Management Practices of Residential Construction Companies Producing 25 or Fewer Units Annually

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The majority of home building companies in the United States produce fewer than 25 homes per year. To better understand the management practices of home builders who reportedly build 11 to 25 homes per year, a survey was mailed to 1,114 of these residential contractors who were randomly selected from the membership rolls of the National Association of Home Builders. This research report summarizes the responses received. Topics of interest addressed by the survey included construction management, accounting and planning, scheduling and estimating methods, software usage, and customer and employee relations. Most of the respondents reported excellent relationships with clients; however, relationships with employees, subcontractors, and suppliers did not seem to be as strong. It is interesting to note that some tasks, which are easily automated, such as scheduling and estimating, were usually completed by hand. The results of other findings are also discussed in detail.

Key Words: Management Practices, Residential Construction, Home Builder

Introduction

In 1999, annual revenues of $208 billion generated from the building of single-family housing units within the United States dwarfed all other categories of construction (King, 1999). Of the residential builders performing this huge amount of work, companies producing twenty-five or fewer homes per year currently make up the majority of home building firms in the United States (Carliner, 1999).

It has been proposed by some researchers that the implementation of specific management practices is one of the most influential factors contributing to the ongoing success of construction firms (Adrian, 1976; Lussier, 1995; Strischek, 1998). In fact, small business failures, including those of home building companies, typically seem to be characterized by a lack of management skill and experience (Flahvin, 1985; Gaskill, Van Auken, & Manning, 1993). By identifying important management practices used by small-volume home builders, a measuring stick can be provided against which owners can compare their own business practices.

The Statement of the Problem

The purpose of this research is to identify the current level of use of pre-selected management practices in small-volume home building companies that reportedly produce eleven to twenty-five new homes per year.

Limitations

This study was limited to companies that were builder members of the National Association of Home Builders and reportedly built eleven to twenty-five new homes per year. Only data from companies whose main source of revenue was from the construction and sale of new homes was used.

Delimitations

This research is intended to identify and describe the level of use of some of the most important management practices implemented by small-volume home building companies in the United States; however, it is not intended to describe all possible factors which might influence those companies. For example, such things as leadership abilities of owners/managers, inherited wealth of owners, and their reputation in their community are but a few of the possible confounding factors that might contribute to the success or failure of a small-volume home building company. These are a few examples of possible topics for further research.

The Data and the Treatment of the Data

In an effort to describe current management practices of small-volume home builders, a nationwide survey was conducted by mailing written questionnaires to owners and managers of 1,114 companies. These companies were randomly selected from the population of builder members of the National Association of Home Builders who reported building eleven to twenty-five homes per year.

According to the information available at the time of the mailing, there were approximately 62,450 builder members of the NAHB nationwide, including home builders, remodelers, and developers. Of these, some 40,984 firms reported that they started at least one new home during the year. Companies reporting between 11 and 25 new residential starts for the year numbered 20,979 and represented more than half of the firms which reported housing starts. The remainder of the population was divided into four other segments. There were 6,563 companies starting between 1 and 10 units per year, 7,079 companies starting between 26 and 100 units per year, 4,426 companies starting between 101 and 500 units per year, and 1,937 companies starting more than 500 units per year (Evans, 2000).

The questionnaire was designed to identify the use of management practices and was developed by utilizing a two-fold approach. First, literature related to management practices employed by home builders was reviewed; and second, owners of home building companies, accountants, and university faculty whose areas of research addressed issues in construction company management were interviewed. From these sources, an initial list of more than 100 management practices was developed. This list was then reviewed by the Business Management and Information Technology Committee of the National Association of Home Builders, whose members included home builders, accountants and businessmen with extensive experience in owning and operating residential construction companies. During several work sessions of this group, which included the authors, the list of topics was narrowed to those considered to be the most important. A final questionnaire was then created and tested for understanding and readability.

Research Design

The population of interest in this study was quite large, consisting of almost 21,000 companies nationwide. In order to obtain results that would provide a 95 percent level of confidence, with a plus or minus 5 percent margin of error, it was necessary to obtain data from approximately 400 firms (Hill, Roth & Arkin, 1962; Weisberg & Bowen, 1977). In a similar study, fewer than 2 percent of the surveys were returned to the researchers by the post office because of incorrect addresses (Hutchings & Christofferson, 2000). By predicting a 40 percent response rate of those sampled, and by applying this 98 percent contact rate, a minimum sample size of 1,020 companies was required. The formula used was Sample Size = 400 / (.40 x .98).

In order to collect data describing the current management practices of those residential companies to be surveyed, a written questionnaire was sent to the owners of each company that was selected to participate in the study. There were at least two major reasons for utilizing questionnaires in this research. First, it would be financially impractical to conduct personal or telephone interviews with so many owners; and second, in order to answer questions regarding some of the management practices addressed, respondents might find it necessary to access records not immediately available during a personal interview (Leedy, 1993).

Description of Companies Responding to the Survey

A number of interesting factors surfaced from the information provided by the companies that responded to the survey. For example, it was discovered that the average company had been in business for 16.22 years. A possible explanation may be that companies that joined the NAHB had been in business for some time before recognizing the benefits of such an organization, whereas “younger” companies may not have perceived enough benefits to warrant the cost of membership. In addition, 42 percent were doing business as S-corporations, 26.35 percent were sole proprietorships, 19.53 percent were C-corporations, 8.71 percent were limited liability companies, and 3.29 percent were general partnerships.

Seventy-five percent of the homes that were marketed were sold for more than $150,000 each. More than half (52.5 percent) of the new homes built were sold for more than $200,000, while 29 percent were sold for more than $300,000. More than one-tenth of all homes produced by these companies, some 11 percent, were priced at over $500,000 each. Pre-sold homes represented 50.92 percent of all sales, while 28.16 percent were built on speculation. The balance of operational revenues consisted of residential remodel work (12.95 percent), commercial jobs (6.34 percent), and other income, including finished lot sales (1.63 percent).

Analysis of the Data

The total number of responses (n) for all questions ranged from 408 to 427, with the great majority of questions receiving response rates of 426. Questions eliciting the smallest response rates had to do with accounting and reporting of finances.

Builders were asked what types of computer software they regularly used. Figure 1 indicates the responses. Word processing and general accounting were the two most frequently used software applications. Purchase-order systems and dedicated scheduling and estimating programs were the least frequently used.

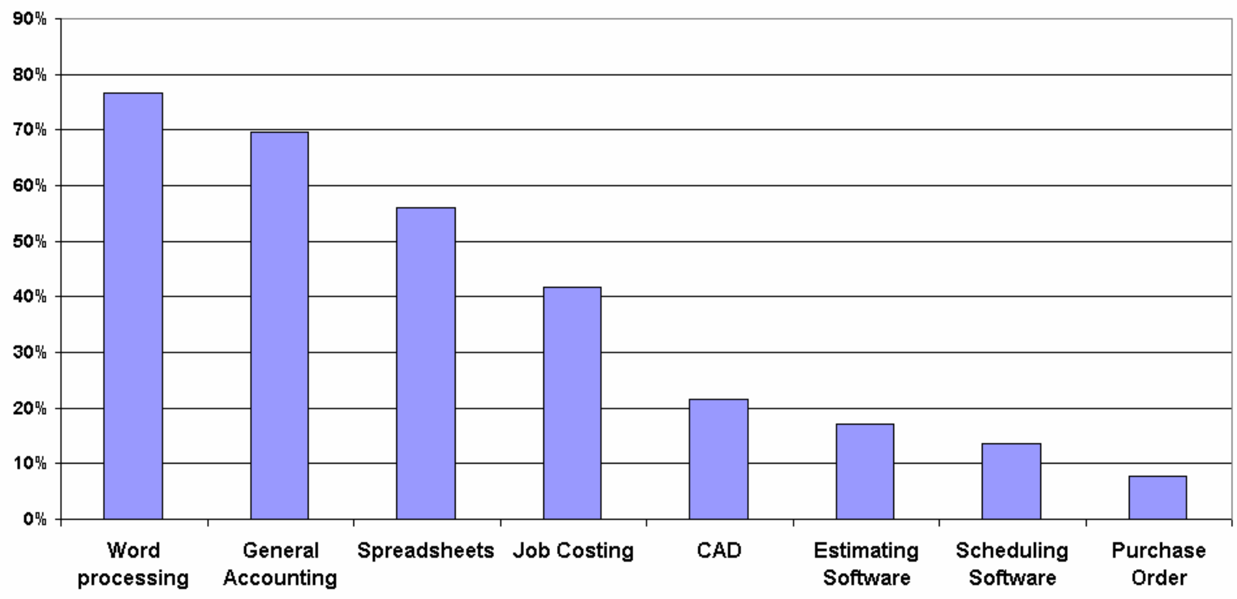

Figure 1. Software applications regularly used.

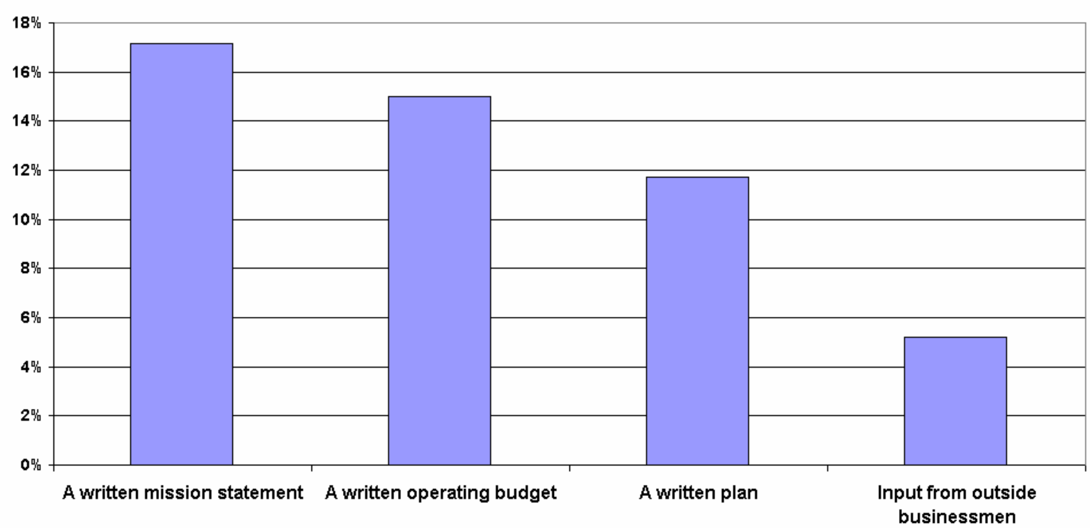

Figure 2. Business planning.

Just over 17 percent of the respondents had written mission statements, only about 15 percent had written operating budgets, and even fewer (11.74 percent) had written business plans. Very few of these businesses (5.19 percent) hired outside consultants on a regular basis (Figure 2).

When asked about scheduling construction activities, a majority of the builders indicated that they used "daily to-do lists" (72.77 percent) as their primary method, while relatively few builders used CPM programs (18.08 percent) or simple bar charts (11.27 percent). Nearly one-fourth reported that they did not have any formal scheduling procedures of any kind (23.71 percent). Also of interest was the fact that 29.4 percent of the respondents updated schedules only monthly, while 42.6 percent updated weekly, and 27.9 percent updated their schedules daily (Figure 3).

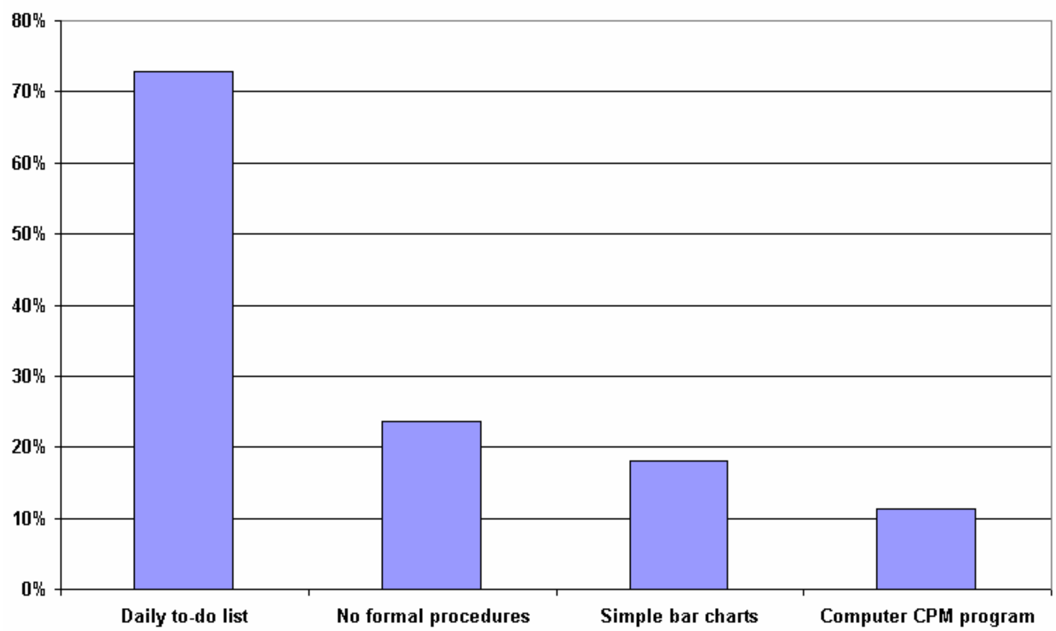

Figure 3. Scheduling techniques.

In estimating job costs, companies reported that about one-third of their estimating was completed using detailed quantity take-off methods, while just under 30 percent of their estimating was done using subcontractor or supplier bids. It is interesting to note that seven percent of those surveyed reported that not only did they perform all of their estimating by using detailed quantity take-offs methods, but in addition, they also required subcontractor and supplier bids for each division of work. Seventeen percent of the estimating was done using square-foot unit-pricing methods, and it was reported that best guess plug-in amounts were used about nine percent of the time. The respondents reported that eight percent of their estimating was handled as allowances. It was noted that many who used detailed quantity take-offs methods or subcontractor and supplier bids to put together estimates treated these as allowances (Figure 4).

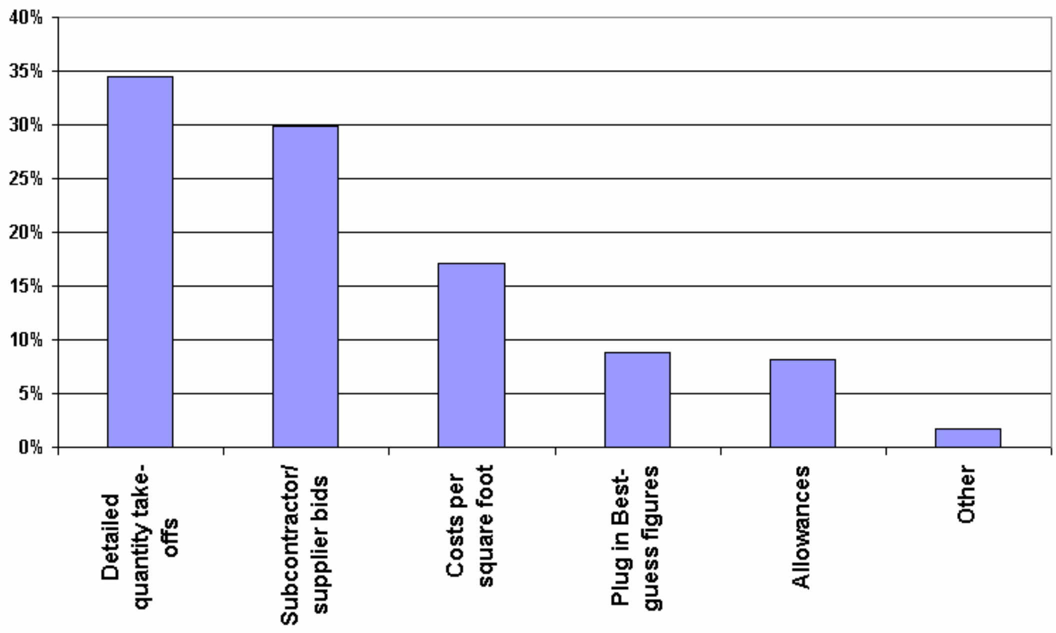

Figure 4. Breakdown of estimating methods.

Good customer relations seemed to be very important to most builders (Figure 5). More than 75 percent of the respondents used written specifications and held formal pre-construction meetings. For most, it was important to meet scheduled closing dates, to implement formal home demonstrations or walkthroughs and to use detailed contracts.

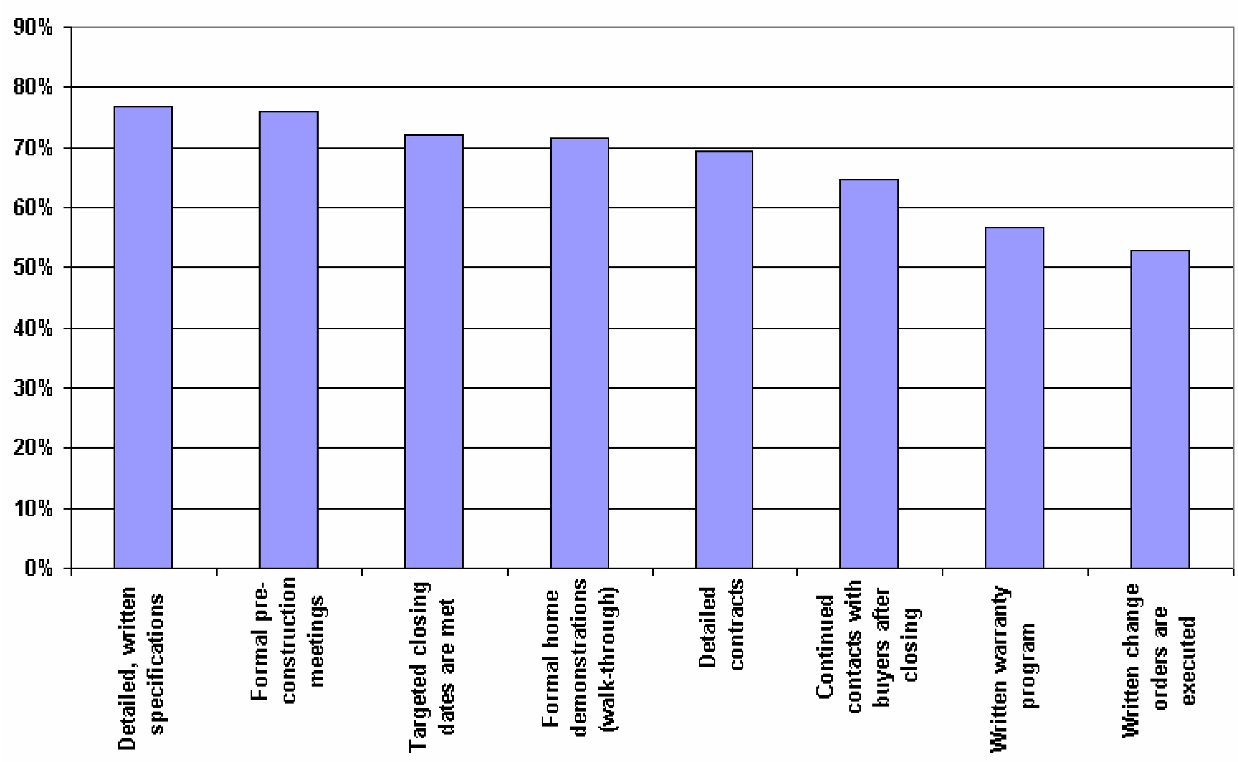

Figure 5. Customer relations.

Nearly 82 percent of the respondents reported spending less than one percent of operational revenues on advertising (Figure 6). More than half of the new home sales were the result of past customer referrals or word of mouth advertising. Real estate brokers accounted for 23% of home sales, job signage produced 10 percent of the sales made, and model homes, Parades of Homes or local home shows, architect referrals and websites jointly accounted for approximately 13 percent of the sales.

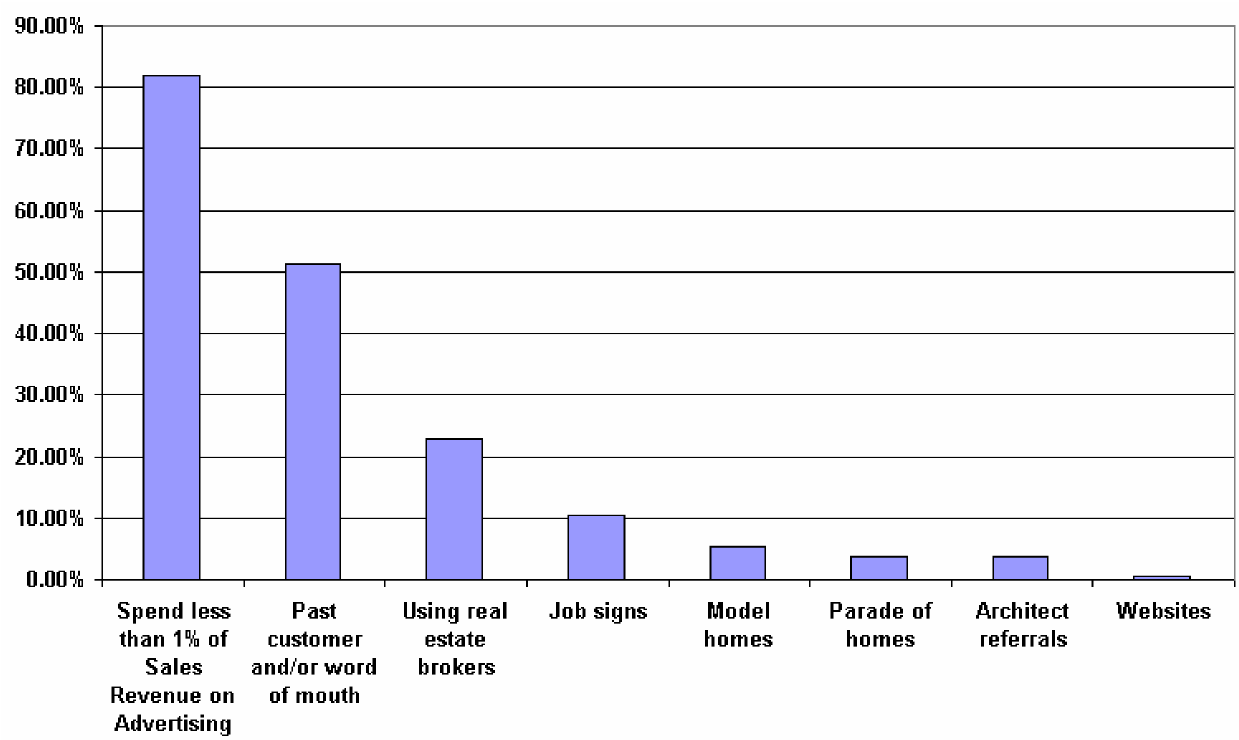

Figure 6. Advertising and Job Sources.

Builders reported not spending nearly as much time developing subcontractor and supplier relationships as they did managing customer relationships (Figure 7). Less than half (44.1 percent) used detailed subcontractor or supplier specifications, 36.67 percent used quality control checklists, and nearly 29 percent had regular construction meetings with subcontractors.

When asked about their companies' profitability compared to other home building companies of a similar size, only 40 percent thought they were more profitable (Figure 8). Over 60 percent reported that income statements, balance sheets, and job-cost variance reports were reviewed quarterly. With the exception of job-cost variance reports (56.26 percent), about 40 percent reported that they reviewed these reports monthly.

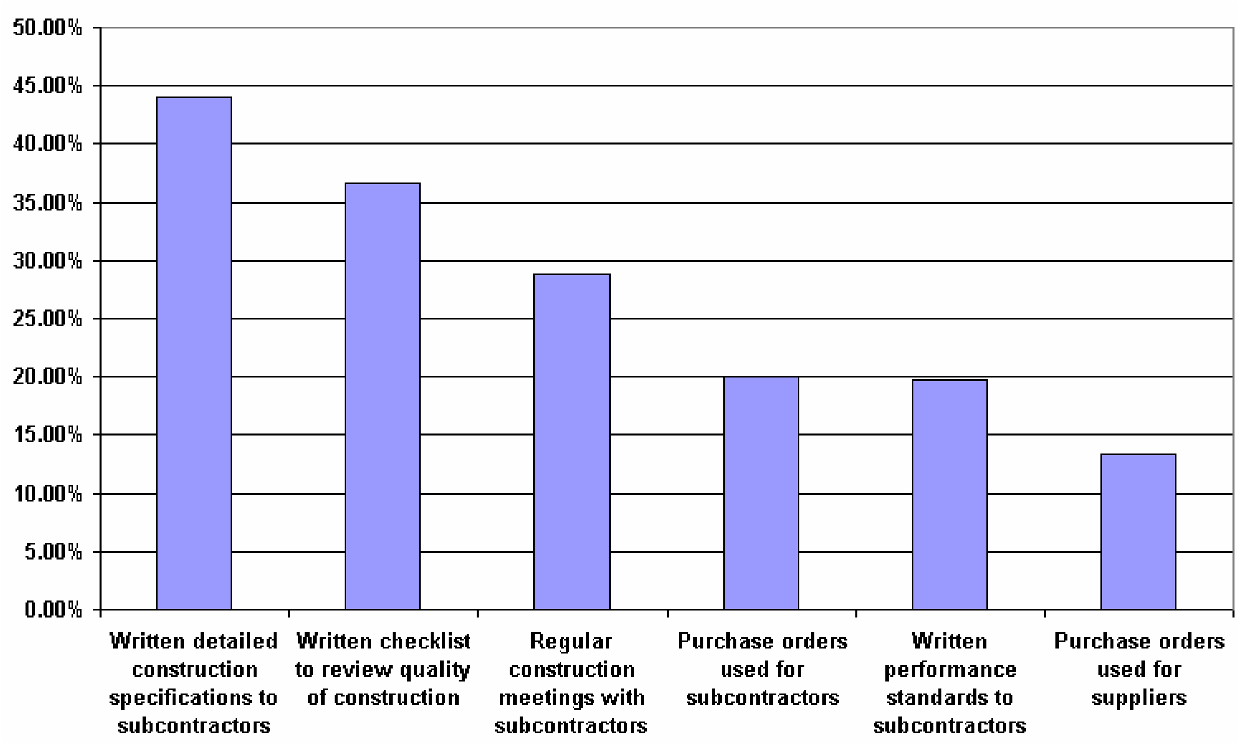

Figure 7. Subcontractor and supplier relations.

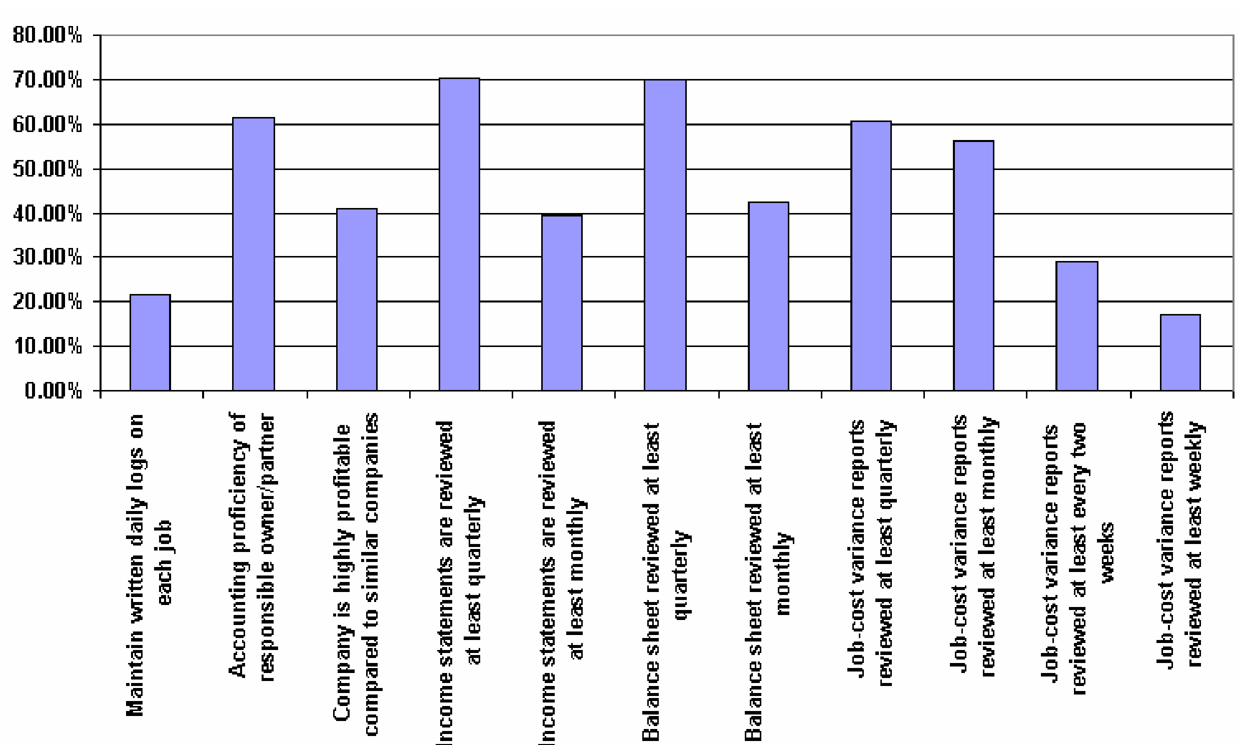

Figure 8. Accounting and Record Keeping.

Although nearly 40 percent of the companies provided in-house training of employees, less than 30 percent utilized written guidelines and policies (Figure 9). About 20 percent of the employers paid for training seminars for employees, but 14.23 percent of employers offered no training at all for their employees. Only a small number of builders provided any initial formal training for employees (7.98 percent).

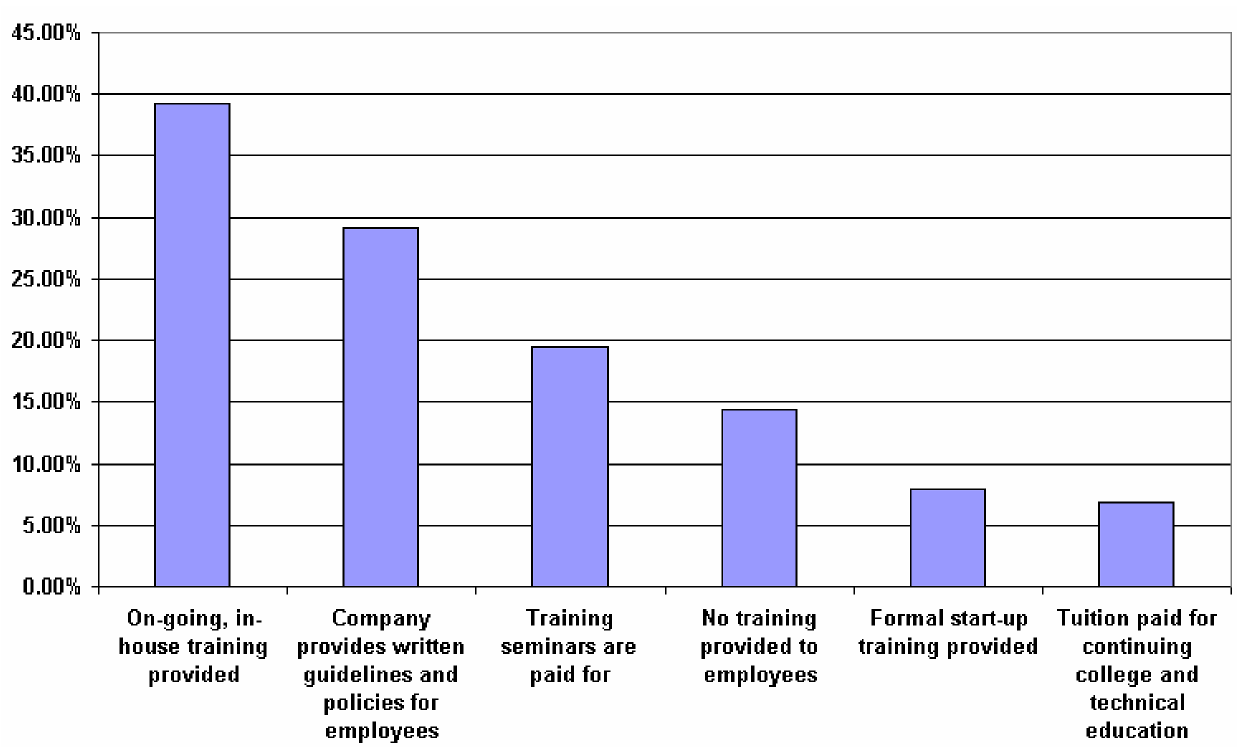

Figure 9. Employee Relations.

Conclusions

An important part of company management is for companies to compare themselves with similar businesses. Standards of the industry for financial performance are published to allow business owners to compare their competitors' operations to their own. In the same way, it is important to evaluate a management blueprint based on industry standards.

This study provided insights into the management practices of small-volume home builders in the United States. Most of the respondents focused on their product and on developing excellent home buyer relationships. A smaller amount of effort and time was spent on the development of internal (employee, subcontractor, and supplier) relationships and business planning. The respondents spent less than one percent of their revenues on advertising. Most of their sales were the result of word-of-mouth referrals and Realtor involvement.

Construction scheduling consisted mainly of "to-do" lists that were updated weekly. It was found that builders used a variety of methods to compile their estimates. The preferred method of estimating was to use detailed quantity take-offs. Using subcontractor and supplier bids was also an important method in compiling estimates. Software applications that were used most often by builders were word processing, general accounting, electronic spreadsheets, and job costing.

In summary, this study provides a basis of comparison for small-volume home building companies, allowing owners to evaluate their own management practices. The study also lays an academic foundation for future research into investigations of management practices for the home building industry. Eventually, by pinpointing specific practices used by home builders of all sizes, researchers can expand upon existing knowledge to determine how management systems affect other businesses.

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