation mechanism, leading to a stronger feeling of responsibility and involvement as owners, that is assumed to increase employees’ feeling of being owners.

Hypothesis 3: Employee collective owners will have a stronger feeling of being owners through their co-ownership than employees holding shares individually in a private conventionally owned firm.
METHODS
Data Collection and Research Design

The reorganization of a Norwegian shipyard in the mid 1980’s provided a unique opportunity for a post-test only natural quasi experiment. Bergen Shipyards Ltd, founded in 1855, had since the 1920s, two separate locations, i.e. Solheimsviken and Laksevaag, both within the city of Bergen, Norway. In 1983 the firm was split into two firms at these two locations. In 1985 most of the shares of the Solheimsviken shipyard was collectively bought by its employees. Thus, at Solheimsviken shipyard the 416 employees owned 90 per cent of the shares collectively through a trust, whereas the remaining 10 per cent were possessed individually by about 75 percent of the workers. Collective ownership provided the right to vote when decisions were made by the general shareholder assembly equivalent to the proportion of shares owned. The employees in this firm, hereafter called the employee owned firm, were compared with employees in the conventionally owned firm located at Laksevaag (353 employees). In the latter company no shares were owned collectively, but 70 per cent of the employees owned shares individually, which represented 9 per cent of the total share value. Such individually owned shares allowed voting rights equivalent to the number of shares held.

Thus, the Solheimsviken employees’ acquisition of the shares constituted a setting where two groups of employees who shared a common company culture, long lasting shipyard traditions with similar work and salary, now came to differ on one single dimension; their ownership relation to their own workplace. Most employees lived in the city of Bergen, a substantial part even lived in houses provided or at least organized by the shipyard over its long presence in Bergen, and, hence, also faced fairly similar living conditions. The only major difference between the groups of employees working in Solheimsviken and those working in Laksevaag was their relations to their company in terms of ownership.

Both firms continued to repair, redesign, and maintain various types of ships, as well as constructing sections of oil platforms. The introduction of collective ownership took place in 1985, i.e. two years before our data collection. This constitutes a time line of four years where substantial changes in organizational identification between the two groups could be attributed to the difference in ownership to their own workplace. The naturally occurring research design provided an opportunity for a closer look at potential changes in the employee ownership – organizational identification relationship. The common environmental conditions for the two groups makes the research design robust, since factors such as the organization’s age, type of industry, and history are controlled. Moreover, the size of the two companies is virtually identical.

Information about the two organizations was initially collected through interviews with key informants. A preliminary version of a questionnaire was pre-tested on eight randomly sampled employees in the employee-owned firm.
who turned out to be fairly heterogeneous with respect to age, gender, educational level, seniority in the company, and position. Through individual interviews, ambiguities were identified and eliminated. The stability of the measurement instrument was then checked through a test-retest reliability check. Sixteen respondents were included with six weeks between the two waves. A Mann-Whitney test indicated an acceptable stability for all scales that were included in the final version of the questionnaire. Second, a postal survey was conducted. The response rates obtained in the employee collective owned and in the conventionally owned companies were 34 and 43 per cent, respectively. A comparison of the two samples with regard to age, gender, educational level, seniority, and level of work position revealed no systematic biases in the data. E.g., there are 7.2% women in the conventionally owned firm and 7.1% women in the employee owned company and average age is 46 years in both companies.

**Measurements**

*Organizational identification* was measured by four items included in the 15-item Organizational Identification Questionnaire developed by Mowday and Steers (1979). These four items reflect the identification component in the Organizational Identification Questionnaire. Cronbach’s alpha coefficient at .79 for the 4-items indicates that the construct has a fair degree of uni-dimensionality.

The *feeling of being an owner* was tapped by asking: “To what extent do you have a feeling of being an owner through co-ownership in the firm?” Responses were coded 1 to 5 on a scale from “very little extent” to “very high extent”.

Means and standard deviations for *organizational identification* and *feeling of being an owner* are provided at the end of the paper.

In addition, two dichotomies, one representing the distinction between conventionally owned firms (coded 0) and employee collectively owned firms (coded 1) and one representing the distinction between privately owned shares (coded 0) and collectively owned shares (coded 1) were constructed based upon information obtained from the questionnaires and other available records. Figure 1 shows types of ownership and distribution of shares among the respondents.
ANALYSES AND RESULTS

Hypothesis 1 suggests that employee collective owners will identify more strongly with their organization than employees in a privately owned firm. In a similar manner, hypothesis 2 suggests that employee collective owners will identify more strongly with their organization than employees holding shares individually in a private conventionally owned firm where they also have their jobs. As shown in figure 2, both hypotheses are to some extent supported.
Figure 2: Organizational identification vs. types of ownership and distribution of shares.

Exhibit A testing hypothesis 1 in figure 2 shows that the mean score for organizational identification is 4.43 and 4.73 for the company with conventional ownership and collective ownership, respectively. A simple test of difference between the two means gives a t-value of 2.13 with 290 degrees of freedom, thus indicating that the difference 0.30 is significantly different from zero. In terms of effect size, these values convert to a Cohen’s $d$ of 0.25 which, according to Cohen (1988) should be interpreted as slightly above what he consider to be a small effect size.

Correspondingly, exhibit B testing hypothesis 2 in figure 2 shows the same mean for organizational identification as in exhibit A. It is less obvious that the mean organizational identification in the group for “private shares” in exhibit B is practically equal to the mean for all the respondents in the group “conventionally owned” in exhibit A. T-test for mean differences in exhibit B is 2.01 with 256 degrees of freedom, which, in terms of effect size gives a Cohen’s $d$ of 0.25. Thus, we find support, but not convincingly strong support for both hypothesis 1 and 2.

Hypothesis 3 suggests that employee collective owners will have a stronger feeling of being owners than employees holding shares individually in a private conventionally owned firm. As shown in figure 3, with the mean in the “private shares” group about twice the size of the one in the “collective shares” group, this hypothesis seems to have strong support. A simple test of difference between means gives a $t$-value of 10.75 with 256 degrees of freedom. In

$$d = (M_1 - M_2)/\sigma$$

where $\sigma = \sqrt{\frac{\sum(X - M)^2}{N}}$, where $X$ is the raw score, $M$ is the mean, $N$ is number of cases.
terms of effect size this translates into a Cohen’s $d$ of 1.34, which, according to Cohen (1988) indicates a large effect size.

![Diagram showing Feeling of being an owner vs. holding private or collective shares.](image)

**DISCUSSION**

This study supports the hypothesis that employees tend to identify themselves stronger with the organization when employees own the firm collectively (hypothesis 1) compared to employee non-owners. This and the support for hypothesis 2 and 3 are the main contribution of this study. However, the contribution to theory is tentative since more studies are required.

Organizational identification was tapped by four items showing relatively high uni-dimensionality (Cronbach’s alpha coefficient at .79). However, the variable feeling of being an owner was measured by only one item indicating low face validity. This is a threat both to the construct and internal validity, so the results (hypothesis 3) must be interpreted with caution.

In our study employee co-owners acquired shares voluntarily in one of the companies two years after the original company was split into two separate shipyard firms. However, the employee co-owners’ motives were in fact not observed at the very time of their ownership takeover constituting a potential threat to the internal validity of our results. But the fact that the collective ownership occurred two years after the split of the two firms, makes selection effects less likely, since all employees who worked in this firm at the time of converting to employee ownership agreed to become employee co-owners. All employees in this investigation had a common history and organizational culture with the same top management as they were all members of the same ship.
building company until four year prior to this investigation. As a part of this investigation one central union leader was interviewed. The interviewee reported that the motive for employees to buy the shares collectively was to secure jobs. The ownership was at play because the former owners published that they wanted to sell their shares in the firm. The interviewee based his report both on his notes from formal meeting among employees before the ownership transition in addition to his memory on what the employees expressed before they became employee co-owners.

Another threat to the internal validity of this study is the fact that some of the employees in both firms owned shares individually. But the fact that only 10 and 9 percent of the shares, in the collectively owned firm and the non-collectively owned firm, respectively, were held by employees individually, makes this threat less plausible. A regression analysis with organizational identification as dependent variable and with separate estimates for employee collective owners and employees in the conventionally owned firm holding shares individually shows insignificant results. The same picture of insignificant relationships emerges in an analysis of the linkage between the number of shares held individually by separate estimates for employee co-owners and employee non co-owners.

In our interpretation of the results there is reason to question whether the matching of the two firms in the design may have produced biased results. Klegg, Rhodes and Comberger (2007) pinpoint that organizational identification develops within the industry and with significant reference to its rivals and non-rivals. In our study the two firms operated in the shipping construction industry in the same city, and the two firms formed one company unit four years prior to our study. It seems thus plausible that the two companies may have referred to the same domain of rivals in its identity construction. So, it seems likely that identity construction in the two firms was affected by overlapping industry context.

The support for hypothesis 1 and 2 is tentative. More studies are required in order to establish theoretical relationships. Another unresolved issue is here the mechanisms that may produce the relationships that were supported in hypothesis 1 and 2. In deducting hypothesis 1 and 2 we argued that employee collective owners’ stronger perception of control in firm decisions may lead to a sense of uncertainty reduction, in line with self categorization theory, and elevated self-enhancement consistent with social identity theory. The claim that collective owners have a stronger feeling of being owners compared to non collective owners was supported in hypothesis 3. We here argued that this positive relationship is due to a perceptual occupation mechanism. This assumption should be tested.

In this study employee collective owners were compared with employee individual share owners linked to organizational identification. One question here that remains unanswered is whether the number of individual held shares mat-
ter. Future studies should also focus on the total portion of the firm equity held by employees. Does the total portion of the firm equity held by employee collective owners or individually matter for their organizational identification? In the collectively owned firm, employees owned 90 per cent of the shares collectively through a trust, whereas the remaining 10 per cent was possessed individually by about 75 percent of the workers. It remains an unresolved question whether there is an interaction effect between types of ownership with respect to affecting organizational identification. Ideally causality should be investigated as a natural experiment by sampling data before and after employees buy shares in their work organization.

This study is the first studying the employee co-ownership – organizational identification relationship. So, further studies are indispensable in order to formulate valid models. Our study is cross-sectional, and we cannot conclude about causal relationships. Ideally, such studies should be designed as longitudinal studies with test and control group. For theory development it may also prove fruitful to get insight into the transition process from non – to collective ownership since both external forces and employees’ motives for purchasing shares may impact on organizational identification. In order to formulate more fine-grained models, it may also be fruitful to incorporate different types and degrees of employee ownership. One core question is here whether the types of ownership – organizational identification relationships are valid in cases where the employees own a minority of the equity in the firm. This question may be topical in countries where different types of employee ownership are being encouraged.

In addition to more studies following this fine-grained approach, managers and employees may benefit from implementing insight from such models. By generating more insight into determinants of organizational identification, employees may make more informed decisions given that increasing organizational identification is included in their goal structure. In addition, politicians may make more informed choices on how to regulate employee ownership plans to encourage higher organizational identification along with other political goals within the human resource and business domain.

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APPENDIX A: MEASUREMENTS

Organizational identification (4 items, Cronbach’s $\alpha = .77$):
- I talk to my friends about this company as a great place to work.
- I find that my values and those of the company are very similar.
- I really care about the fate of this company.
- I’m proud to tell others that I’m working for this company.

*Categories for responses vary from 1, “disagree strongly” to 6, “highly agree”.*

Collective ownership
Employee owners were identified by a separate questionnaire to all employees in the employee collectively owned firm. All employees in this firm were employee collective owners.

*Collective ownership is coded 1/0, 1 = collective ownership, else = 0.*

Individual share ownership
Employees in the private conventionally owned firm were asked:

“Do you hold shares individually in this firm?”

*Individual share ownership is code 1/0, 1 if holding shares, 0 else.*

Employee’s feeling of being an owner
Employee collective owners were asked:

“To what extent do you have a feeling of being an owner through your co-ownership in the firm?”

*Categories for responses vary from 1, “very little extent” to 5, “very high extent”.*

Individual share owners in the private conventionally owned firm were asked:

“If you hold shares individually in this firm: To what extent do you have a feeling of being an owner through your individual share ownership in the firm?”

*Categories for responses vary from 1, “very little extent” to 5, “very high extent”.*

<table>
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<th>St.dev.</th>
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<th>3</th>
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<td>0,492</td>
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REFERENCES


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